



# UNIVERSITY CATALOG

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# UNIVERSITY CATALOG NAVIGATION AND PUBLICATION POLICY

This University Catalog enumerates policies, requirements and other essential details regarding both undergraduate and graduate degree programs at Florida Atlantic University. Published annually by the Office of the Registrar, the catalog serves as an informational publication for the University community and the public. This catalog does not constitute an offer for contracts and should not be used for verifying the equivalency of courses to transfer courses or for recording credit on transcripts.

The navigation tiles in the catalog's opening page direct readers to the three main sections of the catalog. The General Information tile leads to specific University units or services. Academic policies, degree requirements, admissions information, student activities and financial assistance programs are among the resources found under the General Information tile. The Academic Programs tile leads to a listing of Florida Atlantic's colleges and a separate section for programs that are interdisciplinary. All degree program information can be found in these sections. The third tile, Course Descriptions, directs readers to FAU's individual course offerings listed by the colleges in which they are offered. The catalog search option at the top of all catalog pages is also a helpful tool for finding specific information within the catalog.

The University reserves the right to amend, adopt or make effective any provision, offering, requirement or policy at any time without notice within the student's period of study at FAU to carry out its purposes and objectives. When incorporating changes, the University will make every reasonable effort to honor the curriculum requirements appropriate to each student's catalog year. However, some courses and programs may be discontinued and requirements may change as a result of curricular review or actions by accrediting associations or other agencies.

This catalog incorporates by reference and is subject to all applicable state and federal laws and rules and the rules and policies of the Florida Board of Education and Florida Atlantic University, which are subject to change at any time.

## ACADEMICS — FLORIDA ATLANTIC'S CHIEF PRIORITY

Welcome to the academic world of Florida Atlantic University. Here you will find a wide choice of majors, a top-notch faculty, small classes and personal attention, all in a beautiful subtropical setting. Florida Atlantic offers its programs at several sites throughout its six-county service region in Southeast Florida, with state-of-the-art student housing available on the Boca Raton and Jupiter campuses. With more than 170 undergraduate and graduate degree programs available, FAU's 30,000 students are receiving the preparation they need to face the future with confidence.

With more than 50 percent of its student body classified as minority or international students, Florida Atlantic ranks as the most racially, ethnically and culturally diverse institution in Florida's State University System. It is designated a Hispanic-Serving Institution, highly ranked by *U.S. News & World Report* for "Social Mobility," and a top degree producer for African American and Hispanic students. *U.S. News & World Report* also ranks FAU as a top public university. The student-to-faculty ratio is 23:1, an advantage normally offered by small, private colleges. Similarly, classes are taught primarily by the University's full-time faculty rather than by graduate students or part-time instructors.

Florida Atlantic is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate, baccalaureate, masters, specialist and doctorate degrees. Contact the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of FAU.

Students who have a complaint about their educational experience at Florida Atlantic that is not resolved through internal University procedures may also use the above address to contact the SACS Commission, whose complaint procedures are listed [here](#), or they may submit a [complaint form](#) to the Florida Board of Governors at 325 West Gaines Street, Suite 1614, Tallahassee, Florida 32399-0400. Normal inquiries about the University, such as admission requirements, financial aid, educational programs, etc., should be addressed directly to the institution.

In 1993, Florida Atlantic was elected to membership in the prestigious National Association of State Universities and Land-grant Colleges (now the Association of Public and Land-grant Universities), the country's oldest higher education association. FAU is also a member of the Council of Graduate Schools.

## FACULTY

The University's full- and part-time faculty includes 1,300 accomplished scholars and researchers, with 90 percent having doctorates or terminal degrees in their fields. The faculty includes 17 Eminent Scholars, widely acclaimed authorities in their fields who bring special excitement to the classroom and new ideas to

research programs.

## **LIBRARY**

The University Libraries house approximately 3.7 million items, including books, periodicals, government documents, microforms, maps, media and other materials. For more information, visit the Libraries' [website](#).

## **OFFICE OF THE OMBUDS**

The Ombuds works toward solving problems, not as an advocate for individuals or the University but as a supporter for fair outcomes. As an independent agent of the University, reporting to the Division of Administrative Affairs, the Ombuds has access to information from any office within the institution. The Office of the Ombuds is informal and does not generate records or take legal notice, nor does it accept official complaints; however, it can assist you by making appropriate referrals if this is your goal.

Your visit to the Ombuds is confidential except when there is a concern about danger to you or to others. If it is necessary to disclose your identity and your specific issue to gain information essential to the case, you and the Ombuds will discuss this and determine the limits of confidentiality. You should visit the Office of the Ombuds if you need assistance with disputes about fees, academic concerns, housing issues, parking problems, discrimination and/or harassment, red tape and many other matters. The Ombuds may help you to identify and evaluate options to formulate a plan to address your issue, to find the correct person to address your concern or to explain University regulations or policies. The Ombuds will listen to you.

An appointment with the Ombuds can be made by calling 561-297-3693. The Office of the Ombuds is located in the S.E. Wimberly Library, Room 156B. For more information, visit [www.fau.edu/ombuds](http://www.fau.edu/ombuds).

## **POLICY OF NON-DISCRIMINATION**

Florida Atlantic University is committed to a policy of non-discrimination. It is against the policy of the University to discriminate against, or exclude from participation in benefits or activities, either on the staff or in the student body, any person on the grounds of race, color, religion, age, disability, sex, national origin, marital status, veteran status, sexual orientation, gender identity or expression, or students, applicants for employment, faculty and staff (hereinafter collectively referred to as “University Community Members”), as well as third parties providing services to FAU. This Regulation 5.010 (“Regulation”) establishes procedures for a University Community Member to file a complaint of alleged discrimination, harassment or retaliation.

Discriminatory conduct in the form of sexual misconduct/sexual harassment is also prohibited, and procedures for processing and investigation claims of sexual misconduct/sexual harassment by a University employee will be processed in accordance with current University policy on prohibited sexual conduct.

## ACADEMIC CALENDAR

(Click [here](#) to see the latest and future Academic Calendars.)

## ACADEMIC PROGRAMS

For a Program in:	To Earn the Following Degrees:	Register in the College of:
<a href="#">Accounting</a>	B.B.A., B.S., B.B.A./M.AC. for Honors students, M.AC., Minor	<a href="#">Business</a>
<a href="#">Actuarial Science</a>	Certificate (undergraduate)	<a href="#">Science</a>
<a href="#">Addictions</a>	Certificate (graduate)	<a href="#">Social Work and Criminal Justice</a>
<a href="#">Aerospace Engineering (undergraduate)</a>	Certificates (undergraduate and graduate)	<a href="#">Engineering and Computer Science</a>
<a href="#">Aerospace Engineering (graduate)</a>		
<a href="#">Anthropology</a>	B.A., M.A., M.A.T., Minor	<a href="#">Arts and Letters</a>
<a href="#">Applied Mental Health Services</a>	Certificate (undergraduate)	<a href="#">Interdisciplinary Programs</a>
<a href="#">Artificial Intelligence (M.S.) (Minor-undergraduate)</a>	M.S., Minors (undergraduate and graduate), Certificates (undergraduate and graduate)	<a href="#">Engineering and Computer Science</a>

(Minor-graduate)  
 (Certificate-undergraduate)  
 (Certificate-graduate)

Arabic	Minor	Arts and Letters
Architectural Studies	Minor	Arts and Letters
Architecture	B.Arch.	Arts and Letters
Architecture, Urban and Regional Planning	B.Arch./M.U.R.P.	Science
Art*	B.A., B.F.A., M.F.A., Minors	Arts and Letters
Asian Studies	Certificate (undergraduate)	Arts and Letters
Big Data Analytics	Certificate (graduate)	Interdisciplinary Programs
Biomedical Engineering (link to all programs except): undergraduate certificate	B.S., M.S., any B.S. in college/M.S., B.A. or B.S./M.S. (with Honors College), Certificates (undergraduate and graduate)	Engineering and Computer Science
Biological and Physical Sciences***	B.A., B.A. or B.S./M.S. (with Engineering and Computer Science), B.A. or B.S./M.S. (with Science), B.S.	Honors College
Biological Sciences**	B.A., B.S., B.S./M.S., M.S., M.S.T., Minor	Science

Biological Sciences/Environmental Science	B.S./M.S.	Science
Biomedical Science	M.S., Certificate (graduate)	Medicine
Biotechnology	Certificate (undergraduate)	Science
Business	Minor (graduate)	Engineering and Computer Science
Business Administration	M.B.A., Ph.D., Minor, Certificates (graduate)  (Certificates not admitting students at this time.)	Business
Business Analytics M.S. Minor and Certificate	M.S., Minor, Certificate (undergraduate)	Business
Business Biotechnology	P.S.M.	Business
Business Law	Minor	Business
Caribbean and Latin American Studies	Certificate (undergraduate)	Arts and Letters
Casino and Gaming Industry Management	Certificate (undergraduate)	Business
Chemistry**	B.A., B.S., B.S./M.S., M.S.,	Science

M.S.T., Ph.D.

Child Welfare	Certificates (undergraduate and graduate)	Social Work and Criminal Justice
Civil Engineering	B.S.C.V., B.S.C.V./M.S., M.S	Engineering and Computer Science
Classical Studies	Certificate (undergraduate)	Arts and Letters
Club Management	Certificate (undergraduate)	Business
Commercial Music	B.M., Minor	Arts and Letters
Commercial Music: Music Business/Nonprofit Management	B.M./M.N.M.	Arts and Letters
Communication	M.A.	Arts and Letters
Communication Studies	B.A., Minor	Arts and Letters
Comparative Literature	Minor	Arts and Letters
Comparative Studies	Ph.D.	Arts and Letters
Computer Engineering	B.S.C.E., B.S.C.E./M.S., B.S.C.E./Ph.D., B.A. or B.S./M.S. (with Honors College), M.S., Ph.D.	Engineering and Computer Science
Computer Engineering/Artificial	B.S.C.E./M.S.	Engineering and Computer

Intelligence		Science
Computer Engineering/Information Technology and Management	B.S.C.E./M.S.	Engineering and Computer Science
Computer Science	B.A.C.S., B.S.C.S., B.S.C.S./M.S., B.S.C.S./Ph.D., B.A. or B.S./M.S. (with Honors College), M.S., Ph.D., Minor	Engineering and Computer Science
Computer Science/Artificial Intelligence	B.S.C.S./M.S.	Engineering and Computer Science
Computer Science/Information Technology and Management	B.A.C.S. or B.S.C.S./M.S.	Engineering and Computer Science
Counseling	Ph.D.	Education
Counselor Education	M.Ed., M.Ed./Ed.S., Ed.S.	Education
Corrosion	Certificate (graduate)	Engineering and Computer Science
Creative Writing	M.F.A.	Arts and Letters
Criminal Justice	B.A., Minor	Social Work and Criminal Justice
Criminology and Criminal Justice	M.S.	Social Work and Criminal Justice

<a href="#">Crisis and Disaster Management</a>	Certificate (graduate)	<a href="#">Business</a>
<a href="#">Curriculum and Instruction</a>	M.Ed., Ed.S., Ph.D.	<a href="#">Education</a>
<a href="#">Cybersecurity</a>	Minor, Certificate (undergraduate)	<a href="#">Interdisciplinary Programs</a>
<a href="#">Cyber Security</a>	Certificate (graduate)	<a href="#">Interdisciplinary Programs</a>
<a href="#">Dance</a>	Minor	<a href="#">Arts and Letters</a>
<a href="#">Data Science</a>	Certificate (undergraduate)	<a href="#">Interdisciplinary Programs</a>
<a href="#">Data Science and Analytics (B.S.) (M.S.)</a>	B.S., M.S.	<a href="#">Interdisciplinary Programs</a>
<a href="#">Data Science and Analytics</a>	B.S./M.S.	<a href="#">Engineering and Computer Science</a>
<a href="#">Data Science and Analytics/Artificial Intelligence</a>	B.S./M.S.	<a href="#">Engineering and Computer Science</a>
<a href="#">Data Science and Analytics/Information Technology and Management</a>	B.S./M.S.	<a href="#">Engineering and Computer Science</a>
<a href="#">Digital Marketing</a>	Minor, Certificate (undergraduate)	<a href="#">Business</a>
<a href="#">Disaster Management</a>	Minor	<a href="#">Arts and Letters</a>
<a href="#">Diversity and Global Studies</a>	Minor, Certificate (undergraduate)	<a href="#">Education</a>

Early Care and Education	B.E.C.E.	Education
Early Childhood Environmental Education	Certificate (undergraduate)	Education
Economic Development and Tourism	Certificate (graduate)  (Certificate not admitting students at this time.)	Science
Economics	B.B.A., B.B.A./M.S., B.S., B.S./M.S., M.S., M.S.T., Minors	Business
Educational Leadership	M.Ed., Ed.S., Ph.D.	Education
Educational Psychology	M.Ed.	Education
Electrical Engineering	B.S.E.E., B.S.E.E./M.S., B.S.E.E./Ph.D., B.A. or B.S./M.S. (with Honors College),M.S., Ph.D.	Engineering and Computer Science
Electrical Engineering/Artificial Intelligence	B.S.E.E./M.S.	Engineering and Computer Science
Electrical Engineering/Computer Engineering	B.S.E.E./M.S.	Engineering and Computer Science
Electrical Engineering/Information Technology and Management	B.S.E.E./M.S.	Engineering and Computer Science

Elementary Education	B.A., B.A.E., M.Ed.	Education
Energy Resilience	Certificate (graduate)	Engineering and Computer Science
English**	B.A., M.A., Minors	Arts and Letters
English as a Second Language Studies	Certificates (undergraduate and graduate)	Arts and Letters
Entrepreneurial Management	Minor	Business
Entrepreneurship	Minor	Business
Environment and Society	Minor	Arts and Letters
Environmental Education	M.Ed., Certificate (graduate)	Education
Environmental Engineering	B.S.E.V.	Engineering and Computer Science
Environmental Engineering/Civil Engineering	B.S.E.V./M.S.	Engineering and Computer Science
Environmental Restoration	Certificate (graduate)	Science
Environmental Science	M.S., Certificate (undergraduate)	Science
Ethics, Law, and Society	Certificate (undergraduate)	Arts and Letters

<a href="#">Ethnic Studies</a>	Certificate (undergraduate)	<a href="#">Arts and Letters</a>
<a href="#">Exceptional Student Education</a>	B.A., B.A.E.	<a href="#">Education</a>
<a href="#">Exercise Science and Health Promotion</a>	B.S., B.S./M.S., M.S.	<a href="#">Science</a>
<a href="#">Experimental Psychology</a>	Ph.D.	<a href="#">Science</a>
<a href="#">Film and Culture</a>	Certificate (graduate)	<a href="#">Arts and Letters</a>
<a href="#">Film and Video</a>	Minor	<a href="#">Arts and Letters</a>
<a href="#">Finance</a>	B.B.A., B.S., M.S., Minor	<a href="#">Business</a>
<a href="#">French</a>	Minor	<a href="#">Arts and Letters</a>
<a href="#">General Business</a>	B.A.	<a href="#">Business</a>
<a href="#">General Studies</a>	B.G.S.	<a href="#">Degree Programs</a> (offered in multiple colleges)
<a href="#">Genomics and Predictive Health</a>	Certificate (graduate)	<a href="#">Medicine</a>
<a href="#">Geographic Information Science</a>	Minor	<a href="#">Science</a>
<a href="#">Geographic Information Systems (Certificates-undergraduate) (Certificate-graduate)</a>	Certificates (undergraduate and graduate)	<a href="#">Science</a>

<a href="#">Geomatics Engineering</a>	B.S.G.E., Minor	<a href="#">Engineering and Computer Science</a>
<a href="#">Geomatics Engineering/Civil Engineering</a>	B.S.G.E./M.S.	<a href="#">Engineering and Computer Science</a>
<a href="#">Geosciences</a>	B.A., B.S., B.S./M.S., M.S., Ph.D.	<a href="#">Science</a>
<a href="#">German</a>	Minor	<a href="#">Arts and Letters</a>
<a href="#">Gerontology</a>	Certificate (undergraduate)	<a href="#">Business</a>
<a href="#">Health Administration</a>	B.H.S., M.H.A., B.H.S./M.H.A., Minors, Certificate (graduate)	<a href="#">Business</a>
<a href="#">Health Science</a>	B.A.	<a href="#">Science</a>
<a href="#">Health Science/Exercise Science and Health Promotion</a>	B.A./M.S.	<a href="#">Science</a>
<a href="#">Healthcare Information Systems</a>	Minor, Certificate (undergraduate)	<a href="#">Business</a>
<a href="#">Healthy Aging</a>	Certificates (undergraduate and graduate)	<a href="#">Social Work and Criminal Justice</a>
<a href="#">History</a>	B.A., B.A./M.A., B.A./M.A. (with Honors College), M.A., Minor	<a href="#">Arts and Letters /Honors College</a>
<a href="#">Hospitality and Tourism Management</a>	B.B.A., B.S., Minors, Certificates (undergraduate and	<a href="#">Business</a>

graduate)

<a href="#">Information Technology and Management</a>	B.A. or B.S./M.S. (with Honors College), M.S.	<a href="#">Business/Engineering and Computer Science/ Honors College</a>
<a href="#">Innovation Entrepreneurship</a>	Certificate (graduate)	<a href="#">Business</a>
<a href="#">Instructional Design</a>	Certificate (graduate)	<a href="#">Education</a>
<a href="#">Instructional Technology</a>	M.Ed.	<a href="#">Education</a>
<a href="#">Integrative Biology</a>	Ph.D.	<a href="#">Medicine/Science</a>
<a href="#">Interdisciplinary Applications of Artificial Intelligence</a>	Minor, Certificate (undergraduate)	<a href="#">Interdisciplinary Programs</a>
<a href="#">Interdisciplinary Studies</a>	B.A.	<a href="#">Arts and Letters</a>
<a href="#">International Business</a>	B.B.A., B.S., M.S., Minor, Certificate (undergraduate)	<a href="#">Business</a>
<a href="#">International Economics</a>	Minor	<a href="#">Business</a>
<a href="#">Investment Management</a>	Minor, Certificate (undergraduate)	<a href="#">Business</a>
<a href="#">Italian</a>	Minor	<a href="#">Arts and Letters</a>
<a href="#">Japanese</a>	Minor	<a href="#">Arts and Letters</a>
<a href="#">Jewish Studies</a>	B.A., Minor	<a href="#">Arts and Letters</a>

<a href="#">K-12 Online Teaching</a>	Certificate (graduate)	<a href="#">Education</a>
<a href="#">Languages, Linguistics and Comparative Literature</a>	B.A., B.A./M.A., M.A.	<a href="#">Arts and Letters</a>
<a href="#">Leadership and Human Resource Development</a>	Minor	<a href="#">Business</a>
<a href="#">Leadership Studies</a>	Minor	<a href="#">Education</a>
<a href="#">Liberal Arts and Sciences***</a>	B.A., B.A./M.A. (with Arts and Letters), B.A. or B.S./M.S. (with Engineering and Computer Science), B.A. or B.S./M.S. (with Science), B.S.	<a href="#">Honors College</a>
<a href="#">Linguistics</a>	Minor	<a href="#">Arts and Letters</a>
<a href="#">Literary Translation</a>	Certificate (graduate)	<a href="#">Arts and Letters</a>
<a href="#">Management</a>	B.B.A., B.S.	<a href="#">Business</a>
<a href="#">Management Information Systems</a>	B.B.A., B.S., Minor	<a href="#">Business</a>
<a href="#">Management Information Systems/Business Analytics</a>	B.B.A. or B.S./M.S.	<a href="#">Business</a>
<a href="#">Management Information Systems/Information Technology and Management</a>		

Management Information  
Systems/Supply Chain  
Management

Marine Materials and Offshore Engineering	Certificate (undergraduate)	Engineering and Computer Science
Marine Science and Oceanography	M.S.	Science
Marketing	B.B.A., B.S., Minor	Business
Mathematics**	B.A., B.S., B.S./M.S., M.S., M.S.T., Ph.D., Minor	Science
Mechanical Engineering	B.S.M.E., B.S.M.E./M.S., M.S., Ph.D.	Engineering and Computer Science
Mechanical Engineering/Artificial Intelligence	B.S.M.E./M.S.	Engineering and Computer Science
Media, Technology and Entertainment	M.F.A.  (This major is currently on suspension and not accepting students.)	Arts and Letters
Medical Biology	B.S.	Science
Medical Physics	P.S.M., Certificate (graduate)	Science

<a href="#">Medicine</a>	M.D., M.D./Ph.D.	<a href="#">Medicine</a>
<a href="#">Meetings and Events Management</a>	Certificate (undergraduate)	<a href="#">Business</a>
<a href="#">Military Science</a>	Minor	<a href="#">Military Programs</a>
<a href="#">Multicultural Education</a>	Certificate (graduate)	<a href="#">Education</a>
<a href="#">Multimedia Studies</a>	B.A.	<a href="#">Arts and Letters</a>
<a href="#">Museums, Archives and Public History</a>	Minor	<a href="#">Arts and Letters</a>
<a href="#">Music**</a>	B.A., B.M., B.M.E., M.M.	<a href="#">Arts and Letters</a>
<a href="#">Music/Nonprofit Management</a>	B.A./M.N.M.	<a href="#">Arts and Letters</a>
<a href="#">Music: Performance/Nonprofit Management</a>	B.M./M.N.M.	<a href="#">Arts and Letters</a>
<a href="#">Naval Architecture</a>	Certificate (undergraduate)	<a href="#">Engineering and Computer Science</a>
<a href="#">Neuroeconomics</a>	Certificate (graduate)	<a href="#">Science</a>
<a href="#">Neuroscience</a>	Ph.D.	<a href="#">Interdisciplinary Programs</a>
<a href="#">Neuroscience</a>	Certificate (graduate)	<a href="#">Science</a>
<a href="#">Neuroscience and Behavior</a>	B.S.	<a href="#">Science</a>

Neuroscience and Behavior/Psychology	B.S./M.A.	Science
Nonprofit Executive Leadership	Certificate (graduate)	Arts and Letters
Nonprofit Management (M.N.M.) Nonprofit Management (Minor)	M.N.M., Minor	Arts and Letters
Nursing	B.S.N., M.S.N., D.N.P., Ph.D., Certificates (graduate)	Nursing
Nursing/Artificial Intelligence	B.S.N./M.S.	Nursing/Engineering and Computer Science
Nursing/Biomedical Engineering	B.S.N./M.S.	Nursing/Engineering and Computer Science
Ocean Engineering	B.S.O.E., B.S.O.E./M.S., M.S., Ph.D.	Engineering and Computer Science
Offshore Engineering	Certificate (graduate)	Engineering and Computer Science
Operations Management	Minor	Business
Peace, Justice and Human Rights	Minor, Certificate (undergraduate)	Arts and Letters
Pharmaceutical Technology	Certificate (undergraduate)	Science
Philosophy	B.A., Minor	Arts and Letters

<a href="#">Physics**</a>	B.A., B.S., M.S., M.S.T., Ph.D., Minor	<a href="#">Science</a>
<a href="#">Physics/Medical Physics</a>	B.S./P.S.M.	<a href="#">Science</a>
<a href="#">Political Communication</a>	Minor	<a href="#">Arts and Letters</a>
<a href="#">Political Science</a>	B.A., M.A., Minor	<a href="#">Arts and Letters</a>
<a href="#">Post-Baccalaureate Pre-Health Professions</a>	Certificate (undergraduate)	<a href="#">Science</a>
<a href="#">Post-Baccalaureate Research Education Program in Chemistry</a>	Certificate (graduate)	<a href="#">Science</a>
<a href="#">Professional Accounting</a>	Certificate (graduate)	<a href="#">Business</a>
<a href="#">Professional and Technical Writing</a>	Certificate (undergraduate)	<a href="#">Arts and Letters</a>
<a href="#">Professional Studies</a>	B.P.S.	<a href="#">Interdisciplinary Programs</a>
<a href="#">Psychology</a>	B.A., B.A./M.A., M.A., Minor	<a href="#">Science</a>
<a href="#">Public Administration (M.P.A.)</a> <a href="#">Public Administration (Ph.D.)</a>	M.P.A., Ph.D.	<a href="#">Arts and Letters</a>
<a href="#">Public Ethics and Leadership</a>	Certificate (graduate)	<a href="#">Arts and Letters</a>
<a href="#">Public Management (B.P.M.)</a> <a href="#">Public Management (Minor)</a>	B.P.M., Minor	<a href="#">Arts and Letters</a>

Public Management/Nonprofit Management	B.P.M./M.N.M.	Arts and Letters
Public Management/Public Administration	B.P.M./M.P.A.	Arts and Letters
Public Policy	Certificate (graduate)	Arts and Letters
Public Safety Administration	B.P.S.A.	Arts and Letters
Public Safety Administration/Nonprofit Management	B.P.S.A./M.N.M.	Arts and Letters
Public Safety Administration/Public Administration	B.P.S.A./M.P.A.	Arts and Letters
Reading Education	M.Ed.	Education
Real Estate	Minor	Business
Religious Studies	Certificate (undergraduate)	Arts and Letters
Remote Sensing	Certificate (graduate)	Science
Risk Management	Certificates (undergraduate and graduate)	Business
Robotics Engineering	Certificate (undergraduate)	Engineering and Computer

		Science
Secondary Education plus Certification	M.Ed.	Education
Sexuality and Gender Education	Certificate (graduate)	Arts and Letters
Social Justice Certificate-undergraduate Certificate-graduate	Certificates (undergraduate and graduate)	Social Work and Criminal Justice
Social Work	B.S.W., M.S.W., D.S.W., Minor	Social Work and Criminal Justice
Sociology	B.A., M.A., Minor	Arts and Letters
Spanish	Minor	Arts and Letters
Special Education	M.Ed., Ph.D.	Education
Speech-Language Pathology/Audiology	M.S.	Education
Sport Studies	Minor	Arts and Letters
Statistics	Minor, Certificate (undergraduate)	Science
Supply Chain Management	M.S.	Business
Supported Community Access	Certificate (undergraduate)	Education

(Open to Academy for Community Inclusion students only.)

Supported Community Living

Certificate (undergraduate)

Education

(Open to Academy for Community Inclusion students only.)

Supported Employment

Certificate (undergraduate)

Education

(Open to Academy for Community Inclusion students only.)

Surveying and Mapping

Certificate (undergraduate)

Engineering and Computer Science

Sustainable Community Planning

Certificate (graduate)

Science

(Certificate not admitting students at this time.)

Taxation

M.TX.

Business

Teacher Leadership

Certificate (graduate)

Education

Theatre

B.A., B.F.A., M.F.A., Minor

Arts and Letters

Transportation and Environmental Engineering

Ph.D.

Engineering and Computer Science

Transportation Engineering

Certificate (graduate)

Engineering and Computer Science

Transportation, Logistics and

Certificate (graduate)

Interdisciplinary Programs

## Supply Chain Management

Undergraduate Research	Certificate (undergraduate)	Interdisciplinary Programs
Underwater Acoustics	Certificate (undergraduate)	Engineering and Computer Science
Urban and Regional Planning	B.U.R.P., B.U.R.P./M.U.R.P., M.U.R.P.	Science
Urban Design	B.U.D., B.U.D./M.U.R.P.	Science
Women, Gender and Sexuality Studies	M.A., Minor Certificate (graduate)	Arts and Letters

\* Programs leading to teacher certification at the secondary school level are available in Art.

\*\* Bachelor's degrees in teacher education programs at the secondary school level are available in these specific subjects. Students must enroll in the degree program in the subject they wish to teach.

\*\*\* Click [here](#) for a list of Honors College major concentrations and [here](#) for a list of Honors College minors.

## KEY TO DEGREE DESIGNATIONS

B.A.	Bachelor of Arts
B.A.C.S.	Bachelor of Arts in Computer Science
B.A.E.	Bachelor of Arts in Education
B.Arch.	Bachelor of Architecture
B.B.A.	Bachelor of Business Administration

B.E.C.E.	Bachelor of Early Care and Education
B.F.A.	Bachelor of Fine Arts
B.G.S.	Bachelor of General Studies
B.H.S.	Bachelor of Health Services Administration
B.M.	Bachelor of Music
B.M.E.	Bachelor of Music Education
B.P.M.	Bachelor of Public Management
B.P.S.	Bachelor of Professional Studies
B.P.S.A.	Bachelor of Public Safety Administration
B.S.	Bachelor of Science
B.S.C.E.	Bachelor of Science in Computer Engineering
B.S.C.S.	Bachelor of Science in Computer Science
B.S.C.V.	Bachelor of Science in Civil Engineering
B.S.E.	Bachelor of Science in Education
B.S.E.E.	Bachelor of Science in Electrical Engineering
B.S.E.V.	Bachelor of Science in Environmental Engineering
B.S.G.E.	Bachelor of Science in Geomatics Engineering
B.S.M.E.	Bachelor of Science in Mechanical Engineering

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B.S.N.	Bachelor of Science in Nursing
B.S.O.E.	Bachelor of Science in Ocean Engineering
B.S.W.	Bachelor of Social Work
B.U.D.	Bachelor of Urban Design
B.U.R.P.	Bachelor of Urban and Regional Planning
D.N.P.	Doctor of Nursing Practice
D.S.W.	Doctor of Social Work
Ed.S.	Education Specialist
M.A.	Master of Arts
M.A.T.	Master of Arts in Teaching
M.AC.	Master of Accounting
M.B.A.	Master of Business Administration
M.D.	Doctor of Medicine
M.Ed.	Master of Education
M.F.A.	Master of Fine Arts
M.H.A.	Master of Health Services Administration
M.M.	Master of Music
M.N.M.	Master of Nonprofit Management
M.P.A.	Master of Public Administration
M.S.	Master of Science
M.S.N.	Master of Science in Nursing

M.S.T.	Master of Science in Teaching
M.S.W.	Master of Social Work
M.TX.	Master of Taxation
M.U.R.P.	Master of Urban and Regional Planning
Ph.D.	Doctor of Philosophy
P.S.M.	Professional Science Master

## UNIVERSITY PROFILE

Florida Atlantic University is in subtropical South Florida with campuses in Palm Beach, Broward and St. Lucie counties. The six-county (Broward, Indian River, Martin, Okeechobee, Palm Beach and St. Lucie) region, with a population of more than five million, offers all the cultural advantages of a major metropolitan setting and natural treasures ranging from beaches to the Everglades.

Life as a Florida Atlantic University Owl has never been better! From clubs that serve every academic and leisure-time interest to 19 intercollegiate sports teams, including a football team playing in a 30,000-seat on-campus stadium, there's something for everyone at FAU. Enrichment programs, including honors education, internships and hands-on research in beautiful campus environments, coupled with FAU's outstanding faculty of accomplished scholars and researchers, provide bountiful opportunities for FAU students.

The University's 10 colleges function across six sites, with most colleges offering programs at several locations. The University's original campus is in Boca Raton, a suburban residential community midway between Fort Lauderdale and West Palm Beach. FAU Boca Raton is the administrative home of the Dorothy F. Schmidt College of Arts and Letters, the College of Business, the College of Education, the College of Engineering and Computer Science, the Graduate College, the Charles E. Schmidt College of Medicine, the Christine E. Lynn College of Nursing, the Charles E. Schmidt College of Science and the College of Social Work and Criminal Justice. It is a residential campus with programs at lower-division, bachelor's, master's, specialist's and doctoral levels in many fields.

The Dorothy F. Schmidt College of Arts and Letters and the College of Business offer programs at FAU's downtown Fort Lauderdale campus, as well. Arts and Letters and Business also offer programs at FAU Davie, along with the College of Education, the Christine E. Lynn College of Nursing, the Charles E.

Schmidt College of Science and the College of Social Work and Criminal Justice. The Florida Center for Environmental Studies is headquartered on the Davie campus. In Fort Lauderdale and Davie, FAU is co-located with Broward College. Also in Broward County, FAU Dania Beach provides outstanding research facilities, hosting SeaTech, FAU's Institute for Ocean and Systems Engineering.

FAU's John D. MacArthur Campus in Jupiter offers upper-division and graduate courses from the Dorothy F. Schmidt College of Arts and Letters, the College of Education, the Charles E. Schmidt College of Science and the College of Social Work and Criminal Justice. The campus is home to the Harriet L. Wilkes Honors College, a four-year residential liberal arts and science college for high-achieving undergraduates. The Osher Lifelong Learning Institute at Florida Atlantic University provides non-credit liberal arts courses for adults of all ages. FAU's partnership with the Max Planck Florida Institute for Neuroscience, a unit of the renowned Max Planck Society in Germany, gives graduate, undergraduate, and high school students the unique opportunity to learn from, and work alongside, some of the finest minds in the world, including Nobel Laureates.

Located on the Indian River Lagoon in northern St. Lucie County, FAU Harbor Branch Oceanographic Institute is dedicated to exploration, innovation, conservation and education related to the oceans. As a base of operations for a host of research and academic programs — such as coral reef and estuary studies, marine mammal rescue and rehabilitation, semester by-the-sea programs and a variety of research positions and internships — FAU Harbor Branch provides undergraduate students, graduate students and faculty with a high-tech and dynamic environment that is perfect for their varied pursuits.

## RESEARCH

Research plays a vital role in fulfilling the mission of Florida Atlantic University. The [Division of Research](#) provides oversight, expertise and guidance for all research activities throughout the University. FAU is taking its place among the world's great research centers and has been designated a “High Research Activity” institution by the Carnegie Foundation for the Advancement of Teaching.

To enhance interdisciplinary and collaborative research, FAU has established four university-wide research institutes focused on the University's strengths. These are dedicated to improving and addressing diseases of the brain, enhancing human health and quality of life, protecting the environment locally and globally, and using sensors to monitor the world around us. More information can be found [here](#).

## OVERSIGHT

The [Florida Board of Governors](#) and [FAU's Board of Trustees](#) provide guidance and governance to the University.

## TUITION

Tuition fees are charged for each credit scheduled based on the course level and the residency status of the student. Tuition fees per credit appear in the link below. Tuition fees are subject to change by the Florida Board of Governors at any time. The most current tuition fees can be found [here](#). To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>

## FACTS AND FIGURES

### ENROLLMENT

Total Enrollment (Fall 2023)	30,859
Undergraduate Enrollment (Fall 2023)	23,464
Graduate Enrollment (Fall 2023)	5,934
Degree-Seeking (95 percent)	29,398
Non-Degree (5 percent)	1,461
Florida Residents (81 percent)	25,116

### STUDENT STATISTICS

College	Headcount, Fall 2023	Degrees Awarded, 2022-2023*
Dorothy F. Schmidt College of Arts and Letters	4,154	1,140.5
College of Business	8,781	2,212.5
College of Education	1,788	496
College of Engineering and Computer Science	4,051	677
Harriet L. Wilkes Honors College	610	127

Charles E. Schmidt College of Medicine	316	35
Christine E. Lynn College of Nursing	990	506
Charles E. Schmidt College of Science	6,510	1,631
College of Social Work and Criminal Justice	1,762	626
Undergraduate Studies	22	3
Non-Degree	1,873	

\* Degrees awarded include only bachelor's, master's, specialist's and doctoral.

## TEMPERATURE

Average daily high and low temperatures (in degrees Fahrenheit):

Month	High	Low
January	76	60
February	77	61
March	79	63
April	83	68
May	85	70
June	89	74
July	91	76
August	92	78
September	89	76
October	85	72
November	81	67

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December	78	63
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## DISTANCES

Distance (in miles) from Boca Raton to major Florida cities and attractions:

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Cape Canaveral	150
Daytona Beach	220
Fort Lauderdale	17
Fort Myers	140
Gainesville	250
Jacksonville	300
Key West	160
Miami	45
Orlando/Disney World	190
Palm Beach	25
Pensacola	610
St. Augustine	265
Tallahassee	425
Tampa	220

Distance (in miles) from FAU Boca Raton to nearby airports:

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Fort Lauderdale/Hollywood International	25
Miami International	50
Palm Beach International	25

Distance (in miles) from Fort Lauderdale/Hollywood International Airport:

FAU Dania Beach (SeaTech)	5
FAU Davie	9
FAU Fort Lauderdale	5

Distance (in miles) from Palm Beach International Airport:

FAU Harbor Branch	75
FAU Jupiter	17

## MAPS

An interactive map of the Boca Raton campus can be found [here](#). Maps to other campuses — Dania Beach, Davie, Fort Lauderdale, Harbor Branch, and Jupiter — are [here](#).

## NATIONAL AND STATE TESTING INFORMATION

Information bulletins for the following state and national tests are available in the Office of Testing and Evaluation in SU 210 on the Boca Raton campus. Bulletins also may be obtained at FAU partner campuses.

Specific test dates, deadlines, fee information and direct links to specific testing programs may be found by accessing the Office of Testing and Evaluation [website](#) or by calling 561-297-3160.

Testing and Evaluation also offers test preparation courses in GMAT, GRE, LSAT, MCAT and SAT. For more information, call 561-297-1260 or visit the [Test Prep website](#).

### ACT Assessment

Paper-and-pencil format

[www.act.org](http://www.act.org)

Phone: 319-337-1270

### Florida Teacher Certification Exam (FTCE)

Most tests are offered in paper-and-pencil format. Obtain a registration bulletin to complete form. Some tests are computer-based.

Register online at [www.fl.nesinc.com](http://www.fl.nesinc.com)

General information available through the Florida Department of Education [website](#).

Phone: 866-613-3281

### **Graduate Management Admission Test (GMAT)**

GMAT is computer-based testing only, by appointment.

[www.mba.com/us](http://www.mba.com/us)

Phone: 1-800-717-GMAT

### **Graduate Record Examination (GRE)**

The GRE General Test is computer-based only; phone for an appointment. The GRE Subject Test is paper and pencil, offered several times a year. Registration is available online.

[www.gre.org](http://www.gre.org)

Phone: 1-866-473-4373

### **Law School Admission Test (LSAT)**

Registration is available online.

[www.lsac.org](http://www.lsac.org)

Phone: 215-968-1001

### **Medical College Admission Test (MCAT)**

[www.aamc.org](http://www.aamc.org)

Phone: 202-828-0690

### **Scholastic Assessment Tests**

(SAT-I and SAT-II)

[www.collegeboard.com](http://www.collegeboard.com)

Phone: 866-756-7346

### **Test of English as a Foreign Language (TOEFL)**

Computer-based testing. Paper-and-pencil format available in some locations. Phone registration is available. [www.ets.org/toefl](http://www.ets.org/toefl)

Phone: 877-863-3546







# UNIVERSITY CATALOG

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## VISION STATEMENT

Florida Atlantic University aspires to be recognized as a university known for excellent and accessible undergraduate and graduate education, distinguished for the quality of its programs across multiple campuses and classified as a very high research institution that is internationally acclaimed for its contributions to creativity and research, as well as its collaborations with regional partners.

## MISSION STATEMENT

Florida Atlantic University is a multi-campus public research university that pursues excellence in its

missions of research, scholarship, creative activity, teaching and active engagement with its communities.

## FAU VALUES

Florida Atlantic University values:

- Excellence — In teaching, research and public service
- Accountability — Taking responsibility for actions and being outcome-based
- Teamwork — Seeking collaborative strategies to solve problems
- Integrity — Telling the truth and delivering on our commitments
- Playing to Win — And helping others win
- Innovation — Striving for creative solutions and continuous improvement
- Student Success — Wholly committing ourselves to our students' futures
- Safety — Providing a secure campus environment
- Shared Governance — Making decisions through collaborative processes
- Professionalism — Performing our responsibilities with ethical behavior
- Customer Service — Exceeding the expectations of our clientele
- Respect — Treating people the way we want to be treated
- Engagement — Collaborating with community to benefit all stakeholders

## HISTORY AND CHARACTERISTICS

Florida Atlantic University was established by the Florida State Legislature in 1961 as the fifth university in the state system. When it opened in 1964, Florida Atlantic was one of the few universities in the country to offer only upper-division and graduate-level work. This model was based on the theory that freshmen and sophomores would be served by the community/state college system. In 1984, the University responded to South Florida's population growth and the need to provide increased access to higher education by admitting its first freshman class.

Today, with its well-developed system of distributed campuses that makes high-quality educational programs accessible throughout its six-county service region, Florida Atlantic University serves as a model for other urban, regional universities. Florida Atlantic offers a comprehensive array of undergraduate and graduate programs, enrolls 30,000 students who reflect the rich cultural diversity of the region and generates an annual economic impact that exceeds \$6.3 billion.

Florida Atlantic University's colleges are the Dorothy F. Schmidt College of Arts and Letters, the College of Business, the College of Education, the College of Engineering and Computer Science, the Graduate College, the Harriet L. Wilkes Honors College, the Charles E. Schmidt College of Medicine, the Christine E. Lynn College of Nursing, the Charles E. Schmidt College of Science and the College of Social Work and Criminal Justice. These colleges offer 99 bachelor's, 73 master's, 3 specialist's and 25 doctoral programs.

In spring 2011, the Charles E. Schmidt College of Medicine was granted preliminary accreditation by the Liaison Committee on Medical Education to offer an independent medical education program, which welcomed its charter class in fall 2011. Provisional accreditation — the next step in the accreditation process — was granted in spring 2013. The College has developed an innovative curriculum that features early and continuous community-based clinical experiences and problem-based learning, with emphasis on small-group and self-directed learning. World-class faculty in the College provide a student-centered and patient-focused approach that includes clinical experiences with local physicians, health departments and hospitals, and a state-of-the-art Clinical Skills Simulation Center. A key component of the innovative curriculum is early exposure to patients and the actual practice of medicine. To that end, the College has established relationships with several prominent area hospitals that serve as sites for clerkships, hospital-based electives and residencies. Florida Atlantic also partnered with the Max Planck Florida Institute for Neuroscience to offer a dual Doctor of Medicine/Doctor of Philosophy (M.D./Ph.D.) degree, with the medical degree conferred by the Schmidt College of Medicine and the doctorate conferred by the Schmidt College of Science.

Opened in 1999, the Harriet L. Wilkes Honors College provides a unique and challenging four-year curriculum for the brightest students from Florida and beyond. In addition, the University is home to a wide-ranging continuing education program and one of the largest and most successful lifelong learning programs in the nation, the Osher Lifelong Learning Institute, with more than 50,000 registrations on the Boca Raton, Ft. Lauderdale and Jupiter campuses.

The University's campus locations are situated along Florida's Gold and Treasure coasts, which boast a temperate climate and beautiful beaches, innovative industry and unique cultural opportunities. University locations provide a stimulating environment for Florida Atlantic's outstanding scholars and researchers. FAU has Eminent Scholar Chairs in many academic disciplines, and it is the home of nationally recognized research centers. The Research Park at FAU is facilitating exciting new research and learning initiatives by bringing high-tech industries into close collaboration with faculty and students. In recognition of the University's research funding and doctoral programs, the Division of Colleges and Universities of the Florida Board of Education has designated Florida Atlantic a research university. Additionally, FAU has been classified a "Research University - High Research Activity" by

the Carnegie Foundation for the Advancement of Teaching. FAU also received the Carnegie Community Engagement Classification, an elective designation that indicates institutional commitment to community engagement.

Florida Atlantic is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate, baccalaureate, masters, specialist and doctorate degrees. Contact the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Florida Atlantic University.

Florida Atlantic also is a member of the Association of Public and Land-grant Universities, the American Council on Education and the Council of Graduate Schools.

## BOCA RATON LOCATION

Florida Atlantic University opened in 1964 in Boca Raton on an 850-acre site located near the Atlantic Ocean. The campus is conveniently situated halfway between West Palm Beach and Fort Lauderdale and offers a broad range of academic programs, activities and services.

FAU Boca Raton provides an exciting and supportive learning environment for students. The Student Union is the center for student involvement, hosting student organizations that include fraternities and sororities, student media and student government. Students, faculty, staff and members of the greater community enjoy performances ranging from comedians to opera in the 2,400-seat Carole and Barry Kaye Performing Arts Auditorium in the Student Union. The campus supports a variety of popular dining options and has an attractive array of accommodations for residential students. For its commercial music students, FAU offers Hoot/Wisdom Recordings. One of the most active record labels at any university, Hoot/Wisdom has released more than 30 albums produced by students and commercial music faculty. The campus also is the home of FAU's aquatic center; Eleanor R. Baldwin Arena; baseball, football and softball stadiums; tennis courts and track; as well as a variety of fields for club and intramural sports competition.

The five-story S.E. Wimberly Library houses approximately 3.7 million items, including print and online books, periodicals, government documents, microforms, maps, media and other materials. Additionally, the Library provides an exceptional offering of electronic resources, including access to more than 400 databases. Computer labs, study lounges, a media center and tutoring services provide valuable academic support for students. The Library also is home to the Rubin and Cindy Gruber

Sandbox, a state-of-the-art artificial intelligence lab.

The Boca Raton campus hosts art exhibits, theatre productions and concerts in its galleries and theatres. Visiting performers and speakers add to the artistic and intellectual vibrancy of the campus. The Research Park at FAU, situated on the north side of campus, provides students with internship, research and other opportunities linked to the high-tech industries located there. The Boca Raton campus also is home to the 77,000-square-foot Recreation and Fitness Center, which offers free memberships to students, and the Marleen & Harold Forkas Alumni Center, a "home away from home" for FAU's ever-growing alumni population.

FAU Stadium, the University's 30,000-seat football stadium, opened in 2011 along with the adjacent Innovation Village Apartments, which provide top-quality living accommodations to more than 1,200 students. In the same year, the College of Engineering and Computer Science moved into a state-of-the-art "green" headquarters facility that was awarded platinum-level certification under the Leadership in Energy and Environmental Design (LEED) rating system of the U.S. Green Building Council.

Parliament Hall, a seven-story, 614-bed freshman residence hall, opened in 2013. The residence hall became Florida Atlantic's first student-housing facility to have a faculty member in residence and offers scenic views of the Atlantic Ocean from its top floor units. This facility is gold-level LEED-certified. The Atlantic Park Towers residence hall began housing first-year students in fall 2023, offering 616 beds and a full range of amenities. It increased the total student bed count on the Boca Raton campus to 4,700. Another central space for students on the Boca Raton campus is the Student Union, which features fully renovated areas including meeting and conference rooms, an eSports Arena, an outdoor plaza, banquet facilities and the Carole and Barry Kaye Performing Arts Auditorium.

The Schmidt Family Complex for Academic and Athletic Excellence, located next to FAU Stadium, was added in 2020. This complex creates a national model of academic excellence in athletics to attract the nation's top coaches and student-athletes to FAU. The 166,000-square-foot complex features academic support and athletic training facilities, athletics staff offices, and entertainment venues. It also is home to the College of Business' Executive Education programs and the Avron B. Fogelman Sports Museum.

### **Florida Atlantic University Schools on the Boca Raton Campus**

FAU serves students from kindergarten through 12th grade at the following educational facilities. They are all affiliated with FAU's College of Education and provide observation and internship opportunities for education majors.

#### **FAU High School**

FAU High School, established in 2004, is an intensive dual enrollment public high school. Instead of attending class in traditional high school buildings, students take college-level courses in the environment of university classrooms, laboratories and support facilities. This highly selective program offers high school students (grades 9-12) the opportunity to earn high school credits and university course credits at the same time at no cost to parents or guardians. All costs related to university tuition, fees (except parking) and even books are covered by FAU High School. For information, call 561-297-6612.

### **Alexander D. Henderson University School**

The Alexander D. Henderson University School, a public laboratory school, was established in 1968. The school provides an exemplary educational program for students enrolled in grades K-8 while conducting ongoing educational research and curriculum development to benefit other public schools. It serves as a site for student field experiences and provides an excellent opportunity for teacher trainees to work with highly qualified master teachers in a model school environment. The Henderson School consistently ranks among the top-scoring schools in Florida on standardized tests. Students are selected through a lottery system to ensure demographic balance in the student body. For information, call 561-297-3970.

### **Bezos Academy**

In fall 2022, Florida Atlantic University's Board of Trustees unanimously approved a 10-year facilities use agreement with Bezos Academy to open a tuition-free, Montessori-inspired preschool for low-income families adjacent to A.D. Henderson University School. Its opening in 2023 made Florida Atlantic the first university in Florida and second in America to host the Academy on a college campus.

## **FAU BOCA RATON DEGREE PROGRAMS**

### **DOROTHY F. SCHMIDT COLLEGE OF ARTS AND LETTERS**

#### **Undergraduate:**

Anthropology

Architecture

Art

Communication Studies

English

History

Interdisciplinary Studies

Jewish Studies

Languages, Linguistics and Comparative Literature

Multimedia Studies: Multimedia Journalism

Music

Philosophy

Political Science

Public Management

Sociology

Theatre

**Graduate:**

Anthropology

Communication

Comparative Studies

Creative Writing

English

History

Languages, Linguistics and Comparative Literature

Media, Technology and Entertainment (This major is currently on suspension and not accepting students.)

Music

Nonprofit Management

Political Science

Public Administration

Sociology

Studio/Fine Arts

Theatre

Women, Gender and Sexuality Studies

**COLLEGE OF BUSINESS**

**Undergraduate:**

Accounting  
Economics  
Finance  
General Business  
Health Administration  
Hospitality and Tourism Management  
International Business  
Management  
Management Information Systems  
Marketing

**Graduate:**

Accounting  
Business Administration  
Business Analytics  
Economics  
Finance  
Health Administration  
Information Technology and Management  
International Business  
Sport Management  
Supply Chain Management  
Taxation

**COLLEGE OF EDUCATION**

**Undergraduate:**

Early Care and Education  
Elementary Education  
Exceptional Student Education  
Secondary Education:  
    Art (K-12)\*  
    English Education (6-12)  
    Mathematics Education (6-12)  
    Science Education (Biology, Chemistry, Physics: 6-12)

## Social Science Education (6-12)

\* Certification program only.

### **Graduate:**

Counselor Education

Curriculum and Instruction

Educational Leadership

Educational Psychology

Elementary Education

Environmental Education

Exceptional Student Education

Instructional Technology

Reading Education

Secondary Education plus Certification

Special Education

Speech-Language Pathology/Audiology

## **COLLEGE OF ENGINEERING AND COMPUTER SCIENCE**

### **Undergraduate/Graduate:**

Artificial Intelligence (graduate only)

Biomedical Engineering

Civil Engineering

Computer Engineering

Computer Science

Data Science and Analytics

Electrical Engineering

Environmental Engineering (undergraduate only)

Geomatics Engineering (undergraduate only)

Information Technology and Management (graduate only)

Mechanical Engineering

Ocean Engineering

Transportation and Environmental Engineering (graduate only)

## **CHARLES E. SCHMIDT COLLEGE OF MEDICINE**

### **Graduate:**

Biomedical Science

Integrative Biology

Medicine

## **CHRISTINE E. LYNN COLLEGE OF NURSING**

### **Undergraduate/Graduate:**

Nursing

## **CHARLES E. SCHMIDT COLLEGE OF SCIENCE**

### **Undergraduate:**

Biological Sciences

Chemistry

Exercise Science and Health Promotion

Geosciences

Health Science

Mathematics

Medical Biology

Neuroscience and Behavior

Physics

Psychology

Urban Design

Urban and Regional Planning

### **Graduate:**

Biological Sciences

Business Biotechnology

Chemistry

Environmental Science

Exercise Science and Health Promotion

Experimental Psychology

Geosciences

Integrative Biology

Marine Science and Oceanography

Mathematics

Medical Physics

Physics

Psychology

Urban and Regional Planning

## **COLLEGE OF SOCIAL WORK AND CRIMINAL JUSTICE**

### **Undergraduate:**

Criminal Justice

Social Work

### **Graduate:**

Criminology and Criminal Justice

Social Work

## **UNDERGRADUATE STUDIES**

General Studies

Professional Studies

## **BROWARD COUNTY LOCATIONS**

The Florida Legislature designated Florida Atlantic the lead public institution of higher education in Broward County. The University's three Broward locations support its overall mission by providing access to high-quality, complete undergraduate and graduate degree programs to residents of Broward County and the region. Each of the Broward sites — Dania Beach, Davie and Fort Lauderdale — has a

special focus.

## FAU DANIA BEACH AND THE SEATECH RESEARCH INSTITUTE

Located between the Atlantic Ocean and the Intracoastal Waterway in Dania Beach, this research center provides expanded opportunities for the Department of Ocean and Mechanical Engineering. Graduate students greatly benefit from carrying out research and design projects directly in an ocean environment in the areas of acoustics, marine vehicles, marine materials and nanocomposites, among others. FAU Dania Beach builds on five decades of excellence at Florida Atlantic, which established the nation's first undergraduate ocean engineering program in 1965.

## FAU DAVIE

Working in close partnership with Broward College (BC) and other educational institutions, the Davie campus offers a supportive learning environment with particular sensitivity to students of non-traditional age and culturally diverse backgrounds. A high priority is placed on offering the complete upper-division portion of high-demand undergraduate degree programs. Graduate programs in education, business and nursing are available on the Davie campus, as well.

The campus is located on BC's central campus. Students may enter BC as freshmen and graduate from FAU with undergraduate degrees in more than 30 disciplines.

More than 335,000 square feet of carefully designed classrooms; teaching and research laboratories; and faculty, staff and student offices are located on this campus, along with the shared-use, 112,000-square-foot FAU/BC library designed for the 21st century. Other support facilities include a Student Wellness Center and a multiservice Student Union. The campus hosts the innovative Teaching and Leadership Center and is the base of operations for Florida Atlantic's Everglades research and restoration efforts. In addition, the Davie campus is home to the Florida Center for Environmental Studies (CES), creating a nexus of scientific endeavors that support Florida's unique ecosystem.

## FAU FORT LAUDERDALE

The Fort Lauderdale teaching center is home to the upper-division courses in the accredited professional Bachelor of Architecture degree program and the School of Accounting executive programs. Located in downtown Fort Lauderdale, the FAU/Broward College Higher Education Complex supports research and outreach appropriate to a high-density population center. An adjacent

main branch of the Broward County Library serves students and faculty.

## FAU DANIA BEACH AND THE SEATECH RESEARCH INSTITUTE DEGREE PROGRAMS

### **COLLEGE OF ENGINEERING AND COMPUTER SCIENCE**

#### **Undergraduate/Graduate:**

Ocean Engineering

## FAU DAVIE DEGREE PROGRAMS

### **DOROTHY F. SCHMIDT COLLEGE OF ARTS AND LETTERS**

#### **Undergraduate:**

Interdisciplinary Studies

Political Science

### **COLLEGE OF BUSINESS**

#### **Undergraduate:**

Accounting

Finance

International Business

Management

Marketing

#### **Graduate:**

Business Management

### **COLLEGE OF EDUCATION**

**Graduate:**

Curriculum and Instruction  
Educational Leadership  
Educational Psychology  
Elementary Education  
Instructional Technology  
Reading Education  
Secondary Education plus Certification

**CHRISTINE E. LYNN COLLEGE OF NURSING**

**Undergraduate:**

Accelerated B.S.N.

**Graduate:**

Nursing M.S.N.

**CHARLES E. SCHMIDT COLLEGE OF SCIENCE**

**Undergraduate:**

Biological Sciences  
Psychology

**Graduate:**

Environmental Science  
Experimental Psychology

**COLLEGE OF SOCIAL WORK AND CRIMINAL JUSTICE**

**Undergraduate:**

Social Work

## **Graduate:**

Social Work

## FAU FORT LAUDERDALE DEGREE PROGRAMS

### DOROTHY F. SCHMIDT COLLEGE OF ARTS AND LETTERS

## **Undergraduate:**

Architecture

Art: Graphic Design

Communication Studies

Multimedia Studies: Film, Video and New Media

## **Graduate:**

Studio/Fine Arts: Graphic Design

### COLLEGE OF BUSINESS

## **Undergraduate:**

Business Administration

For information about FAU Broward campuses, call the administrative offices at 954-236-1000.

## JUPITER AND TREASURE COAST LOCATIONS

The northern locations of Florida Atlantic University — the John D. MacArthur Campus in Jupiter and the Harbor Branch Oceanographic Institute in Fort Pierce — provide the resources of a great state university to the people of northern Palm Beach County and the Treasure Coast. Articulation agreements with Palm Beach State College and Indian River State College ensure compatibility of degree requirements. Students with Associate of Arts degrees from these state colleges, or any public community or state college in Florida, are guaranteed admission to FAU.

## PINE JOG ENVIRONMENTAL EDUCATION CENTER

Pine Jog is a unit of Florida Atlantic's College of Education. Since 1962, Pine Jog has enjoyed a strong relationship with the School District of Palm Beach County. In 2008, FAU Pine Jog leased property to the School District of Palm Beach County to build Pine Jog Elementary School, a Title I public school that was designed with a strong environmental and scientific focus. In exchange for this property lease, the School District constructed an additional 15,000-square-foot facility to serve as the headquarters of the FAU Pine Jog Environmental Education Center. Both facilities have been awarded Gold LEED Standard Certification as set by the U.S. Green Building Council, and the partners collaborate on curriculum, teacher training and creating a culture of sustainability. The Pine Jog campus is located at the corner of Summit Boulevard and Jog Road in West Palm Beach. In addition to the facilities described above, FAU Pine Jog preserves 135 acres of natural Florida habitat located in a highly urbanized section of central Palm Beach County. Pine Jog offers a myriad of resources to schools and communities designed to promote conservation and encourage responsible decision-making regarding critical environmental issues. For more information, please visit Pine Jog's [website](#).

## JOHN D. MACARTHUR CAMPUS

Named for the late philanthropist, the John D. MacArthur Campus in Jupiter is part of a 2,300-acre, mixed-use planned community called Abacoa. Situated off Donald Ross Road east of I-95, Abacoa incorporates business and residential development. The John D. MacArthur Campus is also known as the Jupiter campus.

This campus is the permanent site for Florida Atlantic's northern Palm Beach County operations, including the Harriet L. Wilkes Honors College. The campus currently occupies approximately 45 acres and includes more than 333,000 square feet of building space. Facilities include classroom/office buildings, scientific research buildings, a library, a 500-seat auditorium, a dining hall, a central utility plant and three residence halls. The newest residence hall, a \$17.1 million, 165-bed facility, opened in 2021 to support the growing campus population. Recreational facilities include a soccer field; swimming pool; and tennis, disc golf, volleyball and basketball courts.

In 2023, Florida Atlantic celebrated the opening of the new \$35 million Stiles-Nicholson Brain Institute building. The building features 58,000 square feet of laboratory and instructional space and has allowed for expansion of collaborative research in the STEM areas, as well as increased enrollment of students in the STEM fields. In 2016, the Brain Institute became a Nikon Center of Excellence, making it the seventh designated center in the United States and 17th worldwide at that time.

The Jupiter campus is home to the Max Planck Florida Institute for Neuroscience (MPFI), which is the Max Planck Society's 80th institute worldwide and its first in the United States. Additionally, the Herbert Wertheim UF Scripps Institute for Biomedical Innovation & Technology is located on the eastern end of the campus.

The Jupiter campus provides a complete range of student services, including Admissions, Financial Aid, Health and Wellness, Career Development and Counseling. Additionally, students have easy access to services provided by the campus offices for Registration and Records and Academic Advising.

The campus offers courses and programs from the colleges of Arts and Letters, Education, Science, and Social Work and Criminal Justice. A list of Jupiter campus degree programs follows. To meet the needs of students who often have competing career and family demands, Florida Atlantic has morning, afternoon and evening classes available each semester. For more information about the Jupiter campus, call 561-799-8500.

FAU High School's Jupiter Campus, in partnership with Max Planck Academy, is the premier early university entrance high school experience for STEM-focused juniors and seniors. Students pursue a university curriculum while having opportunities to receive intensive research training and enrichment experiences from FAU and MPFI faculty. In addition, select students may have the opportunity to pursue independent neuroscience-related research projects in MPFI-sponsored laboratories. FAU High School is the only public, accelerated pre-collegiate program that has every one of its students working toward a cost-free bachelor's degree and high school diploma simultaneously. It paves the way for students to graduate college debt-free. For information, call 561-297-4707.

In addition to offering college credit courses, the Jupiter campus is a site of Osher Lifelong Learning Institute classes for adults who wish to enhance their career skills, pursue individual interests or simply learn something new. For information about Osher Lifelong Learning Institute classes, call 561-799-8547.

## **HARRIET L. WILKES HONORS COLLEGE**

The Harriet L. Wilkes Honors College at Florida Atlantic University celebrated its 25th anniversary in 2024. It is a four-year, residential college located on the Jupiter campus and the first public honors institution in the United States to be built from the ground up. Admission criteria are highly selective. The Wilkes Honors College looks for students whose scholastic performance and abilities demonstrate

an active approach to learning and the potential for academic growth.

With its attractive student/faculty ratio of approximately 15:1, the Wilkes Honors College provides an environment for the highest quality education in liberal arts and sciences. Tutorials, one-on-one learning, small classes and affordable state tuition distinguish it from typical honors programs. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>. The integration of this specially designed campus into the Abacoa community offers an ideal setting for both informal and formal education — an educational opportunity usually found only at small private colleges.

The Wilkes Honors College offers Bachelor of Arts and Bachelor of Science degrees in Liberal Arts and Sciences and Bachelor of Arts and Bachelor of Science degrees in Biological and Physical Sciences. Students choose areas of concentration from the humanities and social sciences or the natural and life sciences. While completing this degree, students actively participate in designing their individual educational programs. They also acquire the valuable lifelong skill of learning independently.

## FAU JUPITER DEGREE PROGRAMS

### DOROTHY F. SCHMIDT COLLEGE OF ARTS AND LETTERS

#### **Undergraduate:**

English  
History  
Interdisciplinary Studies  
Multimedia Journalism  
Political Science  
Public Management  
Women, Gender and Sexuality Studies (minor)

#### **Graduate:**

Public Administration

### COLLEGE OF EDUCATION

**Undergraduate:**

Elementary Education

Exceptional Student Education\*

**Graduate:**

Curriculum and Instruction\*

Educational Leadership

Exceptional Student Education

Reading Education

Special Education

\* Most courses available on the Jupiter campus.

**HARRIET L. WILKES HONORS COLLEGE\*\***

**Undergraduate:**

Biological and Physical Sciences

Liberal Arts and Sciences

\*\* See the [Harriet L. Wilkes Honors College section](#) of this catalog for a detailed list of concentrations and minors available to Honors College students.

**CHARLES E. SCHMIDT COLLEGE OF SCIENCE**

**Undergraduate:**

Psychology

**COLLEGE OF SOCIAL WORK AND CRIMINAL JUSTICE**

**Undergraduate:**

Criminal Justice

Social Work

## FAU HARBOR BRANCH

Florida Atlantic's Harbor Branch Oceanographic Institute, located in northern St. Lucie County, is a state-of-the-art research facility dedicated to exploring the world's oceans, integrating the science and technology of the sea with the needs of humankind. FAU Harbor Branch is involved in research and education in biological, chemical, environmental and marine sciences; marine biomedical sciences; marine mammal conservation; and aquaculture and ocean engineering. Undergraduate students, graduate students and faculty enjoy a high-tech and dynamic environment that is perfect for their varied pursuits. For information, call 772-242-2400.

## ACADEMIC COMMON MARKET

The Academic Common Market is an interstate agreement among Southern states for sharing academic programs at both the baccalaureate and graduate levels. The following participating states are able to arrange for their certified residents who qualify for admission to enroll in specific programs in other states on an in-state tuition basis. For information, call the Graduate College at 561-297-3624.

Alabama	Kentucky	South Carolina
Arkansas	Louisiana	Tennessee
Delaware	Maryland	Texas*
Florida*	Mississippi	Virginia
Georgia	Oklahoma	West Virginia

\* Graduate level only

## OFFICE OF CIVIL RIGHTS AND TITLE IX

The Office of Civil Rights and Title IX (OCR9) at Florida Atlantic University strives to uphold ethical behavior and ensure adherence to relevant laws, regulations, and policies. OCR9 is committed to fostering a working and learning environment free of any unlawful discrimination, harassment or retaliation.

To ensure the University's adherence to federal and state laws addressing discrimination and harassment, as well as University policies and regulations, the OCR9 team is responsible for:

- Managing the University's response and support regarding reports and complaints of unlawful discrimination and harassment.
- Enforcing the University's Anti-Discrimination and Anti-Harassment Regulations and Prohibited Discrimination and Harassment Policy.
- Investigating complaints of discrimination, discriminatory harassment, sexual misconduct, and retaliation that occur in University programs and activities.
- Facilitating the University's employee reasonable workplace accommodations process.
- Providing information, guidance, training, and resources to the FAU community about discrimination and harassment prevention, disability accommodations and sexual misconduct prevention.

Adhering to ethical principles and upholding the values of doing what is right contributes to a positive environment within the Florida Atlantic community and is crucial to stopping discrimination and harassment at FAU. This commitment aids in preventing these issues, addressing them when they occur and ultimately promoting the institution's mission and longstanding commitment to excellence. For additional information, refer to OCR9's [website](#).

## DIRECTORY

Current information may be obtained by calling the following sources on the Boca Raton campus. For specific departments on FAU's partner campuses, click [here](#).

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General Inquiries, Campus Operator

561-297-3000

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Academic Advising, Student Academic Services:

[University Advising Services](#)

[Arts and Letters](#)

[Business Undergraduate, Graduate](#)

[Education](#)

[Engineering and Computer Science](#)

[Honors College](#)

[Medicine](#)

[Nursing](#)[Science](#)[Social Work and Criminal Justice](#)

Admissions, Graduate	561-297-3624
Admissions, Undergraduate	561-297-3040
Alumni Relations	561-297-6028
Athletics (Sporting Events)	866-FAU-OWLS (328-6957)
Career Center	561-297-3533
Counseling and Psychological Services	561-297-3540
Center for Inclusion, Diversity Education and Advocacy (IDEAs)	561-297-3959
Dean of Students	561-297-3542
Education Abroad (Study Abroad)	561-297-1208
Financial Assistance, Financial Aid	561-297-3530
Graduation, Degrees, Office of the Registrar	561-297-2731 or 561-297-2209
Health Services, Student Health Services	561-297-3512
Housing and Residential Education	561-297-2880
International Students, Center for Global Engagement	561-297-3049
Leadership Education And Development (LEAD), Office of	561-297-3607
Library (University Libraries)	561-297-3770
Osher Lifelong Learning Institute (Boca Raton)	561-297-3171
Majors and Course Offerings	<a href="#">University Catalog</a>
Military & Veterans Affairs	561-297-4725

Owl Card	561-297-2700
Owls Care Health Promotion	561-297-1048
Parking Regulations, Parking and Transportation Services	561-297-2771
Police Services, University Police	561-297-3500
Registration, Office of the Registrar	561-297-3050
Student Life, Activities, Student Affairs	561-297-3735
Student Accessibility Services Office	561-297-3880
Testing Arrangements, Testing and Evaluation	561-297-3160
Transcripts (Official), Office of the Registrar	561-297-3056
Transfer Student Services	561-297-2733
Tuition and Billing	561-297-6101

## FAU ALUMNI ASSOCIATION

Florida Atlantic graduates can stay in touch with the University through the FAU Alumni Association. Offering programs, publications and services throughout the year, the Alumni Association is governed by a volunteer Board of Directors that meets quarterly. Its 13,000-square-foot facility on the Boca Raton campus, the Marleen & Harold Forkas Alumni Center, serves as a gathering place for alumni and as a venue for a variety of alumni and campus-wide events and traditions.

Programs sponsored by the Alumni Association include the Alumni Hall of Fame and Distinguished Alumni Awards; the Talon Leadership Awards and Parliament of OWLs events at Homecoming; cultural, sports and social events; and professional development and networking programs. The Alumni Association also awards annual scholarships to students. The Student Alumni Association, comprised of the general Association, the Ambassadors and the prOWLers, is sponsored by the FAU Alumni Association.

Among the more than 204,000 FAU alumni are U.S. and foreign dignitaries; Emmy, Grammy and Pulitzer Prize winners; an astronaut; professional athletes; and executives who have served in

organizations such as Google, Franklin Templeton, Boeing, eBay, Motorola and the White House.

The Office of Alumni Relations is the primary liaison between the University and the FAU Alumni Association, the Association's Board and the Student Alumni Association. The office coordinates programs and events for FAU graduates, students and friends. For information, visit [www.faualumni.org](http://www.faualumni.org).

## FAU FOUNDATION

The Florida Atlantic University Foundation, Inc., is a non-profit corporation established to provide the private support that tax-assisted universities such as Florida Atlantic must have to achieve excellence. The Foundation, part of FAU's Division of Institutional Advancement, provides support for scholarships, research, faculty resources and capital projects with regard to the expressed wishes of its donors and in conformity with the mission of the University. All gifts to the Foundation are tax-deductible in accordance with rules of the Internal Revenue Service. The Chief Executive Officer, officers and board members of the Foundation are prepared to counsel interested parties regarding the types of gifts that can be made and tax benefits resulting from donations.

## ENDOWMENTS AND AWARDS

The University's endowment is housed under the FAU Foundation, Inc. In 1973, upon the retirement of Florida Atlantic University's founding president, Dr. Kenneth R. Williams, an endowment of \$50,000 was set up in his honor by a group of contributors. Interest on this endowment supports two \$1,000 awards presented to graduating seniors, one for leadership and one for outstanding scholastic achievement.

The University has 17 Eminent Scholar Chairs, each endowed at \$1 million or more:

- The Glenwood and Martha Creech Eminent Scholar Chair in Science
- The John M. DeGrove Eminent Scholar Chair in Growth Management and Development
- The William F. Dietrich Eminent Scholar Chair in Philosophy
- The Kenan Evren Eminent Scholar Chair in Turkish Business Studies
- The Herbert and Elaine Gimelstob Eminent Scholar Chair in Judaic Studies
- The Christine E. Lynn Eminent Scholar Chair in Nursing
- The Eugene M. and Christine E. Lynn Eminent Scholar Chair in Business
- The John Thomas Ladue McGinty Eminent Scholar Chair in Biology

- The Dr. Robert J. Morrow Eminent Scholar Chair in Social Science
- The Charles Stewart Mott Eminent Scholar Chair in Community Education
- The Office Depot Eminent Scholar Chair in Small Business Research
- The Helen Karpelenia Persson Eminent Scholar Chair in Community Caring
- The Raddock Family Eminent Scholar Chair in Holocaust Studies
- The Charles E. Schmidt Eminent Scholar Chair in Engineering
- The Dorothy F. Schmidt Eminent Scholar Chair in the Arts
- The Dorothy F. Schmidt Eminent Scholar Chair in Humanities
- The Dorothy F. Schmidt Eminent Scholar Chair in the Performing Arts
- Private and state matching funds also established endowments for professorships, fellowships and scholarships at FAU.

## INSTRUCTIONAL RESOURCES

The Office of Information Technology (OIT) is responsible for the University's IT infrastructure and services, information security systems and compliance, administrative systems and client support services. OIT responds as a service and a technical support provider, as well as a consulting resource for many teaching and research efforts. Technology supported includes wireless and wired networks, servers, University-wide e-mail and storage system, software development and operational support of the University's administrative applications, and a centralized technical support.

OIT provides instructional resources to the Florida Atlantic community that include Audiovisual Services, Canvas, Electronic Classrooms, Instructional Computer Labs, Training, Virtual Apps and Videoconferencing, Zoom, Microsoft Teams, and LinkedIn Learning, among many others.

Visit OIT's [website](#) for additional details.

## ONLINE EDUCATION/DISTANCE LEARNING

Florida Atlantic offers a variety of online courses to help meet the needs of students who require more flexibility in their coursework. These courses are designed for students who may not be able to attend a class at a specific time, day or place due to work schedules, family responsibilities, travel or physical challenges. Currently, FAU offers more than 1,000 classes and more than 40 degree programs via non-traditional delivery methods, including interactive video, video streaming, multimedia-enhanced lectures and online. For more information, visit the Center for Online and Continuing Education

[website.](#)

FAU's fully online programs are for students who intend to complete their entire degree online with no on-campus classes. Students may convert to a campus-based or fully online program ONLY once during their enrollment at FAU. Switching back and forth between the campus programs and the online programs is not allowed.

## UNIVERSITY LIBRARIES

The University Libraries include the S.E. Wimberly Library on the Boca Raton campus, collections housed at the Broward County Public Library to serve FAU in downtown Fort Lauderdale, a shared-use library with Broward College in Davie, a 20,000-square-foot library on the John D. MacArthur Campus in Jupiter and a library at Harbor Branch Oceanographic Institute.

The Wimberly Library is a 165,000-square-foot building in the heart of the Boca Raton campus. It provides faculty and student group study rooms, study carrels, seating for approximately 1,200, an electronic classroom, facilities for individuals with disabilities, an audiovisual media center, a computer lab, and the Rubin and Cindy Gruber Sandbox, a 3,400-square-foot artificial intelligence lab. In addition to the computers available for use throughout the library, the entire building is equipped for wireless connectivity. Reference assistance is offered in person or by telephone, email, chat or text. Library instruction sessions may be arranged for classes or individuals. A five-story addition provides students with a 24-hour study location and housing for several special collections.

The University Libraries' extensive holdings of approximately 3.7 million items include books, periodicals, government documents, microforms, maps, media and unique special collections in book arts, American Revolutionary War and Civil War documents, print and recorded music, rare books and manuscripts, and archival materials. The libraries also provide a wealth of electronic resources, including more than 580,000 full-text electronic books and 59,000 full-text electronic journals, plus access to nearly 500 databases.

An online catalog of library holdings provides a listing of materials in the FAU Libraries and the other 11 Florida public university libraries. The library pays for student and faculty access to hundreds of databases, many with full-text articles and books, which are available through the Internet both in the library or off-campus using EZproxy. Through memberships in the Southeast Florida Library Information Network (SEFLIN) and the Center for Research Libraries (CRL), the collections of area libraries and the CRL are available to FAU students, faculty and staff. Research materials not available

in the FAU Libraries' collection may be obtained through interlibrary loan.





# UNIVERSITY CATALOG

## SUB MENU



### GENERAL INFORMATION

[Introduction to FAU](#)[General Information](#)[Academic Calendar](#)[Academic Policies and Regulations](#)[Admissions](#)[Appendices](#)[Campus Maps](#)[Degree Programs](#)[Degree Requirements](#)[Faculty and Administration](#)[Financial Assistance Opportunities](#)[Programs for Enrichment and Specialization](#)[Registration and Records](#)[Student Services and Activities](#)[Tuition, Fees and Refunds](#)

### ACADEMIC PROGRAMS

### COURSE DESCRIPTIONS

## ACADEMIC POLICIES AND REGULATIONS

This Academic Policies and Regulations section is divided into the following subsections. The subsections appear in the following order:

- [Policies for All Students](#)
- [The Grading System](#)

- [Additional Policies for Undergraduate Students](#)
- [Additional Policies for Graduate Students](#)
- [Acceleration Mechanisms for Undergraduate Students](#)  
**including:**
  - [AICE](#)
  - [AP](#)
  - [CLEP](#)
  - [Excelsior](#)
  - [IB](#)
  - [Military Service College Credit \(DSST\)](#)
- [Student Code of Conduct Regulations](#)

## POLICIES FOR ALL STUDENTS

### ADMISSION TO PROFESSIONAL PROGRAMS

Certain courses of study at the University prepare students for entry into a profession, such as architecture, education, nursing and social work. Admission and retention in these programs may require adherence to a professional Code of Ethics. For the requirements of these degree programs, refer to the specific program's information in this catalog or to other materials provided by these programs.

### ATTEMPTED HOURS

Courses appearing on a student's schedule after the drop/add period are considered attempted hours. (See the [Academic Calendar](#) for the last day to drop/add without fee liability.) Courses that a student drops or withdraws from after the drop/add period are also considered attempted hours. Students will find their total attempted hours in their unofficial and official transcripts. For undergraduate students, attempted hours are used to calculate the Excess Hours Surcharge; click [here](#) or see the [Excess Hours Surcharge](#) information below. Refer also to the subsection [Drop/Add and Withdrawal](#) below for other pertinent information regarding dropped courses, withdrawing from courses and fee liability.

### ATTENDANCE

Students are expected to attend all of their scheduled University classes and to satisfy all academic

objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance.

Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absence and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

### **Attendance on First Day of Class**

Students are required to attend the first day of class for any course in which they are registered. If a student misses the first day of class for any reason, the student may be administratively withdrawn from the course.

### **Registration Requirement**

No student may attend a course for which he or she is not registered, either as a degree-seeking student or as a non-degree-seeking student.

### **Communication Devices**

Student use of communication devices in the classroom shall be determined by individual faculty members subject to applicable University regulations and policies and applicable state and federal law, including but not limited to the classroom recording provisions in Florida Statute 1004.097. Students should refer to the course syllabus for policies.

## **COURSE CREDITS AND LEVELS**

### **The Semester System**

Since fall 1981, courses taken at FAU are based on the semester system. FAU offers the traditional fall, spring and summer semesters. Each semester is divided into three terms: term 1 is the entire semester, term 2 is the first half of the semester and term 3 is the second half of the semester.

FAU also offers three intersession mini-terms: The 6-week fall intersession, the 3-week spring

intersession and the 7-week summer intersession. In addition, students may choose from three 5-week mini-terms during the fall and spring semesters only. Please refer to the [Academic Calendar](#) for additional information.

All credits awarded by FAU are semester credit hours. Quarter credits may be converted to semester credits by multiplying the quarter credits by  $\frac{2}{3}$  (i.e., 90 quarter credits = 60 semester credits).

### **The Trimester and Quarter Systems**

FAU began offering courses in fall 1964 with credit based on the trimester system. In fall 1967, when the State University System of Florida switched to the quarter system, FAU began offering courses in quarter credits and did so through summer 1981. Transcripts printed during this period were in quarter credits using this formula: quarter credit =  $\frac{3}{2}$  trimester/semester credit (i.e., 90 quarter credits = 60 trimester/semester credits).

### **Course Levels**

The level of a course determines whether it is an undergraduate or graduate course and whether it is an upper-division or lower-division course.

Courses at the 1000, 2000, 3000 and 4000 levels are undergraduate courses. Those at the 1000 and 2000 levels are considered lower-division courses; those at the 3000 and 4000 levels are upper-division courses. Courses at the 5000, 6000 and 7000 levels are graduate courses.

### **Course Numbering System**

For more information, refer to Florida's Statewide Course Numbering System (SCNS), Appendix C in the [Appendices section](#) of this catalog and to the [SCNS website](#).

## **CREDIT TOTALS POSTED ON THE FAU UNOFFICIAL AND OFFICIAL TRANSCRIPTS**

When looking at the unofficial or official transcript, please note that all credits attempted and earned at any previous institution will be listed. If a student repeated any course at an institution, that course will be noted on the transcript as a repeat. The student's GPA from each institution attended will also be posted. However, these courses and GPAs will have no effect on the student's academic standing at FAU. This work is listed under the headings of Institution, Transfer, Total Transfer and Cumulative.

All credits attempted and earned at FAU are posted on the transcript and used for computing the student's GPA and posting academic standing (such as good standing, probation, etc.). Any course repeated at FAU using the Forgiveness Policy will also be noted on the transcript. FAU coursework is

listed under the headings of Current Term, Cumulative, FAU Total, Overall and Total Institution.

Any course taken outside of FAU will not affect the student's FAU GPA nor academic standing.

## DROP/ADD AND WITHDRAWAL

Schedule changes may be made by accessing FAU Self-Service, available through [MyFAU](#), by the appropriate deadlines. Drop/add requests and withdrawals also may be made through MyFAU. Students should understand that adding late into a course might put them at a disadvantage because of the number of classes missed since the start of the semester. Further, not all professors allow students to enter their classes if they have missed the first class. Students must get permission from professors to enter a course late.

Students may generally add or drop courses during the first week of the term without incurring a fee and without receiving a “W” on the transcript for dropped courses. As deadlines vary by the semester and mini-term of registration, please refer to the [Academic Calendar](#) for specific dates to drop/add without fee liability and the deadline for dropping with a “W.”

### Limitations on Number of Withdrawals

Undergraduate students may not withdraw (with a grade of “W” or “ZR”) from more than two courses at the lower-division level (1000- and 2000-level courses) and from more than three courses at the upper-division or higher level (3000- and 4000-level courses; the limitation also applies to undergraduates taking graduate-level courses). Zero- and one-credit courses are excluded from these limitations. Exceptional Circumstance Withdrawals, which carry the “WM” grade, are excluded as well.

### Complete Course Withdrawal

*Undergraduate students wishing to drop or withdraw from all of their classes, please complete the following:*

1. Drop or withdraw from all but one class through MyFAU by the established deadlines.
2. Complete the online FAU Complete Course Withdrawal form through the MyFAU portal.
3. Once received, the Dean of Students Office will review the form and contact the student, if appropriate, to discuss possible strategies or interventions to ensure a timely graduation.
4. The Office of the Registrar will process the withdrawal from the student's final class(es).

*To drop or withdraw from courses during summer terms, students should follow the procedures*

above, but note the time frames in which to complete the drops. Refer to the [Academic Calendar](#) for specific deadlines (and consequences) to drop summer courses.

*Graduate students who wish to withdraw from a graduate program*, click [here](#) for details.

### **Additional Drop/Withdrawal Policies**

Dropped courses, specifically those dropped during the second week of the term after the drop/add period, those that receive a grade of “W” on the transcript and those that receive a grade of “F” on the transcript, will count as attempted hours on the student’s record. Refer to the [Attempted Hours](#) subsection above for information regarding this calculation and its consequences.

Proportionate dates for dropping and withdrawing will be established for courses that are offered in less than the normal semester.

Dropping or withdrawing from courses in which the student is involved in academic irregularities is not permitted.

The subsections Refund of Registration Fees and Repeated Enrollment Fee in the [Tuition, Fees and Refunds section](#) of this catalog may be of interest.

## **ENROLLMENT AND AWARDING OF CERTIFICATE PROGRAMS**

### **Declaring a Certificate and Deadline for Conferral**

Students should declare their interest in pursuing a certificate as early as possible during their enrollment at Florida Atlantic University. Undergraduate students should consult with their academic advisors to discuss enrollment in courses that lead to a certificate to ensure that the enrollment would not affect their timely graduation. Graduate students must officially apply to the academic department managing the certificate program.

Upon completion of all coursework associated with the certificate, students must submit an application for degree/certificate to their college (graduate students must submit the application to the Graduate College). The latest a student can request the awarding of the certificate would be:

- the last term of enrollment in the certificate program; or
- the last term of enrollment in a degree program for students concurrently enrolled in both a certificate and degree program.

Students may not re-enroll (as either degree seeking or non-degree seeking) to request a certificate in

which previously earned credits constituted the completion of the certificate.

### **Recency of Credit**

Students not concurrently enrolled in a degree program must complete all coursework toward the certificate no later than five years from initial enrollment in coursework that is applicable to the certificate. Degree-seeking students must complete certificate coursework within 10 years of the initial enrollment in coursework that is applicable to the certificate. Individual colleges/departments may establish more strict requirements for recency of credit.

### **Transfer Credit**

Upon approval by the academic program, no more than 25 percent of the credits required for the certificate can be transferred from another institution. Individual colleges/departments may establish more strict requirements for transfer credit.

## **EXCEPTIONAL CIRCUMSTANCE WITHDRAWAL (MEDICAL WITHDRAWAL)**

Students withdrawing from all classes in the current semester due to exceptional circumstances, such as illness of the student, military conscription, becoming primary care-giver to immediate family member or death of an immediate family member (parent, spouse, child, sibling or grandparent), may receive a refund, less non-refundable fees, if the request for exceptional circumstance withdrawal is granted.

Students seeking exceptional circumstance withdrawals should contact the Associate Vice President and Dean of Students at 561-297-3542 for the appropriate paperwork or visit

[www.fau.edu/dean/exceptional-withdrawal.php](http://www.fau.edu/dean/exceptional-withdrawal.php).

## **FAU EMAIL**

FAU's primary source for correspondence with students is through the student's FAU email. Messages sent by the University may include time-sensitive information regarding student accounts, announcements and class information. Students are responsible for checking their FAU email on a regular basis. FAU provides an Office 365 email account to all students upon admission and through 1 year after attending the University. For more information about FAU email, click [here](#). For issues with logging into MyFAU, contact the [Office of Information Technology Help Desk](#) or 561-297-3999.

## **FINAL EXAM PERIOD**

Fall and spring term final course examinations will be scheduled during the final week of the term (see

[Final Exam Schedule](#) for current term). Some final examinations may be scheduled on Saturdays and Sundays. The summer semesters do not have final examination periods; course examinations may be given at the discretion of the faculty member teaching the course.

## HONORS CONVOCATION

An Honors Convocation is held each year to recognize high scholastic attainment by individual students and superior teaching by individual faculty members. The program consists of the presentation of various awards to outstanding scholars, the Distinguished Teacher of the Year, the Distinguished Researchers of the Year and Distinguished Service Award recipients.

## GRADUATION PROCEDURE

Students must apply for a degree by the end of the third week of the semester in which they expect to graduate. The Application for Degree form is available on the Office of the Registrar's [website](#). It is the student's responsibility to meet all requirements for the degree. For the deadlines to submit an application for a degree, consult the [Academic Calendar](#).

**Note:** Undergraduate students should refer to the [expectations for timely graduation](#) elsewhere in this section to ensure the timely completion of their degree.

### **Graduating Student Survey**

As part of the degree application process, all undergraduate students are required to complete the Graduating Student Survey. This brief online survey provides a snapshot of students' post-graduation plans. University funding is tied to FAU's ability to report this information. All undergraduates who are graduating must complete the survey to obtain their official transcript. The link to complete the survey will be emailed to students two weeks prior to the last day of classes.

### **Commencement**

Commencement ceremonies are held at the end of each fall, spring and summer semester. Candidates for graduation will be emailed (to their FAU email address) specific information regarding participation in the ceremony and tickets for guests.

## INSTITUTIONAL COMPLAINT PROCESS

Students who have a complaint about their educational experience at Florida Atlantic University that is

not resolved through internal University procedures may contact the following agencies for assistance:

Southern Association of Colleges and Schools

Commission on Colleges

1866 Southern Lane

Decatur, Georgia 30033-4097

<https://sacscoc.org/app/uploads/2020/01/ComplaintPolicy-1.pdf>

State University System of Florida

Board of Governors

325 West Gaines Street, Suite 1614

Tallahassee, Florida 32399-0400

<https://www.flbog.edu/wp-content/uploads/ComplaintFormRevisedFinal.pdf>

Office for Civil Rights - Atlanta Office

U.S. Department of Education

61 Forsyth Street S.W., Suite 19T10

Atlanta, Georgia 30303-8927

Telephone: 404-974-9406

Fax: 404-974-9471; TDD: 877-521-2172

Email: [OCR.Atlanta@ed.gov](mailto:OCR.Atlanta@ed.gov)

## INTELLECTUAL PROPERTY

As a condition of enrollment, students agree that the FAU Intellectual Property Policy applies to University personnel as defined in that policy in section C.1.b., which includes students involved in research who use appreciable University support. These individuals may be involved in research that could result in valuable intellectual property in which FAU may assert its rights. Students agree to abide by the [Intellectual Property Policy of FAU](#) regarding the assignment of intellectual property rights to FAU and the ownership of this intellectual property by FAU. Students further agree that all records that are generated as a part of their research will remain the property of FAU, and upon termination of their research or assistance in research, they will return all such records to their FAU supervisor.

In the event that students are employed by an entity or perform research for an entity other than FAU, which may result in intellectual property, they agree to obtain appropriate prior consent from that entity to the above stated terms.

## POLICY FOR THE USE OF PHOTOGRAPHS AND VIDEOS

Florida Atlantic University routinely photographs and records video of college and departmental programs and student activities for educational and promotional purposes. These photographs and videos appear in official University marketing, fundraising and educational publications and materials, which include but are not limited to college and departmental brochures and newsletters, University websites (ex. FAU.edu and FAU.com), official University social media sites and other University publications and media outlets. For more information, contact Marketing and Creative Services at (561) 297-2080 or (561) 297-1352.

## RELIGIOUS ACCOMMODATION

In accordance with regulations of the Florida Board of Governors and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices and beliefs with regard to admissions, registration, class attendance and the scheduling of examinations and work assignments. University Regulation 2.007, Religious Observances, sets forth this policy for FAU and may be accessed on the FAU website at [www.fau.edu/regulations](http://www.fau.edu/regulations).

Any student who feels aggrieved regarding religious accommodations may present a grievance to the director of Equal Opportunity Programs. Any such grievances will follow Florida Atlantic University's established grievance procedure regarding alleged discrimination.

## THE GRADING SYSTEM

### UNDERGRADUATE AND GRADUATE GRADING

Florida Atlantic University has a plus/minus (+/-) grading system. Grades for the undergraduate and graduate courses are reported by the symbols indicated in the following table:

Grade	Grade Points per Credit
A	4.00
A-	3.67
B+	3.33

B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
D-	0.67
F	0.00
AU (Audit)	No credit
CR (Credit by Exam)	Credit only
I	Incomplete
NC	No credit
NR	No reported grade
P (Pass)	Undergraduates only, Credit only
S (Satisfactory)	Credit only
U (Unsatisfactory)	No credit
W (Withdrawal)	No credit
WM (Withdrawal— Exceptional Circumstance)	No credit

## ADMINISTRATIVE NOTATIONS

The following notations are not grades and are not assigned by instructors, but are entered administratively on the transcript when appropriate:

AU	Audit
CR	Credit only
NC	No credit
NR	No reported grade
W	Withdrawal
WM	Withdrawal (Exceptional Circumstance)
ZR	Drop retained (see note below)

The "AU" notation carries no credit and indicates that the student registered for the course only as an auditor.

A "CR" notation indicates that the student received credit for the course by examination (see Credit by Examination later in this section).

The "NC" notation indicates no credit and only pertains to General Education Program courses and selected lower-division courses. More information on the [NC grade](#) appears below.

The "NR" notation is temporarily added to the transcript by the Registrar's Office when an instructor does not turn in a grade for a student in a particular course by the deadline for submission in the semester the course was taken. The "NR" is not a grade, and courses so marked are not included in the grade point average. When the instructor submits a grade to the Registrar's Office, the "NR" notation is replaced.

A "W" notation indicates that the student withdrew from the course during the period after the end of Drop/Add week up through the **Last Day to Drop With a "W."** Please review the [Academic Calendar](#) for specific dates. The course appears on the transcript, but no credit is awarded and the course is not included in the grade point average.

The "WM" notation indicates that the student was granted an Exceptional Circumstance withdrawal.

The "ZR" notation appears next to courses that are dropped after the drop/add period. Drop retained courses are used in the calculation of [attempted hours](#). Note: The ZR notation is no longer in use, but noted here for historical purposes.

## CHANGES OF GRADE

Instructors may, for appropriate reasons, change the grade awarded to a student in a given course within one year of the end of the semester in which the course was taken. If the student received an Incomplete ("I") grade at the conclusion of the course and a letter grade was subsequently assigned, that grade may be changed within one year of the date it was assigned.

After more than one year has passed, the instructor must submit an email to their department chair/school director with the student's name, course subject and number, final grade, and the reason for the delayed grading. The department chair/school director would review and if approved, send to the college dean (or designee). The college dean (or designee) would review and if approved, forward to the Dean of Undergraduate Studies or the Dean of the Graduate College as is appropriate. The final approval is then sent to the Registrar's Office to update the student's record. For College of Medicine medical students, final approval of a late grade change will be completed by the College of Medicine Dean (or designee) and then sent to the College of Medicine Registrar's Office to update the student's record.

Grade changes other than "I" to a grade (e.g., "A" to "B," or "C" to "B") are documented in college records indicating the reason for the change (error in grading test, miscalculation, etc.).

Academic Actions are recalculated and updated as a result of grade changes. Once a degree has been awarded, all coursework leading to that degree is considered final. Grade changes or withdrawal petitions for coursework leading to an awarded degree may be considered only in cases of documented University error or if the coursework in question is documented as solely applying to a degree that is still in progress. All other grade change and withdrawal petition policies still apply.

## INCOMPLETE GRADES

Students who register for a course but fail to complete the course requirements without dropping the course will receive a grade of "F" from the course instructor. A student who is passing a course but has not completed all the required work because of exceptional circumstances may, with the approval of the

instructor, temporarily receive a grade of "I" (incomplete). The grade of "I" is neither passing nor failing, and it is not used in computing a student's grade point average. The "I" grade is not to be used to allow students to do extra work to raise the grade earned during the regular term. It indicates a grade deferral and must be changed to a grade other than "I" within a specified time frame, not to exceed one calendar year from the end of the semester during which the course was taken.

Students cannot graduate from any FAU degree program with a grade of incomplete ("I") on their academic record. Additionally, students pursuing the A.A. degree cannot graduate with an "I" grade on their transcripts.

Instructors use the online grading system to enter "I" grades and expectations for course completion. This includes the academic work the student is missing, the deadline for completion of that work and the grade that will be assigned if the work is not completed by the deadline. It is the student's responsibility to make arrangements with the instructor for the timely completion of this work.

### **Possible ways to resolve "I" grades are:**

1. Complete the work required in the "I" grade agreement made with the instructor.
2. Request that the default grade filed by the instructor be immediately recorded. With approval of either the instructor or department chair, a grade of "F" may be recorded if the instructor did not submit the required documentation with the "I" grade.
3. Petition to withdraw from the course, if exceptional circumstances show merit.

Changes to incomplete grades not resolved beyond the one-year deadline require approval at the University level. See Changes of Grade language, second paragraph above.

[Link to additional grading information for graduate students](#)

## **GRADING INFORMATION SPECIFICALLY FOR UNDERGRADUATE STUDENTS**

### **Standard Grading**

The grades of "A" through "D-" are passing grades, and credit is earned for courses in which they are awarded. Grades of "D+," "D" or "D-," while considered passing for undergraduate students, indicate weak performance. While the credits count toward graduation, some programs require certain courses to be passed with a "C" or better, or some other specific grade, to fulfill requirements for the major. No lower grade, such as a "C-" in this example, will satisfy these program requirements. (See the [Degree Requirements section](#) of this catalog for other requirements, such as Writing Across

Curriculum/Gordon Rule courses.) The grade of "F" is a failing grade and does not earn credit.

### **No Credit (NC) Grading Policy**

The No Credit grading policy is designed to enable degree-seeking Florida Atlantic University students the opportunity to progress through to a timely and successful graduation. This policy allows students to recover from initial difficulties they may experience in the transition to the rigors of university academic coursework.

This policy is limited to courses in the General Education Program and selected lower-division courses. Students will receive a grade of NC (No Credit) if their grade does not meet the minimum requirement. NC grades are not calculated in the student's grade point average (GPA). Grades that meet the minimum will appear as earned on the student's transcript and will be calculated in GPA.

#### ***The following conditions apply to this policy:***

1. The grade of NC is applied a maximum of four times to the listed courses during the student's academic career at FAU and applies only to courses carrying two or more credits.
2. Students receiving one or more NC grades are subject to the University's academic standing flags (probation, suspension, etc.) and must abide by the stipulations for continuation determined by their academic advisor.
3. The grade of NC may not be applied to repeated courses.
4. The NC grade may not be applied to grades awarded due to an academic irregularity. (See University Regulations, Chapter 4, Regulation 4.001, [Code of Academic Integrity](#).)
5. Students wishing to have their earned grade applied (and thus to remove their NC grade) must petition the Office of the Registrar.

#### ***The following courses (and the minimum required grade) fall under this policy:***

1. General Education mathematics and General Education Writing Across Curriculum (WAC or Gordon Rule Writing) courses: Minimum grade is C.
2. All other General Education courses: Minimum grade is D-.
3. MAT 1033 (prerequisite to General Education math course): Minimum grade is C.
4. CHM 1025 (prerequisite to General Education chemistry course): Minimum grade is D-.
5. Beginning foreign language courses, such as SPN 1120 and SPN 1121: Minimum grade is D-.

Students should understand that all coursework, including those courses for which the NC grade policy has been applied, counts in the calculation of [excess hours](#). Students might eventually incur additional fees in the pursuit of their degree. Therefore, they will need to chart their plan of study in consultation with an academic advisor.

## Satisfactory/Unsatisfactory Grading

Certain courses are designated by the department offering them to be graded on a Satisfactory/Unsatisfactory (S/U) basis. In such courses, the grade of "S" indicates satisfactory work and will be awarded credit for the course, but the course will not be included in the grade point average. The grade of "U" indicates unsatisfactory work, will not be awarded credit for the course and will not be included in the grade point average. "S" and "U" grades are not associated with letter grades of "A" through "F." The course syllabus will define what constitutes satisfactory work.

## University Forgiveness Policy (Repeated Courses)

The University Forgiveness Policy permits an undergraduate student to repeat an FAU course and allows only the higher grade to count in the grade point average. The policy does not remove the previous grade but eliminates the effect of that grade on the student's GPA by removing it from the computation. The Forgiveness Policy does not apply to non-degree or transient students. However, students can use forgiveness for classes taken as non-degree if they are degree seeking at the time of the repeat. Undergraduates are permitted to apply the Forgiveness Policy at any time prior to graduation.

Forgiveness Policy Request forms are available [here](#) and should be submitted after the course has been repeated. In the event that a student chooses to repeat a course that is no longer offered by the University, it is the prerogative of the academic unit that offered the original course to either deny the student's request or to designate an appropriate, related substitute course. All freshmen wishing to use the Forgiveness Policy must obtain the approval of an advisor.

### *The following conditions apply to the use of the Forgiveness Policy:*

1. Students may request forgiveness up to three times during their undergraduate study at the University. No more than two forgiveness requests may be at the 3000 and 4000 levels. Undergraduate students approved to take graduate-level courses (5000-level) toward their undergraduate degree may use one of the two upper-division (3000/4000 level) forgiveness requests toward a 5000-level course.
2. The Forgiveness Policy does not apply to S/U courses.
3. The repeated course must be taken at FAU.
4. Grades awarded due to academic irregularities cannot be removed from the GPA calculation under the Forgiveness Policy. (See University Regulations, Chapter 4, Regulation 4.001, [Code of Academic Integrity](#).)
5. For transferred courses, grade forgiveness by the prior institution will be honored by Florida Atlantic University.

Students should understand that all coursework, including those courses for which the Forgiveness Policy has been applied, counts in the calculation of **excess hours**. Students might eventually incur additional fees in the pursuit of their degree, so they will need to chart their plan of study in consultation with an academic advisor.

### **Grade Point Average (GPA) Computation**

Except as provided by the University Forgiveness Policy, an undergraduate student's grade point average is computed by dividing the sum of all grade points earned at FAU by the total number of credits in all courses for which the grades of "A" through "F" have been received. Courses in which notations/grades of "S," "U," "I," "P," "AU," "CR," "W," "WM" or "ZR" have been received will not be used in computing a student's grade point average.

## **GRADING INFORMATION SPECIFICALLY FOR GRADUATE STUDENTS**

**Passing grades:** The grades of "A" through "C," and "S," are passing grades. Note: The grades of "B-," "C+" and "C," while considered passing for undergraduate students, are often indicative of unsatisfactory work for graduate students and may not be accepted for some courses.

**Failing grades:** The grades of "C-," "D+," "D," "D-," "F" and "U" are failing grades. No credits are earned in courses in which grades of "AU," "CR," "F," "I," "U," "W," "WM" or "ZR" are received.

**Thesis/dissertation grades:** All thesis/dissertation credits receive a grade of "S" or "U."

The grades "S" and "U" are used to indicate satisfactory or unsatisfactory performance in courses approved for such grading.

A student who registers for a course but fails to meet the course requirements, without officially dropping the course, will receive a grade of "F" in the course. See Drop/Add section. In extraordinary circumstances, the faculty may record "NR," which will appear on the transcript as "NR" until the situation is resolved.

## **ADDITIONAL POLICIES FOR UNDERGRADUATE STUDENTS**

### **UNDERGRADUATE STUDENT CLASSIFICATION**

Undergraduate student classification is determined by the number of credits completed at all institutions as follows:

Classification	Credits Completed
Freshman	0-29
Sophomore	30-59
Junior	60-89
Senior	90 or more

Freshmen and sophomores are lower-division students, whereas juniors and seniors are upper-division students. Students who have not received a baccalaureate degree and students who are seeking a second baccalaureate degree are undergraduates.

## ACCELERATION MECHANISMS

Several accelerated programs are available to undergraduates. To learn about these, refer to [Acceleration Mechanisms for Undergraduate Students](#), appearing later in this section.

## CONTINUOUS ENROLLMENT/CATALOG YEAR

A student who has completed at least 1 credit during each academic year is considered to have satisfied the minimum requirements for “continuous enrollment.”

Catalog year determines the set of academic requirements (general education and the major) that must be fulfilled for graduation. A student who has been continuously enrolled at FAU may be awarded a degree by satisfying the degree requirements defined in any catalog in effect during the period of continuous enrollment leading up to graduation. Students must follow a single catalog, not a combination of catalogs, to meet graduation requirements. Catalog year academic program requirements are set each fall semester. First-Time-in-College (FTIC) students who begin their attendance at FAU in the summer will follow the academic program requirements of the fall catalog of the same year.

If a required course ceases to be offered prior to a student’s graduation, appropriate adjustments should be recommended by the student’s academic advisor and approved by the dean of the college offering the student’s major. The University will make every reasonable effort to honor the curriculum requirements appropriate to each student’s catalog year.

## DEADLINE FOR DECLARING A MAJOR

Students entering FAU with a clear choice of major should declare a major or pre-major early and devise a plan of study to ensure a timely graduation. Declaring a major early provides students with a sense of direction, strengthens their motivation and helps to inform their course choices. Students entering without a clear choice of major should begin exploring major choices (and career options associated with the majors) very early in their first year.

New freshmen and transfer students without an A.A. degree who have not declared a major or pre-major prior to admission will be required to enroll in SLS 1301, Career and Life Planning, in their first fall or first spring semester, as determined by their academic advisor. These students must declare a major or pre-major upon the anticipated earning of 45 credits (earned credit hours plus any credits for which the students are currently registered).

New transfer students with an A.A. degree must declare a major or pre-major at the time of admission to FAU.

Students with a pre-major must declare a major upon earning 60 credits.

Students must meet with their academic advisor to declare their major. Students can locate their academic advisor through the Success Network. For additional information on the Success Network, please visit [fau.edu/successnetwork/](http://fau.edu/successnetwork/).

## CHANGE OF MAJOR

Undergraduate students contemplating a change of major must meet with an academic advisor and carefully devise a plan of study to ensure a timely graduation. Please refer to the [Timely Graduation Policy](#) for credit requirement thresholds to change a major. Students can locate their academic advisor through the Success Network. For additional information on the Success Network, please visit [fau.edu/successnetwork/](http://fau.edu/successnetwork/).

Changing the major requires permission of the new department and satisfaction of the same academic qualifications as for new applicants for admission to that department. To change the major, an undergraduate must satisfy the prerequisite coursework required for the new major. Other restrictions may apply for admission to certain programs. Undergraduates who change their major are subject to the requirements of the new major in effect at the time of the change and may be subject to the Excess

Hours Surcharge (see below).

## DOUBLE MAJORS

Undergraduate students may pursue two majors. If the two majors are in different degrees, such as a B.A. and a B.S., students will receive the degree in the major that they have designated as their primary major. A double major does not require a minimum number of hours beyond those necessary for completing degree requirements (120 or more hours). To graduate with double majors, students must first declare the primary college and major of their choice on the application for admission. Then, undergraduates must inform the second college and department of their intent by completing a Second Major form, available in the Office of the Registrar. Undergraduates must consult with both departments to ensure that all courses needed for graduation are completed. The same catalog year must be used for both majors. A minimum of 21 credits must be applied exclusively toward requirements in the primary major. Students may not pursue a double major in the same academic program, such as a B.A. and B.S. in Biology.

**Note:** To ensure a timely graduation, students may pursue a double major only if the requirements can be completed without extending the anticipated graduation date. Please refer to the [Timely Graduation Policy](#) for credit requirement thresholds to declare a second major.

Students wishing to pursue a second major and receive two different degrees should refer to the requirements for a Second Baccalaureate Degree, appearing in the [Degree Requirements section](#) of this catalog.

## EXCESS HOURS SURCHARGE

[Florida Statute 1009.286](#) defines “excess hours” as credit hours that exceed the completion requirements for a baccalaureate degree program at state universities. For students enrolling in a state university or a Florida State College System institution for the first time in or after the fall 2009 semester, a tuition rate surcharge will be applied for excess hours. The surcharge is assessed only on the tuition portion of the semester hour cost, not on the fees. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>. The amount of the surcharge and the allowable “excess hours” are determined by the initial term of entry as indicated below:

1. Fall semester 2009 to summer semester 2011: students will pay a 50 percent tuition surcharge for

each credit hour beyond 120 percent in excess of the hours required. For a degree program of 120 required hours this means any credits above 144 will be subject to the surcharge.

2. Fall semester 2011 to summer semester 2012: students will pay a 100 percent tuition surcharge for each credit hour beyond 115 percent in excess of the hours required. For a degree program of 120 required hours this means any credits above 138 will be subject to the surcharge.
3. Fall semester 2012 and beyond: students will pay a 100 percent tuition surcharge for each credit hour beyond 110 percent in excess of the hours required. For a degree program of 120 required hours, this means any credits above 132 will be subject to the surcharge.

**In determining excess hours, the following will be included when calculating the number of hours taken by a student:**

- All credit hours taken at FAU, including courses the student fails;
- Courses that are dropped after the drop/add period;
- Courses that are repeated; exception: repeated courses for which the student has paid the repeat course surcharge as provided in [Florida Statute 1009.285](#);
- Courses from which a student withdraws;
- Transfer credit earned at another institution that is subsequently applied to the student's degree program at FAU.

**The law does allow for exceptions to the excess hour surcharge. For example, the courses taken under the following circumstances would not count as excess hours:**

- Articulated accelerated credit (e.g., Advanced Placement (AP), International Baccalaureate (IB), College Level Examination Program (CLEP), Dual Enrollment);
- Certification/Recertification and certificate program credits; see FAQ "[What about credit for Certification?](#)"
- Credits required for a dual major;
- Credits taken by active-duty military personnel;
- Credits withdrawn due to medical or personal hardship;
- Internship credit;
- Military Science credits in Reserve Officers' Training Corps (ROTC) programs.
- Remedial and English as a Second Language (ESOL) credit;

All students should make every effort to enroll in and complete only those courses that are required for their degree program. Repeating courses, changing majors and adding minors that are not required as part of a major may result in excess hours. Students should regularly review their degree audit and consult with an academic advisor to ensure that they are not enrolling in excess hours.

To see more information about the bullet points above, click [here](#) for the Excess Hours Surcharge Frequently Asked Questions.

## LIMITATION ON REPEATED COURSES

No course may be repeated more than once, whether at FAU or at any other institution, without the permission of the student's advising office: University Advising Services, in the case of students with 45 or fewer completed credit hours; the college advising office, for those students with greater than 45 completed credit hours; or the Honors College Academic Support Services office, for students at the Harriet L. Wilkes Honors College. To receive permission, the student must explain the reasons for the poor academic performance in past attempts and include a plan for success in the course on the next attempt. Those students who are requesting permission to enroll in the same mathematics course for the third time (or any subsequent attempt) may be required to first enroll in and successfully complete a math boot camp.

## REPEAT COURSE SURCHARGE

In accordance with [Florida Statute 1009.285](#), any student who registers for the same Florida Atlantic University undergraduate course more than two times will be charged a Repeat Course Surcharge for the third and subsequent enrollments in the course. An undergraduate-level course is numbered at the 1000, 2000, 3000 or 4000 level. All courses that are fee-liable will be counted as a registration. The amount of the charge will be determined each term, but is expected to represent the full cost of instruction. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>.

Exceptions to the Repeat Course Surcharge are individualized study, courses that are repeated as a requirement of a major and courses that continue over multiple semesters. Courses repeated more than two times to increase the grade point average or meet minimum course grade requirements will be eligible for the surcharge.

According to the statute, a student may be granted an exception to the Repeat Course Surcharge upon approval by provost based upon a review of the individual circumstances presented by the student to document exceptional circumstance. Review will be initiated by student petition, which must provide all appropriate documentation to support the claim of exceptional circumstance. A student may appeal only once per course. Petition forms are available for this purpose and can be obtained [here](#) or from the

Office of the Registrar.

## GOOD ACADEMIC STANDING

At Florida Atlantic University, students are in good standing if their cumulative (FAU) grade point average is 2.0 or higher **and** their current (most recent term) grade point average is 2.0 or higher.

### Satisfactory Academic Record

To graduate from Florida Atlantic University, an undergraduate must achieve a satisfactory academic record. A satisfactory academic record is defined as an average of "C" or better on all work attempted (2.0 on a 4.0 scale). Certain majors may require higher standards.

## ACADEMIC PROBATION

A “probation” status is assigned as a notice for undergraduate students and indicates there is an opportunity to raise the grade point average. The status is noted on the FAU transcript. Students on “probation” or “continued probation” may continue to enroll in classes but are strongly encouraged to take advantage of university resources designed to improve academic success, such as meeting with an academic advisor, utilizing the Center for Teaching and Learning for tutoring or visiting the ACCESS office for academic coaching. The full list of university resources is found on the Undergraduate Studies Academic Services [webpage](#).

Undergraduate students (both degree and non-degree seeking) who are unable to maintain a grade point average of 2.0 or higher on all coursework attempted in any semester will be on academic probation. Students on academic probation who are unable to earn a 2.0 grade point average on all coursework attempted in any semester but maintain a cumulative grade point average of 2.0 or higher at FAU will be continued on academic probation.

Students on academic probation who earn a 2.0 grade point average or higher in the next semester but whose cumulative grade point average at FAU is lower than 2.0 will be continued on academic probation.

Undergraduate students are removed from academic probation when they earn at least a 2.0 grade point average in all coursework attempted during the next semester **and** have a cumulative grade point average of 2.0 or higher at Florida Atlantic University.

## SUSPENSION AND DISMISSAL

An undergraduate student on academic probation who fails to earn a 2.0 grade point average in all work attempted in any term and who has a cumulative grade point average of lower than 2.0 at Florida Atlantic University will be suspended from the University. If at any time after having once been suspended, an undergraduate student fails to earn a 2.0 grade point average in all work attempted in any term and has a cumulative grade point average of lower than 2.0 at Florida Atlantic University, the student will be dismissed from the University.

## ACADEMIC ACTIONS FOR FRESHMEN

First-semester freshmen who fail to earn a 2.0 grade point average in their coursework will be required to enter the ACCESS Program in their second semester and abide by the terms of continued enrollment stipulated by their ACCESS academic coach/advisor. ACCESS Program information may be found in the [Student Services and Activities section](#) of this catalog.

Freshmen in their first year who complete their first spring semester (including those starting in the spring semester) with an FAU GPA (undergraduate GPA) below 2.0 (original grades, not the NC grade, are used in the calculation) must enroll in a minimum of 6 credits of summer coursework at FAU. The coursework taken must be chosen in consultation with an academic advisor. Those students who received a grade of "C-" or below, a Withdrawal (W) or an NC grade in their last mathematics course may be required, as well, to first enroll in and successfully complete a math boot camp.

Those freshmen on academic suspension at the end of the spring semester will have the suspension deferred to enable them to take summer courses. Suspension will be removed or applied at the end of the summer term based on the new GPA.

Students who fail to enroll in a minimum of 6 credits of summer coursework at FAU will not be allowed to enroll in fall coursework. Any exception to the summer coursework requirement due to financial and/or personal hardship must be approved through a petition to University Advising Services.

## RETURNING AFTER SUSPENSION

A suspended student is eligible to re-enroll after a minimum of one semester and will return on academic probation due to previous suspension. All students returning from suspension are required to meet with an academic advisor, at which time the terms of re-enrollment will be specified. Students

suspended with 59 or fewer earned credits will meet with an ACCESS academic coach/advisor. ACCESS Program information may be found in the [Student Services and Activities section](#) of this catalog. Students with 60 or more earned credits will meet with an academic advisor in their college.

## RETURNING AFTER DISMISSAL

A dismissed student, after a minimum of one year away from the University, may seek re-entry by reapplying to the University and petitioning for approval from the student's last college/major. If a student is seeking admission to a college different from the original college, the petition process will include notifying the new college regarding the student's intent. If at any time after having once been dismissed, an undergraduate student has a term and cumulative average below 2.0, the student will be dismissed from the University permanently.

## DEFERRED PROBATION, SUSPENSION AND DISMISSAL

If an undergraduate student (both degree and non-degree seeking) takes a single course (or a single course and linked laboratory) in any summer term and is unable to maintain a term GPA of 2.0 or higher, and if this would result in the student being placed on probation, suspension or dismissal, the action will be deferred until the end of the next term in which the student is enrolled. At that time, any academic action will be based on the grades earned in the "next enrolled term" and/or the cumulative FAU GPA. In the event of deferred action, the student's academic status will remain the same as at the end of the term prior to summer.

## DEAN'S LIST

The University recognizes superior academic performance at the end of each semester by the publication of a Dean's List for each college of the University. To be included in this list, an undergraduate student must complete a full-time load (at least 12 credits of graded coursework) with a grade point average of 3.5 or greater. The selection of Dean's List students is based on grades reported on the official grade reporting date for each semester. No changes are made to the list as a result of grade changes and removal of "I" grades. Graded coursework of "AU," "I," "NC," "NR," "P," "S," "U," "W," and "WM" are not used in determining eligibility for the Dean's List.

## PRESIDENT'S LIST

In recognition of superior academic achievement, the President's List is published at the end of each semester of the academic year. This list includes the names of all undergraduate students who have completed 12 or more credits of graded coursework and who have attained a grade point average of 4.0. The selection of President's List students is based on grades reported on the official grade reporting date for each semester. No changes are made to the list as a result of grade changes and removal of "I" grades. Graded coursework of "AU," "I," "NC," "NR," "P," "S," "U," "W," and "WM" are not used in determining eligibility for the President's List.

## GENERAL EDUCATION DIGITAL BADGES

In 2021, the state amended section (s.) 10007.25, Florida Statutes (F.S.) to require Florida public colleges and universities to award a “digital badge” upon completion of coursework intended to demonstrate career readiness. The digital badges are awarded in six Career Readiness Skills areas: Communication Skills, Applied Academic Skills, Critical Thinking Skills, Information Use, Technology Use, and Personal Qualities. The digital badge is automatically awarded to students at the end of the semester in which the student meets the requirements for the digital badge. Students who have earned equivalency through credit-by-examination will also have the badge awarded either at the end of their first semester of enrollment if the exam was taken prior to matriculation or at the end of the semester in which the exam was completed and reported to FAU. More information on digital badges is available [here](#).

## BACCALAUREATE DEGREES OF DISTINCTION

FAU recognizes superior academic performance by granting baccalaureate degrees of distinction to undergraduates who have earned at least 45 credits at FAU as follows:

- ***cum laude*** for an FAU average of 3.50;
- ***magna cum laude*** for an FAU average of 3.70;
- ***summa cum laude*** for an FAU average of 3.90.

An undergraduate transfer student may qualify for a degree of distinction based on all work taken at the upper division (other institutions and FAU), a minimum of 45 credits, if the student has not completed 45 credits at FAU.

An undergraduate earning a second baccalaureate may qualify for a degree of distinction based on all work completed at FAU, a minimum of 30 credits.

All undergraduates receiving degrees of distinction must be recommended for that distinction by the faculty granting that degree.

## TIMELY GRADUATION FOR UNDERGRADUATE STUDENTS

Florida Atlantic University is committed to ensuring that students admitted as undergraduates will make progress toward their degree and graduate in a timely manner. The University will make every effort to employ the advising and academic support personnel necessary to ensure student success. Students also must take responsibility for timely graduation. They must learn their degree requirements as listed in this University Catalog. They must review their degree audit (DARS) as least once every semester. They must meet with an academic advisor and review progress toward their degree at least once every semester.

### **Expectations for Timely Graduation**

In their first semester at FAU, students will be given an “Expected Graduation Date,” which they are expected to follow as they complete their degree requirements. The following rules apply:

1. Students admitted to FAU as freshmen are expected to complete their degree program within four years. (The typical degree program requires 120 credits.) To do so, students must successfully complete a minimum of 30 credits every year.
2. Transfer students who enter FAU with an A.A. degree and other transfer students entering with 60 or more transfer credits are encouraged to complete their degree program within two years.
3. Transfer students entering with 59 or fewer credits are encouraged to complete their degree program in three years.

To graduate within the timeframes specified above, students must successfully complete an average course load of 15 credits every semester. Students should enroll in summer courses so as to lighten their load in semesters when taking particularly difficult courses and to ensure progress toward their degree. Students in degree programs requiring more than 120 credits should take summer coursework in order to graduate in four years. All students entering FAU with fewer than 60 credits are required to earn a minimum of 9 credits in the summer.

Students unable to graduate within the expected graduation timeframes and unable to take a full-time course load in any given semester must secure the approval of an academic advisor and establish a plan

of study. These steps will ensure their continuing progression toward a degree.

All students who have completed 120 credits or more must only enroll in classes required for graduation. Exceptions are allowed with academic advisor approval only for those students needing to maintain a full-time course load due to financial aid or other requirements.

*Upon completing all requirements for their degree, students will graduate and have the opportunity to participate in commencement exercises. Those wishing to take additional courses after meeting degree requirements should consider a second baccalaureate degree, a graduate degree or coursework taken as a non-degree-seeking student.*

All students must understand that credits earned in excess of those hours required for the degree may be subject to [excess hours surcharges](#) mandated by the State of Florida. Students will need to carefully consider the ramifications of their course selection in consultation with an academic advisor. The addition of a minor or additional courses to their academic portfolio may sound appealing, but it also might result in considerable additional expense and a delay in degree completion. A change of major, too, may have the same results.

Students who have completed all requirements for their first major by the deadlines stipulated above must graduate, regardless of missing requirements for a minor, second major or certificate program. Students who have not completed their major requirements within the specified deadlines will graduate with a Bachelor of General Studies (B.G.S.) degree, assuming they have met requirements for this degree.

Students seeking an exception to this requirement should petition the student services office of the college overseeing their primary major. Students allowed an exception to the policy must meet with an academic advisor at least once every semester and follow the plan of study stipulated by the college student services office.

### **Minors, Certificate Programs, Second Majors, Dual Degrees and Change of Major**

To meet the graduation requirements outlined above, students must adhere to the following:

**Minors and Certificate Programs** – Students must declare their minor or enroll in a certificate program after earning at least 45 credits but before completing the final 30 credits required to graduate. Requests will be approved only if it is clear that the student can complete all requirements by the expected graduate date.

**Second Majors and Dual Degrees** – Students must apply for the second major or dual degree after

accumulating at least 45 credits but before completing the final 45 credits required to graduate. Requests will be approved only if it is clear that the student will meet all requirements by the expected graduate date.

**Change of Major** – All students seeking to change their major must meet with an academic advisor and carefully devise a plan of study to ensure a timely graduation. A change of major will not be considered for students who have completed 75 or more credits of coursework, unless there is a clear expectation that the graduation timeframe requirement will be met.

### **Exceptions for Timely Graduation Requirements**

Students seeking an exception to any Timely Graduation requirement should petition the student services office of the college overseeing their primary major.

## **GRADUATION POLICY FOR UNDERGRADUATE STUDENTS**

Florida Atlantic University helps students meet their academic goals by monitoring academic progress toward their degree.

If an undergraduate student has completed his or her respective degree requirements, the academic dean of the student's program confirms this and the student is eligible to be awarded the degree. The University reserves the right to award the degree. Once the degree is awarded, the student must be readmitted to Florida Atlantic University in order to enroll in any courses.

Students pursuing double majors or dual degrees must formally notify their academic dean of their intent. Undergraduate students pursuing dual degrees in different disciplines must obtain formal approval of their academic dean, following established University procedures for such approvals. For further details, refer to the [Double Majors](#) information in this catalog section.

## **PETITIONS**

### **Academic Petitions Process**

Students are expected to be familiar with and to conform to the regulations of the University. An academic petition may be filed when a particular academic requirement or regulation causes undue hardship for the student. Please note that this process does not concern itself with grade reviews (see University Regulations, Chapter 4, Regulation 4.002, [Student Academic Grievance Procedures for Grade Reviews](#)) nor does it act on any financial matters, including refunds for dropped classes or withdrawals (see Fee Petitions and Other Petitions below).

Degree-seeking undergraduate students with declared majors submit their petitions to their college's student services office.

Degree-seeking students with undeclared majors and non-degree-seeking students submit their petitions to University Advising Services.

The procedures to file an academic petition are as follows:

1. Petitioner must fill out an Undergraduate Petition form. The form may be picked up at the college's student services office or at University Advising Services. The petitioner must attach any pertinent information in support of the petition (i.e., medical reports, records, verifying letters, memos from instructors).

**Note:** No petition will be considered without the appropriate documentation. Students should consult their college's student services office or University Advising Services for advice on the type of documentation needed.

2. A typewritten statement describing the extenuating circumstances of the petitioner's request must be submitted with the Undergraduate Petition form.
3. Petitioner must return, signed and dated, the original page of the completed petition form to the college's student services office or University Advising Services, whichever applies.
4. The decision of the college or University Advising Services will be communicated to the petitioner in writing by mail or by email.
5. No petitions will be accepted after the student has graduated with a bachelor's degree.
6. Petitions related to academic withdrawals will not be accepted after one academic year from the end of the semester in which the course was taken.

### **Academic Appeals**

Appeals of petition decisions should be directed to the college dean or, in the case of decisions made by University Advising Services, to the dean of Undergraduate Studies. The decision of the dean (or dean's designee) constitutes final university action.

### **Fee Petitions**

Contact the Controller's Office if the petition relates to refunds, waivers or withdrawal from courses for other than exceptional circumstances.

### **Other Petitions**

Withdrawal for exceptional circumstances is a type of petition for which the Office of Student Affairs is responsible. This type of petition is discussed in detail in two sections of this University Catalog: [above](#) in this section and in the [Tuition, Fees and Refunds section](#).

## ADDITIONAL POLICIES FOR GRADUATE STUDENTS

### ACADEMIC APPEALS

Exceptions to graduate policies and procedures must be submitted for approval using Form 10-Request to Waive a University Requirement. All requests must be reviewed by the degree-granting program, the appropriate college dean and the dean of the Graduate College.

### ACADEMIC PROGRESSION PLAN

The minimum graduate program cumulative GPA requirement for degree-seeking graduate students is a 3.0. **Note:** Individual graduate programs may specify more stringent or specialized requirements beyond this minimum requirement. Students in graduate or professional degree programs whose cumulative grade point average for their graduate program falls below 3.0 at the end of a semester will be designated as not in good academic standing by the University and will be placed on academic probation. Graduate students on probation are expected to submit a signed and completed [Form 11 - Academic Progression Plan \(APP\)](#) to the Graduate College to continue in their program of study.

Students will develop an APP with their academic advisor or program coordinator, gather the necessary signatures and submit the form to the Graduate College. The major professor and program director/coordinator will ensure that the student on probation adheres to the approved APP (i.e., registers for the prescribed degree-applicable courses). The advisor or program coordinator may recommend dismissal instead of developing and approving an APP. In this case, the graduate program will initiate the dismissal process as defined by the [2015 Provost's memo](#).

For a student who fails to meet the requirements stipulated in the APP (i.e., fails to attain a 3.0 cumulative grade point average by the end of the next full term of enrollment), the graduate program will initiate the dismissal process unless a revised APP is submitted and approved by the Graduate College. A revised APP will be required if the department does not recommend dismissal, and pending acceptance by the dean of the Graduate College, the student will be allowed to continue in the degree program. Academic dismissal constitutes a separation of the student from the University for academic reasons. Students on dismissal will not be permitted to register for courses, including registering as a

non-degree student. A graduate student who is dismissed and subsequently enrolls as a non-degree-seeking graduate student, or as a graduate student at another institution, may not have this coursework count toward fulfilling degree requirements should the student ever be readmitted into the same graduate program at FAU.

## CHANGE OF MAJOR

Degree-seeking graduate students who change from one major to another must complete a new application, pay a \$30 application fee and have their credentials reviewed in the same manner as all other students applying for admission. Exceptions to this graduate policy and procedure must be submitted for approval using Form 16-Official Graduate Change of Program. All requests must be approved by the academic college and reviewed by the Graduate College.

## CONTINUOUS ENROLLMENT

Graduate students are required to enroll for at least 1 credit during at least two semesters (fall, spring or summer) of every academic year in order to remain eligible for the degree. Students who have been admitted to candidacy normally should enroll in the Thesis (6971) or Dissertation (7980) course in their departments. Those who have not yet been admitted to candidacy, but do not need to take additional courses, should enroll in an appropriate Directed Independent Study course or Advanced Research course.

Students who fail to maintain continuous enrollment, as defined above, lose their eligibility for the degree. In such cases, students are required to submit a new application and pay a new \$30 application fee. In addition, students may be required to register for additional credits of Directed Independent Study, Thesis or Dissertation in an amount equal to the number of such credits missed while not continuously enrolled.

## FULL-TIME ENROLLMENT AND PETITIONS

For fall and spring semesters: Graduate students registered for 9 or more credits are considered full-time, registrations for 7 credits are considered 3/4-time and registrations for 4.5 credits are considered half-time. For the summer semester: Graduate students registered for 6 credits are considered full-time, registrations for 5 credits are considered 3/4-time and registrations for 3 credits are considered half-time.

Graduate students may petition to take fewer credits and maintain full-time graduate student status. Students must meet the eligibility guidelines below to submit the petition (Form 10-Request to Waive a University Requirement) and must satisfy at least one of the following four conditions:

1. Master's degree students who have completed all required coursework as listed on their approved Plan of Study and are only enrolled in thesis credits may petition to be classified as full-time graduate students with an enrollment of at least 3 credits.
2. Doctoral degree students who have advanced to candidacy, have completed all required coursework as listed on their approved Plan of Study and are only enrolled in dissertation credits may petition to be classified as full-time graduate students with an enrollment of at least 3 credits.
3. All graduate students who have completed all coursework and thesis/dissertation credits as listed on their approved Plan of Study and are only enrolled to satisfy continuous enrollment requirements to complete their thesis or dissertation may petition to be classified as full-time graduate students with an enrollment of at least 1 credit.
4. All graduate students in their last semester of study, as verified by their approved Plan of Study, may petition to be classified as full-time graduate students with an enrollment of the remaining credits needed to complete their degree.

### **Eligibility Guidelines**

The following eligibility guidelines must first be satisfied prior to submitting the petition to seek full-time graduate student status. A separate petition must be submitted for each term in which this status is being sought. The student must have:

1. An approved Plan of Study on file in the Graduate College;
2. Maintained continuous enrollment during the previous 12-month period;
3. Enrolled in the minimum number of credits as stipulated by one of the four applicable conditions above.

## **GRADUATING SEMESTER ENROLLMENT**

### **For Thesis and Dissertation Students**

All graduate students seeking a degree that requires a thesis, dissertation or graduate thesis exhibition must register for at least one credit in the term in which the degree is to be awarded. Individual graduate degree programs may have additional requirements.

## **LEAVE OF ABSENCE**

Graduate students who find it necessary to temporarily suspend their studies may apply for leave of absence from graduate study. Leave of absence is intended for students who are unable to pursue their studies at all, rather than for students who are actively working on a thesis or dissertation after completing coursework. Leave of absence is approved by the Graduate College on the basis of the recommendation of the student's faculty advisor, department chair and college dean. To apply for a leave of absence, students use a Form 10-Request to Waive a University Requirement.

Degree-seeking students returning after an absence of more than one year will be subject to the following:

1. File a new graduate admissions application with appropriate documentation.
2. Re-establish Florida residency for tuition purposes.
3. Be in good academic standing (eligible to return) at FAU and at any institution attended since the last period of enrollment at FAU.
4. Provide official transcripts to the Graduate College from any institution attended since the last period of enrollment at FAU.
5. Submit proof of conformity to the Measles Immunization Policy of the State University System for graduate students under the age of 40 who have not previously submitted this information.
6. Students who were enrolled without being fully admitted into a graduate degree program will not be eligible to return.
7. Returning students will be admitted under the catalog guidelines in place at the time of re-admission.

## RECENCY OF CREDITS

No credit that is more than 10 years old at the time the Florida Atlantic University graduate degree is awarded may be counted toward that degree. Credits transferred into or applied to an FAU program are considered earned in the first semester of enrollment at FAU. **Note:** Individual graduate programs may have stricter recency of credit time limits.

## SATISFACTORY ACADEMIC PERFORMANCE

To remain in good academic standing, each graduate student at Florida Atlantic University must maintain a satisfactory record. A cumulative 3.0 average must be maintained on all degree requirements. This is the minimum quality necessary for a graduate degree at Florida Atlantic University. **Note:** Individual degree programs may have higher academic performance standards.

## TIME LIMIT FOR COMPLETION OF DOCTORAL DEGREE REQUIREMENTS

All requirements for the doctoral degree must be completed within five calendar years from the time the student passes the preliminary or qualifying examination and is admitted to candidacy for the doctoral degree. Leaves of absence do not extend the five-year limit. Extensions (in one-year increments) beyond the five-year limit will be considered through the submission of a formal [Form 10](#) petition. If the student's program coordinator, program director and/or department chair does not choose to approve an Extension of Time (EOT), then the student may no longer be enrolled in that program at Florida Atlantic University.

## TRANSFER CREDITS

Master's programs may accept a **maximum of 6 graduate credits** earned from another institution beyond a baccalaureate degree. Doctoral programs may accept a **maximum of 36 credits** earned elsewhere in an approved graduate program. A **maximum of 6 graduate credits** earned from another institution in a non-degree-seeking status may be transferred. The Graduate College reserves the right to request a professional evaluation of credits transferred from universities outside the U.S.

Acceptance of transfer credits for a course is dependent upon the following provisions:

1. The student received a grade of 3.0 or better on a 4.0 scale in the course to be transferred.
2. The course was taken at a regionally accredited institution.
3. The course is relevant to the graduate program in which the student is accepted, as judged by the graduate or supervisory committee of the department or program.
4. The course is listed on the official transcript received by the Graduate College.
5. The course was completed within six years preceding admission to the program.

Since many graduate programs do not accept transfer credits that have been applied to a completed degree, the student should consult the department offering the degree. See individual departments for particular degree requirements.

## WITHDRAWAL

A graduate student who wishes to officially withdraw from a graduate program must complete and

submit a Form 15-Graduate Program Official Withdrawal to the Graduate College. To access the form, please visit the Graduate College [website](#).

## ACCELERATION MECHANISMS FOR UNDERGRADUATE STUDENTS

FAU participates in numerous programs that afford students the opportunity to accelerate their degree programs if they so desire. The accelerated programs and policies appear below. **Note:** Test scores and credits awarded under each program are subject to change when mandated by the state. The scores and credits listed in the current catalog at the time the test is taken will determine the credits that will be awarded. The FAU catalog is the only official source to determine credit to be awarded by FAU for acceleration mechanisms.

### Correspondence Courses

### Undergraduate Enrollment in Graduate Courses

#### Credit by Examination, including:

- Advanced International Certificate in Education (AICE)
- Advanced Placement (AP)
- College Level Examination Program (CLEP)
- International Baccalaureate (IB)

### Excelsior College Examinations

#### Military Service College Credit:

- DSST Examination Program

## CORRESPONDENCE COURSES – UNDERGRADUATES

The University may award up to 10 credits of correspondence coursework toward admission provided the credit earned was "C" or higher and appears on the transcript of a regionally accredited college or university. Acceptability of such credit for advanced standing and/or degree credit will be determined by the individual college. Credit earned in this manner will be treated as transfer credit.

The State University System of Florida offers a program of about 80 courses by correspondence through the Division of Continuing Education of the University of Florida. Courses are offered in each of the following departments: Advertising, Anthropology, Art, Business, Criminology and Law, Economics, Education, English, English as a Second Language, Geography, Geology, Germanic and Slavic Languages, History, Journalism, Latin, Linguistics, Mathematics, Philosophy, Political Science, Psychology, Public Relations, Religion, Romance Languages, Sociology, Statistics, Study Skills and Textiles. Correspondence courses are also offered in the professional programs of Dietary Management, Insurance Pre-Licensing, Legal Assistant and Water Management. Program information and course details may be obtained [here](#), or by calling the Division of Continuing Education at the University of Florida: 800-327-4218 or 352-392-1711.

## UNDERGRADUATE ENROLLMENT IN GRADUATE COURSES

Undergraduate students may enroll in certain graduate courses for credit with permission of their department or the instructor of the course. A maximum of 12 graduate credits, taken before the student has fulfilled the baccalaureate degree requirements, may be applied to a graduate degree with the approval of the department. **No credits applied toward an undergraduate degree may be used to fulfill requirements for a graduate degree unless specifically approved by the department offering the graduate degree.**

## CREDIT BY EXAMINATION – UNDERGRADUATES

Credit by Examination may be earned from the **Advanced International Certificate in Education (AICE), Advanced Placement (AP) Policy, College Level Examination Program (CLEP) and International Baccalaureate (IB) Program**. Credit will not be awarded for examinations covering the same areas or for comparable college courses already completed. Students are urged to consult with the dean of their college in order to ascertain which examinations would be appropriate for their degree program.

A maximum of 45 credits may be earned by examination. Note that although college credit may be earned from AICE, AP and IB examinations, this credit may only be earned while the student is in high school. Credit earned in this manner will be treated as transfer credit.

## ADVANCED INTERNATIONAL CERTIFICATE IN EDUCATION (AICE)

The AICE program is an international, advanced secondary curriculum and assessment program equivalent to the British system of "A-Levels." For more information, visit the [AICE website](#).

<b>Examination</b>	<b>Course Equivalent</b>	<b>Passing Score</b>	<b>Credits</b>
Accounting (AS-Level)	ACG 2021	A-E	3
Accounting (A-Level)	ACG 2021, ACG 2071	A-E	6
Applied ICT-Information Communication Technology (AS-Level)	CGS 2060 or CGS 2100	A-E	3
Applied ICT-Information Communication Technology (A-Level)	TBA	A-E	6
Art and Design (AS-Level)	ART 2930	A-E	3
Art and Design (A-Level)	ART 2930, ART 2930	A-E	6
Biology (AS-Level)	BSC 1005, BSC 1005L	A-E	4
Biology (A-Level)	BSC 1010, BSC 1010L, BSC 2930	A-E	7
Business Studies (AS-Level)	GEB 2011	A-E	3
Business Studies (A-Level)	GEB 2011, GEB 2930	A-E	6
Chemistry (AS-Level)	CHM 1020, CHM 1020L	A-E	4
Chemistry (A-Level)	CHM 1025, CHM 1025L, CHM 2045, CHM 2045L	A-E	8
Classical Studies (AS-Level)	CLA 1010	A-E	3
Computer Science (AS-Level)	COP 2000	A-E	3

Computer Science (A-Level)	COP 2000, COP 2220	A-E	6
Computing (AS-Level)	CGS 1073	A-E	3
Computing (A-Level)	CGS 1073, CGS 1074	A-E	6
Design and Technology (AS-Level)	ETI 1482C	A-E	3
Design and Technology (A-Level)	ETI 1482C, ETI 2930	A-E	6
Digital Media and Design (AS-Level)	DIG 1000	A-E	3
Digital Media and Design (A-Level)	DIG 1004	A-E	3
Divinity (AS-Level)	REL 2210	A-E	3
Divinity (A-Level)	REL 2210, REL 2240	A-E	6
Economics (AS-Level)	ECO 1000	A-E	3
Economics (A-Level)	ECO 2013, ECO 2023	A-E	6
English (AS-Level) - English Language or Language and Literature in English)	ENC 1101	A-E	3
English (A-Level)	ENC 1101 and either ENC 1102 or LIT 2000*	A-E	6
English (AS-Level) - Literature in English	ENC 1101 or ENC 1102**	A-E	3
English (A-Level) - Literature in English	ENC 1101, ENC 1102 or ENC 1102, LIT 2100***	A-E	6
Environmental Management (AS-Level)	ISC 2051 (EVR 2017 may be substituted)	A-E	3
French Language (AS-Level)	FRE 1121	A-E	4
French Literature (AS-Level)	FRW 2930	A-E	3
French (A-Level)	FRE 2220, FRE 2221	A-E	8

Further Mathematics (A-Level)	MAC 2311 and MAC 2312 or STA 2023	A-E	8
General Paper	IDS 1110	A-E	3
Geography (AS-Level)	GEA 2000	A-E	3
Geography (A-Level)	GEA 2000, GEO 2200C	A-E	6
German Language (AS-Level)	GER 1121	A-E	4
German Language (A-Level)	GER 2220, GER 2221	A-E	8
Global Perspectives I (AS-Level)	ISS 1011 or ISS 1013	A-E	3
Global Perspectives Pre-U Independent Research II (A-Level)	ISS 1011 and ISS 1012	A-E	6
History, U.S. History, c. 1840-1941 (AS-Level)	AMH 2029	A-E	3
History, U.S. History, c. 1840-1990 (A-Level)	AMH 2029 and AMH 2020	A-E	6
History, European History, c. 1789-1917 (AS-Level)	EUH 2031	A-E	3
History, European History, c. 1789-1941 (A-Level)	EUH 2001 and EUH 2002	A-E	6
History, International Relations History, c. 1871-1945 (AS-Level)	WOH 2040	A-E	3
History, International Relations History, c. 1871-1991 (A-Level)	WOH 2040 and WOH 2043	A-E	6
Latin (AS-Level)	LAT 1121	A-E	4
Marine Science (AS-Level)	OCE 2001	A-E	3
Marine Science (A-Level)	OCE 2001, OCB 2000	A-E	6
Mathematics (AS-Level)	MAC 1147	A-E	4

Mathematics (A-Level)	MAC 1114, MAC 2311	A-E	7
Media Studies (AS-Level)	DIG 1000	A-E	3
Media Studies (A-Level)	DIG 1000 and DIG 1001 or DIG 1030	A-E	6
Music (AS-Level)	MUH 1001	A-E	3
Music (A-Level)	MUH 1001 and MUH 1011 or MUH 1012	A-E	6
Physics (AS-Level)	PHY 1020, PHY 1020L	A-E	4
Physics (A-Level)	PHY 2053, PHY 2053L, PHY 2054, PHY 2054L	A-E	8
Psychology (AS-Level)	PSY 1012	A-E	3
Psychology (A-Level)	PSY 1012, PSY 2930	A-E	6
Sociology (AS-Level)	SYG 1000	A-E	3
Sociology (A-Level)	SYG 1000	A-E	3
Spanish Language (AS-Level)	SPN 1121	A-E	4
Spanish Literature (AS-Level)	SPW 2930	A-E	3
Spanish (A-Level)	SPN 2220, SPN 2221	A-E	8
Thinking Skills (AS-Level)	PHI 2100	A-E	3
Thinking Skills (A-Level)	PHI 2100, PHI 2930	A-E	6
Travel and Tourism (AS-Level)	HFT 1000	A-E	3
Travel and Tourism (A-Level)	HFT 1000, HFT 2930	A-E	6

\* If credit already awarded for ENC 1101 or ENC 1102, may award ENC X121 and ENC X122.

\*\* Award credit for ENC 1102 if student has credit for ENC 1101.

\*\*\* Award credit for ENC 1102/LIT X006 if student has credit for ENC 1101.

## ADVANCED PLACEMENT (AP)

Advanced Placement (AP) examinations are given at the end of the year in high school Advanced Placement courses. Students may earn credits for Advanced Placement examinations taken in high schools as specified below. Credit will not be awarded for both AP and CLEP examinations covering the same course material. Official test scores sent directly from the testing center to Florida Atlantic University are required in order to award credit. To request official scores and for information visit the [AP website](#) or call 888-225-5427.

<b>Examination</b>	<b>Course Equivalent</b>	<b>Passing Score</b>	<b>Credits</b>
2-D Art and Design	ART 1201C	3-5	3
3-D Art and Design	ART 1203C	3-5	3
Art History	ARH 2000	3	3
Art History	ARH 2000, ARH 2051	4-5	6
Biology	BSC 1005, BSC 1005L	3	4
Biology	BSC 1010, BSC 1010L	4	4
Biology	BSC 1010, BSC 1010L, BSC 1011, BSC 1011L	5	8
Calculus AB	MAC 2311	3-5	4
Calculus BC	MAC 2311	3	4
Calculus BC	MAC 2311, MAC 2312	4-5	8
Calculus AB (subscore)	MAC 2311	3-5	4
Capstone Research	IDS 1930	3-5	3
Capstone Seminar	IDS 1350	3-5	3
Chemistry	CHM 1020, CHM 1020L	3	4

Chemistry	CHM 2045, CHM 2045L	4	4
Chemistry	CHM 2045, CHM 2045L CHM 2046, CHM 2046L	5	8
Chinese Language and Culture	FOL 2220	3	4
Chinese Language and Culture	FOL 2220, FOL 2221	4-5	8
Computer Science A	CGS 1075	3-5	3
Computer Science Principles	COP 2000	3-5	3
Drawing	ART 1300C	3-5	3
Economics: Macro	ECO 2013	3-5	3
Economics: Micro	ECO 2023	3-5	3
English Language and Composition	ENC 1101	3	3
English Language and Composition	ENC 1101, ENC 1102	4-5	6
English Literature and Composition*	ENC 1101 or LIT 1005	3	3
English Literature and Composition*	ENC 1101 and either ENC 1102 or LIT 1005	4-5	6
Environmental Science	ISC 2051	3-5	3
European History	WOH 2022	3	3
European History	WOH 2012, WOH 2022	4-5	6
French Language and Culture	FRE 2220	3	4
French Language and Culture	FRE 2220, FRE 2221	4-5	8
German Language and Culture	GER 2220	3	4
German Language and Culture	GER 2220, GER 2221	4-5	8
Government and Politics: Comparative	INR 2002	3-5	3
Government and Politics: United States	POS 2041	3-5	3

Human Geography	GEA 2000	3-5	3
Italian Language and Culture	ITA 2220	3	4
Italian Language and Culture	ITA 2220, ITA 2221	4-5	8
Japanese Language and Culture	JPN 2220	3	4
Japanese Language and Culture	JPN 2220, JPN 2221	4-5	8
Latin	LNW 2700 or LNW 2321	3-5	3
Music Theory	MUT 1001**	3-5	2
Music Theory	MUT 1111,*** MUT 1241	3-5	4
Physics 1	PHY 2053, PHY 2053L or PHY 2053C	3-5	4
Physics 2	PHY 2054, PHY 2054L or PHY 2054C	3-5	4
Physics C: Electricity/Magnetism	PHY 2054, PHY 2054L	3	4
Physics C: Electricity/Magnetism	PHY 2049, PHY 2049L	4-5	5
Physics C: Mechanics	PHY 2053, PHY 2053L	3	4
Physics C: Mechanics	PHY 2048, PHY 2048L	4-5	5
Psychology	PSY 1012	3-5	3
Spanish Language and Culture	SPN 2220	3	4
Spanish Language and Culture	SPN 2220, SPN 2221	4-5	8
Spanish Literature	SPW 2930	3	3
Spanish Literature	SPW 2930, SPW 2930	4-5	6
Statistics	STA 2023	3-5	3
United States History	AMH 2010	3	3

United States History	AMH 2010, AMH 2020	4-5	6
World History: Modern	WOH 2022	3-5	3

\* Based on previous credit earned.

\*\* MUT 1001 if composite score is 3 or higher.

\*\*\* MUT 1111 and MUT 1241 if both aural and non-aural subscores are 3 or higher.

## COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)

Undergraduate students may earn credits from the CLEP examinations provided they have not received comparable college credit in the CLEP examination area. Minimum scores are subject to change at any time. Official scores must be sent to FAU from the testing center. Scores cannot be posted from other institutions' transcripts. To obtain official scores, visit the [CLEP website](#). For a Transcript Request form and other pertinent information or call 800-257-9558.

Examination	Course Equivalent	Passing Score	Credits
Algebra, College	MAC 1105	50	3
American Government	POS 2041	50	3
American Literature	AML 2010	50	3
Biology, General	BSC 1005	50	3
Business Law, Introduction to	BUL 2241	50	3
Calculus	MAC 2233	50	3
Chemistry, General	CHM 1025	50	3
College Composition	ENC 1101, ENC 1102	50	6
Educational Psychology, Introduction to	EDP 2002	50	3
English Literature	ENL 1000	50	3

Financial Accounting	ACG 2001	50	3
French Language	FRE 1120	50	4
French Language	FRE 1120, FRE 1121	59	8
German Language	GER 1120	50	4
German Language	GER 1120, GER 1121	60	8
History of the United States I: Early Colonization to 1877	AMH 2010	50	3
History of the United States II: 1865 to Present	AMH 2020	50	3
Human Growth and Development	DEP 2004	50	3
Humanities	HUM 2235	50	3
Information Systems and Computer Applications	ISM 2000	50	3
Macroeconomics, Principles of	ECO 2013	50	3
Management, Principles of	MAN 2021	50	3
Marketing, Principles of	MAR 2011	50	3
Mathematics, College	MGF 1130 or MGF 1131	50	3
Microeconomics, Principles of	ECO 2023	50	3
Precalculus	MAC 1140	50	3
Psychology, Introductory	PSY 1012	50	3
Social Science and History	IDS 1000	50	3
Sociology, Introductory	SYG 1000	50	3
Spanish Language	SPN 1120	50	4
Spanish Language	SPN 1120, SPN 1121	63	8
Spanish with Writing	SPN 1120	50	4
Spanish with Writing	SPN 1120, SPN 1121	65	8

Western Civilization I: Ancient Near East to 1648	WOH 2012	50	3
Western Civilization II: 1648 to Present	WOH 2022	50	3

## INTERNATIONAL BACCALAUREATE (IB)

Florida Atlantic University will award credit based on scores achieved on IB diploma program examinations.

Students will be awarded up to 30 credits. Students with a score of 4 on subject areas will receive 3-4 credits for each examination. Students with a score of 5 or above will receive 6-8 credits.

Students who are awarded IB credit for ENC 1101, ENC 1102 or MAC 1105 will receive Gordon Rule credit for these courses.

For more information, visit the [IB website](#).

<b>Examination</b>	<b>Course Equivalent</b>	<b>Passing Score</b>	<b>Credits</b>
Biology	BSC 1005, 1005L	4	4
Biology	BSC 1005, BSC 1005L, BSC 1010, BSC 1010L	5-7	8
Business and Management	GEB 2011	4	3
Business and Management	GEB 2011, MAN 1930	5-7	6
Chemistry	CHM 1020C	4	3
Chemistry	CHM 1020C, CHM 2045, CHM 2045L	5-7	7
Computer Science	ISM 2000	4	3
Computer Science	ISM 2000, Elective	5-7	6
Design Technology	ETI 1410*	4	3

Design Technology	ETI 1410*, ETI 2930*	5-7	6
Economics	ECO 1000	4	3
Economics	ECO 2013, ECO 2023	5-7	6
Ecosystems and Societies	EVR 2017	4	3
Ecosystems and Societies	EVR 2017, EVR 2930*	5-7	6
English Language A: Language and Literature	ENC 1101	4	3
English Language A: Language and Literature	ENC 1101, ENC 1102	5-7	6
English Language A: Literature	ENC 1102 or LIT 2000	4	3
English Language A: Literature	ENC 1102 and LIT 2000	5-7	6
Environmental Systems	ISC 2050*	4	3
Environmental Systems	ISC 2050* , ISC 2930*	5-7	6
Film Studies	FIL 2000	4	3
Film Studies	FIL 2000, FIL 2002*	5-7	6
French Language B	FRE 1121	4	4
French Language B	FRE 1121, FRE 2220	5-7	8
Further Mathematics (Advanced Mathematics)	MHF 1202*	4	3
Further Mathematics (Advanced Mathematics)	MHF 1202*, MHF 1209*	5-7	6
Geography	GEA 2000	4	3
Geography	GEA 2000, GEO 2200C	5-7	6
German Language B	GER 1121	4	4
German Language B	GER 1121, GER 2220	5-7	8
Global Politics (SL)	INR 2002	4-7	3
Global Politics (HL)	INR 2002	4	3

Global Politics (HL)	INR 2002, INR 2003*	5-7	6
History**	WOH 2022	4	3
History**	WOH 2022, WOH 2012 or AMH 2010, AMH 2020	5-7	6
Information and Technology for a Global Society	CGS 1001*	4	3
Information and Technology for a Global Society	CGS 1001*, CGS 1002*	5-7	6
Islamic History	ASH 1001*	4	3
Islamic History	ASH 1001*, ASH 1002*	5-7	6
Italian Language B	ITA 1121	4	4
Italian Language B	ITA 1121, ITA 2220	5-7	8
Latin	LAT 2220	4	4
Latin	LAT 2220, LNW 2930*	5-7	7
Marine Science	BSC 2311C* or OCB 2000C* or OCB 2010C*	4	3
Marine Science	BSC 2311C* or OCB 2000C* or OCB 2010C*	5-7	6
Mathematical Studies	MAT 1033	4	3
Mathematical Studies	MAT 1033, MGF 1130	5-7	6
Mathematical Studies (SL)	MAC 1105 (for exams taken after 5/16/18)	4-7	3
Mathematics	MAC 1147	4	4
Mathematics	MAC 1147, MAC 2233 or	5-7	7

	MAC 2233, MAC 2311		
Mathematics: Analysis and Approaches (SL)	MAC 1105	4	3
Mathematics: Analysis and Approaches (SL)	MAC 1105, MGF 1130	5-7	6
Mathematics: Analysis and Approaches (HL)	MAC 1147	4	4
Mathematics: Analysis and Approaches (HL)	MAC 1147, MAC 2311	5-7	8
Mathematics: Applications and Interpretations (SL)	MAC 1140	4	3
Mathematics: Applications and Interpretations (SL)	MAC 1147, MGF 1130	5-7	7
Mathematics: Applications and Interpretations (HL)	MAC 1140	4	3
Mathematics: Applications and Interpretations (HL)	MAC 1147, MGF 1130	5-7	7
Music	MUL 2010	4	3
Music	MUL 2010 and MUL 2102*	5-7	6
Philosophy	PHI 2010	4	3
Philosophy	PHI 2010 and PHI 2100	5-7	6
Physics	PHY 1020*, PHY 1020L*	4	3
Physics	PHY 2053, PHY 2053L, PHY 2054, PHY 2054L	5-7	8
Psychology	PSY 1012	4	3
Psychology	PSY 1012 and PSY 2930	5-7	6
Social and Cultural Anthropology	ANT 2410	4	3

Social and Cultural Anthropology	ANT 2410 and ANT 2000	5-7	6
Spanish Language B	SPN 1121	4	4
Spanish Language B	SPN 1121, SPN 2220	5-7	8
Theatre Arts	THE 2000	4	3
Theatre Arts	THE 2000 and a 1000- or 2000-level (min. 3 credits), one semester elective course***	5-7	6
Visual Arts	ART 1014	4	3
Visual Arts	ART 1014, ARH 2000	5-7	6
World Religions (SL)	REL 2300*	4-7	3

\* Not an existing FAU course; elective credit is provided.

\*\* All students study 20th century world history. Higher-level students also study a 100-year period between 1750 and the present in one of several regions. Standard-level students complete a project in any history subject. The second course for which credit is awarded is dependent on the area of specialization.

\*\*\* The elective course must be in theatre history, performance, stagecraft, theory or literature, depending on student's strengths.

## EXCELSIOR COLLEGE EXAMINATIONS

The table below provides information related to the Excelsior exam and subtest areas for which credit is awarded for undergraduate students. More detailed information can be found at the [Excelsior website](#).

<b>Examination</b>	<b>Course Equivalent (all courses receive 3 credits)</b>	<b>Passing Score</b>
Abnormal Psychology	CLP 1140	C
Earth Science	ESC 2000 or GLY 2000	C

English Composition	ENC 1101 or ENC 1102	C
Ethics: Theory and Practice	PHI 1630	C
Foundations of Gerontology	GEY 1000	C
Human Resources Management	MAN 1300	C
Introduction to Music	MUL 2010 (for exams taken after 5/22/2019)	C
Introduction to Music	MUH 2011 (for exams taken on or before 5/22/2019)	C
Labor Relations	MAN 2400	C
Lifespan Developmental Psychology	DEP 2004	C
Managerial Accounting	ACG 2071	C
Microbiology	MCB 1000	C
Principles of Marketing	MAR 2011	C
Psychology of Adulthood and Aging	DEP 1401	C
Workplace Communication with Computers	OST 2335	C
World Conflicts since 1900	WOH 2040	C

## MILITARY SERVICE COLLEGE CREDIT

Consistent with [Florida Board of Governors Regulation 6.013](#), Military Veterans and Active Duty, undergraduate students who are or were members of the United States Armed Forces may earn appropriate academic college credit for college-level training and education acquired in the military. College credit will be granted to students with military training and coursework that is recognized by the American Council on Education (ACE), subject to institution transfer practices and limitations on amount, level, etc., of transfer credit. Military training coursework will be subject to the same treatment as any other transfer credit evaluated, with the utilization of the ACE *Guide to the Evaluation of Educational Experiences in the Armed Services* for determining equivalency and alignment of military

coursework with applicable University courses. If the coursework fulfills a general education, major course, and/or degree requirement, consistent with the college/department policy, the credit will be granted for meeting that requirement toward graduation. Applicable course credit may include elective course credit toward the degree.

To apply for such credit, military veterans or active duty service members should submit one of the following forms of documentation and/or evidence of appropriate test scores on the DSST Examination Program (formerly DANTES Subject Standardized Tests) in college and technical subjects. See DSST exams and scores below the required documentation details.

### Required Documentation

*For the United States Army, United States Coast Guard, United States Marine Corps, United States Navy:*

Request a military transcript or DD214/DD295 Course Completion Certificates.

*For the United States Air Force:*

Request a Community College of the Air Force transcript (if applicable) from

<https://www.airuniversity.af.edu/Barnes/CCAF/Display/Article/803247/> or DD214/DD295 Course Completion Certificates.

*For the Department of Defense:*

Request a Defense Language Institute transcript (if applicable).

## DSST EXAMINATION PROGRAM

The table below provides information related to the DSST exams for undergraduate students. For more details, visit the [DSST website](#).

Examination	Course Equivalent (all courses receive 3 credits)	Passing Score (exams prior to 2008)	Passing Score (exams 2008 to present)*
A History of the Vietnam War	AMH 2059	44	400
Art of the Western World	ARH 2000 0115	48	400

Astronomy	AST 2002	48	400
Business Ethics and Society	GEB 2441	400	400
Business Law II	BUL 2242	44	--
Business Mathematics	QMB 1001	48	400
The Civil War and Reconstruction	AMH 1056	47	400
Computing and Information Technology (formerly Introduction to Computing)	CGS 2000 or CGS 2060	45	400
Criminal Justice	CCJ 1000	49	400
Environment and Humanity	EVR 2017	46	400
Environmental Science	EVR 1001	--	* 400 (for exams taken after 5/16/18)
Ethics in America	PHI 1630	46	400
Foundation of Education	EDF 1002	46	400
Fundamentals of College Algebra	MAT 1033	47	400
Fundamentals of College Algebra	MAC 1105	--	* 400 (for exams taken after 5/16/18)
Fundamentals of Counseling	PCO 2202	45	400
Fundamentals of Cyber Security	CIS 2350 or CIS 2354	--	400
General Anthropology	ANT 2000	47	400
Health and Human Development (formerly Here's to Your Health)	HSC 2100	48	400
History of the Soviet Union	EUH 1066	45	400

## (formerly Rise and Fall of the Soviet Union)

Human Resources Management	MAN 4301	46	400
Human/Cultural Geography	GEO 1400	48	400
Introduction to Business	GEB 2011	46	400
Introduction to Law Enforcement	CCJ 1100	45	400
Introduction to the Modern Middle East	ASH 1044	47	--
Introduction to World Religions	REL 2300	48	400
Lifespan Developmental Psychology	DEP 2004	46	400
Math for Liberal Arts	MGF 1106	--	400
Management Information Systems	ISM 3011	46	400
Money and Banking	ECO 4223	48	400
Organizational Behavior	MAN 3025	48	400
Personal Finance	FIN 3140	46	400
Physical Geology	GLY 2010C	46	--
Principles of Advanced English	ENC 1101	--	400
Principles of Finance	FIN 3403	46	400
Principles of Financial Accounting	ACG 2021	47	--
Principles of Physical Science 1	PSC 2121	47	400
Principles of Public Speaking	SPC 2608	47	400
Principles of Statistics	STA 1014	48	400
Principles of Supervision	MNA 1345	46	400
Substance Abuse	HSC 1140	49	400
Technical Writing	ENC 1210	46	400

# STUDENT CODE OF CONDUCT REGULATIONS

## RESPONSIBILITY AND DISCIPLINE

Florida Atlantic University is dedicated to the intellectual, social and moral development of students in order to provide responsible leaders who can work effectively in a democratic society.

Under the authority granted by the Florida Board of Governors, the University has the right and responsibility to determine who shall be admitted to the institution, the conduct or behavior acceptable to the institution and under what conditions one may continue as a student. As a condition for admission to the University, students agree to abide by the policies and regulations of the institution. The President of the University has responsibility for student conduct and discipline. That responsibility shall be exercised through the University Student Code of Conduct, which is administered through the [Office of Student Conduct](#), a department within the Division of Student Affairs.

Every student is subject to federal and state law, respective county and city ordinances and all Florida Board of Governors and University rules and regulations. Violations of these laws, ordinances or rules and regulations may subject the violator to appropriate disciplinary action by University authorities.

The President or approved designee shall have the authority, after notice to the student of the charges and a hearing thereon, to expel or otherwise discipline any student found to have violated a rule or regulation of the Florida Board of Governors or the University or any law or ordinance.

The President or approved designee shall have the authority to order any student to cease and desist any activity that in the President's or designee's judgment disrupts the orderly operation of the institution. Any student failing to abide by the cease and desist order shall be subject to interim suspension pending a hearing.

The conviction of a student for a criminal offense of a kind that interferes with the educational or orderly operation of the University or of a kind which, if the student were allowed to remain enrolled, would endanger the health, safety or property of members of the academic community, shall be sufficient grounds for expulsion or other disciplinary action against such student.

Except as provided above, in all student violations of non-academic rules and regulations, a student shall be afforded adequate notice of charges, a reasonable time to answer, a fair and impartial hearing and a decision. The final administrative appeal shall be to the President or approved designee who may

reopen the hearing, order a new hearing or accept determination of sanctions. In the conclusion of the appeal process, the decision of the President or president's designee shall be final. For full details of the FAU Student Code of Conduct, see [University Regulation 4.007](#).

## CODE OF ACADEMIC INTEGRITY

Florida Atlantic University students are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards because it interferes with the University mission to provide a high-quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility.

The FAU Code of Academic Integrity describes the expectations for students' ethical academic conduct and the procedures for charging a student with a violation of the Code. It also outlines the procedures for students to appeal such charges.

Academic dishonesty includes any act designed to obtain, or assist another in obtaining, academic credit, grades or other recognition, which is not properly earned, or behavior that improperly advances, protects or diminishes the academic status of individuals or the University. Examples of academic dishonesty include, but are not limited to, the following:

### 1. Cheating

- a. The unauthorized use of notes, books, electronic devices or other study aids while taking an examination or working on an assignment.
- b. Providing unauthorized assistance to or receiving assistance from another person or entity during an examination or while working on an assignment.
- c. Having someone take an exam or complete an assignment in one's place.
- d. Securing an exam, receiving an unauthorized copy of an exam, sharing a copy of an exam or uploading an exam or exam questions online.

### 2. Plagiarism

- a. The presentation of words from any other source or another person as one's own without proper quotation and citation.

- b. Putting someone else's ideas or facts into your own words (paraphrasing) without proper citation.
  - c. Turning in someone else's work as one's own, including the buying and selling of term papers or assignments.
3. Other Forms of Dishonesty
  - a. Falsifying or inventing information, data or citations.
  - b. Failing to comply with examination regulations or failing to obey the instructions of an examination proctor.
  - c. Submitting the same paper or assignment, or part thereof, in more than one class without the written consent of both instructors.
  - d. Any other form of academic cheating, plagiarism or dishonesty.

For full details of the FAU Code Academic Integrity, see [University Regulation 4.001](#).

## UNIVERSITY REGULATIONS

Additional rules regarding student responsibility and discipline and a host of other regulations are set out in the Florida Atlantic University Regulations. University Regulations are subject to change without notice. For the University Regulations in effect at any given time, visit [www.fau.edu/regulations](http://www.fau.edu/regulations).





# UNIVERSITY CATALOG

## SUB MENU



### GENERAL INFORMATION

[Introduction to FAU](#)[General Information](#)[Academic Calendar](#)[Academic Policies and Regulations](#)[Admissions](#)[Appendices](#)[Campus Maps](#)[Degree Programs](#)[Degree Requirements](#)[Faculty and Administration](#)[Financial Assistance Opportunities](#)[Programs for Enrichment and Specialization](#)[Registration and Records](#)[Student Services and Activities](#)[Tuition, Fees and Refunds](#)

### ACADEMIC PROGRAMS

### COURSE DESCRIPTIONS

## ADMISSIONS

This Admissions section is divided into the following subsections. The subsections appear in the following order:

- [Undergraduate Admissions](#)
- [Transfer Admissions](#)

- [Undergraduate International Admissions](#)
- [Harriet L. Wilkes Honors College Admissions](#)
- [University Honors Program Admissions](#)
  
- [Graduate Admissions](#)
- [Graduate International Admissions](#)
- [Additional Admission Information for All Students](#)
- [Non-Degree-Seeking Students](#)
- [Residency Information](#)

## ADMISSION

Anyone who wishes to pursue a degree program offered by Florida Atlantic University should apply to become a degree-seeking student. Applicants should consult the requirements for each type of admission (freshman, transfer, international or graduate) detailed in this section of the catalog. Students seeking undergraduate admission may apply [online](#). Graduate applicants may also apply [online](#).

Applications should be accompanied or followed by the documentation required for each type of admission. Persons who seek to pursue a master's, specialist's or doctoral degree should consult the subsection on Graduate Admissions appearing in this section.

## READMISSION

Students who were accepted to FAU in the past and enrolled with a degree-seeking status, and who now wish to return to the University after an absence of at least three consecutive semesters (e.g., fall, spring and summer semesters) must apply for readmission.

Degree-seeking students returning after an absence of more than a year may also be subject to the following:

1. If the last enrollment was more than one year (three consecutive semesters) ago, the student must file a new admission application with the appropriate documents and submit a new application fee of \$30.
2. The student must be in good standing (eligible to return) at FAU and at any institution attended since the last period of enrollment at FAU.
3. If the student has attended another institution since the last period of enrollment at FAU, official transcripts with all work attempted/completed must be forwarded directly to the FAU Office of

Admissions by the registrar of the other institution(s).

4. Military personnel out for three or more consecutive semesters because of military service are required to submit a new application and official transcripts. They will be readmitted consistent with the provisions of Presidential Executive Order 13607, Section 2(e), provided that satisfactory academic progress was being made prior to the interruption of their studies due to service requirements. The application fee will be waived upon receipt of a copy of their military orders.
5. Any readmission applicants who feel they qualify as Florida Residents for tuition purposes must complete the Residency Classification portion of their new application and once admitted, complete a new [Residency Affidavit](#). Failure to provide all relevant information and supporting documents could result in a Non-Florida/out-of-state status regardless of residency status since last attending FAU.
6. Returning students must submit proof of conformity to the FAU Immunization Policy if they have not already done so. Refer to [Student Health Services](#).

## CHANGE OF ENTRY

Admission to FAU is for a specific term, and students must enroll during that term. To change the entry term, submit to [admissions@fau.edu](mailto:admissions@fau.edu) the [Change of Entry Date form](#). While admission is for a specific term, applications and fees are valid for one academic year (three consecutive semesters). A student's request for a change of entry term must be received by the stated [application deadlines](#). If a student attends another collegiate institution in the interim, an official transcript of all work attempted/completed is required. A new application and the application fee are required when admission is changed to a term that begins more than three semesters after the initial admission entry term. (Example: Fall term to a future fall term = new application and fee are required.) Before submitting a Change of Entry Date form, note that admission to the initial term of entry does not guarantee admission to a future term. The Office of Undergraduate Admissions reserves the right to change an applicant's term of entry due to class size or competitiveness of the applicant pool.

## FOREIGN LANGUAGE ADMISSION REQUIREMENT

All admitted undergraduate students must satisfy the statewide foreign language admission requirement. Students must complete a two-year foreign language sequence in high school or the equivalent proficiency at the college or university level. American Sign Language satisfies the criteria of a foreign language for the purposes of this requirement.

**Note:** The Foreign Language Admission Requirement is different from the Foreign Language

Graduation Requirement. See the [Degree Requirements section](#).

## UNDERGRADUATE ADMISSIONS

### ADMISSION POLICY

The Office of Undergraduate Admissions provides information to prospective students and the general public about the University through on-campus and off-campus communications, counseling, presentations, tours and informational services. Those interested in learning about the educational opportunities and degree programs available at the University should contact the Office of Undergraduate Admissions, Florida Atlantic University, 777 Glades Road, Boca Raton, FL 33431 (561-297-3040) or visit the Undergraduate Admissions [website](#).

All procedures related to application and admission to University undergraduate degree programs are handled in the Office of Undergraduate Admissions. The University actively encourages applications from all persons who are motivated to pursue university studies and who have obtained adequate academic preparation to succeed. All interested persons, regardless of race, color, religion, gender, national origin, age, sexual orientation, physical disablement, marital status or veteran status, are encouraged to submit applications. The admission review process does not discriminate on the basis of any of these factors.

The Office of Undergraduate Admissions maintains the confidentiality of all application documentation. Undergraduate applications and all accompanying materials become the property of Florida Atlantic University.

### DEADLINE DATES

The entry terms for degree programs are fall, spring and summer. All students are encouraged to apply as early as possible. Freshman applications completed by the **priority filing date** will be assured of review. All documentation in support of the application must be submitted by the filing date. Freshman applications received after the priority filing date will be considered for admission on a space-available basis or for the following spring term.

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#### Applicants

#### Deadline Dates

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*Fall*

*Spring*

*Summer*

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Freshman*	May 1	August 15	February 15
Transfer	July 1	November 1	April 15
Returning FAU Students	July 1	November 15	April 15
International Students	April 1	October 1	February 15

\* *Freshman Priority deadline date for Fall is February 15.*

## APPLICATION CATEGORIES FOR DEGREE-SEEKING STUDENTS

Credits Completed	Application Category
0-11	Freshman
12-59	Lower-Division Transfer
60+	Upper-Division Transfer
Bachelor's Degree	Second Bachelor's Student

## REQUIRED CREDENTIALS AND DOCUMENTATION

### Application and Application Fee

A completed, signed application for admission is required. A non-refundable \$30 application fee payable in U.S. dollars drawn on a U.S. bank, an international money order in U.S. dollars or a U.S. traveler's check is required prior to a student's admission. The application is [online](#).

Please note: It is important to provide the correct email address for the applicant. Communication to the applicant regarding the application process will be through email. Students will be able to check their status online by going to [appstatus.fau.edu](http://appstatus.fau.edu). Application decisions will be accessible through the online status check. Only those students receiving an acceptance to FAU will receive a letter through the mail. Students whose admission has been deferred or who have not been offered admission will receive communication via email. Students who have previously applied to FAU should use a new or different email address in their new application.

### Lower-Division Course Requirements

Freshman and sophomore students taking lower-division courses must attend classes on the Boca Raton campus or through the Harriet L. Wilkes Honors College in Jupiter.

## Test Scores

First-year applicants are required to submit official CLT/SAT/ACT scores to receive an admission decision. Official results of CLT or SAT or ACT examinations must be submitted by all applicants with fewer than 60 degree credits completed at a postsecondary institution. Transfers with 30 or more but fewer than 60 transferrable semester credits who have successfully completed (C or higher) at least one English Composition course and one college-level mathematics course that consists of three (3) semester credits are not required to submit the test scores. High school transcripts may be required to demonstrate completion of the foreign language admission requirement. The official scores must be sent directly from one or both of the testing agencies listed below. SAT/ACT/CLT minimum test scores are set by the [Florida Board of Governors](#).

### SAT College Board ATP

866-630-9305

[www.collegeboard.com](http://www.collegeboard.com)

FAU's SAT school code number: 5229

### ACT

ACT Records

P.O. Box 451

Iowa City, IA 53243-0451

319-337-1313

[www.actstudent.org](http://www.actstudent.org)

FAU's ACT school code number: 0729

### CLT - Classic Learning Test

73 Franklin Street

Annapolis, MD 21401

844-925-8392

[www.cltexam.com](http://www.cltexam.com)

In order to expedite the review of their admissions application, students can self-report the test scores at [appstatus.fau.edu](http://appstatus.fau.edu). Official test scores will still be required by the first day of class at FAU.

## Transcripts

For first-year applicants, the University has adopted the Self-Reported Student Academic Record

(SSAR). This new method allows students to enter all courses and associated grades that have been attempted, or will be attempted, for high school and/or college credit without requiring the submission of an official transcript to the university. Official transcripts will be required after high school graduation only. All freshmen applicants (except international students), should create a Self-Reported Student Academic Record on the [SSAR website](#) and link it to their application. SSAR linking steps and SSAR FAQ's are available [here](#).

Final transcripts (from high school and previously attended colleges) must be official. Official transcripts from each postsecondary school attended must be provided. An official transcript is one that is issued by the school or college attended. It must bear appropriate signatures or seals and be in a sealed envelope until delivered to the Office of Undergraduate Admissions. Transcripts opened prior to delivery are no longer official. **Note:** An official transcript is required from every college or university attended. **Final official transcripts should be submitted by the first day of class. Students who fail to provide official transcripts will have a registration hold on their account for future terms.**

Transcripts transmitted electronically through the Florida FASTER system or through SPEEDE/Express are considered official. Transcripts transmitted by fax are not considered official.

### **Transfer of Massive Open Online Courses (MOOCS)**

Undergraduate students who have been admitted to the University may request evaluation of online courses, including Massive Open Online Courses (MOOCS), taken at previous institutions. It is the student's responsibility to request evaluation of credit by the FAU Office of Undergraduate Admissions prior to the initial term of enrollment.

#### ***Courses awarded credit must satisfy the following criteria:***

1. Course content and learning outcomes must be comparable to a course offered at FAU;
2. Course must meet the quality and accreditation standards intended for a transfer course;
3. Faculty determination that the online course is relevant to the student's intended program of study and/or is comparable to a General Education course requirement;
4. Transfer credits that other post secondary Florida institutions have previously evaluated and awarded credits **may** be accepted.

#### ***Applicant responsibilities include providing the following:***

1. Official transcripts;
2. A course syllabus;
3. Credentials of the faculty member teaching the course;

4. Course objectives and learning outcomes for the course;
5. Information requested by the faculty member to determine demonstrated mastery of the course competency.

Students will be notified if the credit requested has been approved. If they wish to appeal the decision, that appeal should be directed to the Dean of Undergraduate Studies. The Dean will forward the appeal to the appropriate committee/college.

## ADMISSION CRITERIA

Each year, Florida Atlantic University receives more applications than allotted freshman seats for the incoming fall class. Therefore, the admissions process is competitive. The level of competition is determined by the number of applicants, the quality of their academic credentials and the University's enrollment goals, which are established in conjunction with the University's mission and current state educational policies and funding. **Meeting minimum eligibility requirements set by the [Florida Board of Governors](#) does not guarantee admission to Florida Atlantic University.** Admission to FAU is for a specific term, and students must enroll during that term. To change the entry term, make a request by email to [admissions@fau.edu](mailto:admissions@fau.edu) or by submitting the [Change of Entry](#) form.

Admissions officers understand that the college admissions process can be difficult. Therefore, they strive to make the process as transparent as possible and give consideration to all aspects of a student's file. Questions are welcomed.

### Requirements

Initial application review is based on the applicant's academic profile as represented by the high school grade point average, rigor of curriculum and/or performance on standardized tests (SAT/ACT/CLT). An SAT or ACT or CLT is required of all applicants for freshman admission.

1. ***Students are required to submit an SAT or ACT or CLT score for admissions consideration.***

FAU will use the highest subscores from multiple test dates to create the ACT composite and the SAT and CLT total to satisfy admission requirements. During the application process students should report their exam scores for each test and report all exams taken. Do not report practice scores and do not mix and match scores in the reporting process. The writing sections of the ACT or rSAT are not required.

In order to expedite the review of their admissions application, students can self-report the test scores at [appstatus.fau.edu](http://appstatus.fau.edu) or in their Self-Reported Academic Record (SRAR). Official test

scores will still be required by the first day of class at FAU.

## 2. *High School Grade Point Average*

The high school grade point average is calculated by the University using grades from academic courses. Dual Enrolled, Advanced, Honors, Gifted, Advanced Placement, International Baccalaureate and Advanced International Certificate in Education (AICE) courses are given additional weight in the University's calculation of the grade point average.

## 3. *High School Units*

Most successful applicants have taken a rigorous course load and have challenged themselves by taking courses with additional weight. Applicants are expected to have **minimally** completed the following 18 (minimum) high school units:

English	4 Carnegie units (3 with substantial writing)
Mathematics	4 units (at the level of Algebra 1 or higher)
Natural Science	3 units (at least 2 with laboratory)
Social Science	3 units
Foreign Language	2 units (of the same foreign language)
Academic Electives	2 units

Appropriate academic and elective courses are listed in the Counseling for Future Education Handbook, published by the [Florida Department of Education](#).

### **Diploma**

All incoming freshmen must possess a valid high school diploma prior to enrollment. Proof of graduation must be provided in the form of a final official transcript indicating the date of graduation.

### **Applicants with a GED**

Students with a General Equivalency Diploma (GED) from any state must submit official test scores to the Office of Undergraduate Admissions. Applicants with a GED should also submit high school transcripts from any schools attended.

### **Early Admission**

Students who have completed their junior year of high school in Florida may be considered for Early Admission. Students must enter for the fall term. If accepted for Early Admission, students enter FAU as freshmen instead of attending high school for their senior year. Qualifications for consideration of Early Admission are:

1. A 3.8 or better GPA after six semesters of high school;
2. An rSAT score of at least 1290 with an Evidence-Based Reading & Writing component score of no less than 490 and a Math component score of no less than 480; or an ACT score of 27 with no less than 18 on the English component, 19 on the Reading component and 19 on the Math component; or a CLT score of 91 with Sum of the Verbal Reasoning and Grammar/Writing Sections: 38, Quantitative Reasoning Section: 16.
3. Permission from their high school to allow FAU courses to satisfy any remaining requirements toward high school graduation;
4. Written recommendations attesting to the student's maturity and readiness to meet the academic and personal challenges posed by early entry into higher education;
5. Must be a Florida resident from Broward or Palm Beach County and meet the requirements to be classified as a Florida resident per [Florida Statute 1009.21](#);
6. Must submit an Early Admission supplemental application.
7. Have the desire to complete their bachelor's degree at FAU.

At the end of their freshman year, successful Early Admission students will have completed both their freshman year of college and graduation requirements for their senior year of high school. As part of the Early Admission requirements, an official transcript noting the high school diploma and date awarded must be submitted at the end of their freshman year. Contact University Advising Services at 561-297-3064 or the Office of Undergraduate Admissions at 561-297-3040 for additional information, or visit [University Advising Services](#).

### **High School Dual Enrollment**

The High School Dual Enrollment Program allows qualified students from Broward and Palm Beach counties in 6th through 12th grades to earn college credit toward a postsecondary degree or certificate at a Florida public institution that will also count as credit toward a high school diploma. For additional information, visit the Office of the Registrar's [website](#) or call 561-297-2009.

### **Non-Traditional Program of Study**

Any student who completes a non-traditional program of study not measured in Carnegie Units, such as attending an institution that is not regionally accredited, must present credentials equivalent to those listed for applicants with a GED. Students completing a home education program according to [Section](#)

[1002.41 of the Florida Statutes](#) are eligible for admission. Additional documentation may be required to verify student eligibility.

### **Profile Assessment Admission**

Students who have applied for admission and do not meet the standard requirements may be eligible for admission through a student profile assessment that considers additional factors, including but not limited to: family educational background, socioeconomic status, graduate of a low-performing high school, international baccalaureate program graduate, geographic location and special talents. These additional factors shall not include preferences in the admission process for applicants on the basis of race, national origin or sex. For more information, see Admissions Appeals later in this section.

### **Selective and Limited Access Programs**

For reasons of accreditation standards, state certification requirements, space or fiscal limitations, the Florida Board of Governors has designated the undergraduate programs in nursing and architecture, as well as the Harriet L. Wilkes Honors College, as limited access. Additionally, the College of Business, College of Engineering and Computer Science, College of Science, School of Communication and Multimedia Studies and the Department of Music are all selective in the admission of students to their programs. Admission to FAU does not guarantee admission to a selective or limited access program. For specific entrance information on these programs, applicants should consult the appropriate college or department.

### **Talented Twenty**

A student applying for admission who is a graduate of a Florida public high school, has completed 18 required high school units as listed in the Florida Department of Education Rule 6C-6.002(3)(a), ranks in the top 20 percent of his/her high school graduating class and has submitted either SAT or ACT test scores shall be admissible to a public university in Florida. The public universities will use class rank as determined by the Florida Department of Education. Students who want to appeal their admission based on the Talented Twenty classification should follow the [Board of Governors](#) process.

### **Tuition Deposit**

Florida Atlantic University requires a \$200 non-refundable tuition deposit from all admitted freshman students in order to confirm enrollment in the freshman class. The tuition deposit is applied directly toward tuition and fees for the student's first semester. For information, call the Office of Undergraduate Admissions at 561-297-3040 or click [here](#).

## **APPEALS**

## Admission Appeals

All students should utilize the online status check to view an admission decision. Students who are not offered admission or have been deferred will be notified of this decision only through the online status check. Undergraduate applicants who do not meet the minimum admission requirements may be reviewed by the executive director of Undergraduate Admissions and the [Faculty Committee on Student Admissions \(FCSA\)](#). Students with special talents or abilities; physical, learning or emotional disabilities; or personal or family hardships may appeal the initial admission decision. The FCSA includes University faculty members and administrators who evaluate admission based on evidence other than academic work. The FCSA determines the student's ability to succeed in future academic endeavors. Students should present **additional** evidence of potential for academic success and explain reasons why reconsideration is warranted. Students must appeal in writing and submit letters of recommendation, a personal statement and any other documentation that would substantiate admission as an exception. Appeals from anyone other than the student are not considered.

## Foreign Language Admission Requirement Appeals

Students who have not fulfilled the foreign language admission requirement during high school due to a disability may petition for a course substitution. The student will need to contact the [Student Accessibility Services Office](#) to receive a letter of support. The student may petition for a course substitution through the Faculty Committee on Student Admissions (FCSA).

If the petition is approved by FCSA, the student will be given a list of courses, of which two in the same category should be chosen to satisfy the foreign language admission requirement.

# TRANSFER ADMISSIONS

Students who have attended other regionally accredited postsecondary institutions may be admitted to Florida Atlantic University as transfer students. Transfer admissions requirements are established by [Florida Statute 6.004](#). The requirements for admission differ according to the number of transferable credits completed. Students who have completed the Associate in Arts degree at a Florida public community or state college have satisfied the academic requirements for admission as transfer students. The University has developed A.S. to B.S./B.A. programs in certain majors for students who entered Florida community or state colleges in the fall of 2000 or later.

Please note: Students must earn at least 75 percent of all upper-division courses in the major department from FAU. Some major departments may require more than 75 percent. Consult the degree requirements section of the major for details.

**LINK to FAU**

The LINK program is an opportunity for transfer students to continue their college education and receive their bachelor's degree from FAU. The program is available to students of Broward College, Miami-Dade College, Palm Beach State College and Indian River State College. Benefits include: comprehensive on-site joint advising and priority admission to FAU for students who graduate with their Associate in Arts degree.\* For more information, please click [here](#).

\*Consistent with university policy, limited-access and restricted-access programs may require an additional admission process.

**Lower-Division Transfers – Applicants with Fewer than 60 Transferable Credits**

Transfer applicants with fewer than 60 transferable credits from a regionally accredited institution should meet the same admission criteria as freshmen, including high school grade point average and rSAT or ACT scores. In addition, applicants must have a minimum 2.5 cumulative grade point average in their college or university coursework and be in good academic standing at the last institution attended (2.0 GPA or above).

**Upper-Division Transfers – Applicants with 60 or more Transferable Credits**

Students who have completed at least 60 transferable credits from a regionally accredited institution but have not received the Associate in Arts degree from a Florida public community or state college may be admitted as upper-division transfers. Applicants must have achieved a minimum 2.5 cumulative grade point average in all prior college or university courses and be in good academic standing at the last institution attended (2.0 GPA or above).

**Upper-Division Transfers – Applicants Holding the Associate in Arts Degree from a Florida Public Community or State College**

Students who have received the Associate in Arts degree from a Florida public community or state college will be admitted as transfers with priority over applicants who are not Florida residents. They are considered to have completed all general education requirements, and their entering grade point average will be the grade point average for all transferable courses as shown on their final transcript from the community or state college. Students with a Florida community or state college Associate in Arts degree will be admitted to Florida Atlantic University but are not guaranteed admission to a limited access program. Additionally, some programs have higher admission requirements than the general university requirements. Refer to specific program information in this catalog.

**Transfer Students With 90 or More Attempted Credits**

All applicants who have attempted more than 90 college credits will be individually reviewed on a

course-by-course basis. Important information:

1. Applicants should present a cumulative GPA of 2.25 or higher on all attempted college work AND should have completed 67 percent or more of their attempted coursework.
2. Applicants must be in good academic standing at their last attended institution.
3. Applicants with 90 or more attempted credits who have not completed prerequisite coursework for their intended degree program will likely not be admitted.
4. Applicants with over 90 credits must meet FAU admissions requirements as well as their intended academic program requirements.
5. Students who have attempted core courses within academic programs and prerequisites more than three times will not be admitted to FAU. Example: Enrolled and attempted Calculus 1 three times and failed or received a below minimum grade or withdrew and are interested in Engineering or Business.
6. Meeting minimum eligibility requirements does not guarantee admission.
7. Applicants with a A.A. degree and attempted or earned additional coursework are held to the 90 or more standards.
8. Students who have attempted 90 or more college credits may have exhausted their financial aid eligibility.

Students without a clear choice of major or those lacking prerequisite coursework should consider a Bachelor of General Studies (B.G.S.) degree. A B.G.S. may also be advised depending on academic history and professional goals. Students should discuss this option with a transfer advisor during onboarding.

### **Tuition Deposit**

Florida Atlantic University requires a \$100 non-refundable tuition deposit from all admitted transfer students in order to confirm enrollment for the term to which they were admitted. The tuition deposit is applied directly toward tuition and fees for the student's first semester. For information, call the Office of Undergraduate Admissions at 561-297-3040 or click [here](#).

### **Second Baccalaureate – Applicants Holding a Baccalaureate Degree**

Students applying for a second baccalaureate degree must have received their first bachelor's degree from a regionally accredited institution and achieved a cumulative grade point average of 2.5 or higher and be in good academic standing at the last institution attended (2.0 GPA or above).

### **Transfer Credit**

In accordance with normal Florida public university procedures, all transferred postsecondary credits will be entered on the FAU record. In certain cases, however, some credits may not be acceptable

toward graduation, depending on the student's major. College-level courses in academic subjects are normally accepted, but vocational training courses, for example, may be acceptable only in a related major. Remedial courses are not accepted for credit toward the degree.

The Office of Undergraduate Admissions conducts an initial evaluation of transferable credits from regionally accredited institutions. The final decision on the acceptability of transferred courses to satisfy University requirements or those of specific degree programs is made by the college in which the student enrolls. Transfer students must meet with an academic advisor soon after their arrival at FAU to ascertain the acceptability of their transferred courses.

The University has implemented a new tool to assist transfer students in understanding whether courses they have taken at another institution are transferable to FAU. A final determination of transfer credit is based on the grade the student earned, anticipated major at FAU and the date of acceptance. The Transfer Equivalency Service (TES), may be accessed at the following [website](#).

### **Transfer of Massive Open Online Courses (MOOCS)**

Undergraduate students who have been admitted to the University may request evaluation of online courses, including Massive Open Online Courses (MOOCS), taken at previous institutions. It is the student's responsibility to request evaluation of credit by the FAU Office of Undergraduate Admissions prior to the initial term of enrollment. For requirements and other details, refer to the [MOOCS entry](#) listed with Undergraduate Admissions above.

### **Admission Decisions**

Admission decisions are made on a rolling basis. Applicants may check the status of their application by going [online](#) and clicking on "Check your application status." When an applicant's file is considered complete, it will be evaluated for an admission decision. Only those applicants who have been accepted will be notified by postal mail in addition to the online decision. A decision is rendered usually within six to eight weeks after the file is considered complete. Admission is for the specified entry term only. To request a change of entry, students must contact the Office of Undergraduate Admission in writing or by emailing [admissions@fau.edu](mailto:admissions@fau.edu). A Change of Entry form can be found [here](#).

## **UNDERGRADUATE INTERNATIONAL ADMISSIONS**

International students must meet the admission criteria for the type of application they are submitting, as outlined in the [Admission Criteria](#) section noted above. In addition, international applicants must satisfy the following conditions:

**Step 1: Submit Application and Fees**

Due to additional processing time needed for international students, submit a complete application, a \$30 application fee and all required documentation, including supporting academic credentials and appropriate test scores and financial documentation, by the following dates for the corresponding terms:

***Undergraduate Students - All materials needed by:***

<b><i>Fall</i></b>	<b><i>Spring</i></b>	<b><i>Summer</i></b>
April 1	October 1	February 15

***Freshman Priority deadline date is February 15 for the fall term.***

**Step 2: Submit Required Academic Credentials**

The academic credentials required will vary based upon the student's entry level.

First-time, incoming international students should have their high school records, including courses/subjects and grades completed during the course of their entire high school career and exam results, such as CXC/GCSES, etc., evaluated by an evaluation agency. The evaluation process is required from all students who are not educated in U.S.-based curriculum or IB curriculum. The evaluation must be conducted course-by-course and show the overall U.S. grade point average (GPA); the mathematics GPA should be calculated separately. A list of evaluation service members may be found at the [NACES](#) accredited evaluation website. If the student attends an international high school patterned after the U.S. educational system outside the United States, they should proceed with completing the [SSAR report](#).

Students who have foreign postsecondary coursework have the option of requesting an internal evaluation completed by a FAU foreign credential evaluator. If an internal evaluation is requested, Admissions requires a certified English translation plus the original transcript from the postsecondary institution. These documents must arrive in a sealed envelope provided the by the institution and the translation agency. Students who would like information on how to request an internal evaluation from FAU should email [Admissions](#) with their Z number after they have applied for admission.

OR, a [NACES](#) accredited evaluation. The equivalency evaluation must be course-by-course with a GPA.

**Step 3: SAT, ACT or CLT Scores**

SAT and ACT test scores are required for all freshman applicants as well as for all students with less than 60 credits from an accredited post-secondary institution.

SAT test information can be found at [www.collegeboard.com](http://www.collegeboard.com) (FAU school code: 5229).

ACT Test Information can be found at [www.actstudent.org](http://www.actstudent.org) (FAU school code: 0729).

CLT: Classic Learning Test information can be found at [www.cltexam.com](http://www.cltexam.com).

The ACT On Campus test is offered at FAU's Testing Center for FAU applicants only and scores can only be used for FAU admission and not portable to any other college or university. For more information, go to [www.fau.edu/testing/all-tests/act/](http://www.fau.edu/testing/all-tests/act/)

#### **Step 4: Submit English Proficiency Tests**

Students who meet the Florida Board of Governors requirements for college readiness through SAT or ACT section scores in Verbal/Reading and English sections may be academically qualified for admission to FAU and exempt from English Proficiency exams. Students **MUST** meet the minimum qualifications for each section score of at least one test:

#### **SAT**

Evidence-Based Reading and Writing Score - 490

#### **ACT Section Scores**

Reading Score - 19

English Score - 17

#### **CLT (Classic Learning Test)**

Sum of the Verbal Reasoning and Grammar/Writing Sections Score - 38

Quantitative Reasoning Section Score - 16

Students who do not meet the above score threshold can provide proof of English Proficiency by meeting **ONE** of the following requirements:

- Completion of at least three years of secondary education from a high school based in the United States or abroad with full curriculum of instruction in English.
- Completion of at least three years of secondary education from a high school based in a country where English is the majority native-speaking language, or where English is the primary language of instruction starting in the primary grades.
- Completion of at least 30 post-secondary credits, including ENC 1101 and ENC 1102 or the equivalent with a grade of "C" or higher, from a U.S. regionally accredited post-secondary institution or from a recognized post-secondary institution abroad with full curriculum of

instruction in English.

- Completion of at least 60 post-secondary credits or an associate degree or higher from a U.S. regionally accredited postsecondary institution or from a recognized post-secondary institution abroad with full curriculum of instruction in English.

If non-English speaking students do not meet the [SAT/ACT/CLT sub-section](#) minimums or any of the categories listed above, they are required to submit an English Proficiency Exam or complete the [Intensive English Institute Academic Track](#) as proof of English proficiency. **FAU will only accept the following exams to demonstrate English proficiency:**

English Proficiency Provider	Minimum Score	Websites
TOEFL	iBT (80) PBT (550)	<a href="http://www.ets.org/toefl">www.ets.org/toefl</a>
IELTS	6.5	<a href="http://www.ielts.org">www.ielts.org</a>
Cambridge English Language Assessment	180	<a href="http://www.cambridgeenglish.org">www.cambridgeenglish.org</a>
Pearson Test of English Academic 55 (PTE)		<a href="http://www.pearsonpte.com">www.pearsonpte.com</a>
Duolingo English Test (DET)	110	<a href="http://englishtest.duolingo.com">englishtest.duolingo.com</a>
OHLA	Elite	<a href="http://www.ohla.com">www.ohla.com</a>
ELS	112	<a href="http://www.els.edu/english-programs/intensive-english">www.els.edu/english-programs/intensive-english</a>
FAU Intensive English Institute	Level VI (Bridge)	<a href="http://www.fau.edu/intensive-english/academic-track/">www.fau.edu/intensive-english/academic-track/</a>
Hong Kong Examinations and Assessment Authority (HKDSE)	5	<a href="http://www.hkeaa.edu.hk/en/hkdse/">www.hkeaa.edu.hk/en/hkdse/</a>
International GCSE IGSE English C/4 Grade		
International Baccalaureate (IB)	English Higher Level 6	
Study Group English for University Studies	Score 65 percent	

For students not meeting the English Proficiency, please see our [Conditional Admissions Track \(CAT\) Intensive English Institute](#).

## Step 5: Immigration/Visa Requirements

International applicants who are accepted to FAU must submit immigration-related documentation to the International Students and Scholar Services Office. For a list of the documents and additional details, please visit the [website](#).

### **Additional Undergraduate International Admissions Options:**

#### ***Conditional Admission Track (CAT) Program***

The Conditional Admission Track of the [Intensive English Institute](#) provides conditional admission for academically qualified international students who need access to English language and other academic and social preparation for success in a U.S. university setting. Conditional Admission Track students will be fully integrated into the Florida Atlantic University community and learn English, hone study habits and absorb cultural nuances that will lead to success in their studies at FAU. To learn more, click [here](#).

## **HARRIET L. WILKES HONORS COLLEGE ADMISSIONS**

The Harriet L. Wilkes Honors College is located at FAU's MacArthur campus in Jupiter. It is a close-knit, residential community committed to providing an intensive educational experience for carefully selected undergraduate students. Freshmen are required to live on campus for the first two years; transfer students with an A.A. degree are not required to live on campus. Wilkes Honors College students take an active role in the learning process by producing original research and engaging in experiential learning through an internship or study abroad and a senior thesis. The Jupiter campus is also home to the Jupiter Life Science Initiative (JLSI), a one-of-a-kind partnership with Scripps Florida, the Max Planck Florida Institute for Neuroscience and the FAU Brain Institute, where Wilkes Honors College students have the opportunity to pursue research and internships. For students whose plans include graduate or professional school, the Wilkes Honors College is an exceptional option to consider.

Prospective students interested in admissions to the Wilkes Honors College should apply through the [Common App](#). However, all applicants are reminded to only submit one application for admission to the University. The evaluation process includes all aspects of the application, including optional submissions of academic papers and résumé to bolster their application. These supplemental documents are helpful in assessing a student's readiness for the rigorous academic environment of the Wilkes Honors College. The College seeks students who demonstrate an active approach to learning and potential for outstanding academic growth. The Wilkes Honors College conducts a holistic review of each applicant directly following their admission to the University; for this reason it is highly recommended that all supplemental documents are submitted to the Wilkes Honors College in Jupiter at

the same time that students submit their online applications to FAU. Each application is read by a member of the admissions staff or by members of the faculty admission committee. Transfer students do not apply directly through the Common App, but instead through FAU's undergraduate admissions [application](#). For additional information, visit the College's [website](#).

The Wilkes Honors College is also home to the Wilkes Medical Scholars Program, a highly-selective 7- or 8-year BS/MD degree pathway. Students admitted to the program are conditionally admitted to FAU's College of Medicine. Students may replace the required thesis with the first year of medical school coursework. The Wilkes Medical Scholars Program is administrated by the College of Medicine, which also oversees the program admission process. For more information and for the online application to the Wilkes Medical Scholars Program, visit the [website](#).

## Requirements

1. Acceptance to FAU.
2. Indication of Harriet L. Wilkes Honors College preference on honors section of undergraduate application or by submitting the [Common App](#) (listed as Wilkes Honors College of FAU).

## Recommended

1. A student résumé detailing extracurricular activities, community involvement, work experience, honors and awards.
2. A graded academic research paper (a typed, analytical paper of at least 500 words, preferably including instructor comments).

For questions about the application process, phone 561-799-8646 or email the [Honors College Office of Admissions](#); email supplemental documents to the [Honors College Office of Admissions](#).

## Application Deadlines

The priority deadline to be admitted to the Wilkes Honors College is December 15th. Incoming freshmen admitted by the priority deadline will receive an application for Scholars Day, an invitation only event. Scholars Day participants compete for the top scholarship awards. After December 15th, Wilkes Honors College applications are reviewed on a rolling basis. Due to limited space in the residence halls, students are strongly encouraged to apply and submit all supporting documents as early as possible.

# UNIVERSITY HONORS PROGRAM ADMISSIONS

Florida Atlantic University's Honors Program for entering freshmen on the Boca Raton campus provides special opportunities to those students who are academically successful, highly motivated and committed to excellence. Honors Program students take advantage of special advising, small seminar classes taught by outstanding faculty and their own sections of an intensive first-year experience course. Admission is selective and competitive. For additional information, visit the program's [website](#).

The supplemental application and additional documents are not required for those students receiving an invitation. However, students must submit confirmation of their attendance. Students not receiving an invitation are highly encouraged to consider applying. A supplemental application is required along with additional documents. All of the information submitted is used to consider the applicant's strengths and abilities. The program looks for students who demonstrate an active approach to learning and the potential for outstanding academic growth. A holistic review begins once all of the required documents have been received.

## Requirements

1. Acceptance to FAU.
2. A supplemental application, available [here](#).
3. A résumé covering extracurricular activities, community involvement, work experience, honors and awards.
4. A graded writing sample (typed analytical paper of 500 words).

Questions about the application process should be addressed to the Office of Undergraduate Admissions at 561-297-3040 or [honors@fau.edu](mailto:honors@fau.edu).

# GRADUATE ADMISSIONS

## ADMISSION POLICY

The Graduate College assists prospective students and the general public in learning about the University and its graduate programs, including procedures related to application and admission to University degree programs. Those interested in learning about the educational opportunities and degree programs available at the University should contact the Graduate College, Florida Atlantic University, 777 Glades Road, SU 80, Room 101, Boca Raton, FL 33431 (561-297-3624) or visit the College's [website](#).

The University actively encourages applications from all persons who are motivated to pursue university studies and who have obtained adequate academic preparation to succeed. The application

and admission process attempts to identify those applicants who are prepared to benefit from university study and who can benefit from specific university services to improve their likelihood of success.

All interested persons, regardless of race, color, religion, gender, national origin, age, sexual orientation, physical disablement, marital status or veteran status, are encouraged to submit applications. The admission review process does not discriminate on the basis of any of these factors.

## ADMISSION REQUIREMENTS

A student seeking admission into an FAU graduate program must have a bachelor's degree or equivalent from a regionally accredited institution or, for students educated abroad, the U.S. equivalent of a bachelor's degree from a regionally accredited institution.

Graduate program applicants must meet the minimum standards set forth by the Florida Board of Education, the University, and when applicable, more stringent admission standards set by each department.

Applicants to graduate programs are required to present their scores on the Aptitude Test of the Graduate Record Exam or equivalent scores on equivalent measures approved by the Board. The University may waive this requirement in individual cases, and some major departments may exclude this requirement. Consult the appropriate department within each [college section](#) for admissions information.

Applicants must check the individual departmental admission requirements, which are listed separately within each college section.

Graduate admissions are competitive and meeting minimum program requirements does not guarantee admission.

**Note:** Applicants who find that regular admission and curricular requirements cause an undue hardship may request a waiver of such requirements through their individual departments. All such requests that require a waiver of University policy will be sent to the Graduate College for final action.

## FILING DATES

The entry terms for degree programs are fall (August), spring (January) and summer (May). However, students should apply as early as possible. Applications completed by the recommended Filing Date

will be assured of prompt review. Late applications will be handled in the order received.

Applicants	Filing Dates		
	<i>Fall</i>	<i>Spring</i>	<i>Summer</i>
Domestic	July 1	November 1	April 1
International	June 1	October 1	March 1

Contact the appropriate college and department for specific application requirements and possible earlier filing dates.

**Note:** The above-listed filing dates are only meant as final deadlines for submitting a graduate admission application. International applicants should check their specific program application requirements as departments may have earlier submission deadlines. International applicants are strongly encouraged to check processing times with the U.S. embassy or consulate where they plan to apply for student visas. Visa appointment availability and processing times vary significantly from country to country. Students with questions about visa procedures and processing times may email [International Student Services](#).

## ADMISSION CATEGORIES FOR DEGREE-SEEKING STUDENTS

Graduate students may apply for degree programs in the categories below. (**Note:** Students who do not intend to pursue a degree program should follow the procedures outlined under the Non-Degree-Seeking Students subsection later in this Admissions section.)

### Master's Degree

This program is for an applicant who holds a bachelor's degree from a regionally accredited college or university and who intends to pursue a program leading to a master's degree at Florida Atlantic University.

### Specialist's Degree

This program is for an applicant who holds a master's degree from a regionally accredited college or university and who intends to pursue a program leading to the Education Specialist degree at Florida Atlantic University.

### Doctoral Degree

In most cases, this program is for an applicant who holds a master's degree from a regionally accredited college or university and who intends to pursue a program leading to a doctoral degree at Florida

Atlantic University.

## REQUIRED CREDENTIALS AND DOCUMENTATION

### Applications

The application for admission as well as all other required documents must be filed with the Graduate College before any final decision can be made regarding the eligibility of an applicant.

Application deadlines appear above and in the program summary. Click [here](#) to obtain the graduate admission procedures. In most instances, applications submitted after the Filing Date will be considered for the next available entry date.

### Required Documents

1. Graduate Application: A completed application for graduate admission is required for all degree-seeking applicants.
2. Application Fee: A non-refundable \$30 application fee payable in U.S. dollars drawn on a U.S. bank is required prior to the handling of any application.
3. Transcripts: Applicants must request that one official transcript be sent directly to the Graduate College from the Registrar of each college or university attended. If the applicant receives the transcripts directly from the Registrar, they should not open the envelopes, but send them, unopened, to the Graduate College. An official transcript is one that is issued by the school or college attended, bearing appropriate signatures or seals, and kept in a sealed envelope. Transcripts opened prior to delivery are no longer official and will not be accepted.

The Graduate College requires all applicants whose transcripts are from foreign institutions to have their credentials evaluated by a professional evaluation service. Click [here](#) for details regarding credential evaluation requirements for individual degree programs. Applications cannot be processed until these evaluations are received. Note that only foreign credential evaluations conducted by a National Association of Credential Evaluation Services (NACES) member organization will be accepted. To view a list of NACES members, visit the [website](#).

4. Examinations: All applicants must submit their scores on the general section of the Graduate Record Examination (GRE). Applicants for admission to certain programs must submit scores on the appropriate subject section of the Graduate Record Examination. Business applicants must submit scores on the Graduate Management Admissions Test (GMAT). GRE or GMAT scores

more than five years old will not be accepted. Exceptions to this requirement will be considered by petition. Some major departments may exclude this requirement. Consult the appropriate department within each [college section](#) for admissions information.

5. Additional Records: Applicants may be required to submit such additional materials as specified by the individual colleges and graduate programs.
6. To comply with Florida Atlantic University policy, all students, prior to registration, must submit immunization records through an online process. FAU requires documented proof of immunization to measles and rubella for all students. In addition, all students must provide documentation of vaccinations against meningococcal meningitis and hepatitis B or provide a signed waiver for each declined vaccination. Refer to [Student Health Services](#).

### **Departmental Requirements**

Each applicant for admission to graduate study should consult the portion of the catalog that corresponds with the academic program the student wishes to pursue. Additional evidence may be required by individual colleges and/or departments. Admission to graduate study does not constitute admission to candidacy for the degree. Students must satisfy departmental requirements governing admission to candidacy. Each applicant should make an appointment with the appropriate college official to plan an individual program.

## **ADMISSION DECISIONS**

Completed applications are decided upon by the college in which the applicant expects to enroll. Colleges may admit or deny applicants' admission based upon their own specified criteria. Official notification of decision is issued by the Graduate College.

### **Conditional Admission**

Colleges may admit students on a conditional basis using their specific college criteria.

## **GRADUATE INTERNATIONAL ADMISSIONS**

### **Required Documents**

1. Graduate Application: A completed application for graduate admission is required for all degree-seeking applicants.
2. Application Fee: A non-refundable \$30 application fee payable in U.S. dollars drawn on a U.S. bank is required prior to the handling of any application.

3. **Transcripts:** Applicants must request that one official transcript be sent directly to the Graduate College from the Registrar of each college or university attended. If the applicant receives the transcripts directly from the Registrar, they should not open the envelopes, but send them, unopened, to the Graduate College. An official transcript is one that is issued by the school or college attended, bearing appropriate signatures or seals, and kept in a sealed envelope. Transcripts opened prior to delivery are no longer official.
4. **Foreign Credential Evaluation:** The Graduate College requires all applicants whose transcripts are from foreign institutions to have their credentials evaluated by a professional evaluation service. Click [here](#) for details regarding credential evaluation requirements for individual degree programs. Applications cannot be processed until these evaluations are received. Note that only foreign credential evaluations conducted by a National Association of Credential Evaluation Services (NACES) member organization will be accepted. To view a list of NACES members, visit the [website](#).
5. **English Language Requirement:** Graduate students must furnish evidence of proficiency in English by submitting scores from one of the following examinations: the Test of English as a Foreign Language (TOEFL), the Test of English as a Foreign Language – Internet-Based Test (TOEFL iBT), the International English Language Testing System (IELTS), or the Duolingo test. A university-wide minimum paper-based score of 548 (CBT-173) is required for the TOEFL, a score of 79 is required for the TOEFL iBT, a band score of 6.0 is required for the IELTS, and a score of 110 is required for the Duolingo test. Individual colleges and departments may require higher proficiency in English scores than the minimums given above.
6. **Examinations:** All applicants must submit their scores on the general section of the Graduate Record Examination (GRE). Applicants for admission to certain programs must submit scores on the appropriate subject section of the Graduate Record Examination. Business applicants must submit scores on the Graduate Management Admissions Test (GMAT). GRE or GMAT scores more than five years old will not be accepted. Exceptions to this requirement will be considered by petition. Some departments may exclude this requirement. Consult the appropriate department within each [college section](#) for admissions information.
7. **Additional Records:** Applicants may be required to submit additional materials as specified by the individual colleges and graduate programs.
8. Once the academic part of admissions is completed, graduate international students must submit the Financial Certification form as evidence of sufficient financial resources and original bank letter(s) proving expected amount of money for the first year of study. In addition, international students who are transferring from another U.S. institution are required to submit the Visa Clearance form. For details and to print the forms, click [here](#).
9. To comply with Florida Atlantic University policy, all students, prior to registration, must submit

immunization records through an online process. FAU requires documented proof of immunization to measles and rubella for all students. In addition, all students must provide documentation of vaccinations against meningococcal meningitis and hepatitis B or provide a signed waiver for each declined vaccination. Refer to [Student Health Services](#).

10. All international students are required to purchase annual medical insurance. Contact the Office of International Services at 561-297-3049 for more information or visit its [website](#).

## Departmental Requirements

Each applicant for admission to graduate study should consult the portion of the catalog that deals with the academic program the student wishes to pursue. Additional evidence may be required by individual colleges and/or departments. Admission to graduate study does not constitute admission to candidacy for the degree. Students must satisfy departmental requirements governing admission to candidacy. Each applicant should make an appointment with the appropriate college official to plan an individual program.

# ADDITIONAL ADMISSION INFORMATION FOR ALL STUDENTS

## ADMISSION TO PROFESSIONAL PROGRAMS

Certain courses of study at the University prepare students for entry into a profession, such as architecture, education, nursing and social work. Admission and retention in these programs may require adherence to a professional code of ethics. For application and other requirements of these degree programs, refer to the specific program's information in this catalog or to other materials provided by these programs.

## CAMPUS TOURS

Undergraduate information sessions and guided campus tours are available for all interested individuals on the Boca Raton campus each weekday at 10 a.m. and 1 p.m. and on most Saturdays only in the fall and spring semesters at 9 and 10 a.m., except for University holidays and the Saturdays of home football games. The walking tours leave from the Undergraduate Admissions Office in the Student Support Services Building and last approximately one hour. Group tours or special requests may be accommodated; however, in order to allow time for preparation, please call the number below prior to the day of the tour. There may be times and days that we are unable to accommodate the special requests. Call 561-297-3040 for more information or click [here](#).

## MISCONDUCT - ADMISSIONS REVIEW BOARD

Responses to questions on the application related to academic or behavioral misconduct and/or criminal history are required for all applicants. After applying for admission, students with past misconduct or criminal history must submit a full statement of relevant facts and any additional information as requested by the Office of the Dean of Students, Office of the Registrar, or Graduate College. Providing the requested documentation does not preclude students from being considered by the ARB for enrollment at FAU. The ARB meets monthly, and student files must be complete in order to be reviewed by the Board. Students are encouraged to monitor their email for updates on their status.

### **Institutional**

Applicants with prior misconduct at an educational institution must disclose the incident(s) on the application.

*Are you currently, or have you ever been, charged with or subject to disciplinary action for scholastic (such as plagiarism or cheating) or any other type of behavioral misconduct at any educational institution? You do not need to disclose academic dismissal, suspension, or probation for poor grades.*

Applicants are expected to complete all sanctions assigned by a previous institution(s) and are expected to be in good conduct standing with the institution(s).

### **Criminal**

Applicants with a prior criminal violation(s) must disclose the incident(s) on the application.

Answering truthfully and disclosing information about the situation(s) does not automatically discount consideration for admission.

*Have you ever been charged with a violation of the law, misdemeanor and/or felony (even if adjudication was withheld) which resulted in, or, if still pending could result in, probation, community service, restitution, a jail sentence or the revocation or suspension of your driver's license (you are not required to include traffic violations which only resulted in a fine)?*

Applicants who are still completing terms of a legal violation(s) such as supervised probation, deferred probation, deferred prosecution, community service, fines and/or restitution or other terms may not be eligible for review by the Admissions Review Board unless completion will occur within six months from the first day of the entry term.

The University reserves the right to deny admission or readmission to an applicant when it determines

that the admission of the student represents a safety risk to the University community and/or when denial of the application is determined to be in the best interest of the University.

Students whose applications are denied by the Admissions Review Board may request review of the denial by the Office of the University Provost. The request for review must be submitted to the Office of Admissions for undergraduate applicants, the Office of the Registrar for non-degree or transient applications, or the Graduate College for graduate applicants within two weeks of the date of the notice of denial. The submission must include the basis for the additional review and any additional documentation for consideration by the Office of the Provost.

## NATION OF CITIZENSHIP INFORMATION

Applicants need to declare their nation of citizenship. If their nation of citizenship is not the United States, applicants will need to provide a copy of their Visa, Notice of Action-approved, a valid employment authorization card (valid through the term of entry) or Resident Alien Card (green card). This information is necessary to determine international student status.

## NON-DEGREE-SEEKING STUDENTS

Non-degree-seeking students at Florida Atlantic University are those who wish to enroll for courses but do not intend to earn a degree from FAU. Non-degree students who wish to become degree-seeking must submit an application with the Office of Undergraduate Admissions or the Graduate College on or before the deadline posted on the [Admissions site](#) or [Graduate Programs site](#). Credits that have been earned as a non-degree-seeking student may be applied to the student's degree program; however, this is contingent upon acceptance to the University and approval by the college in which the student's program is housed. For an explanation of the number of credits that may be applied and other specifics, refer to the heading Registration for Non-Degree-Seeking Students in the [Registration and Records section](#) of this catalog.

Students must submit a [Non-Degree Enrollment application](#) accompanied by a \$30 non-refundable and non-transferable fee. Undergraduate non-degree applicants must have earned a minimum of a high school diploma in order to be admitted in a non-degree status. Graduate non-degree applicants must have earned a minimum of a bachelor's degree in order to be admitted in a non-degree status. Official transcripts are not required for this process. A [Non-Degree Residency application](#) and supporting documentation must be provided for review in order to qualify for in-state tuition; students who do not provide paperwork are coded as non-Florida residents.

Registration on a space-available basis is conducted during regular and late registration periods, as listed in the University's [Academic Calendar](#). To comply with Florida Atlantic University policy, all students, prior to registration, must submit immunization records through an online process. FAU requires documented proof of immunization to measles and rubella for all students. In addition, all students must provide documentation of vaccinations against meningococcal meningitis and hepatitis B or provide a signed waiver for each declined vaccination. Refer to [Student Health Services](#).

Non-degree students who have not enrolled at FAU for three or more consecutive semesters must submit a new Non-Degree Enrollment application, a new Non-Degree Residency application and supporting documentation as noted above accompanied by a \$30 non-refundable, non-transferable application fee.

**Note for undergraduate students:** Students in a non-degree-seeking status are not eligible for financial aid. Students who have been denied admission to FAU as degree-seeking undergraduates must wait three semesters before they are eligible to register as non-degree-seeking students.

**Note for graduate students:** Students in a non-degree-seeking status are not eligible for financial aid. Students in non-degree-seeking status who at a later date enroll in a graduate degree program may not transfer more than one-third of the required coursework into the program or may not use course credits that are more than seven years old at the time of graduation. Satisfactory academic performance as an FAU non-degree-seeking student will not guarantee admission into a graduate degree program. Students dismissed from an FAU graduate degree program may not subsequently enroll using the non-degree-seeking status to fulfill coursework or grade requirements for the program in which they were enrolled.

## RESIDENCY INFORMATION

All applicants must complete the Residency Classification for Tuition Purposes affidavit through [Owl Residency Portal](#) and submit the required documentation, regardless of the duration of their presence in Florida. Incomplete, unsigned or blank forms will result in the classification of “**Non-Florida Resident**” status for tuition purposes until the documentation has been provided, reviewed and approved by the Residency Officer.

Students who are not United States citizens must provide appropriate documentation from Immigration and Naturalization Services that designates their status while living in the United States. Resident alien cards (green cards), employment authorization cards or eligible Visa types must be submitted at the

time students submit their application. All documentation must be valid through the term of entry. Those applicants with expired paperwork must be referred to the Office of Immigration and Naturalization Services. All students who were previously classified as non-U.S. citizens and are now returning as U.S. citizens must submit updated documentation.

Additional information may be requested by the University. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>. The submission of requested documentation does not guarantee Florida residency status. All residency information is reviewed in accordance with [Florida Statute 1009.21](#). All residency documentation must be submitted no later than two weeks prior to the first day of classes for the initial term of entry or for the term in which the student is applying for in-state tuition. Current graduate students must file with the Registrar's Office for reclassification.

The Undergraduate Admissions and Graduate College offices determine residency status for degree-seeking students prior to their first term of enrollment. Further information on residency is located on the Undergraduate Admissions [website](#) or the Graduate College [website](#).

Students who would like Florida residency classification after their first term of enrollment should refer to the Residency Reclassification subsection in the [Registration and Records section](#) of this catalog.

To appeal an initial residency determination, a student may obtain a Residency Classification Appeal form from the Registrar's Office and submit that appeal no later than the last day of the current term for which the appeal is to be effective. The appeal is reviewed by the Residency Appeals Committee.

The Residency Appeals Committee decision constitutes the final decision of Florida Atlantic University. A student may seek judicial review of this final University decision under [Section 120.68, Florida Statutes](#). This may be done by filing within thirty (30) days of the date of this decision: (i) a Notice of Appeal with the Agency Clerk of Florida Atlantic University; and (ii) a copy of the Notice of Appeal with the Clerk of the Fourth District Court of Appeal or the Court of Appeal for the district in which the student resides, together with any filing fees that may be prescribed by law.

## APPLICANT RECORDS

Applicant records are the property of the University for use by faculty, staff and agents of the University for admissions, registration, counseling, financial aid or any other activity related to the applicant's academic program. Applicant records are confidential and may only be released to the applicant. Applicants requesting that the University release their records to a third party must provide

specific written authorization.

## CONTACT INFORMATION

Correspondence regarding undergraduate admission, including transcripts and test scores, should be sent to:

Florida Atlantic University  
Office of Undergraduate Admissions  
777 Glades Road, P.O. Box 3091  
Boca Raton, FL 33431-0991  
561-297-3040  
Fax 561-297-2758  
[admissions@fau.edu](mailto:admissions@fau.edu)

Graduate correspondence should be sent to:

Florida Atlantic University  
Graduate College  
SU 80, Room 101  
777 Glades Road, P.O. Box 3091  
Boca Raton, FL 33431-0991  
561-297-3624  
Fax 561-297-2117  
[www.fau.edu/graduate](http://www.fau.edu/graduate)





# UNIVERSITY CATALOG

## SUB MENU



### GENERAL INFORMATION

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### ACADEMIC PROGRAMS

### COURSE DESCRIPTIONS

## DEGREE PROGRAMS

This Degree Programs section is divided into the following subsections. The subsections appear in the following order:

- [Undergraduate Degree Programs](#)
- [Bachelor of General Studies](#)

- [FAU Honors Programs](#)
- [Undergraduate Minors](#)
- [Undergraduate Certificate Programs](#)
  
- [Combined Degree Programs](#)
- [Graduate Degree Programs](#)
- [Graduate Minor](#)
- [Graduate Certificate Programs](#)

## UNDERGRADUATE DEGREE PROGRAMS

[ASSOCIATE OF ARTS \(A.A.\)](#)

[BACHELOR OF ARCHITECTURE \(B.ARCH.\)](#)

[\(College of Arts and Letters\)](#)

[BACHELOR OF ARTS \(B.A.\)](#)

*with major in one of the following:*

Anthropology

[\(College of Arts and Letters\)](#)

Art

[\(College of Arts and Letters\)](#)

Biological and Physical Sciences

[\(Honors College\)](#)

Biological Sciences

[\(College of Science\)](#)

Chemistry

[\(College of Science\)](#)

Communication Studies  
(College of Arts and Letters)

Criminal Justice  
(College of Social Work and Criminal Justice)

Elementary Education  
(College of Education)

English  
(College of Arts and Letters)

Exceptional Student Education  
(College of Education)

General Business  
(College of Business)

Geosciences  
(College of Science)

Health Science  
(College of Science)

History  
(College of Arts and Letters)

Interdisciplinary Studies  
(College of Arts and Letters)

Jewish Studies  
(College of Arts and Letters)

Languages, Linguistics and Comparative Literature  
(College of Arts and Letters)

Liberal Arts and Sciences  
(Honors College)

Mathematics  
(College of Science)

Multimedia Studies  
(College of Arts and Letters)

Music  
(College of Arts and Letters)

Philosophy  
(College of Arts and Letters)

Physics  
(College of Science)

Political Science  
(College of Arts and Letters)

Psychology  
(College of Science)

Sociology  
(College of Arts and Letters)

Theatre  
(College of Arts and Letters)

Programs leading to teacher certification at the secondary school level are available in Art.

B.A. degrees in teacher education programs at the secondary school level are available in English, Mathematics, Social Science and Science, including Biological Sciences, Chemistry and Physics. Students must enroll in the degree program in the subject they wish to teach.

## BACHELOR OF ARTS IN COMPUTER SCIENCE (B.A.C.S.)

(College of Engineering and Computer Science)

## BACHELOR OF ARTS IN EDUCATION (B.A.E.) IN ONE OF THE FOLLOWING:

Elementary Education

(College of Education)

Exceptional Student Education

(College of Education)

B.A.E. degrees in teacher education programs at the secondary school level are available in English, Mathematics and Social Science. Students must enroll in the degree program in the subject they wish to teach.

## BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)

*with major in one of the following:*

(College of Business)

Accounting

Economics

Finance

Hospitality and Tourism Management

International Business

Management

Management Information Systems

Marketing

## BACHELOR OF EARLY CARE AND EDUCATION (B.E.C.E.)

(College of Education)

## BACHELOR OF FINE ARTS (B.F.A.)

*with major in one of the following:*

Art

(College of Arts and Letters)

Theatre

(College of Arts and Letters)

**BACHELOR OF GENERAL STUDIES (B.G.S.)**

(Offered by all colleges; program details appear [below](#).)

**BACHELOR OF HEALTH SERVICES (B.H.S.)**

*with major in:*

Health Administration

(College of Business)

**BACHELOR OF MUSIC (B.M.)**

*with major in one of the following:*

Commercial Music

(College of Arts and Letters)

Music

(College of Arts and Letters)

**BACHELOR OF MUSIC EDUCATION (B.M.E.)**

(College of Arts and Letters and College of Education)

**BACHELOR OF PROFESSIONAL STUDIES (B.P.S.)**

(Interdisciplinary Programs)

**BACHELOR OF PUBLIC MANAGEMENT (B.P.M.)**

(College of Arts and Letters)

**BACHELOR OF PUBLIC SAFETY ADMINISTRATION (B.P.S.A.)**

(College of Arts and Letters)

## BACHELOR OF SCIENCE (B.S.)

*with major in one of the following:*

Accounting

(College of Business)

Biological and Physical Sciences

(Honors College)

Biological Sciences

(College of Science)

Biomedical Engineering

(College of Engineering and Computer Science)

Chemistry

(College of Science)

Data Science and Analytics

(Interdisciplinary Programs)

Economics

(College of Business)

Exercise Science and Health Promotion

(College of Science)

Finance

(College of Business)

Geosciences

(College of Science)

Hospitality and Tourism Management

(College of Business)

International Business  
(College of Business)

Liberal Arts and Sciences  
(Honors College)

Management  
(College of Business)

Management Information Systems  
(College of Business)

Marketing  
(College of Business)

Mathematics  
(College of Science)

Medical Biology  
(College of Science)

Neuroscience and Behavior  
(College of Science)

Physics  
(College of Science)

B.S. degrees in teacher education programs at the secondary school level are available in Science: Biological Sciences, Chemistry and Physics. Students must enroll in the degree program in the subject they wish to teach.

**BACHELOR OF SCIENCE IN CIVIL ENGINEERING (B.S.C.V.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN COMPUTER ENGINEERING (B.S.C.E.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN COMPUTER SCIENCE (B.S.C.S.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN EDUCATION (B.S.E.)**

B.S.E. degrees in teacher education programs at the secondary school level are available in Science: Biological Sciences, Chemistry and Physics. Students must enroll in the degree program in the subject they wish to teach.

**BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (B.S.E.E.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN ENVIRONMENTAL ENGINEERING (B.S.E.V.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN GEOMATICS ENGINEERING (B.S.G.E.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING (B.S.M.E.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN NURSING (B.S.N.)**

(College of Nursing)

**BACHELOR OF SCIENCE IN OCEAN ENGINEERING (B.S.O.E.)**

(College of Engineering and Computer Science)

**BACHELOR OF SOCIAL WORK (B.S.W.)**

(College of Social Work and Criminal Justice)

**BACHELOR OF URBAN AND REGIONAL PLANNING (B.U.R.P.)**

(College of Science)

## BACHELOR OF URBAN DESIGN (B.U.D.)

(College of Science)

## BACHELOR OF GENERAL STUDIES

The Bachelor of General Studies (B.G.S.) degree allows students to design a plan of study to meet their personal interests and career goals. The plan of study is more flexible than that required in the traditional degree programs. The degree is intended for those members of the local community already in careers who need a degree to advance professionally or personally, as well as for current FAU students who meet the 120-credit requirement, but because of personal or employment imperatives, need to hasten their time to degree completion.

### **Degree Requirements**

In consultation with an advisor, students map out a plan of study that includes 15 credits of upper-division coursework in one discipline. All other requirements for the FAU degree apply, including:

1. A minimum of 120 credits overall;
2. All General Education Program requirements (36 credits);
3. Writing Across Curriculum (Gordon Rule Writing) requirements;
4. At least 45 credits at the upper-division level;
5. The last 30 credits of upper-division credits taken in residence at FAU;
6. A minimum 2.0 FAU GPA overall and in the 15-credit upper-division coursework selected in one discipline.

Students may not pursue the Bachelor of General Studies as a second major, second degree or second baccalaureate.

Students may pursue minors and/or certificates with the B.G.S. degree as long as the pursuit does not extend time to graduation or other existing college restrictions. No course overlap may occur between the B.G.S. 15-credit discipline and the minor(s). However, course overlap between the certificate(s) and the B.G.S. 15-credit discipline is allowed. Course overlap between the certificate(s) and the minor(s) is allowed.

Students interested in pursuing the Bachelor of General Studies should contact the advising office

of the FAU college that houses the student's selected discipline. Contact information for college advising offices is found in the [General Information](#) section of this catalog.

## FAU HONORS PROGRAMS

Undergraduates have a variety of honors options to choose from at FAU.

### **HARRIET L. WILKES HONORS COLLEGE**

Academically accomplished students can take advantage of the complete all-honors education of the Harriet L. Wilkes Honors College in Jupiter, Florida. The Honors College provides an extraordinary liberal arts and science education in a unique living and learning environment located on FAU's beautiful John D. MacArthur campus, 40 minutes north of the main Boca Raton campus. It is an opportunity for motivated students to take all four years of their coursework at the honors level, in classes with an average size of 15 students. Honors College students receive the benefits of a small, selective, residential liberal arts college while also having full access to the research opportunities of a large university, including access to the world-renowned Scripps Research and Max Planck Institutes, located on the Jupiter campus and FAU's Harbor Branch Oceanographic Institute in Fort Pierce.

Among the unique features of the Wilkes Honors College in Jupiter:

- All admitted students are awarded substantial merit scholarships including a significant number of "full-ride" scholarships (up to \$60,000 over four years).
- Small class sizes mean students interact closely with professors who are internationally known scholars, researchers and authors.
- All students complete either an internship or a study abroad. Students have access to internships at Scripps Florida and the Max Planck Florida Institute, as well as internships in the arts and humanities, law, politics, environmental studies and many other disciplines. Students have access to an extensive array of study abroad opportunities.
- Pathways in Business, Education, Engineering, and Nursing enable students to pursue focused career objectives while also receiving a strong foundation in the liberal arts and sciences.
- The Wilkes Medical Scholars Program enables a select group of students to receive a B.A. from the Wilkes Honors College and the M.D. degree from FAU's College of Medicine in seven to eight years.
- All Honors College students write an honors thesis in their senior year and take advantage of other opportunities to conduct research alongside faculty members. Honors College students have

published their work in scholarly journals and are encouraged to present research at conferences.

- Students live in spacious residence halls and can take part in an impressive variety of recreational activities.

For more information visit the Wilkes Honors College [website](#).

## UNIVERSITY HONORS PROGRAM

Another option for undergraduates is the University Honors Program (UHP) based primarily on the Boca Raton campus. Each year a number of highly qualified entering freshmen are selected for the University Honors Program. This two-year program provides a unique, enhanced educational experience. Through a series of small honors seminars and expanded course offerings, University Honors presents an exciting alternative to the normal program and course requirements for students in their first two years of attendance.\* The University Honors Program seeks to admit those students who will benefit most from the enrichment offered by this experience. Selection decisions are based upon a student's academic record in a college preparatory curriculum, SAT or ACT scores, liveliness of intellect, school and community involvement and capacity for leadership. Students who are not invited may submit a University Honors Program Supplemental Application, an academic writing sample and a résumé.

The program consists of 14 honors credits. All students are required to take 2 credits of Honors Introduction to Academic Life (SLS 1501) offered in the fall. In addition, students are expected to complete 12 credits in courses that are specially designated as honors courses and also fulfill General Education requirements. These courses include:

1. University Honors core seminars that focus on topics central to a liberal arts education. They substitute for regular courses in the General Education Program, FAU's General Education curriculum; some are designated by a 1930 course number. These courses are limited to 22 students because they fulfill the Writing Across Curriculum requirements. Typically, students in the University Honors Program are expected to take four seminars during their freshman year.
2. Specially designated honors sections of lower-division courses, affording intensive exposure to course material.
3. Advanced courses approved as substitutes for General Education requirements.
4. Additional elective honors seminars taken in the second year of attendance.
5. A successfully completed honors compact conducted in connection with a course or Directed Independent Study.
6. An honors directed independent research (DIR) course with a faculty member of their choice.

Honors students should consider pursuing the FAU Undergraduate Research Certificate, as many of the Honors requirements are also applicable to this [Research Certificate](#).

In order to successfully complete the University Honors Program, students must maintain a 3.0 grade point average in their honors courses and an overall grade point average of 3.5. Students must also complete 20 hours of volunteer work. Completion of the University Honors Program will be recognized at a special University awards ceremony and will be noted on the student's Florida Atlantic University transcript.

### **Substitutes for General Education Program Requirements**

All seminars offered by the University Honors Program satisfy General Education requirements. If students wish to complete a University Honors Program requirement by an alternative means (such as 2 through 6 above), that plan must be discussed with a UHP advisor and approved in advance by both the University Honors Director (who certifies that the work is being done at the honors level) and the Dean of Undergraduate Studies (who certifies that the work fulfills a General Education requirement).

\*Students with an A.A. degree should consider applying to an upper-division honors course in the major program and not the University Honors Program.

**Note:** Whenever a University Honors Program seminar satisfies a Writing Across Curriculum requirement, a grade of "C" or better is required. Substitutions for these seminars are subject to approval by the major college.

For additional information, visit the University Honors Program [website](#).

## **HONORS-IN-THE-MAJOR PROGRAMS**

Honors-in-the-Major Programs at Florida Atlantic University offer qualified and intellectually curious upper-division students the opportunity to enrich their academic experience by working closely with faculty on creative, scholarly or research projects.

Honors-in-the-Majors Programs are offered in select departments within each of the colleges and are designed for students to delve deeper and begin the professionalization into their chosen disciplines with faculty members committed to excellence in creative, scholarly or research endeavors.

For existing Honors-in-the-Major programs, please visit:

<https://www.fau.edu/honorsinthemajor/program-information/existing-honors-in-the-major/>

These programs are approved by the University Honors Council once departments design their

respective programs and determine their program's entry and completion requirements. Courses demonstrate increased rigor and demands consistent with an honors program. A thesis or a capstone project is a hallmark in each of these programs. Graduate courses, as designated by departments, count as honors courses for students completing Honors-in-the-Major Programs, once the University Honors Council has approved them.

For a graduate course to count for an Honors-in-the-Major Program, the course must be taken for a grade. Satisfactory/Unsatisfactory (S/U) courses will not count. A grade of "C" or higher is required for the course to count toward the Honors in-the-Major Program.

In most cases, financial aid can be used for the graduate course, as long as the course is degree applicable. It is advisable to meet with a Financial Aid Counselor to review the student's customized financial aid package.

## UNDERGRADUATE MINORS

### [College of Arts and Letters Minors](#)

Anthropology

Architectural Studies

Arabic

Art History

Commercial Music

Communication Studies

Comparative Literature

Dance

Disaster Management

English

Environment and Society

Film and Video

French

German

History

Italian

Interdisciplinary Applications of Artificial Intelligence: Societal

Japanese

Jewish Studies

Linguistics  
Museums, Archives and Public History  
Nonprofit Management  
Peace, Justice and Human Rights  
Philosophy  
Political Communication  
Political Science  
Public Management  
Sociology  
Spanish  
Sport Studies  
Studio Art  
Theatre  
Women, Gender and Sexuality Studies

### College of Business Minors

Accounting  
Business Administration  
Business Analytics  
Business Law  
Cybersecurity: Information Technology  
Digital Marketing  
Economics  
Entrepreneurial Management  
Entrepreneurship  
Finance  
Healthcare Information Systems  
Health Administration  
Hospitality and Tourism Management  
Interdisciplinary Applications of Artificial Intelligence: Business  
International Business  
International Economics  
Investment Management  
Leadership and Human Resource Development  
Management Information Systems

Marketing

Operations Management

Real Estate

### College of Education Minors

Diversity and Global Studies

Leadership Studies

### College of Engineering and Computer Science Minors

Artificial Intelligence

Computer Science

Cybersecurity: Computer Science

Geomatics Engineering

Interdisciplinary Applications of Artificial Intelligence: Technology

### Harriet L. Wilkes Honors College Minors

Anthropology

Art

Chemistry

Data Science

Digital Game Development

Economics

English Literature

Environmental Studies

Ethics (Interdisciplinary)

French and Francophone Studies

History

Interdisciplinary Theory of Knowledge

Law and Society

Mathematics

Philosophy

Physics

Psychology  
Spanish Literature  
Visual Arts and Creative Writing  
Women's Studies

### [Military Programs Minor](#)

Military Science

### [College of Science Minors](#)

Biological Sciences  
Cybersecurity: Mathematical Sciences  
Geographic Information Science  
Geography  
Geology  
Interdisciplinary Applications of Artificial Intelligence: Scientific  
Mathematics  
Physics  
Psychology  
Statistics

### [College of Social Work and Criminal Justice](#)

Criminal Justice  
Social Work

## UNDERGRADUATE CERTIFICATES

In addition to its degree programs and minors, the University offers the following undergraduate certificate programs:

### [College of Arts and Letters Undergraduate Certificates](#)

Asian Studies

Caribbean and Latin American Studies

Classical Studies

English as a Second Language (ESL) Studies

Ethics, Law and Society

Ethnic Studies

Interdisciplinary Applications of Artificial Intelligence: Societal

Peace, Justice and Human Rights

Professional and Technical Writing

Religious Studies

### College of Business Undergraduate Certificates

Business Analytics

Casino and Gaming Industry Management

Club Management

Cybersecurity: Information Technology

Digital Marketing

Gerontology

Healthcare Information Systems

Hospitality and Tourism Management

Interdisciplinary Applications of Artificial Intelligence: Business

International Business

Investment Management

Meetings and Events Management

Risk Management and Insurance

### College of Education Undergraduate Certificates

Applied Mental Health Services (offered jointly with College of Science)

Diversity and Global Studies

Early Childhood Environmental Education

Supported Community Access (open to Academy for Community Inclusion students only)

Supported Community Living (open to Academy for Community Inclusion students only)

Supported Employment (open to Academy for Community Inclusion students only)

## College of Engineering and Computer Science Undergraduate Certificates

Aerospace Engineering

Artificial Intelligence

Biomedical Engineering

Cybersecurity: Computer Science

Data Science: Computer Science

Interdisciplinary Applications of Artificial Intelligence: Technology

Marine Materials and Offshore Engineering

Naval Architecture

Robotics Engineering

Surveying and Mapping

Underwater Acoustics

## College of Science Undergraduate Certificates

Actuarial Science

Applied Mental Health Services (offered jointly with College of Education)

Biotechnology

Cybersecurity: Mathematical Sciences

Data Science: Mathematical Sciences

Environmental Science

Geographic Information Systems (GIS)

Advanced Geographic Information Systems

Interdisciplinary Applications of Artificial Intelligence: Scientific

Pharmaceutical Technology

Post-Baccalaureate Pre-Health Professions

Statistics

## College of Social Work and Criminal Justice Certificates

Child Welfare

Healthy Aging

Social Justice

## UNDERGRADUATE STUDIES CERTIFICATE

### Undergraduate Research

These programs provide a multidisciplinary perspective and are available to all undergraduate students, unless stated otherwise in the program descriptions. Program descriptions are listed in specific college sections.

## COMBINED DEGREE PROGRAMS

All combined bachelor's/master's degree programs offered at the University require a minimum of 150 credits, comprised of a minimum of 120 credits for the baccalaureate degree and a minimum of 30 credits for the master's degree. All combined bachelor's/doctoral degree programs require a minimum of 192 credits, comprising a minimum of 120 credits for the baccalaureate degree and a minimum of 72 credits for the doctoral degree. All master's degree program credits or doctoral degree program credits must be at the graduate level (5000 level or above). A maximum of 12 credits of graduate coursework may be used to satisfy both degrees. The baccalaureate degree will be conferred before the graduate degree. Individual programs may have more stringent requirements. Please follow the links to the college sections below for the individual combined degree program information.

### BACHELOR OF ARCHITECTURE/MASTER OF URBAN AND REGIONAL PLANNING ADVANCED STANDING PROGRAM (B.ARCH./M.U.R.P.)

([College of Arts and Letters](#)/ [College of Science](#) )

### BACHELOR OF ARTS/MASTER OF ARTS (B.A./M.A.)

*with major in one of the following:*

History

([College of Arts and Letters](#))

Languages, Linguistics and Comparative Literature with Linguistics Concentration

([College of Arts and Letters](#))

Liberal Arts and Sciences with History Concentration/History

([Honors College](#) /College of Arts and Letters)

Psychology

([College of Science](#))

BACHELOR OF ARTS IN HEALTH SCIENCE /MASTER OF SCIENCE IN  
EXERCISE SCIENCE AND HEALTH PROMOTION (B.A./M.S.)

([College of Science](#))

BACHELOR OF ARTS IN MUSIC /MASTER OF NONPROFIT MANAGEMENT  
(B.A./M.N.M.)

([College of Arts and Letters](#))

BACHELOR OF ARTS OR BACHELOR OF SCIENCE IN BIOLOGICAL AND  
PHYSICAL SCIENCES /MASTER OF SCIENCE IN ARTIFICIAL INTELLIGENCE  
(B.A. OR B.S./M.S.)

([Honors College](#) /College of Engineering and Computer Science)

BACHELOR OF ARTS OR BACHELOR OF SCIENCE (B.A. OR B.S.) IN  
BIOLOGICAL AND PHYSICAL SCIENCES WITH BIOLOGY, BIOLOGICAL  
CHEMISTRY, CHEMISTRY, MARINE BIOLOGY, NEUROSCIENCE OR PHYSICS  
CONCENTRATION/ MASTER OF SCIENCE IN BIOMEDICAL ENGINEERING  
(B.A. OR B.S./M.S.)

([Honors College](#) /College of Engineering and Computer Science )

BACHELOR OF ARTS OR BACHELOR OF SCIENCE (B.A. OR B.S.) IN  
BIOLOGICAL AND PHYSICAL SCIENCES/ SECOND BACHELOR OF SCIENCE  
IN CIVIL, ENVIRONMENTAL OR GEOMATICS ENGINEERING/ MASTER OF  
SCIENCE IN CIVIL ENGINEERING

[\(Honors College](#) /College of Engineering and Computer Science)

**BACHELOR OF ARTS OR BACHELOR OF SCIENCE IN BIOLOGICAL AND PHYSICAL SCIENCES IN ANY CONCENTRATION OFFERED BY THE HONORS COLLEGE/ MASTER OF SCIENCE IN COMPUTER ENGINEERING (B.A. OR B.S./M.S.)**

[\(Honors College](#) /College of Engineering and Computer Science)

**BACHELOR OF ARTS OR BACHELOR OF SCIENCE IN BIOLOGICAL AND PHYSICAL SCIENCES IN ANY CONCENTRATION OFFERED BY THE HONORS COLLEGE/ MASTER OF SCIENCE IN COMPUTER SCIENCE (B.A. OR B.S./M.S.)**

[\(Honors College](#) /College of Engineering and Computer Science)

**BACHELOR OF ARTS OR BACHELOR OF SCIENCE IN BIOLOGICAL AND PHYSICAL SCIENCES IN ANY CONCENTRATION OFFERED BY THE HONORS COLLEGE/ MASTER OF SCIENCE IN ELECTRICAL ENGINEERING (B.A. OR B.S./M.S.)**

[\(Honors College](#) /College of Engineering and Computer Science )

**BACHELOR OF ARTS OR BACHELOR OF SCIENCE IN BIOLOGICAL AND PHYSICAL SCIENCES IN ANY CONCENTRATION OFFERED BY THE HONORS COLLEGE/ MASTER OF SCIENCE IN MECHANICAL ENGINEERING (B.A. OR B.S./M.S.)**

[\(Honors College](#) /College of Engineering and Computer Science )

**BACHELOR OF ARTS OR BACHELOR OF SCIENCE IN BIOLOGICAL AND PHYSICAL SCIENCES IN ANY CONCENTRATION OFFERED BY THE HONORS COLLEGE/ MASTER OF SCIENCE IN OCEAN ENGINEERING (B.A. OR B.S./M.S.)**

[\(Honors College](#) /College of Engineering and Computer Science )

**BACHELOR OF ARTS OR BACHELOR OF SCIENCE IN BIOLOGICAL AND PHYSICAL SCIENCES IN ANY CONCENTRATION OFFERED BY THE HONORS COLLEGE/ MASTER OF SCIENCE IN INFORMATION TECHNOLOGY AND MANAGEMENT WITH ADVANCED INFORMATION TECHNOLOGY CONCENTRATION (B.A. OR B.S./M.S.)**

[\(Honors College](#) /College of Engineering and Computer Science)

**BACHELOR OF ARTS OR BACHELOR OF SCIENCE IN BIOLOGICAL AND PHYSICAL SCIENCES IN ANY CONCENTRATION OFFERED BY THE HONORS COLLEGE/ MASTER OF SCIENCE IN INFORMATION TECHNOLOGY AND MANAGEMENT WITH COMPUTER SCIENCE DATA ANALYTICS CONCENTRATION (B.A. OR B.S./M.S.)**

[\(Honors College](#) /College of Engineering and Computer Science)

**BACHELOR OF ARTS OR BACHELOR OF SCIENCE IN LIBERAL ARTS AND SCIENCES WITH MATHEMATICAL SCIENCES CONCENTRATION OR BACHELOR OF ARTS OR BACHELOR OF SCIENCE IN BIOLOGICAL AND PHYSICAL SCIENCES WITH MATHEMATICS CONCENTRATION/ MASTER OF SCIENCE IN MATHEMATICS (B.A. OR B.S./M.S.)**

[\(Honors College](#) /College of Science)

**HONORS PROGRAM IN ACCOUNTING OPTION: BACHELOR OF BUSINESS ADMINISTRATION IN ACCOUNTING/ MASTER OF ACCOUNTING IN ACCOUNTING (B.B.A./M.AC.)**

[\(College of Business\)](#)

**BACHELOR OF BUSINESS ADMINISTRATION OR BACHELOR OF SCIENCE IN ECONOMICS/ MASTER OF SCIENCE IN ECONOMICS (B.B.A. OR B.S./M.S.)**

[\(College of Business\)](#)

**BACHELOR OF BUSINESS ADMINISTRATION OR BACHELOR OF SCIENCE IN MANAGEMENT INFORMATION SYSTEMS/ MASTER OF SCIENCE IN BUSINESS ANALYTICS (B.B.A. OR B.S./M.S.)**

(College of Business)

**BACHELOR OF BUSINESS ADMINISTRATION OR BACHELOR OF SCIENCE IN MANAGEMENT INFORMATION SYSTEMS/ MASTER OF SCIENCE IN INFORMATION TECHNOLOGY AND MANAGEMENT (B.B.A. OR B.S./M.S.)**

(College of Business)

**BACHELOR OF BUSINESS ADMINISTRATION OR BACHELOR OF SCIENCE IN MANAGEMENT INFORMATION SYSTEMS/ MASTER OF SCIENCE IN SUPPLY CHAIN MANAGEMENT (B.B.A. OR B.S./M.S.)**

(College of Business)

**BACHELOR OF HEALTH SERVICES IN HEALTH ADMINISTRATION/ MASTER OF HEALTH ADMINISTRATION (B.H.S./M.H.A.)**

(College of Business)

**BACHELOR OF MUSIC IN COMMERCIAL MUSIC: MUSIC BUSINESS/MASTER OF NONPROFIT MANAGEMENT (B.M./M.N.M.)**

(College of Arts and Letters)

**BACHELOR OF MUSIC IN MUSIC: PERFORMANCE /MASTER OF NONPROFIT MANAGEMENT (B.M./M.N.M.)**

(College of Arts and Letters)

**BACHELOR OF PUBLIC MANAGEMENT /MASTER OF NONPROFIT MANAGEMENT (B.P.M./M.N.M.)**

(College of Arts and Letters)

**BACHELOR OF PUBLIC MANAGEMENT /MASTER OF PUBLIC**

## **ADMINISTRATION (B.P.M./M.P.A.)**

(College of Arts and Letters)

## **BACHELOR OF PUBLIC SAFETY ADMINISTRATION /MASTER OF NONPROFIT MANAGEMENT (B.P.S.A./M.N.M.)**

(College of Arts and Letters)

## **BACHELOR OF PUBLIC SAFETY ADMINISTRATION /MASTER OF PUBLIC ADMINISTRATION (B.P.S.A./M.P.A.)**

(College of Arts and Letters)

## **BACHELOR OF SCIENCE/MASTER OF SCIENCE (B.S./M.S.)**

*with major in one of the following:*

Biological Sciences

(College of Science)

Chemistry

(College of Science)

Exercise Science and Health Promotion

(College of Science)

Geosciences

(College of Science)

Mathematical Sciences

(College of Science)

## **BACHELOR OF SCIENCE IN BIOLOGICAL SCIENCES/ MASTER OF SCIENCE IN ENVIRONMENTAL SCIENCE (B.S./M.S.)**

(College of Science)

BACHELOR OF SCIENCE IN DATA SCIENCE AND ANALYTICS: DATA SCIENCE AND ENGINEERING CONCENTRATION/ MASTER OF SCIENCE IN ARTIFICIAL INTELLIGENCE OR MASTER OF SCIENCE IN DATA SCIENCE AND ANALYTICS: DATA SCIENCE AND ENGINEERING CONCENTRATION OR MASTER OF SCIENCE IN INFORMATION TECHNOLOGY AND MANAGEMENT: ADVANCED INFORMATION TECHNOLOGY OR COMPUTER SCIENCE DATA ANALYTICS CONCENTRATIONS (B.S./M.S.)

(College of Engineering and Computer Science)

BACHELOR OF SCIENCE IN NEUROSCIENCE AND BEHAVIOR/ MASTER OF ARTS IN PSYCHOLOGY (B.S./M.A.)

(College of Science)

BACHELOR OF SCIENCE IN PHYSICS/ PROFESSIONAL SCIENCE MASTER IN MEDICAL PHYSICS (B.S./P.S.M.)

(College of Science)

BACHELOR OF SCIENCE IN ANY MAJOR OFFERED BY THE COLLEGE OF ENGINEERING AND COMPUTER SCIENCE/ MASTER OF SCIENCE IN BIOMEDICAL ENGINEERING (E.G., B.S.C.V., B.S.C.E., B.S.C.S, B.S.E.E., B.S.E.V., B.S.G.E., B.S.M.E., B.S.O.E./M.S.)

(College of Engineering and Computer Science)

BACHELOR OF SCIENCE IN CIVIL ENGINEERING/MASTER OF SCIENCE IN CIVIL ENGINEERING (B.S.C.V./M.S.)

(College of Engineering and Computer Science)

BACHELOR OF ARTS IN COMPUTER SCIENCE OR BACHELOR OF SCIENCE IN COMPUTER SCIENCE OR BACHELOR OF SCIENCE IN COMPUTER ENGINEERING OR BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING / MASTER OF SCIENCE IN INFORMATION TECHNOLOGY AND MANAGEMENT WITH ADVANCED INFORMATION TECHNOLOGY OR COMPUTER SCIENCE DATA ANALYTICS CONCENTRATIONS (B.A.C.S. OR B.S.C.S. OR B.S.C.E OR B.S.E.E/M.S.)

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN COMPUTER ENGINEERING/MASTER OF SCIENCE  
IN ARTIFICIAL INTELLIGENCE (B.S.C.E./M.S.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN COMPUTER ENGINEERING/MASTER OF SCIENCE  
IN COMPUTER ENGINEERING (B.S.C.E./M.S.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN COMPUTER ENGINEERING/DOCTOR OF  
PHILOSOPHY IN COMPUTER ENGINEERING (B.S.C.E./PH.D.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN COMPUTER SCIENCE/MASTER OF SCIENCE IN  
ARTIFICIAL INTELLIGENCE (B.S.C.S./M.S.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN COMPUTER SCIENCE/MASTER OF SCIENCE IN  
COMPUTER SCIENCE (B.S.C.S./M.S.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN COMPUTER SCIENCE/DOCTOR OF PHILOSOPHY  
IN COMPUTER SCIENCE (B.S.C.S./PH.D.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING/MASTER OF  
SCIENCE IN ARTIFICIAL INTELLIGENCE (B.S.E.E./M.S.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING/MASTER OF SCIENCE IN ELECTRICAL ENGINEERING (B.S.E.E./M.S.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING/MASTER OF SCIENCE IN COMPUTER ENGINEERING (B.S.E.E./M.S.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING/DOCTOR OF PHILOSOPHY IN ELECTRICAL ENGINEERING (B.S.E.E./PH.D.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN ENVIRONMENTAL ENGINEERING/MASTER OF SCIENCE IN CIVIL ENGINEERING (B.S.E.V./M.S.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN GEOMATICS ENGINEERING/MASTER OF SCIENCE IN CIVIL ENGINEERING (B.S.G.E./M.S.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING/MASTER OF SCIENCE IN ARTIFICIAL INTELLIGENCE (B.S.M.E./M.S.)**

(College of Engineering and Computer Science)

**BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING/MASTER OF SCIENCE IN MECHANICAL ENGINEERING (B.S.M.E./M.S.)**

(College of Engineering and Computer Science)

## BACHELOR OF SCIENCE IN NURSING/MASTER OF SCIENCE IN ARTIFICIAL INTELLIGENCE (B.S.N./M.S.)

([College of Nursing](#) /College of Engineering and Computer Science)

## BACHELOR OF SCIENCE IN NURSING/MASTER OF SCIENCE IN BIOMEDICAL ENGINEERING (B.S.N./M.S.)

([College of Nursing](#) /College of Engineering and Computer Science)

## BACHELOR OF SCIENCE IN OCEAN ENGINEERING/MASTER OF SCIENCE IN OCEAN ENGINEERING (B.S.O.E./M.S.)

([College of Engineering and Computer Science](#))

## BACHELOR OF URBAN AND REGIONAL PLANNING/MASTER OF URBAN AND REGIONAL PLANNING ADVANCED STANDING PROGRAM (B.U.R.P./M.U.R.P.)

([College of Science](#))

## BACHELOR OF URBAN DESIGN/MASTER OF URBAN AND REGIONAL PLANNING ADVANCED STANDING PROGRAM (B.U.D./M.U.R.P.)

([College of Science](#))

## MASTER OF EDUCATION/SPECIALIST IN EDUCATION (M.ED./ED.S.) IN COUNSELOR EDUCATION

([College of Education](#))

## GRADUATE DEGREE PROGRAMS

## MASTER OF ACCOUNTING (M.AC.)

(College of Business)

## MASTER OF ARTS (M.A.)

*with major in one of the following:*

Anthropology

(College of Arts and Letters)

Communication

(College of Arts and Letters)

English

(College of Arts and Letters)

History

(College of Arts and Letters)

Languages, Linguistics and Comparative Literature

(College of Arts and Letters)

Political Science

(College of Arts and Letters)

Psychology

(College of Science)

Sociology

(College of Arts and Letters)

Women, Gender and Sexuality Studies

(College of Arts and Letters)

## MASTER OF ARTS IN TEACHING (M.A.T.)

*with major in one of the following:*

Anthropology

(College of Arts and Letters)

## MASTER OF BUSINESS ADMINISTRATION (M.B.A.)

*with major in:*

Business Administration

(College of Business)

## MASTER OF EDUCATION (M.ED.)

*with major in one of the following:*

(College of Education)

Counselor Education

Curriculum and Instruction

Educational Leadership

Educational Psychology

Elementary Education

Environmental Education

Instructional Technology

Reading Education

Secondary Education plus Certification

Special Education

## MASTER OF FINE ARTS (M.F.A.)

*with major in one of the following:*

Creative Writing

[\(College of Arts and Letters\)](#)

Media, Technology and Entertainment (This major is currently on suspension and not accepting students.)

[\(College of Arts and Letters\)](#) and College of Engineering and Computer Science)

Studio/Fine Arts

[\(College of Arts and Letters\)](#)

Theatre

[\(College of Arts and Letters\)](#)

**MASTER OF HEALTH ADMINISTRATION (M.H.A.)**

[\(College of Business\)](#)

**MASTER OF MUSIC (M.M.)**

[\(College of Arts and Letters\)](#)

**MASTER OF NONPROFIT MANAGEMENT (M.N.M.)**

[\(College of Arts and Letters\)](#)

**MASTER OF PUBLIC ADMINISTRATION (M.P.A.)**

[\(College of Arts and Letters\)](#)

**MASTER OF SCIENCE (M.S.)**

*with major in one of the following:*

Artificial Intelligence

[\(College of Engineering and Computer Science\)](#)

Biological Sciences

(College of Science)

Biomedical Engineering

(College of Engineering and Computer Science)

Biomedical Science

(College of Medicine)

Business Analytics

(College of Business)

Chemistry

(College of Science)

Civil Engineering

(College of Engineering and Computer Science)

Computer Engineering

(College of Engineering and Computer Science)

Computer Science

(College of Engineering and Computer Science)

Criminology and Criminal Justice

(College of Social Work and Criminal Justice)

Data Science and Analytics

(Interdisciplinary Programs)

Economics

(College of Business)

Electrical Engineering

(College of Engineering and Computer Science)

Environmental Science

(College of Science)

Exercise Science and Health Promotion

(College of Science)

Finance (Program is not admitting students at this time.)

(College of Business)

Geosciences

(College of Science)

Information Technology and Management

(Interdisciplinary Programs)

International Business

(College of Business)

Marine Science and Oceanography

(College of Science)

Mathematics

(College of Science)

Mechanical Engineering

(College of Engineering and Computer Science)

Ocean Engineering

(College of Engineering and Computer Science)

Physics

(College of Science)

Speech-Language Pathology/Audiology

(College of Education)

Supply Chain Management

(College of Business)

MASTER OF SCIENCE IN NURSING (M.S.N.)

(College of Nursing)

MASTER OF SCIENCE IN TEACHING (M.S.T.)

*with major in one of the following:*

Biological Sciences

(College of Science)

Chemistry

(College of Science)

Economics

(College of Business)

Mathematics

(College of Science)

Physics

(College of Science)

MASTER OF SOCIAL WORK (M.S.W.)

(College of Social Work and Criminal Justice)

MASTER OF TAXATION (M.TX.)

(College of Business)

MASTER OF URBAN AND REGIONAL PLANNING (M.U.R.P.)

(College of Science)

## PROFESSIONAL SCIENCE MASTER (P.S.M.)

*with major in one of the following:*

Business Biotechnology

([College of Science](#) and College of Business)

Medical Physics

([College of Science](#))

## SPECIALIST IN EDUCATION (ED.S.)

*with major in one of the following:*

([College of Education](#))

Counselor Education

Curriculum and Instruction

Educational Leadership

## DOCTOR OF MEDICINE (M.D.)

([College of Medicine](#))

## DOCTOR OF NURSING PRACTICE (D.N.P.)

([College of Nursing](#))

## DOCTOR OF PHILOSOPHY (PH.D.)

*with major in one of the following:*

Business Administration

([College of Business](#))

Chemistry  
(College of Science)

Comparative Studies  
(College of Arts and Letters)

Complex Systems and Brain Sciences  
(College of Science)

Computer Engineering  
(College of Engineering and Computer Science)

Computer Science  
(College of Engineering and Computer Science)

Counseling  
(College of Education)

Curriculum and Instruction  
(College of Education)

Educational Leadership  
(College of Education)

Electrical Engineering  
(College of Engineering and Computer Science)

Experimental Psychology  
(College of Science)

Geosciences  
(College of Science)

Integrative Biology  
(College of Medicine and College of Science)

Mathematics

(College of Science)

Mechanical Engineering

(College of Engineering and Computer Science)

Neuroscience

(Interdisciplinary Programs)

Nursing

(College of Nursing)

Ocean Engineering

(College of Engineering and Computer Science)

Physics

(College of Science)

Public Administration

(College of Arts and Letters)

Special Education

(College of Education)

Transportation and Environmental Engineering

(College of Engineering and Computer Science)

## **DOCTOR OF SOCIAL WORK (D.S.W.)**

(This major is currently on suspension and not accepting students.)

(College of Social Work and Criminal Justice)

## **GRADUATE MINORS**

[Artificial Intelligence](#)

## Business

# GRADUATE CERTIFICATES

In addition to the above degree programs, the University offers the following graduate certificate programs:

### College of Arts and Letters Graduate Certificates

English as a Second Language (ESL) Studies

Film and Culture

Literary Translation

Nonprofit Executive Leadership

Public Ethics and Leadership

Public Policy

Sexuality and Gender Education

Women, Gender and Sexuality Studies

### College of Business Graduate Certificates

Big Data Analytics: Business

Crisis and Disaster Management

Environmental Management (Certificate is not admitting students at this time.)

Health Administration

Hospitality and Tourism Management

Innovation Entrepreneurship

Legal Compliance Management (Certificate is not admitting students at this time.)

Professional Accounting

Risk Management

Transportation, Logistics and Supply Chain Management

(offered jointly with the College of Engineering and Computer Science)

### College of Education Graduate Certificates

Environment Education

Instructional Design  
K-12 Online Teaching  
Multicultural Education  
Teacher Leadership

### **College of Engineering and Computer Science Graduate Certificates**

Aerospace Engineering  
Artificial Intelligence  
Big Data Analytics: Computer Science  
Biomedical Engineering  
Corrosion  
Cyber Security: Computer Science  
Energy Resilience  
Offshore Engineering  
Transportation Engineering  
Transportation, Logistics and Supply Chain Management (offered jointly with the College of Business)

### **College of Medicine Graduate Certificates**

Biomedical Science  
Genomics and Predictive Health

### **College of Nursing Graduate Certificates**

Adult/Gerontological Nurse Practitioner  
Advanced Holistic Nursing  
Clinical Nurse Leader  
Family Nurse Practitioner  
Nurse Educator  
Nursing Administration and Financial Leadership  
Psychiatric Mental Health Nurse Practitioner

### **College of Science Graduate Certificates**

Cyber Security: Mathematics

Economic Development and Tourism

Environmental Restoration

Geographic Information Systems

Medical Physics

Neuroeconomics

Neuroscience

Post-Baccalaureate Research Education Program in Chemistry

Remote Sensing

Sustainable Community Planning

### **College of Social Work and Criminal Justice Graduate Certificates**

Addictions

Child Welfare

Healthy Aging

Social Justice

These programs provide a multidisciplinary perspective and are available to all graduate students, unless stated otherwise in the program descriptions. Program descriptions are listed in specific college sections.







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## UNDERGRADUATE DEGREE REQUIREMENTS

Students assume all responsibility for all graduation requirements.

## UNDERGRADUATE STUDIES, OFFICE OF THE DEAN

The Undergraduate Studies Office is headed by the Dean of Undergraduate Studies who reports directly to the University Provost and Chief Academic Officer.

Under the supervision of the Dean, a number of academic support services make major contributions to the enhancement of the undergraduate experience. They include University Advising Services, Academic Coaching and Career Enhancement for Student Success (ACCESS), Jupiter Advising Services (Academic Advising, Coaching and Transfer Services), the Center for Teaching and Learning (Center for Learning and Student Success, Science Learning Center, University Center for Excellence in Writing, Math Learning Center, Learning Assistant Program, eSuccess, and Scholarship

of Teaching), Office of Undergraduate Research and Inquiry, Prestigious Fellowships, Scholars Program, Student-Athlete Success Center, Testing and Certification, Office of Academic Success Initiatives, University Honors Program, Honors-in-the-Major Program and Writing Across the Curriculum.

## PLANNING THE DEGREE PROGRAM

Students should plan their degree program in consultation with their advisor. For planning purposes, it is important to read this Degree Requirements section carefully and to refer questions to the advisor or other appropriate offices. Many of the degree requirements described are most conveniently satisfied during the lower division (prior to the student's completion of 60 credits). When planning their lower-division program, students should consider the General Education Program requirements and others, such as the Writing Across Curriculum (Gordon Rule) and College-Level Computation Skills (Gordon Rule) as described in this section, the college requirements for their major as described in this section and their major college requirements as described in the appropriate college section.

## UNIVERSITY ADVISING SERVICES

The academic advising philosophy for [University Advising Services \(UAS\)](#) is based on the Appreciative Advising model. It is the intentional collaborative practice of asking positive, open-ended questions that help students optimize their educational experience, achieve their dreams and goals and reach their potential. The student and advisor, as partners, work together to discover the student's passion and dreams, design a plan to achieve those dreams, deliver on that plan and make changes as necessary to achieve their goals.

The primary focus for UAS is first- and second-year students. UAS provides a safety net for these students when they are not sure where to go for assistance. In support of this mission, the UAS office offers a comprehensive array of services aimed at helping students develop and implement an appropriate and meaningful education plan. UAS provides:

- Advising and course selection for all undecided/exploratory students regardless of number of earned credits;
- Support services for students not in good academic standing with up to 60 earned credits;
- Support services for students with fewer than 60 earned credits (freshmen and sophomores);
- Pre-Law Advising and Support ([PLUS](#)) Program;
- Educate Tomorrow at FAU ([ET@FAU](#)) for former foster youth and homeless students;

- First Generation Advising and Support ([First and Proud](#));
- General Education Curriculum evaluations and substitutions;
- Academic support and resources for FAU High School, dual enrolled, early admission and non-degree students.

**Note:** Referrals to specific college advising offices are made after three semesters and/or 45 earned credits for those students who have declared majors and are in good academic standing.

All program activities and services offered by University Advising Services are aimed at aiding students in developing and implementing an appropriate and meaningful educational plan. For information, visit the University Advising Services website or call 561-297-3064.

## UNDERGRADUATE STUDIES COURSES

### **Special Topics in Undergraduate Studies (IDS 2932) 1-4 credits**

Special topics of interest to undergraduate students.

### **Special Topics in Undergraduate Studies (IDS 2933) 0 credit**

Special topics of interest to undergraduate students. *Grading: S/U*

### **RI: Professional Capstone (IDS 4894) 1-4 credits**

*Prerequisite: Permission of department*

Students complete a culminating product/performance that is reflective of applied expertise gained in the competency areas of their undergraduate studies with a focus on demonstrating academic program reflections and career readiness. This course is intended to be taken in the semester of graduation. This is a Research-Intensive (RI) course.

### **Special Topics in Undergraduate Studies (IDS 4931) 0 credits**

Special topics of interest to undergraduate students. *Grading: S/U*

### **Special Topics in Undergraduate Studies (IDS 4932) 1-4 credits**

Special topics of interest to undergraduate students.

### **Career and Life Planning (SLS 1301) 1 credit**

Offered by the FAU Career Center and taught by nationally certified career counselors, this course provides an overview of career development theories and decision-making skills for career/life planning. It focuses on self-assessment, choosing a major, exploring career paths and developing an

action plan to help achieve career goals. The course also provides strong emphasis on the development of presentation, oral and written communication skills as essential skills for any future major/career.

**Note:** All freshmen as well as transfer students entering without an A.A degree who have not declared a major or pre-major by the end of their first semester at FAU (excluding summer terms) will be required to enroll in this course in their second semester.

### **FAU iSucceed: College Success Strategies (SLS 1410) 0 credit**

*Prerequisite: Admission as an FTIC student who enrolls at FAU through Jump Start or similar admissions pathway programs*

This course is designed to develop the skills and build the self-awareness students need to make a successful transition to the university. Based on positive psychology and learning theory, class activities encourage students to reflect on how they learn, their strengths and curricular and co-curricular planning and opportunities to support their academic and career goals. *Grading: S/U*

### **First-Year Interest Group Experience (SLS 1411) 1 credit**

*Prerequisites: Admission as an FTIC student who enrolls at FAU for the fall semester*

This is a themed seminar course where students experience the academic culture and get connected to their specific college. Students investigate hot topics and trends in their majors, participate in learning opportunities that build relationships, skills and knowledge that contribute to their academic and career success and reflect on how their personal interests and majors play roles in the FAU scholarly community. *Grading: S/U*

### **The Learning Community Experience (SLS 1412) 0 credit**

The Learning Community experience combines student academic learning in and out of the classroom through activities, both discipline- and interdisciplinary-specific. Based on Student Development Theory, students participate in a variety of programs, workshops and events and reflect on their relevance to enhancing the students' overall college experience. *Grading: S/U*

### **The Learning Community Experience Part 2 (SLS 1413) 0 credit**

*Prerequisite: SLS 1412*

This course provides students with additional opportunities to engage in activities and programs to support the Learning Community Education model. Based on Student Development Theory, students participate in a variety of programs, workshops and events, and reflect upon their relevance to the enhancement of their overall college experience while they are concluding their first college year. *Grading S/U*

### **The Learning Community Student Leader Experience (SLS 1414) 0 credit**

*Prerequisites: SLS 1412, SLS 1413*

This course prepares students, called Learning Community Liaisons, to serve as mentors to those students who are in the Learning Community program for their freshman year at Florida Atlantic University. *Grading S/U*

### **Honors Introduction to Academic Life (SLS 1501) 2 credits**

Required for first-year students in the University Honors Program, this course is designed to increase the students' success in college by assisting them in obtaining the knowledge and skills necessary to reach their educational objectives. Topics include the nature of postsecondary education, time management, test-taking, communication skills, study techniques, question-asking skills, and library use. This is an Academic Service Learning (ASL) course.

### **Learning Strategies and Human Development (SLS 1503) 2 credits**

Designed to assist students in making the transition into higher education. Topics include time management, test-taking skills, learning strategies and styles, diversity, short- and long-term planning, developing analytical and critical thinking skills, relationships and campus resources.

### **Special Topics in Student Success (SLS 1931) 0-3 credits**

This course permits Undergraduate Studies to pilot new courses to support specific student populations and programs as identified to increase student learning, development, engagement and outcomes pertaining to retention and academic success. *Grading: S/U*

### **Special Topics in Student Learning and Development (SLS 2932) 0-3 credits**

This course permits Undergraduate Studies to pilot new courses to support specific student populations and programs as identified to increase student learning, development, engagement and outcomes pertaining to retention and academic success.

### **Foundations for Personal Academic and Professional Development (SLS 3115) 3 credits**

*Prerequisite: Permission of department*

This course is designed to prepare transfer students to successfully transition into higher education and make informed decisions about their educational and professional development. Students cultivate and apply skills essential to meeting the scholastic expectations of a four-year university such as critical thinking, oral/written communication, time management, test-taking, learning strategies, financial literacy, digital citizenship, using campus resources and professional workplace competence.

## **UNDERGRADUATE RESEARCH**

To recognize undergraduate students' excellence in undergraduate research, the Office of Undergraduate Research and Inquiry (OURI) offers the [Undergraduate Research Certificate](#). Requirements for the research certificate include completion of 12 credits of research exposure, skill-building and intensive courses as well as dissemination of the outcomes of student research and inquiry through a research presentation or exhibition. The Undergraduate Research Curriculum Committee determines any course or dissemination substitutions toward the certificate. OURI offers the following Interdisciplinary course to facilitate tracking of student dissemination.

### **Undergraduate Research Forum (IDS 4914) 0 credit**

*Prerequisite: Permission of instructor*

This is a zero-credit course for students who are accepted to present at any of FAU's undergraduate research symposia or approved external research symposia/exhibitions. *Grading: S/U*

OURI was created to expand the culture of undergraduate research and inquiry at all FAU campuses, and includes four main goals: 1) Integrating a research and inquiry focus into the curriculum; 2) Expanding co-curricular opportunities for students and faculty to engage in the participation and dissemination of research activities; 3) Rewarding and recognizing faculty and students who are active scholars; 4) Enhancing the climate and culture to support all research and inquiry initiatives at FAU. These efforts recently paid off when FAU was named one of three recipients of the Council on Undergraduate Research Award for Undergraduate Research Accomplishments. The national award recognizes institutions that have developed exemplary programs that provide high-quality research, scholarship and creative experiences for undergraduates. For more information regarding the undergraduate research and inquiry opportunities available, visit the [OURI website](#).

## ASSOCIATE IN ARTS DEGREE REQUIREMENTS

To earn an Associate in Arts degree from FAU, students must be degree-seeking and:

1. Earn a minimum of 60 credits in academic courses acceptable toward the degree with at least a cumulative 2.0 FAU GPA.
2. Earn a minimum of 40 of the 60 credits at the lower-division (1000-2000) level as indicated by the Statewide Course Numbering System (SCNS) designations or their equivalents.
3. Earn a minimum of 30 of the 40 lower-division (1000-2000) credits at FAU. (This may be waived for students who transfer more than 30 lower-division degree-applicable credits from a single Florida public state college.)
4. Earn a minimum of 30 of the 60 credits in residence at FAU and complete the last semester in

residence at FAU.

5. Apply no more than 30 credits of non-traditional credit toward the degree earned through Advanced Placement (AP), College Level Examination Program (CLEP), Correspondence Courses, International Baccalaureate (IB) or Military Service Schools, subject to limits for each as stated in the [Academic Policies and Regulations section](#) of this catalog. Credits earned in this manner will be considered transfer credits.
6. Fulfill the General Education Program requirements.
7. Satisfy the Writing Across Curriculum (Gordon Rule) and College-Level Computation Skills (Gordon Rule) requirements (see explanation elsewhere in this section).
8. Meet the Foreign Language Entrance Requirement (FLENT).
9. Complete the Florida Civic Literacy Requirement (for students who initially entered a Florida college system institution or a state university in fall 2018 and thereafter).
10. Submit an Associate in Arts degree application to University Advising Services (see the [Application for Degree](#) explanation elsewhere in this section).

Students may not receive an A.A. degree from both FAU and the home Florida College System (FCS) institution. Students may apply for an Associate in Arts degree in one of two ways:

1. Associate in Arts degree awarded at FAU.
2. Associate in Arts degree awarded to FCS transfer students by the awarding FCS institution through the reverse transfer of credit earned at FAU. FAU will notify students who transfer more than 30 credits from a single Florida College System institution about being eligible to receive an Associate in Arts degree at their home FCS institution

**Note:** After completing all requirements for the Associate in Arts degree, students may apply for the A.A. degree in any semester prior to the semester in which their baccalaureate degree is awarded. If students do not complete the requirements for their baccalaureate degree, they must request their Associate in Arts degree within five (5) years of completing all requirements for that degree. Non-degree students and students who have already earned an A.A. degree may not apply for the A.A. degree at FAU. Additionally, students with an "I" (incomplete grade) or "NR" (no reported grade) on their transcripts may not apply for the A.A. degree until the "I" and/or "NR" grades are removed.

## BACCALAUREATE DEGREE REQUIREMENTS

To earn a baccalaureate degree, students must:

1. Earn a minimum of 120 credits in academic courses acceptable toward the degree (some programs

- require more than 120 credits). Attain a minimum 2.0 grade point average in the courses required for a major program at FAU.
2. Earn a minimum of 45 of these 120 credits at the upper division as indicated by the Statewide Course Numbering System (SCNS) designations or their equivalents. In some programs, graduate-level courses may be used to satisfy undergraduate requirements; however, no undergraduate will be required to take a graduate-level course as part of a normal degree requirement.
  3. Apply no more than 60 credits of non-traditional credit toward the degree earned through Credit by Exam, Correspondence Courses and Military Service Schools, subject to credit limits for each as stated in the [Academic Policies and Regulations section](#) of this catalog. Credits earned in this manner will be considered transfer credits.
  4. Earn the last 30 upper-division credits in residence at FAU. In programs requiring more than 120 credits, at least 25 percent of the total number of credits required for the degree must be earned in residence at FAU.
  5. Earn at least 75 percent of all upper-division credits required for the major from FAU. Some majors may require more than 75 percent. Consult the degree requirements section of the major for details.
  6. Fulfill the General Education Program requirements.
  7. Summer Credit Requirement: Earn a minimum of 9 credits by attending one or more summer terms at either FAU or another university in the Florida State University System. This requirement applies only to students admitted to FAU as freshmen or as transfer students with fewer than 60 credits ([Florida Board of Governors Regulation 6.016](#)). (For those students enrolled before fall 2011, credits earned and transferred through the Advanced International Certificate in Education (AICE) Program, Advanced Placement (AP) Program, College Level Examination Program (CLEP), Dual Enrollment (DE) Program or International Baccalaureate (IB) Program may be applied toward the 9-credit summer requirement, thereby reducing students' summer credit requirement total.)
  8. Satisfy the Writing Across Curriculum (Gordon Rule) and College-Level Computation Skills (Gordon Rule) requirements (see explanation elsewhere in this section).
  9. Fulfill the admission and graduation requirements of the department and college granting the degree as described following the Lower-Division College and Department Requirements (explanation elsewhere in this section).
  10. Fulfill the foreign language graduation requirement. This requirement applies to all B.S. degree programs (unless otherwise specified) and to all B.A. degree programs. Other select degrees may require the foreign language graduation requirement (for more information, please refer to the specific degree program requirements).

11. Submit an Application for Degree form (see [Application for Degree](#) explanation elsewhere in this section).

### Academic Learning Compacts

In compliance with Policy Guideline 05.02.15 as approved by the Chancellor of the State University System, Florida Board of Governors Office, FAU will provide students access to information about Academic Learning Compacts for each baccalaureate degree program. The Academic Learning Compact for each program identifies 1) content/discipline knowledge and skills, 2) communication skills and 3) critical thinking skills students in that program are expected to demonstrate prior to graduation and the methods by which students will be assessed on these skills. Students may obtain print copies of Academic Learning Compacts for each baccalaureate degree program by contacting the appropriate program or department.

## SECOND BACCALAUREATE DEGREE REQUIREMENTS

To earn a second baccalaureate degree, students must:

1. Earn a minimum of 30 credits in residence at FAU beyond those required for the first degree. Students earning two degrees simultaneously (a "dual degree") must earn at least 150 credits.
2. Earn at least 75 percent of all upper-division credits required for the major from FAU. Some majors may require more than 75 percent. Consult the degree requirements section of the major for details.
3. Satisfy the admission and graduation requirements of the department and college granting the second degree as described under the heading Lower-Division College and Department Requirements (explanation elsewhere in this section). Students who have received a bachelor's degree from a four-year accredited institution of higher education will be deemed as having met the FAU general education requirements. Students must meet the foreign language requirement, however, if required for one of the two degrees.
4. Submit an Application for Degree form (see [Application for Degree](#) elsewhere in this section).

## MINOR REQUIREMENTS

In addition to pursuing a major, students may declare no more than two minors. Students must earn at least 75 percent of all credits required for the minor from FAU. Some departments may require more than 75 percent. A list of available minors appears in the [Degree Programs section](#) of this catalog. The descriptions and requirements for each minor are listed under the Academic Programs link within the

college in which the minors are offered.

**Note:** To ensure a timely graduation, students may pursue a minor only if requirements for that minor can be completed without extending the anticipated graduation date. Please refer to the [Timely Graduation Policy](#) for credit requirement thresholds to declare a minor.

## GENERAL EDUCATION CURRICULUM

(For students matriculating in fall 2024 and later, pending Board of Governors approval.)

The General Education Curriculum is designed to ensure that every undergraduate student graduates as an informed citizen through participation in rigorous General Education courses that equip students with the academic tools they will need to succeed, not only as undergraduates in their degree programs, but also as responsible citizens in a complex world.

Students must complete a minimum of 36 credits of General Education coursework. This requirement includes a minimum of 15 credits mandated by the State of Florida General Education Core and up to 21 credits of General Education Institutional requirements, distributed as indicated in five subject areas.

Subject Area	[Group A] State of Florida General Education Core	[Group B] General Education Institutional Requirements*	Total
Communications	3	3	6
Humanities	3	3	6
Social Science	3	3	6
Natural Science	3	3	6
Mathematics	3	3	6
Additional Enrichment**	0	6	6
<b>Total</b>	<b>15</b>	<b>21</b>	<b>36</b>

\* Students may satisfy [Group B] General Education Institutional Requirements with [Group A] State of Florida General Education Core courses from the same subject area.

**\*\* Choose 6 credits from Humanities, Social Science or Natural Science.**

Some majors require or recommend specific General Education courses. Make sure to check with an academic advisor.

Students who enter Florida Atlantic without an Associate in Arts (A.A.) degree from a Florida state school must fulfill the University's General Education requirements. A course may be used to simultaneously satisfy a General Education Curriculum requirement and a requirement of the student's major program. All course selections should be made in consultation with an academic advisor.

For students who enter Florida Atlantic holding the Associate in Science (A.S.) degree from a Florida public community or state college: The Associate in Science degree prepares students for entry into employment, but it is also a transfer degree and basis for admission to a related baccalaureate degree program at FAU. Courses taken as part of the Associate in Science degree at a Florida public community or state college to meet the General Education requirements will transfer and apply toward the thirty-six (36) General Education credits required for the baccalaureate degree at FAU. Since Associate in Science degrees typically require 15 credits of general education coursework, students must complete the remaining credits of General Education coursework at FAU.

General Education Core courses implement the required principles, standards and content in accordance with section 1007.55, Florida Statutes. Each General Education Core course option contains high-level academic and critical thinking skills and common competencies that students must demonstrate to successfully complete the course. Prior to the award of an Associate in Arts or baccalaureate degree, a student entering a state university as a first-time-in-college student in the fall term 2015 and thereafter must complete at least one course from each of the General Education subject areas listed in this section.

[Link to General Education Communication Requirements](#)

[Link to General Education Humanities Requirements](#)

[Link to General Education Social Science Requirements](#)

[Link to General Education Natural Science Requirements](#)

[Link to General Education Mathematics Requirements](#)

## **I. Communication**

(6 credits required; a grade of "C" or higher is required in each course)

Communication courses afford students the ability to communicate effectively, including the ability to write clearly and engage in public speaking. Students who complete the Communication requirement will be able to:

1. Demonstrate effective written and oral communication skills by exhibiting the control of rhetorical elements that include clarity, coherence, comprehensiveness and mechanical correctness.
2. Analyze, interpret and evaluate information to formulate critical conclusions and arguments.
3. Identify and apply standards of academic integrity.

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### Communication Courses

(6 credits required; a grade of "C" or higher required in each course)

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Students must choose two of the following courses, one of which must be from Group A.

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#### [Group A] State of Florida General Education Core

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College Writing 1 (required) (WAC) (or a course with an ENC prefix for which ENC 1101 is a direct prerequisite)	ENC 1101	3
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#### [Group B] General Education Institutional Course Options

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College Writing 2 (WAC)	ENC 1102	3
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*The following courses may be substituted for ENC 1102:*

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University Honors Seminar in Writing (WAC) (for Wilkes Honors College and University Honors Program students only)	ENC 1930	3
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Special Topics: College Writing 2 (WAC)	ENC 1939	3
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Writing History (WAC)	HIS 2050	3
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**Note:** Upon successful completion of ENC 1101 with a grade of “C” or higher, students will earn a [badge](#) for “Fundamentals of Written Communication,” transferable across all Florida institutions of higher education.

**Note:** Students must take four Writing-Across-the-Curriculum (WAC) courses, two of which must be taken from the Communication subject area to comply with the [State Board of Education College-Level Communication and Computation Skill Requirements](#) (also known as the Gordon Rule).

## II. Humanities

(6 credits required)

Humanities courses afford students the ability to think critically through the mastering of subjects concerned with human culture, especially literature, history, art, music and philosophy, including selections from the Western canon. Students fulfilling the Humanities requirement will:

1. Demonstrate understanding of various forms of human expression.
2. Reflect critically on subjects concerned with human culture.

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### Humanities Courses

(6 credits required)

Students must take two of the following courses, one of which must be from Group A. The second course may be from Group A or Group B.

---

#### [Group A] State of Florida General Education Core

Art Appreciation	ARH 2000	3
History and Appreciation of Music	MUL 2010	3
Introduction to Philosophy (WAC)	PHI 2010	3
Appreciation of Theatre	THE 2000	
Honors Introduction to Humanities (for Wilkes Honors College and University Honors Program students only)	HUM 2020	3
Honors Introduction to Literature (for Wilkes Honors College and University Honors Program students only)	LIT 2000	3

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#### [Group B] General Education Institutional Course Options

Culture and Architecture: The Master Builder	ARC 2208	3
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Appreciation of Dance	DAN 2100	3
Film Appreciation or Honors Film Appreciation (for University Honors Program students only)	FIL 2000	3
Global Jewish Communities	JST 2452	3
Introduction to Latin American Studies or Honors Introduction to Caribbean and Latin American Studies (for University Honors Program students only)	LAS 2000	3
Global Perspectives on Language	LIN 2607	3
Introduction to World Literature	LIT 2100	3
Interpretation of Fiction (WAC)	LIT 2010	3
Interpretation of Poetry (WAC)	LIT 2030	3
Interpretation of Drama (WAC)	LIT 2040	3
Interpretation of Creative Nonfiction (WAC)	LIT 2070	3
Interpretation of Creative Nonfiction (WAC)	LIT 2931	3
Music in Global Society	MUH 2121	3
Public Speaking	SPC 2608	3
History of Civilization 1 (WAC)	WOH 2012	3
History of Civilization 2	WOH 2022	3

### III. Social Science

(6 credits required)

Social Science courses afford students an understanding of the basic social and behavioral science concepts and principles used in the analysis of behavior and past and present social, political and economic issues. Students who satisfy the Social Science requirement will demonstrate the ability to:

1. Describe patterns of human behavior.
2. Describe how institutions influence human behavior and how humans influence these

institutions.

3. Apply appropriate disciplinary methods to the analysis of social, psychological, ethical, political, technological or economic issues.

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### Social Science Courses

(6 credits required)

Students must take two of the following courses, one of which must be from Group A. The second course may be from Group A or Group B.

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#### [Group A] State of Florida General Education Core

United States History to 1877*	AMH 2010	3
United States History since 1877*	AMH 2020	3
Introduction to Anthropology (WAC)	ANT 2000	3
Macroeconomic Principles	ECO 2013	3
Government of the United States*	POS 2041	3
General Psychology	PSY 1012	3

\* Fulfills partial requirements for [Civic Literacy](#).

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#### [Group B] General Education Institutional Course Options

Culture and Society	ANT 2410	3
Law, Crime, and the Criminal Justice System	CCJ 2002	3
Digital Culture	DIG 2202	3
Microeconomic Principles	ECO 2023	3
Contemporary Economic Issues	ECP 2002	3
The Educated Citizen in a Global Context	EDF 2854	3
Disability and Society or RI: Disability and Society	EEX 2091	3
Digital Literacy in a Globally Connected World	EME 2620	3
Climate Change: The Human Dimensions	EVR 1110	3

Environment and Society	EVR 2017	3
World Geography	GEA 2000	3
Introduction to World Politics	INR 2002	3
Introduction to Language	LIN 2001	3
Culture, Consumers, and the Global Marketplace	MAR 2142	3
Risk, Resilience, and Rising Seas (R3)	PAD 2081	3
Changing Environment of Society, Business, and Government	PAD 2258	3
Global Political Theory	POT 2000	3
Global Perspectives of Social Services	SOW 1005	3
Sociological Perspectives	SYG 1000	3
Social Problems	SYG 2010	3
Global Society	SYP 2450	3
Designing the City	URP 2051	3

#### IV. Natural Science

(6 credits required)

Natural Science courses afford students the ability to critically examine and evaluate the principles of the scientific method and model construction, and use the scientific method to explain natural experiences and phenomena. Students who satisfy the Natural Science requirement will be able to:

1. Explain important scientific concepts, principles and paradigms.
2. Use the scientific method to explain how principles of scientific inquiry and ethical standards are used to develop and investigate research questions.
3. Critically evaluate scientific claims, arguments and methodology.
4. Analyze resulting data and draw appropriate conclusions from such data.

#### Natural Science Courses

(6 credits required)

Students must take two of the following courses, one of which must be from Group A. The second course may be from Group A or Group B. One of the courses must have a lab.

**[Group A] State of Florida General Education Core**
*For Non-Science Majors:*

Introduction to Astronomy	AST 2002	3
Life Science (BSC 1005L: Life Science Lab or RI: Life Science Lab available )	BSC 1005	2 3 w/Lab
Contemporary Chemical Issues	CHM 1020C	3
Blue Planet	ESC 2000	3
Environmental Science and Sustainability	EVR 1001	3
Physical Geology/Evolution of the Earth	GLY 2010C	4
Introduction to Oceanography or Honors Introduction to Oceanography (for Wilkes Honors College and University Honors Program students only)	OCE 2001	3

*For Science Majors:*

Biological Principles (BSC 1010L: Biological Principles Lab available)	BSC 1010	3 4 w/Lab
Anatomy and Physiology 1 (BSC 2085L: Anatomy and Physiology 1 Lab available)	BSC 2085	3 4 w/Lab
General Chemistry 1 (CHM 2045L: General Chemistry 1 Lab available)	CHM 2045	3 4 w/Lab
General Physics 1 (PHY 2048L: General Physics 1 Lab available)	PHY 2048	4 5 w/Lab
College Physics 1	PHY 2053	4

(or any course in the natural sciences for which one of the above General Education Core course options in Natural Science is the direct prerequisite)

### **[Group B] General Education Institutional Course Options**

#### *For Non-Science Majors:*

Introduction to Biological Anthropology (ANT 2511L: Introduction to Biological Anthropology Lab available)	ANT 2511	3 4 w/Lab
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Nature: Intersections of Science, Engineering, and the Humanities	ETG 2831	3
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The History of Earth and Life	GLY 2100	3
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Human Mission to Mars	IDS 2382	3
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Weather, Climate and Climate Change	MET 2010	3
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Physical Science	PSC 2121	3
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#### *For Science Majors:*

Biodiversity (BSC 1011L: Biodiversity Lab available)	BSC 1011	3 4 w/Lab
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Chemistry for Health Sciences (CHM 2032L: General Chemistry for the Health Sciences Lab available)	CHM 2032	3 4 w/Lab
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Note: PHYX020 is not offered at FAU but may be transferred from a Florida public institution.

## **V. Mathematics**

(6 credits required; a grade of "C" or higher required in each course)

(For students entering in the 2024-25 academic year and thereafter.)

Mathematics courses afford students a mastery of foundational mathematical and computation models and methods by applying such models and methods in problem solving. The Mathematics requirement is intended to give students an appreciation of mathematics and prepare them to think precisely and critically about quantitative problems. Students who satisfy the Mathematics requirement will be able

to:

1. Identify and explain mathematical theories and their applications.
2. Determine and apply appropriate mathematical and/or computational models and methods in problem solving.
3. Display quantitative literacy.

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### **Mathematics Courses**

(6 credits required; a grade of "C" or higher required in each course)

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Students must take two of the following courses, one of which must be from Group A. The second course may be from Group A or Group B.

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#### **[Group A] State of Florida General Education Core**

College Algebra	MAC 1105	3
Calculus with Analytic Geometry 1	MAC 2311	4
Mathematical Thinking in Context 1	MGF 1130	3
Introductory Statistics	STA 2023	3

(or any mathematics course for which one of the above General Education Core course options in Mathematics is the direct prerequisite)

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#### **[Group B] General Education Institutional Course Options**

Computer Programming and Data Literacy for Everyone (For non-College of Engineering and Computer Science majors)	COP 1031C	3
Trigonometry	MAC 1114	3
Precalculus Algebra	MAC 1140	3
Precalculus Algebra and Trigonometry	MAC 1147	4
Introduction to Calculus with Applications (by permission only)	MAC 2210	4
Methods of Calculus	MAC 2233	3

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Life Science Calculus 1	MAC 2241	4
Calculus with Analytic Geometry 2	MAC 2312	4
Mathematics for Biological Sciences 1	MAP 2491	3
Mathematical Thinking in Context 2	MGF 1131	3
Logic	PHI 2102	3

### **Additional Enrichment**

(6 credits)

(For students matriculating fall 2025 and later; pending Board of Governors approval.)

Students can choose 6 credits from the Humanities, Social Science or Natural Science subject areas. All course selections should be made in consultation with an academic advisor.

### **Foundations of Global Citizenship**

(Subject area will no longer be available after summer 2025. Courses from this area are reassigned to Humanities or Social Science, pending Board of Governors approval.)

## **CORE CURRICULUM REQUIREMENTS**

(For students matriculating before fall 2009.)

A minimum of 36 credits required.

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### **Communications Requirement**

(6 credits; two courses; grade of "C" or better)

College Writing 1*	ENC 1101	3
College Writing 2*	ENC 1102	3

\* Writing Across Curriculum (Gordon Rule) course.

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### **Mathematics Requirement**

(6 credits; two courses from the following list; grade of "C" or better)

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Mathematical Thinking in Context 1* (was MGF 1106)	MGF 1130	3
Mathematical Thinking in Context 2* (was MGF 1107)	MGF 1131	3
College Algebra*	MAC 1105	3
Trigonometry*+	MAC 1114	3
Precalculus Algebra*+	MAC 1140	3
Methods of Calculus*	MAC 2233	3
Calculus with Analytic Geometry 1*+	MAC 2311	4
Calculus with Analytic Geometry 2*	MAC 2312	4
Introductory Statistics*	STA 2023	3
Logic*	PHI 2102	3

**Note:** Students must take at least one course with the prefix MAC or MGF.

\* Gordon Rule Computation course.

+ Requires a passing score on math placement test before registration.

### **Social Sciences Requirement**

(9 credits; three courses from three different disciplines)\*

Introduction to Anthropology	ANT 2000	3
Culture and Society	ANT 2410	3
World Geography	GEA 2000	3
Macroeconomic Principles	ECO 2013	3
Microeconomic Principles	ECO 2023	3
Contemporary Economic Issues	ECP 2002	3
Changing Environment of Society, Business and Government	PAD 2258	3
Government of the United States	POS 2041	3
Introduction to World Politics	INR 2002	3

General Psychology	PSY 1012	3
Introductory Sociology	SYG 1000	3
Social Problems	SYG 2010	3

\* The following courses are in the same discipline: ANT 2000 and 2410; ECO 2013, 2023 and ECP 2002; POS 2041 and INR 2002; SYG 1000 and 2010.

### Humanities Requirement

(9 credits; two courses from two different disciplines)\*

Interpretation of Fiction**	LIT 2010	3
Interpretation of Poetry**	LIT 2030	3
Interpretation of Drama**	LIT 2040	3
Introduction to Philosophy**	PHI 2010	3
History of Civilization 1**	WOH 2012	3

and one course from the following list:

Culture and Architecture: The Master Builder	ARC 2208	3
Art Appreciation	ARH 2000	3
History and Appreciation of Music	MUL 2010	3
Appreciation of Theatre	THE 2000	3
Appreciation of Dance	DAN 2100	3
Film Appreciation	FIL 2000	3

\* The following courses are in the same discipline: LIT 2010, 2030 and 2040.

\*\* Writing Across Curriculum (Gordon Rule) course.

### Natural Sciences Requirement

(6 credits; two courses, one with a lab, from two different disciplines; a higher-level science course may be substituted)\*

Introduction to Biological Anthropology	ANT 2511 &	3 or 4
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	ANT 2511L	
Introduction to Astronomy **	AST 2002	3
Life Science and Life Science Lab** or Life Science and RI: Life Science Lab	BSC 1005 & BSC 1005L	2 or 3
Biological Principles with Lab**	BSC 1010 & BSC 1010L	3 or 4
Anatomy and Physiology with Lab	BSC 2085 & BSC 2085L	3 or 4
Contemporary Chemical Issues**	CHM 1020C	3
General Chemistry for the Health Sciences with Lab	CHM 2032 & CHM 2032L	3 or 4
General Chemistry 1 with Lab	CHM 2045 & CHM 2045L	3 or 4
The Blue Planet	ESC 2000	3
Physical Geology/Evolution of the Earth	GLY 2010C	4
The History of the Earth and Life	GLY 2100	3
Weather, Climate and Climate Change	MET 2010	3
Introduction to Oceanography	OCE 2001	3
General Physics 1	PHY 2048	3
College Physics 1	PHY 2053	4
Physical Science**	PSC 2121	3

\* The following courses are in the same discipline: BSC 1005&L, 1010&L and 2085&L; CHM 1020C, 2032&L, and 2045&L; ESC 2000, GLY 2010C, GLY 2100 and MET 2010; AST 2002, PHY 2048, PHY 2053 and PSC 2121.

\*\* For non-science majors.

## General Education Requirements for Transfer Students

Students who have fulfilled all General Education requirements from any Florida public community college, state college or university will be considered to have met all the requirements of Florida Atlantic University's General Education Program (see above).

Transfer students who matriculate without having met all General Education requirements must meet the requirements of the General Education Program at FAU. Transfer students matriculating under an existing articulation agreement, however, must meet the requirements outlined in the articulation agreement.

## CIVIC LITERACY REQUIREMENT

Pursuant to Florida Statute 8.006, baccalaureate degree-seeking students initially entering a Florida college system (FCS) institution or a state university system (SUS) institution in fall 2018 and thereafter are required to demonstrate competency in civic literacy. Students are expected to complete this requirement by the end of their first year at FAU. No student may graduate without having met this requirement.

Presently, there are three cohorts of students attending Florida public institutions subject to different Civic Literacy requirements.

### **Cohort 1:**

Students first entering the SUS or FCS prior to fall 2018 - The Civic Literacy Requirement does not apply.

### **Cohort 2:**

Students first entering the SUS or FCS from fall 2018 to summer (1 and 2) 2021 - Complete a course or exam

### **Cohort 3:**

Students first entering the SUS or FCS in summer (3) 2021 and thereafter - Complete both a course and exam.\*

\* For Cohort 3 students only: High school students who pass the Florida Civic Literacy Examination in high school, which began in fall 2021, are exempt from the postsecondary exam requirement. However, they are still required to successfully complete the course. Certain accelerated mechanisms meet the course requirement (see in the table below.)

**For Cohorts 2 and 3: Options for meeting the Civic Literacy Requirement**

<b>Options</b>	<b>Score</b>	<b>Meets Course Competency</b>	<b>Meets Exam Competency</b>
<b>Courses</b>			
AMH 2020 if taken after fall 2018 <i>(including dual enrollment if taken after fall 2018)</i>	Passing grade	X	
POS 2041 if taken after fall 2018 <i>(including dual enrollment if taken after fall 2018)</i>	Passing grade	X	
<b>Accelerated Mechanisms</b>			
Advanced Placement (AP): Government and Politics: United States Exam	3	X	X
Advanced Placement (AP): United States History Exam	4	X	X
Cambridge AICE: History, U.S. History, c. 1840-1990 (A-Level) Exam	A-E	X	
CLEP: American Government Exam	50	X	X
IB History, History of	5-7	X	

## America Exam

**Additional Assessments**

U.S. Citizenship and Immigration Services Naturalization Test - Civics (U.S. history and government) with supplemental questions	60 out of 100	X
Florida Civic Literacy Examination (FLCE) (availability began in fall 2021)	48 out of 80	X

The Civic Literacy test is proctored. Students may take the exam in one of two ways, either remotely using Honorlock or at the FAU Testing and Certification Center. Nominal fees apply. For details regarding both testing options, visit FAU's [Civic Literacy site](#). Free Civic Literacy workshops are available to prepare for the exam. To learn more, click [here](#). To review frequently asked questions about the Civic Literacy Requirement, click [here](#).

## FOREIGN LANGUAGE REQUIREMENT

Florida Atlantic University has two language requirements: FLENT (Foreign Language Entrance Requirement) and FLEX (Foreign Language Exit Requirement, also known as the Foreign Language Graduation Requirement).

FLENT is an admission requirement of the State University System that requires a student to have taken two years of the same language in high school. Universities may waive the FLENT requirement for students seeking admission. However, if FLENT is waived, the student must satisfy the FLEX requirement no matter what degree is being pursued at FAU.

FLEX is two semesters of the same language at the first-year college level or a demonstrated equivalent proficiency.

FLEX is required for all B.S. degree programs (unless otherwise specified) and for all B.A. degree programs. Other select degrees may require FLEX (for more information, please refer to the specific degree program requirements). FLEX is also required if the FLENT entrance requirement was waived.

FLEX may be satisfied by any of the following methods:

- Successful completion of two semesters of a first-year college-level sequence (XXX 1120/1121\*) of the same foreign language.-
- Successful completion of the second semester of a first-year college-level sequence (XXX 1121 course) OR a higher-level foreign language course.
- Take a placement exam and achieve a passing score to test out of the requirement. This can be fulfilled by CLEP, AP or IB (see the [Acceleration Mechanisms for Undergraduate Students section](#) of the catalog for passing scores).
- Students who have significant prior exposure in a foreign language and do not have one of the placement examinations listed above (CLEP, AP or IB) should contact the Department of Languages, Linguistics and Comparative Literature to complete a standardized examination.
- For students whose secondary or post-secondary curriculum was taught in a foreign language, the Department of Languages, Linguistics and Comparative Literature can evaluate their official school records to determine if the language proficiency has been met.
- Successful completion of the second semester of a first-year, college-level American Sign Language sequence, unless specified differently by the student's degree program.

\* FAU has standard course numbering for its foreign language courses. All first-year, first-semester courses are numbered 1120 and all first-year, second-semester courses are numbered 1121. For example: SPN 1120; SPN 1121.

**Note:** As a general guideline for placement purposes, one year of foreign language study at the high school level equates to one semester of foreign language study in college. If a student has taken one year of Spanish in high school for example, that student would normally be expected to enroll in SPN 1121, the second semester of Beginning Spanish Language and Culture. If, however, more than three years have elapsed between the student's high school language study and his/her continuation at FAU, then this guideline may not apply.

## FOUNDATIONAL COURSE REQUIREMENT

Attempting to complete a Foreign Language requirement or a General Education Mathematics

requirement in the months before graduation can sometimes derail graduation plans. To stay on track to graduate, students must plan their course schedules to ensure that these and other foundational courses are taken early in their academic careers. To ensure that students are successful, Florida Atlantic University requires that all students, whether freshmen or transfer, complete the following courses within the prescribed timeframes after matriculation:

ENC 1101 (College Writing 1)	Within first year
General Education Mathematics Requirement (at least one course)	Within first year
Foreign Language Requirement	Within two years
Civic Literacy Requirement	Within two years

Some students may have completed one or more of these requirements before matriculation at FAU. Students should check their Degree Audit Report to see if these requirements have been met.

## COLLEGE-LEVEL COMMUNICATION AND COMPUTATION SKILL REQUIREMENTS — GORDON RULE

Florida Atlantic University has formulated policies and developed curricula to comply with the State Board of Education on College-Level Communication and Computation Skills, also known as the Gordon Rule. This rule requires students entering college or university study for the first time to successfully complete, with grades of "C" or higher, 12 credits of writing and 6 credits of mathematics as a requirement for admission to the upper division. The 12 writing credits must be distributed as follows: 6 credits of English coursework (College Writing 1 and 2) and 6 credits of additional coursework in which the student is required to demonstrate college-level writing skills through multiple assignments. For the computation requirement, 6 credits of mathematics must be in courses at or above the level of college algebra. The computation requirement is typically satisfied through the General Education Program's [Mathematics](#) requirements (noted above).

Students transferring from out-of-state institutions who think they may have completed Gordon Rule equivalent courses with grades of "C" or better must obtain a letter from the previous institution that demonstrates they have fulfilled the writing or computation criteria listed above. Such letters should be mailed directly to the Office of the Registrar at FAU.

## Communication Skills — Writing Across the Curriculum

FAU implemented its Writing Across the Curriculum (WAC) program to strengthen the teaching and learning of writing in undergraduate education. The WAC program satisfies the Gordon Rule for writing and communication by mandating that:

1. Writing counts for at least 80 percent of the course grade in ENC 1101, ENC 1102 and [ENC 1102-substitute courses](#). For the 2000-to-4000-level WAC courses, writing counts for at least 50 percent of the course grade;
2. Writing assignments engage students in intellectual activities central to the course objectives;
3. Some class time is devoted to discussing strategies for improving student writing;
4. WAC courses include at least one substantial revision of a graded paper;
5. Substantive feedback be provided on all writing that leads to a grade.

A small number of WAC courses have been certified to substitute for College Writing 2. These 1000-level courses have the same requirements as ENC 1102, but are taught by specially trained faculty who use disciplinary readings. The current courses that substitute for ENC 1102 are listed below and are identified as WAC (Gordon Rule) courses in the course schedule. WAC courses in the 2000, 3000 and 4000 level are also listed below and as WAC (Gordon Rule) in the schedule.

The University's WAC program promotes the teaching of writing across all levels and all disciplines. WAC asserts that writing-to-learn activities have proven effective in developing critical thinking skills, learning discipline-specific content and understanding and building competence in the modes of inquiry and writing for various disciplines and professions.

Faculty who teach WAC classes have been specially trained to develop courses that provide frequent and significant opportunities for students to write, revise and discuss their writing. As more courses become WAC-certified, students will have increased opportunities to develop their writing and critical thinking skills from the freshman year through graduation, whatever their major course of study. For more information, contact the University Center for Excellence in Writing by clicking [here](#) or calling 561-297-3498.

The following courses are available to meet the WAC (Gordon Rule) writing requirements. For a list of WAC courses offered through the [Harriet L. Wilkes Honors College](#), see that section in this catalog.

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### WAC (Gordon Rule) Courses Required

(6 credits of English coursework with a grade of "C" or higher):

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College Writing 1	ENC 1101	3
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(All students must take ENC 1101; there are no substitutes for this course.)

College Writing 2 (Students must take ENC 1102 or one of the substitutes for ENC 1102 appearing below.)	ENC 1102	3
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### **WAC (Gordon Rule) substitutes for ENC 1102**

University Honors Seminar in Writing	ENC 1930	3
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Special Topics: College Writing 2	ENC 1939	3
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Writing History	HIS 2050	3
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Being Cared For: Reflections from the Other Side of the Bed	NSP 1195	3
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### **Required**

(6 credits of additional writing coursework with a grade of "C" or higher):

Students must choose two of the following courses to meet the remaining writing requirements.

University Honors Seminars (various subject areas, prefixes, numbers)		3
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Introduction to Anthropology	ANT 2000	3
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Cultures of South Asia	ANT 3361	3
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Architectural Research Methods and Analysis	ARC 3091	3
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Honors Art Appreciation	ARH 1930	3
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RI: Civil, Environmental and Geomatics Engineering Design 1	CGN 4803C	3
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RI: Civil, Environmental and Geomatics Engineering Design 2	CGN 4804C	3
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Introduction to Diversity for Educators	EDF 2085	3
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Writing for Technical Professions	ENC 2248	3
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Professional Writing-	ENC 3213	3
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Advanced Exposition	ENC 3310	3
Principles of Research Writing	ENC 4138	3
Writing for Nonprofits	ENC 4354	3
Studies in Writing and Rhetoric	ENG 4020	3
RI: Engineering Technology Capstone	ETG 4951	3
Honors Film Appreciation (for University Honors Program students only)	FIL 2000	3
Introduction to Business Communication (available to Business juniors and higher only)	GEB 3213	3
RI: Historical Methods	HIS 3150	3
Aerospace History	HIS 4322	3
RI: Senior Seminar	HIS 4935	3
Honors Reading Seminar	IDH 4931	1-3
Advanced Systems Analysis and Design	ISM 4133	3
Italian Film Classics	ITT 3521	3
Italian-American Cinema	ITT 3522	3
Honors Introduction to Caribbean and Latin American Studies (for University Honors Program students only)	LAS 2000	3
Interpretation of Fiction	LIT 2010	3
Interpretation of Poetry	LIT 2030	3
Interpretation of Drama	LIT 2040	3
Interpretation of Creative Nonfiction	LIT 2070	3
Senior Seminar in Public Management	PAD 4935	3

Introduction to Philosophy	PHI 2010	3
Profession of Social Work	SOW 3302	3
Rhetorical Analysis of Democracy	SPC 4273	3
The Rhetoric of Argument	SPC 4517	3
Rhetorical Criticism	SPC 4680	3
History of Civilization 1	WOH 2012	3
Green Consciousness	WST 4349	3

### Computation Skills — Gordon Rule Mathematics

The Gordon Rule computation requirement may be satisfied by earning 6 credits from the following list, with a grade of “C” or higher, including at least one course with the prefix MAC or MGF. Students typically satisfy Computation Skills (Gordon Rule) Mathematics requirements through the General Education Program's [Mathematics](#) requirements. (noted above).

College Algebra	MAC 1105	3
Trigonometry	MAC 1114	3
Precalculus Algebra	MAC 1140	3
Precalculus Algebra and Trigonometry	MAC 1147	4 or 5
Methods of Calculus	MAC 2233	3
Life Science Calculus 1	MAC 2241	4
Calculus with Analytic Geometry 1	MAC 2311	4
Calculus with Analytic Geometry 2	MAC 2312	4
Discrete Mathematics	MAD 2104	3
Differential Equations 1	MAP 2302	3
Mathematics for Biological Sciences 1	MAP 2491	3
Topics in Mathematics	MAT 1932	1-3

University Honors Seminar in Mathematics	MAT 1935	3
Mathematical Thinking in Context 1	MGF 1130	3
Mathematical Thinking in Context 2	MGF 1131	3
Logic	PHI 2102	3
Experimental Design and Statistical Inference	PSY 3234	3
Topics in Statistics	STA 1932	1-3
Introductory Statistics	STA 2023	3
Intermediate Statistics Lab	STA 3163L	1

**Note:** The mathematics requirement may be partially or completely satisfied by passing the appropriate AP, IB or CLEP examination.

## MATH PLACEMENT

All entering freshmen, as well as entering transfer students with no prior college-level coursework in mathematics, are placed in their first mathematics course at FAU based on a combination of factors, including performance in high school mathematics coursework, high school overall GPA, and SAT or ACT scores. Students without this data are required to take an online assessment. For more information about this assessment, visit the Math Placement Assessment [website](#).

## APPLICATION FOR DEGREE

### ASSOCIATE IN ARTS DEGREE

Students (both first-time-in-college and transfer students with fewer than 40 credits) may apply for the Associate in Arts (A.A.) degree by the end of the third week of the semester in which the student expects to graduate. Students may not apply for the A.A. degree and a baccalaureate degree in the same semester. Students who receive the A.A. degree do not participate in the commencement programs. For details, see the Associate in Arts Degree Requirements explanation elsewhere in this section.

Application form is available on the University Advising Services [website](#) or by calling 561-297-3064.

## BACCALAUREATE DEGREES

A student must apply for a degree using the Application for Degree form found in the Office of the Registrar's [website](#) by the end of the third week of the semester in which the student expects to graduate. It is the student's responsibility to meet all requirements for the degree. For the specific dates to apply for a degree, refer to the [Academic Calendar](#).

## MASTER'S, SPECIALIST'S AND DOCTORAL DEGREES

Graduate students must apply for a degree no later than the end of the third week of the semester in which the student expects to graduate. Refer to the [Academic Calendar](#) for specific deadline dates.

The date printed in the Academic Calendar is the deadline date for the Application for Degree form to be accepted by the Office of the Registrar. It is the student's responsibility to allow adequate time to obtain signatures AND meet the Application for Degree deadline. Students cannot submit this form directly to the Office of the Registrar; it requires approval by the Graduate College Dean. (Depending upon the graduate program, additional signatures may be required prior to submitting to the Graduate College.) The Application for Degree form can be found on the Office of the Registrar's [website](#). This form can be submitted prior to the semester a student expects to graduate.

### **Graduating Student Survey**

As part of the degree application process, all students are required to complete the Graduating Student Survey. This brief online survey provides a snapshot of the student's post-graduation plans. University funding is tied to FAU's ability to report this information. All graduating students must complete the survey to obtain their official transcript. The link to complete the survey will be emailed to students two weeks prior to the last day of classes.

## LOWER-DIVISION COLLEGE/DEPARTMENT REQUIREMENTS/RECOMMENDED COURSES

Most of the colleges and departments of the University require prerequisites for upper-division transfer and second baccalaureate students. In addition, many colleges and departments recommend courses for their majors. A course may be used to satisfy both a college or department requirement and also a University requirement (e.g., a geology major may use general chemistry to satisfy a Department of

Geosciences admission requirement and the general education natural science requirement). The following are the college and department lists of required and recommended courses. In this list, check the college and department in which a major is planned.

## **Links to Lower-Division Requirements**

[Dorothy F. Schmidt College of Arts and Letters](#)

[College of Business](#)

[College of Education](#)

[College of Engineering and Computer Science](#)

[Harriet L. Wilkes Honors College](#)

[Christine E. Lynn College of Nursing](#)

[Charles E. Schmidt College of Science](#)

[College of Social Work and Criminal Justice](#)

## **THE DOROTHY F. SCHMIDT COLLEGE OF ARTS AND LETTERS**

The Dorothy F. Schmidt College of Arts and Letters offers the Bachelor of Architecture degree (B.Arch.) and the Bachelor of Arts degrees (B.A.) with majors in Anthropology, Art, Communication Studies, English, History, Interdisciplinary Studies, Jewish Studies, Languages and Linguistics, Multimedia Studies, Music, Philosophy, Political Science, Sociology, and Theatre. The Bachelor of Fine Arts (B.F.A.) may be earned in Art and Theatre. The College also awards the Bachelor of Music (B.M.), and a Bachelor of Music Education (B.M.E.) is offered in conjunction with the College of Education. The College also offers a Bachelor of Public Management (B.P.M.) and a Bachelor of Public Safety Administration (B.P.S.A.). Students should refer to the appropriate desired major in the [Dorothy F. Schmidt College of Arts and Letters section](#) of this catalog for lower-division and major requirements.

It is highly recommended that all College of Arts and Letters majors register for and attend either a freshman or transfer student orientation prior to their initial registration. More information regarding all requirements is available through the college's Office of Student Academic Services, 561-297-3800 (Boca Raton campus), 954-236-1101 (Davie campus) or 561-799-8698 (Jupiter campus).

## ARCHITECTURE

The five-year professional Bachelor of Architecture (B.Arch.) degree is based on a total of 159 credits. Entry into the program is possible at the junior, senior or thesis level, provided the student has presented an acceptable portfolio and completed all prerequisite courses. Students who have completed the A.A. degree with required architecture prerequisite courses at Florida's community or state colleges may enter the B.Arch. program at the junior level and complete 99 credits beyond the A.A. degree. Students who have completed design studios beyond the A.A. level at an approved, accredited institution may enter the program at a level determined by faculty based on a portfolio review.

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### Architecture: Lower-Division Prerequisites

Architectural Design 1 through 4, Architectural History, Architectural Theory, Structures, Materials and Methods, Methods of Calculus and College Physics with Lab (the lab is to be taken only if the second core science class is taken without a lab)	35
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### Recommended Courses:

Art Appreciation	3
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Trigonometry	3
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### Public Management: Lower-Division Prerequisites

#### Required Courses:

Government of the U.S.	3
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Macroeconomic Principles	3
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Information Systems Fundamentals	3
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Statistics	3
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## THE COLLEGE OF BUSINESS

Students in the College of Business, except Health Administration and General Economics majors, are

required to complete the following courses, with a grade of "C" or better in each:

Accounting Principles 1 and 2	6
Economic Principles (macro and micro)	6
Information Systems Fundamentals	3
Methods of Calculus	3
Introductory Statistics	3

## THE COLLEGE OF EDUCATION

The College of Education offers undergraduate degree programs in Early Care and Education, Elementary Education, English Education, Exceptional Student Education, Mathematics Education, Science Education, and Social Studies Education. Students should refer to the appropriate desired major in the [College of Education section](#) of this catalog for lower-division and major requirements.

Due to numerous changes in the general education lower-division preparation requirements, it is important for all College of Education majors to register for and attend either a freshman or transfer student orientation prior to their initial registration. More information regarding all requirements is available through the College of Education Office for Academic and Student Services.

## THE COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

All entering students must meet University requirements. The Division of Engineering Student Services (561-297-2780) is available to assist students who are undecided as to a major field of study.

The College of Engineering and Computer Science fully complies with the State of Florida Common Prerequisites for Computer Science and Engineering. Students transferring from Florida community or state colleges who have completed these prerequisites and met admission standards will be admitted to the college.

Detailed advising sheets outlining the courses needed at the community or state college and at FAU are available for students transferring from Miami Dade, Broward, Palm Beach and Indian River colleges. These sheets also provide a useful guide for students transferring from other institutions. Students

should contact their community or state college advisor or the FAU department in which they intend to enroll.

All students should be aware of academic program graduation requirements (indicated in the departmental listings) that specify certain minimum grades in calculus, physics, and other courses.

## THE HARRIET L. WILKES HONORS COLLEGE

The Wilkes Honors College, located on the John D. MacArthur campus in Jupiter, offers four-year academic programs resulting in a Bachelor of Arts or Bachelor of Science degree in Liberal Arts and Sciences or a Bachelor of Arts or Bachelor of Science degree in Biological and Physical Sciences.

Information about lower-division (core) requirements, core requirement descriptions, and other graduation requirements is available [here](#). For further information, see the [Honors College section](#) of this catalog.

### Concentration Requirements

In addition to fulfilling the core and other graduation requirements, students must complete the requirements in their concentration, which include an honors thesis. Honors College students may elect a concentration in: American Studies, Anthropology, Art (Transdisciplinary Visual Arts), Biological Anthropology, Biological Chemistry, Biology, Business, Chemistry, Data Analytics, Economics, English Literature, Environmental Science, Environmental Studies, History (Interdisciplinary), Interdisciplinary Critical Theory, International Studies, Latin American Studies, Law and Society, Marine Biology, Mathematical Sciences (Interdisciplinary), Mathematics, Medical Humanities, Neuroscience, Philosophy, Physics, Political Science, Psychology, Spanish, Women's Studies or Writing or design their own concentration in consultation with faculty advisors. Information about the requirements for each concentration is available [here](#).

## THE CHRISTINE E. LYNN COLLEGE OF NURSING

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### Transfer Students

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General Education Prerequisites:

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English Composition 1

3

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English Composition 2		3
Humanities		6
Introduction to Sociology		3
Introduction to Psychology		3
Bachelor of Science in Nursing		
Preprofessional Phase		
Nursing Prerequisites:		
Anatomy and Physiology 1 with Lab		3
Anatomy and Physiology 2 with Lab		3
Microbiology with Lab		3
General Chemistry with Lab		4
Nutrition		3
Human Growth and Development Across the Life Span		3
Gordon Rule Math		3
Statistics		3
Other General Education Courses to Total		60
<b>Bachelor of Science in Nursing</b>		
<b><i>Professional Program – Four-Year Degree Program</i></b>		
<i>Core Curriculum, General Education Prerequisite Requirements</i>		
English Composition		
College Writing 1+	ENC 1101	3
College Writing 2+	ENC 1102	3
+ Writing Across Curriculum (Gordon Rule) course		

**Mathematics** (6 credits minimum; two courses from the following list, including at least one course with a prefix MAC or MGF; Gordon Rule; must receive a "C" or better):

Mathematical Thinking in Context 1	MGF 1130	3
Mathematical Thinking in Context 2	MGF 1131	3
College Algebra	MAC 1105	3
Trigonometry	MAC 1114	3
Methods of Calculus	MAC 2233	3
Calculus with Analytic Geometry 1	MAC 2311	3
Calculus with Analytic Geometry 2	MAC 2312	3
Introductory Statistics or higher level, required	STA 2023	3

**Social Sciences** (9 credits, three courses from three departments):

Introduction to Anthropology	ANT 2000	3
World Geography	GEA 2000	3
Microeconomic Principles	ECO 2023	3
Macroeconomic Principles	ECO 2013	3
Contemporary Economic Issues	ECP 2002	3
Government of the U.S.	POS 2041	3
Introduction to World Politics	INR 2002	3
General Psychology*	PSY 1012	3
Introductory Sociology*	SYG 1000	3
Social Problems	SYG 2010	3

\* Required for nursing; a grade of "C" or better.

**Humanities** (9 credits, three courses, choose two courses from two departments):

Interpretation of Fiction**	LIT 2010	3
Interpretation of Poetry**	LIT 2030	3
Interpretation of Drama**	LIT 2040	3
Introduction to Philosophy**	PHI 2010	3
History of Civilization 1**	WOH 2012	3

\*\* Writing Across Curriculum (Gordon Rule) course and choose one from the following five courses:

Art Appreciation	ARH 2000	3
Appreciation of Dance	DAN 2100	3
Film Appreciation	FIL 2000	3
History and Appreciation of Music	MUL 2010	3
Appreciation of Theatre	THE 2000	3

***Sciences*** (20 credits):

Anatomy and Physiology 1 with Lab	3
Anatomy and Physiology 2 with Lab	3
Chemistry with Lab	4
Microbiology with Lab	4
Nutrition	3
Human Development	3

## THE CHARLES E. SCHMIDT COLLEGE OF SCIENCE

### Major Department Requirements

#### ***Biological Sciences***

General Biology (or Botany and Zoology)	8
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General Chemistry with Lab	8
Organic Chemistry with Lab	8
General Physics with Lab	10
Mathematics (including one semester of calculus and statistics)	6-8

***Recommended Elective***

Foreign Language*	8
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***Chemistry***

General Chemistry	8
Calculus	8
Organic Chemistry	8
General Physics	10

***Recommended Elective***

Foreign Language*	8
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***Geography*****Required Courses**

World Geography	3
Introduction to Physical Geography	3
Statistics, recommended	3
Foreign Language Requirement for Geography	8

**Geology – Bachelor of Arts and Bachelor of Science**

General Chemistry with Lab	8
Calculus	8-12
General Physics with Lab	10

Biological Principles (or Botany or Zoology)	8
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***Recommended Electives***

Foreign Language*	8
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Two lab science courses	8
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Computer competency	3
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**Mathematics – Bachelor of Arts and Bachelor of Science**

Calculus (including Calculus 3)	10
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***Recommended Electives***

Differential Equations	3
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General Physics with Lab	10
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Foreign Language*	8
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Fortran or Pascal Programming	3
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Linear Algebra	3
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Discrete Mathematics	3
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**Physics – Bachelor of Arts**

General Chemistry with Lab	8
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Mathematics (including one year of Calculus)	8
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General Physics with Lab	10
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***Recommended Electives***

Differential Equations	3
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Foreign Language*	8
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**Physics – Bachelor of Science**

Mathematics (including one year of Calculus)	8-12
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General Chemistry with Lab	8
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General Physics with Lab	10
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***Recommended Electives***

Differential Equations	3
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Foreign Language*	8
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**Psychology**

Statistics	3
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General Biology or Zoology	3
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General Psychology	3
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Psychology Elective	3
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***Recommended Elective***

Foreign Language*	8
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**Urban and Regional Planning: Lower-Division Prerequisites**

***Recommended Course***

Statistics	3
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Microeconomics or Macroeconomics	3
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Designing the City	3
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\* Alternatively, the requirement may be met by making a satisfactory score on AP, CLEP or IB examinations.

## THE COLLEGE OF SOCIAL WORK AND CRIMINAL JUSTICE

### Majors: Criminal Justice and Social Work

#### College Requirements

In addition to the University's general education and degree requirements, students enrolled in the college must successfully complete a major, with a minimum grade of "C" in each major prefixed course. Students must also maintain a minimum grade point average of "C" in all coursework

attempted. The College requires completion of cognate work as specified by the major program. A minimum of 45 credits toward the degree must be at the upper-division (3000 and 4000) level.

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### **Criminal Justice: Lower-Division Prerequisites**

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#### ***Required Courses:***

Foreign Language	8
Law, Crime and the Criminal Justice System	3
Statistics	3

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### **Social Work: Lower-Division Prerequisites**

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#### ***Required Courses:***

Life Science with Lab*	3
General Psychology*	3
Introductory Sociology*	3
Government of the U.S.*	3
Micro- or Macroeconomics*	3
Statistics	3

\* Statewide requirement for all Social Work programs.

## COMBINED PROGRAMS

All combined bachelor's/master's degree programs offered at the University require a minimum of 150 credits, comprised of a minimum of 120 credits for the baccalaureate degree and a minimum of 30 credits for the master's degree. All combined bachelor's/doctoral degree programs require a minimum of 192 credits, comprised of a minimum of 120 credits for the baccalaureate degree and a minimum of 72 credits for the doctoral degree. All master's degree program credits or doctoral degree program credits must be at the graduate level (5000 level or above). A maximum of 12 credits of graduate coursework may be used to satisfy both degrees. The baccalaureate degree will be conferred before the graduate degree. Individual programs may have more stringent requirements. Please see the [Degree](#)

[Programs](#) section for a list of combined degree programs and the [college sections](#) for the individual combined degree program information.

## GRADUATE DEGREE REQUIREMENTS

Graduate students are responsible for knowing and adhering to University policies and procedures pertaining to graduate education.

### MASTER'S DEGREE GENERAL REQUIREMENTS

The following are general degree requirements for any master's degree at FAU. Students should consult the portion of the catalog dealing with their chosen program for any special or additional requirements.

1. A minimum of 30 credits is required for any master's degree.
2. At least one-half of the credits included in any master's degree program shall be designated as 6000-level courses or above.
3. At least one-half of the credits offered for any master's degree shall be in a single field of concentration.
4. A minimum grade point average of 3.0 is required on all work attempted in a graduate program.
5. If a required thesis or dissertation deals with any federally mandated compliance issues, approval by the appropriate University committee prior to the collection of data is required. Contact the Division of Research for information (561-297-0777).

### MASTER OF ARTS OR MASTER OF SCIENCE DEGREE REQUIREMENTS

1. A thesis may be required under the supervision of a major professor and a graduate committee, appointed specially for each student by the chair of the major department and with the approval of the dean of the student's college. The thesis must be an original work in the student's major area of specialization. The form of the thesis will follow requirements specified by the college in which it was written; the thesis must follow the Requirements for Graduate Thesis and Dissertation Guidelines, available on the Graduate College [website](#). In general the thesis will comply with the publication requirements of the student's major field. One copy of the thesis is required by the University. Students should check with their graduate advisors concerning the number of additional copies requested by the college. All students submitting master's theses or dissertations will be required to submit an electronic copy to the University library using the library's online

submission website. In the case of programs that offer a non-thesis option, these specifications for a thesis do not apply.

2. If required, the student must demonstrate reading knowledge of a foreign language appropriate to the student's area of specialization as determined by the college awarding the degree.
3. The student must complete a minimum of 30 credits beyond the requirements of the bachelor's degree, of which at least 6 credits must be in graduate-level courses in the major. For thesis students, thesis course credit is in addition to this requirement in the major and is determined by the major department. Non-thesis students must complete at least 12 credits in graduate-level courses in their major.
4. A college or department may impose such additional requirements as the faculty may consider desirable, e.g., courses in research methodology, orientation examinations, qualifying examinations or oral examinations in defense of the thesis.

## MASTER OF ARTS IN TEACHING OR MASTER OF SCIENCE IN TEACHING REQUIREMENTS

The University offers the Master of Arts in Teaching degree in the following disciplines: Anthropology, English, French, Geography, Political Science and Spanish.

The University offers the Master of Science in Teaching degree in the following disciplines: Biological Sciences, Chemistry, Economics, Mathematical Sciences and Physics.

### Admission Requirements

For admission requirements for these degrees see the Graduate Degree Program Information heading in the appropriate college section in this catalog.

### Degree Requirements

1. A minimum of 30 credits (excluding internship) beyond the baccalaureate is required. These include:
  - a. A minimum of 18 credits in the major subject, of which 12 must be in graduate-level courses;
  - b. A minimum of 6 credits involving the study and report of a significant instructional problem in the major discipline. The thesis may be waived and coursework substituted by the supervisory committee or advisor.
2. An internship worth 6 credits is required.

## MASTER OF FINE ARTS DEGREE REQUIREMENTS

1. Completion of the core curriculum and the area of special concentration is required.
2. A minimum grade point average of 3.0 in all work attempted in the graduate program is required.
3. See the [Dorothy F. Schmidt College of Arts and Letters section](#) of this catalog describing the M.F.A. degrees for additional requirements for graduation.

## SECOND MASTER'S DEGREE REQUIREMENTS

A second master's degree will be conferred upon the same individual if the second degree represents at least 30 graduate-level credits of additional work in the discipline and if all of the requirements of the college awarding the degree have been fully met. A course from a prior master's degree can be used to satisfy a degree requirement for a second master's degree, but then additional coursework in the discipline may be required to attain a minimum of 30 unique graduate credits. **Note:** The policy on [Transfer Credits](#) applies to second master's degrees.

### Supervisory Committee for Master's and Specialist's Degrees

Each graduate student preparing a thesis shall have a supervisory committee composed of at least three members of the graduate faculty or associate graduate faculty. One of the members shall serve as the chair of the supervisory committee. The supervisory committee shall approve the student's plan of study, monitor the student's academic progress, approve the thesis subject, evaluate the thesis defense and approve the final document. The minor, or related fields, if applicable, shall have representation on the supervisory committee.

### Plan of Study for Master's and Specialist's Degrees

1. All degree-seeking graduate students should have an approved Plan of Study on file with the Graduate College no later than halfway through their required coursework and before enrolling in thesis or dissertation credits, if applicable. Students must have an approved Plan of Study on file with the Graduate College prior to the term in which they intend to graduate. All students receive an email confirmation through the MyPOS system when their Plan of Study is approved by the Dean of the Graduate College.
2. Changes to an approved Plan of Study require the submission and approval of a revision. If the approved Plan of Study was submitted online through the MyPOS system, any revision(s) must also be submitted online via MyPOS. If the approved Plan of Study was submitted on paper, any revision(s) must be submitted using the paper Form 9-Revision to Existing Plan of Study.

Revisions need only be filed once and may be submitted during the final term in which the student plans to graduate.

3. A Form 12-Research Compliance and Safety form must be completed by any graduate student conducting research involving human or animal subjects, intellectual property issues, or environmental health and safety training for the thesis. Any federally mandated compliance issues must be approved by the appropriate University committee prior to the collection of data.

## DOCTORAL DEGREE REQUIREMENTS

Doctoral degrees require at least 72 credits beyond the baccalaureate degree. For specific requirements of individual doctoral programs, see the Doctoral Degree Program Information heading in the appropriate college section. For doctoral requirements in the College of Education, see the following headings: Specialist's Degree Program Information and Doctoral Degree Program Information. These graduate credits must be taken as part of an approved graduate program of study. Some programs require considerably more than the minimum of 72 credits because of the nature of the discipline and the standards of the associated profession.

## SECOND DOCTORAL DEGREE REQUIREMENTS

A second doctoral degree will be conferred upon the same individual if the second degree represents at least 72 credits of additional work in residence and if all of the requirements of the college awarding the degree have been met.

### **Supervisory Committee for Doctoral Degrees**

Each doctoral candidate shall have an advisor and a supervisory committee composed of at least three members of the graduate faculty. One of the members shall serve as the chair of the supervisory committee. The supervisory committee shall approve the student's plan of study, monitor the student's academic progress, approve the dissertation subject, prepare, give, and evaluate the qualifying examination, evaluate the dissertation defense and approve the final document. The minor, or related fields, if applicable, shall have representation on the supervisory committee.

### **Plan of Study for Doctoral Degrees**

1. All degree-seeking graduate students should have an approved Plan of Study on file with the Graduate College no later than halfway through their required coursework and before enrolling in thesis or dissertation credits, if applicable. Students must have an approved Plan of Study on file

with the Graduate College prior to the term in which they intend to graduate. All students receive an email confirmation through the MyPOS system when their Plan of Study is approved by the Dean of the Graduate College.

2. Changes to an approved Plan of Study require the submission and approval of a revision. If the approved Plan of Study was submitted online through the MyPOS system, any revision(s) must also be submitted online via MyPOS. If the approved Plan of Study was submitted on paper, any revision(s) must be submitted using the paper Form 9-Revision to Existing Plan of Study. In addition, changes to the supervisory committee require a paper Form 9 for all doctoral students with an approved Form 8-Admission to Candidacy on file with the Graduate College. Revisions need only be filed once and may be submitted during the final term in which the student plans to graduate.
3. A Form 12-Research Compliance and Safety form must be completed by any graduate student conducting research involving human or animal subjects, intellectual property issues, or environmental health and safety training for the dissertation. Any federally mandated compliance issues must be approved by the appropriate University committee prior to the collection of data.

### **Admission to Candidacy for Doctoral Degrees**

1. Graduate students become candidates for the doctoral degree once they are granted formal admission to candidacy. Such admission requires the approval of the student's supervisory committee, the department chair, the college dean and the dean of the Graduate College. The approval must be based on (a) the academic record of the student, (b) the opinion of the supervisory committee concerning overall fitness for candidacy, (c) an approved dissertation topic and (d) a qualifying examination as determined by the appropriate department/program.
2. Application for admission to candidacy should be made as soon as the qualifying examination has been passed and a dissertation topic has been approved by the student's supervisory committee. To be formally admitted to candidacy, the student must submit a Form 8-Admission to Candidacy for the Doctoral Degree to the Graduate College. All students receive an email confirmation when the Admission to Candidacy form is approved by the Dean of the Graduate College. An approved Plan of Study must be on file with the Graduate College prior to formal admission to candidacy. Students must be admitted to candidacy at least one semester before applying for graduation. Students may not register for dissertation credit until they have been admitted to candidacy.





# UNIVERSITY CATALOG

## SUB MENU



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### ACADEMIC PROGRAMS

### COURSE DESCRIPTIONS

# FINANCIAL ASSISTANCE OPPORTUNITIES

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Florida Atlantic University offers comprehensive financial aid programs to assist in meeting reasonable educational expenses for both full-time and part-time students who might otherwise be unable to afford college. Reasonable educational expenses include tuition and fees, room and board, books and supplies, transportation, miscellaneous personal expenses, and expenses related to childcare of a student's dependents. To view our full cost of attendance information page, visit the [website](#).

For financial aid purposes during fall and spring terms, undergraduate students enrolled for 12 or more credits and graduate students enrolled for 9 or more credits are considered "full-time students." To see the summer enrollment classification table, refer to the section labeled [Summer Financial Aid](#) below.

In addition to providing funds on the basis of demonstrated financial need in the form of grants, work study awards and loans, FAU offers scholarships to recognize and reward talent, academic achievement and meritorious performance.

Students who may be eligible for educational benefits under any Veterans Administration program should refer to the subsection "Military and Veterans Student Success Center" in the [Student Services and Activities section](#) of the catalog. Students should also contact the Military and Veterans Student Success Center on campus well in advance of their first time registering at the University.

The Florida Atlantic University financial aid program is administered by the Office of Student Financial Aid without regard to race, creed, color, sex, physical handicap or national origin. This ensures equitable treatment of all qualified applicants. For forms to submit and information concerning financial aid, scholarships, need-based employment and other special programs, contact the Office of Student Financial Aid by visiting its [website](#).

## NEW STUDENTS TO FAU

New FAU students are encouraged to visit the Office of Student Financial Aid's [website](#) and click on "Apply for Aid." Information on how to apply for financial aid, different types of aid available, navigating the Financial Aid section of [MyFAU](#), accepting awards and how to apply for money to purchase books/school supplies can be found here.

## MANDATORY COURSE ENTRY QUIZ

Students will be required to complete the Mandatory Course Entry Quiz for ALL classes in which they are enrolled. According to Federal Regulations, a student is considered not to have begun attendance if a school is unable to document the student's attendance in each class. Title IV financial aid (Direct Loans, Pell Grant, SEOG and Federal Workstudy) will not disburse for each class in which the survey has not been completed.

In addition to completing the Mandatory Course Entry Quiz, students are required to maintain eligibility for Title IV funding by displaying documented academic activity in their courses. Examples of valid forms of documented activity include faculty attendance rosters, graded assignments, quizzes and exams. Students should be aware that they may be required to repay any aid disbursed for a course for which they have no documented academic activity, even if the Mandatory Course Entry Quiz was completed. More details and instructions can be found at [Mandatory Course Entry Quiz](#).

## NEED-BASED FINANCIAL AID

The need-based financial aid programs are administered according to a nationally accepted policy that the family, meaning parents, student and/or spouse, is responsible for a student's educational expenses. Need-based financial aid is available to fill in the gap that may exist between the total cost of education and what the family can reasonably be expected to contribute. This aid is awarded on the basis of greatest financial need with priority given to those students who apply by the FAU priority consideration date of April 1. Complete the [FAFSA application](#) (Free Application for Federal Student Aid) as soon as possible beginning October 1 each year. FAU school codes are: Boca Raton campus - 001481; Davie campus - E00584; Jupiter campus - E00830.

For more details on various forms of available financial aid, visit [Types of Financial Aid](#) .

### **Eligibility Requirements for Need-Based Financial Aid**

After submitting the Free Application for Federal Student Aid ([FAFSA](#)), students must immediately

fulfill any outstanding student requirements. Funds will not be awarded until the student's financial aid file is complete and, in some cases, until the student is enrolled. If there are any unsatisfied requirements, students will receive an email notification via their FAU email account. To check the status, visit [Check Your Financial Aid Status](#).

## Verification

Verification is a process to confirm that the information provided on the FAFSA is accurate. Each year, 30 percent of applicants who fill out the FAFSA are randomly selected for verification by the U.S. Department of Education. FAU reserves the right to select students for verification if there is inconsistency or discrepancy in the information submitted. Verification ensures that the information students and parents report is accurate. For more details, visit [The Verification Process](#).

## SUMMER FINANCIAL AID

Summer 2024 Financial Aid Offers begin in April for students who meet the following criteria:

1. If previously enrolled at FAU, the student must be registered for summer 2024 courses at FAU.
2. The student must have a completed 2023-2024 FAFSA on file with FAU.
3. The student must have no unsatisfied financial aid requirements for the 2023-2024 academic year. Unsatisfied requirements will be displayed when viewing the [Financial Aid Status](#).
4. The applicant MUST satisfy all general aid eligibility requirements as listed under the [Financial Aid Policies](#).

## SUMMER ENROLLMENT REQUIREMENTS

Financial aid applicants must register for ALL summer sessions (summer terms 1, 2 and 3) by the summer 1 drop/add deadline (see [Academic Calendar](#) for date) and must remain at least half time (see criteria below for definition of half-time enrollment) to be considered eligible for most forms of aid.

<b>Undergraduate Students</b>	<b>Students Admitted to a Bachelor's Degree Program</b>
<i>To be considered</i>	<i>Your Summer FAU enrollment must be</i>
Full Time	12 or more credits
Three Quarter Time	9-11 credits

Half Time	6-8 credits
<b>Graduate Students</b>	<b>Students Admitted to a Master's or Doctoral Degree Program</b>
<i>To be considered</i>	<i>Your Summer FAU enrollment must be</i>
Full Time	6 or more credits
Three Quarter Time	5 credits
Half Time	3-4 credits

Regardless of award projections, all types of grant support are directly linked to the hours attending. Grant disbursements will be calculated based upon a student's final enrollment at the end of drop/add week. Grants may be reduced based on changes in hours attended.

### **Less than Half Time**

Students will NOT be eligible for most forms of financial aid or grants if they are enrolled less than half time at FAU. In some cases, Federal Pell Grant recipients may be eligible to receive their Pell Grant with less than half time enrollment. Some private/alternative loans are available for students enrolled less than half time if additional funds are needed.

## GRANTS

Grants are financial aid offers that are based on financial need. If grants are offered as a part of a student's financial aid offer, FAU will automatically accept them for the student. More details on types of grants available, eligibility criteria, disbursement criteria, renewal criteria can be found at [Grants](#).

## LOANS

Loans are a form of financial aid that MUST be repaid. A minimum of half-time enrollment is required for the disbursement of a loan. FAU encourages students to only borrow what is needed to cover their cost of attendance for the academic year.

Information regarding a student's **Federal** loans is submitted to the [National Student Loan Data System \(NSLDS\)](#) and is accessible by guaranty agencies, lenders and schools determined to be authorized users of this system. Students can review their Federal Loan History on NSLDS to monitor

their progression toward the aggregate limit.

Loan process steps must be completed at least two weeks prior to disbursement to ensure that the student receives their funds in a timely manner, with the exception of the [Short Term Advance](#).

More details on types of loans available, eligibility criteria, disbursement criteria and interest rates can be found at [Loans](#) .

## STUDENT EMPLOYMENT PROGRAMS

### NEED-BASED EMPLOYMENT PROGRAMS

**The Federal Work Study Program** is a need-based, federally funded, part-time employment program, which allows eligible students to earn money to help pay for education expenses. Students must complete the [Free Application for Federal Student Aid \(FAFSA\)](#) each year to be considered for federal financial aid, including FWS.

**Florida Work Experience Program** is a State of Florida-funded, need-based program providing eligible Florida students the opportunity to secure work experiences complementary to and which reinforce the student's educational and career goals.

Recipients of the Florida Work Experience Program may work on campus in positions that complement and reinforce academic and career goals. All recipients of the FWEP program **MUST be Florida Residents and must be graduate students.**

## TRANSIENT STUDENT PROCEDURES FOR STUDENTS RECEIVING FINANCIAL AID

A concurrently enrolled student is one who is degree seeking and taking classes at FAU (Home School) AND another eligible institution (Host School) in the same semester. Financial aid is disbursed from FAU based on the student's total combined enrollment (FAU + Host School) for the semester.

An outgoing consortium enrolled student is one who is degree seeking at FAU (Home School) BUT is ONLY taking classes at another institution (Host School) AND would like to receive their scheduled FAU Financial Aid Offer(s). FAU ENROLLMENT STATUS MUST BE ZERO CREDIT HOURS.

An incoming consortium enrolled student is one who is NOT degree seeking at FAU (Host School). Therefore, financial aid status and information must be addressed to their degree-seeking institution (Home School).

More details can be found at [Special Programs](#).

## NON-NEED-BASED FINANCIAL AID

[Federal Parent PLUS Loans](#) is a low interest loan available to assist the parents of dependent students admitted and enrolled in an undergraduate degree program or graduate students admitted and enrolled in a graduate degree program. To be eligible for the Direct PLUS Loan, the parent borrower should not have adverse credit history. Maximum eligibility is equal to cost of education minus other aid. Repayment of principal and interest begins within 60 days after the loan is fully disbursed. The borrowers may be eligible to defer repayment until the student graduates or ceases to be enrolled at least half time. In order to receive a Direct PLUS Loan, students must first file a [Free Application for Federal Student Aid \(FAFSA\)](#).

[Direct Unsubsidized Stafford Loans](#) are available for all students once the FAFSA information determines a student's financial need. Some students may only qualify for unsubsidized. Repayment is the same as the Direct Subsidized Loan except that students accrue interest while enrolled. For more information, click [here](#).

[Federal Grad PLUS Loan](#) is a loan directly from the U.S. Department of Education. It is NOT a loan through a bank. The Direct Graduate PLUS Loan is an unsubsidized loan, meaning interest begins to accumulate on the loan from the time it is disbursed. A student will receive an automatic deferment while enrolled in school at least half-time, and for an additional six months after the student graduates, leaves school, or drops below half-time enrollment. The student does not have to start making payments until this deferment period ends.

**Job Location and Development (JLD)** Off-campus job resources are open to all registered, degree-seeking, U.S. Employment Authorized students, regardless of financial need. For more details visit [Part-Time Jobs](#).

### Short Term Advance Program

The [Short Term Advance](#) is a university monetary advance available to assist degree-seeking students

enrolled at least half time with:

- Purchasing textbooks
- Emergency funds relating to educational expenses
- Unanticipated living expenses

Keep in mind that the Short-Term Advance is NOT a source of funding to assist with paying tuition and other related fees at FAU or transient student enrollment at another college/university. Students may borrow **up to \$750.00**. In addition, a **\$5.00** non-refundable processing fee will be assessed.

**NOTE: If the student is under 18 years of age** , please download the [Parental Short Term Advance Application](#) and submit it to the Office of Student Financial Aid. In addition, the student must also [setup direct deposit online](#).

## FAU BOOKSTORE LINE OF CREDIT PROGRAM

In addition to the Short Term Advance, eligible Financial Aid recipients may receive a \$600 line of credit for textbook purchases from the FAU Bookstore. The line of credit can be used for online and in store textbook purchases only. The amount of the line of credit used will be posted as a charge to the student's FAU account. *Students who meet the eligibility criteria will be notified of their eligibility for this program via their FAU email.* For more details visit [FAU Bookstore Line of Credit Program](#) .

## DISBURSEMENT ESTIMATOR

The financial aid disbursement estimator is designed as a tool to help students determine what they need to pay the University and represents only an **ESTIMATE** of what financial aid may disburse based on their enrollment and offer status now. At the time of the actual disbursement process, where appropriate for individual offers, items such as residency, grade level, satisfactory academic progress, unmet need, and/or loan entrance or promissory note requirements may affect whether or not the individual offers disburse. Also, at the time of actual disbursements, other charges or credits to students' accounts not displayed now (such as Housing, Meal Plans, parking or library fines, Florida Prepaid and Matriculation waivers) may be applied to their account. For more details, visit [Disbursement Estimator Tool](#) .

## SCHOLARSHIPS

[Scholarships](#) are designed to reward, encourage and assist students in pursuing academic excellence and leadership roles. Academic achievements, leadership positions, campus or community activities, work experience and financial need, are considered during the scholarship selection process. Financial need is determined by the [Free Application for Federal Student Aid \(FAFSA\)](#).

### **Bright Futures Scholarship Program**

This program is a state-funded scholarship offered to Florida high school graduates based on high school academic achievement. Students must enroll in an eligible Florida public or private postsecondary educational institution. For additional information, contact a high school counselor or call the Florida Department of Education at 1-888-827-2004. More details on the Florida Academic Scholars and Florida Medallion Scholars can be found at [Bright Futures](#) .

## **OUTSIDE RESOURCE**

An outside resource is any form of financial assistance a student receives that is awarded based on their educational pursuit and is not processed through the University's Financial Aid, Controller, Foundation or Directed Research offices.

The student must inform FAU of any outside resource they receive. Examples would be a scholarship check made payable directly to the student, or support from an outside agency that will be covering educational expenses for the student in the form of direct reimbursement. To report an outside resource, submit the following form to the student's assigned financial aid counselor at [Student Statement of Outside Resources](#).

Examples of resources that do not need to be reported are any resources that are processed through the University system, such as: Florida Pre-paid, Student Loans, Financial Aid Grants, Florida Bright Futures, FAU Tuition Exemptions, VA Educational Benefits, FAU Scholarships or Scholarships made directly payable to FAU or co-payable to FAU/Student.







# UNIVERSITY CATALOG

## SUB MENU



### GENERAL INFORMATION

[Introduction to FAU](#)[General Information](#)[Academic Calendar](#)[Academic Policies and Regulations](#)[Admissions](#)[Appendices](#)[Campus Maps](#)[Degree Programs](#)[Degree Requirements](#)[Faculty and Administration](#)[Financial Assistance Opportunities](#)[Programs for Enrichment and Specialization](#)[Registration and Records](#)[Student Services and Activities](#)[Tuition, Fees and Refunds](#)

### ACADEMIC PROGRAMS

### COURSE DESCRIPTIONS

## PROGRAMS FOR ENRICHMENT AND SPECIALIZATION

The following programs may be taken in conjunction with a degree program. An exception is the Secondary Education Program available to persons holding a bachelor's degree from an accredited university.

**Certificate Programs** - Enhance a student's major program of study by allowing specialization in a certain field or evolving industry. Florida Atlantic University offers numerous certificate programs for undergraduate and graduate students. Certificate program information may be found in the [Degree Programs section](#) and in the College sections within this catalog.

**Education Abroad** - Provides activities, advising and programming for students interested in traveling abroad for credit as part of their academic studies.

**Intensive English Studies Programs** - Provide instruction in all areas of the English language. Available to international students, scholars and professionals.

**Lifelong Learning Programs** - Assist non-traditional students in expanding their knowledge. Programs include Continuing Education, the Osher Lifelong Learning Institute and 60-Plus Audit.

**Military Programs** - Offer students opportunities to receive [Air Force](#) and [Army ROTC](#) experience while pursuing their bachelor's degrees. A [Military Science minor](#) is also available.

**Oak Ridge Associated Universities (ORAU) Consortium** - Provides a consortium of 91 colleges and universities that works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country.

**Post-Baccalaureate Pre-Health Professions Program** - Provides a preparatory program for students planning to continue their education beyond FAU in the medical, dental or veterinary fields.

**Pre-Law Preparation** - Provides guidance for undergraduates interested in attending law school.

**Secondary Education Programs** - Offers degree and certification programs in various subjects for individuals interested in teaching and meeting Florida certification requirements.

## EDUCATION ABROAD

### Overview

Florida Atlantic University Education Abroad, part of the [Center for Global Engagement](#), offers both undergraduate and graduate students the opportunity to travel abroad for academic purposes. Students enhance their personal, professional and academic résumé—demonstrating they have the intercultural competence and versatility needed to compete in today's global workforce. Programs may include study, internships, service learning and research opportunities abroad.

Students of all majors and from all colleges at undergraduate and graduate levels are invited to participate, as most programs have coursework taught in English (though some do require proficiency or knowledge of a foreign language). Undergraduate students must have a minimum 2.5 cumulative GPA and graduate students a 3.0 GPA in order to participate; some programs may have additional GPA or admissions requirements.

## TYPES OF PROGRAMS

### **Faculty-Led Study Abroad Programs**

Education Abroad works with faculty and administrators across the colleges to offer short-term study abroad programs, ranging from 1-6 weeks, throughout the year. These programs are a great option for first-time travelers and students whose personal, professional or academic situation does not allow them to be out of the country for an extended period of time. Recent short-term program destinations have included Belgium, Brazil, China, Costa Rica, Ecuador, England, France, Greece, Israel, Italy, Japan, Mexico, Peru and Spain. Though some programs are repeated annually, Education Abroad supports faculty in developing new and exciting programs in traditional and non-traditional disciplines and destinations. This allows students to explore the world while taking FAU courses and traveling with professors.

### **Student Exchange Programs**

FAU has reciprocal student exchange agreements with educational institutions around the world, offering semester, academic year, and in some cases, summer study abroad opportunities. Students participating in an exchange program are registered through FAU and pay FAU tuition while studying at the institution abroad and earning credits toward their degree. Coursework is available in a wide range of subjects, including business, engineering, science, architecture, humanities, social sciences and more. Some programs offer courses in the local language, while others offer coursework conducted all in English. Leading partner institutions are located in Australia, Finland, France, Germany, Ireland, Japan, Portugal, South Korea and Sweden.

### **Direct Enroll**

Students have the option to directly enroll in a program with a study abroad partner institution or organization. Education Abroad provides support and advising throughout this process, and students receive transfer credit for the successful completion of coursework abroad.

### **Funding**

Students who are interested in participating in a study abroad experience have various funding opportunities available. Certain types of institutional, state and federal financial aid may be applied to FAU-sponsored study abroad programs, including Pell Grants, Bright Futures Scholarships, Florida Prepaid and the FAU Presidential Scholarship. Education Abroad offers its own study abroad scholarship and advises students on external scholarships, such as the Benjamin A. Gilman International Scholarship, the Fund for Education Abroad Scholarship, the Boren Scholarship.

### **Getting Started with Study Abroad**

Students who are considering adding an experience abroad to their academic studies should contact Education Abroad as soon as possible. Advanced planning allows adequate time to meet with the Education Abroad staff, have coursework reviewed, apply for scholarships and complete the application and acceptance materials on time.

More information on programs and funding can be found on the Education Abroad [website](#), by visiting the Education Abroad office located on the Boca Raton campus in General Classroom South (GS) 212Q or by sending an [email](#).

## **INTENSIVE ENGLISH STUDIES PROGRAMS**

International students, scholars and professionals may receive instruction in all areas of the English language at FAU through the Intensive English Institute (IEI).

The Intensive English Institute offers English for business or a career or to prepare for study at an American university. Instruction is given in listening and comprehension, grammar, reading, writing, composition, vocabulary development, conversation and multicultural understanding. For more information, visit the Intensive English Institute's [website](#) or call 561-297-0179.

In addition, the Intensive English Institute offers a prestigious Bridge Program, which provides conditional admission to FAU degree programs (undergraduate and graduate). For details, visit the Bridge Program's [website](#) or contact [IEI@fau.edu](mailto:IEI@fau.edu).

## **LIFELONG LEARNING PROGRAMS**

Florida Atlantic University recognizes that learning is a lifetime process and sponsors several programs specifically to facilitate lifelong learning.

## **The Osher Lifelong Learning Institute**

The Osher Lifelong Learning Institute is one of the largest and most successful lifelong learning programs in the nation. With more than 20,000 patrons enrolled on the Boca Raton and Jupiter campuses, members choose from a schedule of non-credit courses and lectures given by Eminent Scholars and national and international figures in a wide variety of fields, including foreign policy, music, art, history, science, literature, philosophy, current events and film. For information and a schedule of courses, visit its [website](#) or call 561-297-3171. For the Osher Lifelong Learning Institute at FAU Jupiter, click [here](#) or call 561-799-8547.

## **Continuing Education**

As part of the academic mission of FAU, Continuing Education provides both credit and non-credit opportunities to individuals who seek to expand their educational horizons. Through Continuing Education, in excess of 24,000 students take classes, seminars and workshops in professional training, test preparation, personal growth, languages, investment management and many other pursuits.

Credit courses within Continuing Education are provided by accredited faculty members in a variety of non-traditional settings: weekend; distance education, including telecourses, Internet and video; corporate courses both sponsored and paid for by employees for reimbursement; extension and international.

Non-credit courses, education and training for government employees and nonprofit organizations, certifications and individual career needs are also within this division's mission. For more information, visit the Center for Online and Continuing Education [website](#) or call 800-228-5845 or 561-297-0178.

## **The 60-Plus Audit Program**

Permanent residents of Florida who are at least 60 years of age may audit credit courses for free. Registration is on a space-available basis after degree-seeking students have registered. For registration dates, instructions and a list of courses, visit the Registrar's Office [website](#).

## **MILITARY PROGRAMS**

[Link to Army ROTC Program/ Link to Military Science Minor](#)

## **AEROSPACE STUDIES - AIR FORCE (AFROTC)**

Florida Atlantic University, in cooperation with the Department of Aerospace Studies, Air Force

Reserve Officer Training Corps (AFROTC) at the University of Miami, provides academic instruction and training leading to active duty commissioned service in the United States Air Force.

AFROTC is an educational program designed to provide college students the opportunity to become Air Force officers while completing a bachelor's degree. The AFROTC program provides superior hands-on leadership training and is designed to prepare cadets to assume positions of increasing responsibility as officers in service to their country.

Normally, the program is four years, but in some instances students can complete requirements in three years. The first two years of the program, the General Military Course (GMC), consist of a one-hour class, three hours of leadership laboratory/practical military training and two hours of organized physical conditioning each week. AFROTC cadets compete for entry into the last two years of the program, the Professional Officer Course (POC). Competition includes both quantitative and qualitative factors, such as grade point average, unit commander's evaluation, aptitude test scores and physical fitness test scores. If selected, cadets must complete a 14-day summer program referred to as Field Training at Maxwell Air Force Base in Montgomery, AL before entering the POC.

After earning a degree and successfully completing all Air Force ROTC requirements, cadets are commissioned as Air Force officers with a four-year active duty service commitment. Pilots, Combat Systems Officers and Air Battle Managers have longer service commitments upon completion of specialized training.

For more information, contact Detachment 155 Cadre at 305-284-2870 or browse its [website](#).

## **Enrollment**

There is no military obligation to enroll in AFROTC. To enroll students must meet the following criteria:

- Be a U.S. citizen or resident alien, or be able to become a U.S. citizen prior to attending Field Training the summer following sophomore year;
- Be a full-time college student enrolled in 12 credits per semester;
- Be able to participate in a demanding physical fitness program;
- Be able to pass a Department of Defense Medical Examination;
- Have solid moral character;
- Maintain AFROTC minimum required grade point average.

## **Scholarships**

More than 70 percent of Air Force ROTC scholarships are awarded to undergraduate students in

engineering or other scientific and technical disciplines. However, students in every degree program enjoy scholarship opportunities, as the Air Force seeks to engage students who excel both academically and militarily. Scholarships are awarded in increments of two, three and four years. Air Force ROTC offers several types of scholarships. Type 1 covers full tuition and most required fees. Type 2 covers tuition and fees but is capped at \$18,000 annually. Type 3 pays up to \$9,000 annually and can be used at any university that offers Air Force ROTC. Type 7 scholarships are normally designated for in-state-tuition-level institutions. All types of awards provide an allowance for books, most required fees and a monthly non-taxable stipend. All scholarship cadets are required to meet certain academic, military and physical fitness standards to earn and maintain scholarship benefits.

### **Benefits**

All AFROTC cadets receive uniforms, books and equipment for ROTC classes at no cost. Upon commissioning as Second Lieutenant, the starting salary and allowances are worth more than \$68,000 annually\*. Free medical and dental care, 30 days paid annual vacation and added educational benefits are also part of the compensation package.

\* Based on 2021 Pay Chart and Miami, FL Housing Allowance for a Second Lieutenant (2d Lt O-1).

### **Aerospace Studies Course Descriptions**

Classes and labs are held at the University of Miami in Coral Gables.

#### **Heritage and Values of the United States Air Force 1 (AFR 1101) 1 credit**

#### **Heritage and Values of the United States Air Force 2 (AFR 1121) 1 credit**

Survey courses designed to provide an introduction to the Air and Space Forces to encourage students to pursue a U.S. Air Force career or at least seek additional information to be better informed about the role of the USAF. The courses allow students to examine general aspects of the Department of the Air Force, leadership fundamentals, service benefits and opportunities for officers. The courses also lay a foundation for becoming an Air or Space professional by outlining USAF heritage and values. As foundational courses, these courses also provide a historical perspective such as lessons on war and the U.S. military, AF operations, principles of war and airpower. Additionally, these courses provide students with a knowledge-level understanding for the employment of air and space power from an institutional, doctrinal and historical perspective. Students are introduced to the military way of life and gain knowledge of what it means to be an Air or Space professional.

#### **Team and Leadership Fundamentals 1 (AFR 2130) 1 credit**

### **Team and Leadership Fundamentals 2 (AFR 2131) 1 credit**

Survey courses designed to provide a fundamental understanding of both leadership and team building. It is imperative that students are taught from the beginning that there are many layers to leadership, including aspects that do not always jump to mind. Such aspects include listening, understanding themselves, being a good follower and problem solving efficiently. Students apply these leadership perspectives when completing team building activities and discussing conflict management. Students should demonstrate basic verbal and written communication skills.

### **Leading People and Effective Communication 1 (AFR 3220) 3 credits**

#### **Leading People and Effective Communication 2 (AFR 3230) 3 credits**

This course is designed to build on the leadership fundamentals taught in lower-level AFR courses. Students have the opportunity to utilize their skills as they assume more of a leadership role. The goal of this course is for students to develop a more in-depth understanding of how to lead people effectively and provide them with the tools to use throughout their various leadership roles. Students hone their writing and briefing skills. Many students may lack public speaking skills; this course is designed to assist in building the confidence needed for briefing sessions in front of an audience. Additionally, this course includes guided discussion centered on leadership and ethics. Students begin thinking about leadership through their own lens furthering the development of their leadership skills.

### **National Security, Leadership Responsibilities and Commissioning Preparation 1 (AFR 4201) 3 credits**

### **National Security, Leadership Responsibilities and Commissioning Preparation 2 (AFR 4211) 3 credits**

This course is designed to increase comprehension of the basic elements of national security policy and process. Students should know basic Department of the Air Force operations as well as understand selected roles of the military in society and current domestic and international issues affecting the military profession. Students should understand the responsibility, authority and functions of a Department of the Air Force commander and selected provisions of the military justice system. The final portion of the course is designed to prepare students for a career as a second lieutenant as they transition from civilian life to military life.

## **MILITARY SCIENCE**

The Army Reserve Officer Training Corps (ROTC) is a program (normally college electives) that

incorporates extensive leadership, management, problem solving, fitness and level 1 military skills into any college student's curriculum regardless of the student's selected major. This program has proven its unparalleled value to students long after graduation and well into their desired career, whether civilian or military. ROTC is an elective course that is taken each semester of college, and upon completion of the program requirements and awarding of a bachelor's degree (or graduate degree), the student is commissioned as an Officer in the active Army, Reserves or National Guard.

Students interested in ROTC, but not ready to make a commitment, may take classes as freshmen and/or sophomores and incur no military obligation. Students entering their junior year or about to begin a two-year graduate program in the fall of an academic year may spend five weeks in summer training at the Leaders Training Course in Fort Knox, Kentucky. In that program, students learn skills normally taught in the first two years of ROTC, earn pay, and then without obligation, make a decision about ROTC and the Army. Contact the Military Science program at 561-297-6484 or Mr. John Mccammon at [jmccamo@fau.edu](mailto:jmccamo@fau.edu) for additional information.

### **Enrollment**

The program is open to all full-time students attending Florida Atlantic University (or other cross-enrolled universities). Courses are taught at FAU's Boca Raton campus. A list of available courses appears after this Military Science description.

### **Instruction and Training**

There is no military service obligation associated with the first two years of the program unless a student is an ROTC scholarship recipient. These courses introduce students to skills taught at U.S. Army Basic Training. They include military customs and courtesies, organization and rank structure leadership assessment, patrolling, map reading, first aid and many others. Courses consist of outdoor/indoor instruction and are, by design, 80 percent practical "hands-on" training conducted both on campus and throughout South Florida. Juniors and seniors continue to use these hands-on techniques while the emphasis is on developing and refining leadership skills. As juniors and seniors and advanced course Cadets, they are also charged with teaching and mentoring basic course students. Closely monitored and supervised by experienced Military Officers and senior enlisted soldiers, these juniors and seniors plan and organize events and other training far beyond their personal expectations.

### **Scholarships**

Army ROTC has national and campus-based scholarships. These scholarships pay full tuition or up to \$12,000 per school year for room and board. The scholarship also pays \$1,200 annually for books and up to \$500 per month for spending money. Applications for scholarships are accepted during the

academic year with priority given to enrolled ROTC students. Scholarship winners are usually committed to four years of active duty, earning salaries comparable to civilian sector incomes, but with the experience that few civilian careers can offer. Non-scholarship and selected scholarship Cadets can request either full-time active service or part-time service in the Reserves or National Guard.

### **Benefits**

All ROTC Army Cadets receive uniforms, books and equipment for ROTC classes at no cost. Upon being commissioned a 2nd Lieutenant in the U.S. Army, a student will receive a starting salary and allowances worth more than \$56,000 per year. Free medical and dental care, 30 days paid annual vacation with added educational benefits are also included in the compensation package.

### **Organizations**

**Ranger Challenge** - A physically demanding course designed to prepare Cadets for area and regional competition against other ROTC units. Cadets train weekly to perfect skills in weapons handling and assembly, marksmanship, orienteering, hand grenade throwing, physical fitness, combat patrolling and combat load road-marching.

**Color Guard** - An elite organization of Cadets skilled in marching, drill and ceremony. Members post the colors at FAU sporting events, civic/veteran events and campus/community functions.

### **Special Programs**

Students unable to participate in ROTC during the freshman and sophomore years may qualify for admission to advanced ROTC (junior and senior years) by attending a 30-day course (basic camp) at Fort Knox, Kentucky, during the summer between their sophomore and junior year. Attendees incur no military obligation.

An alternative entry program is also available for students who meet certain criteria and are unable to attend basic camp.

### **Special Training**

Outstanding Cadets may be qualified to attend special Army schools such as Mountain Warfare Training, Northern Warfare School, Air Assault School or Airborne School. Selection is competitive and based on the student's academic and physical performance record. Cadets receive uniforms, boots and other equipment necessary for all ROTC classes and training. Outstanding Cadets are honored at frequent award ceremonies.

### **Military Science Course Descriptions**

Classes and labs are held at Florida Atlantic University's Boca Raton campus.

### **Foundations of Officership (MSL 1001) 1 credit**

*Corequisite: MSL 1001L*

Students examine the unique duties and responsibilities of Officers, discuss the organization and role of the Army, review basic life skills pertaining to fitness and communication and analyze Army values and expected ethical behavior.

### **Foundations of Officership Lab (MSL 1001L) 0 credit**

*Corequisite: MSL 1001*

Laboratory component for MSL 1001.

### **Basic Leadership (MSL 1002) 1 credit**

*Corequisite: MSL 1002L*

Course presents fundamental leadership concepts and doctrine. Students practice basic skills that underlie effective problem solving, apply active listening and feedback skills, examine factors that influence leader and group effectiveness and examine the Officer experience.

### **Basic Leadership Lab (MSL 1002L) 0 credit**

*Corequisite: MSL 1002*

Laboratory component for MSL 1002.

### **Individual Leadership Studies (MSL 2101) 2 credits**

*Corequisite: MSL 2101L*

Course develops problem solving and critical thinking skills and helps students apply communication, feedback and conflict resolution skills.

### **Individual Leadership Studies Lab (MSL 2101L) 0 credit**

*Corequisite: MSL 2101*

Laboratory component for MSL 2101.

### **Leadership and Teamwork (MSL 2102) 2 credits**

*Corequisite: MSL 2102L*

Focuses on self development guided by knowledge of self and group processes; challenges current beliefs, knowledge and skills; and provides equivalent preparation for the ROTC Advanced Course as the Leader's Training Course.

### **Leadership and Teamwork Lab (MSL 2102L) 0 credit**

*Corequisite: MSL 2102*

Laboratory component for MSL 2102.

### **Leadership and Problem Solving (MSL 3201) 3 credits**

*Corequisite: MSL 3201L*

Concentrates on preparing students to become officers in the United States Army and, more immediately, for attendance at the Leadership Development Assessment Course (LDAC) in Fort Lewis, Washington. Special emphasis is placed on physical fitness, land navigation, troop leading procedures, preparing operations orders and leader execution. Examines the basic skills that underlie effective problem solving in the execution of leadership by analyzing military missions and planning military operations.

### **Leadership and Problem Solving Lab (MSL 3201L) 0 credit**

*Corequisite: MSL 3201*

Laboratory component for MSL 3201.

### **Leadership and Ethics (MSL 3202) 3 credits**

*Corequisite: MSL 3202L*

Concentrates on preparing students to become officers in the United States Army and, more immediately, for attendance at the Leadership Development Assessment Course (LDAC) in Fort Lewis, Washington. Special emphasis is placed on physical fitness, land navigation, troop leading procedures, preparing operations orders and leader execution. Develops Cadet leadership competencies and ethical leader responsibilities. At the conclusion of the course, Cadets will be capable of planning, coordinating, navigating, motivating and leading a team or squad in the execution of a small unit tactical mission or battle drill during a classroom PE, a Leadership Lab or during a Situational Training Exercise (STX) in a field environment.

### **Leadership and Ethics Lab (MSL 3202L) 0 credit**

*Corequisite: MSL 3202*

Laboratory component for MSL 3202.

### **Leadership and Management (MSL 4301) 3 credits**

*Corequisite: MSL 4301L*

Builds on Leadership Development and Assessment Course (LDAC) experience to solve organizational and staff problems, including discussing staff organization, functions and processes; analyzing counseling responsibilities and methods; examining principles of subordinate motivation and organizational change and applying leadership and problem solving principles to a complex case study/simulation.

### **Leadership and Management Lab (MSL 4301L) 0 credit**

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*Corequisite: MSL 4301*

Laboratory component for MSL 4301.

### **Officership (MSL 4302) 3 credits**

*Corequisite: MSL 4302L*

This is a capstone course designed to explore topics relevant to 2nd Lieutenants entering the Army. It describes the legal aspects of decision making and leadership, analyzes Army organization for operations from the tactical to strategic level, assesses administrative and logistics management functions, discusses reporting and permanent change of station (PCS) process, teaches students how to perform platoon leader actions and examines leader responsibilities that foster an ethical command climate.

### **Officership Lab (MSL 4302L) 0 credit**

*Corequisite: MSL 4302*

Laboratory component for MSL 4302.

### **U.S. Military History (MSL 4400) 3 credits**

This course covers American military history from the Colonial Period (1600s) through present-day wars. The focus is on the evolution of the United States Army's structure, strategy, tactics and weaponry with an emphasis on the interrelationship of the military establishment with American society. The presentation of material is divided between lectures, video presentations and independent research.

### **Directed Independent Study (MSL 4900) 1-3 credits**

*Prerequisite: Permission of department*

Course includes supervised reading and writing assignments of independent study in United States military history.

## **MILITARY SCIENCE UNDERGRADUATE MINOR**

*(Minimum of 15 credits required)*

The Military Science minor, offered by FAU's Army ROTC program, is available to all FAU degree-seeking students on the condition that they meet requirements for commissioning into the United States Army following completion of their undergraduate studies. The minor requires a minimum of 15 credits taken from the courses below. All courses taken for the minor must be completed with a grade

of “C” or better and at least 75 percent of the courses for the minor must be completed at FAU. The Military Science minor will be awarded upon completion of the bachelor’s degree. For additional information, please contact 561-297-6484 .

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### **Required Courses (15 credits from courses below)**

Leadership and Problem Solving	MSL 3201	3
Leadership and Ethics	MSL 3202	3
Leadership and Management	MSL 4301	3
Officership	MSL 4302	3
U.S Military History	MSL 4400	3

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### **Military Science Electives (not required for this minor but recommended)**

Foundations of Officership	MSL 1001	1
Basic Leadership	MSL 1002	1
Individual Leadership Studies	MSL 2101	2
Leadership and Teamwork	MSL 2102	2

## OAK RIDGE ASSOCIATED UNIVERSITIES (ORAU) CONSORTIUM

Since 2002, Florida Atlantic University students and faculty have benefited from the University's membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of 91 colleges and universities and a contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, undergraduates, graduates, postgraduates and faculty enjoy access to a multitude of

opportunities for study and research. Students can participate in programs covering a wide variety of disciplines, including biomedical sciences, business, earth sciences, engineering, epidemiology, geological sciences, mathematics, nuclear chemistry, pharmacology, physics and ocean sciences. Appointment and program length range from one month to four years. Many programs are especially designed to increase the numbers of underrepresented minority students pursuing degrees in science- and engineering-related disciplines. A listing of these programs and other opportunities, their disciplines and details on locations and benefits can be found in the [ORISE website](#).

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's members, private industry and major federal facilities. Activities include faculty development programs, such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scientist Program and various services to Chief Research Officers. For information about ORAU and its programs, visit the [ORAU website](#).

## POST-BACCALAUREATE PRE-HEALTH PROFESSIONS PROGRAM

The Charles E. Schmidt College of Science offers a Post-Baccalaureate Pre-Health Professions certificate for students interested in pursuing medical, dental, veterinary or other health-related professions and who have not completed prerequisite courses as undergraduates. This certificate program is designed to assist students academically, build their research portfolios and help them obtain healthcare shadowing and volunteering experiences. The requirements for this certificate are listed under the Interdisciplinary Programs heading in this catalog's [Charles E. Schmidt College of Science section](#) or visit the Pre-Health Professions Office [website](#).

## PRE-LAW PREPARATION

The best preparation for law school is a good undergraduate education. There is no single pre-law curriculum, but it is important to complete a course of study that develops reading, writing, speaking and analytical thinking skills. Students should select a major based upon their interests and their abilities. Elective courses should be taken to complement the major and to develop special skills. Law school graduates who have developed an identifiable second area of competence as undergraduates often enhance their professional opportunities. Students interested in public service will find courses in government and law especially useful.

A pre-law curriculum is the particular set of courses each prospective law student selects to earn a baccalaureate degree. By the judicious selection of courses, students learn skills and gain knowledge crucial to success in law school and in the practice of law.

Although many different majors can be a strong basis for application to and success in law school, the following courses may be particularly suited to these goals:

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### **Basic Courses in American Government**

United States History to 1877	AMH 2010	3
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United States History since 1877	AMH 2020	3
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The Government of the U.S.	POS 2041	3
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Issues in American Politics	POS 3033	3
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### ***Law-Related Courses***

Business Law 1	BUL 4421	3
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Business Law 2	BUL 4422	3
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The Criminal Justice System	CCJ 3024	3
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Issues in Criminal Law	CCJ 4931	3
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Mass Communication Law and Regulation	MMC 4200	3
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Constitutional Law: Government Powers and Limits	POS 4603	3
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The Judicial Process	POS 4609	3
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### ***Courses to Develop Analytical and Communication Skills (verbal and written)***

Advanced Exposition	ENC 3310	3
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Logic	PHI 2102	3
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Public Speaking	SPC 2608	3
Argumentation and Debate	SPC 4513	3
Propaganda	SPC 4540	3

For more information on pre-law studies, click [here](#).

## SECONDARY EDUCATION PROGRAMS

Secondary Education degree programs are offered by the College of Education in partnership with the Dorothy F. Schmidt College of Arts and Letters and the Charles E. Schmidt College of Science. These programs are approved by the Florida Department of Education (DOE) and National Council for Accreditation of Teacher Education (NCATE). This state and NCATE approval represents the transferability of teaching credentials from state to state.

Secondary programs currently approved include the following subject areas and grade levels:

- Art (K-12)\*
- English Education (6-12)
- Foreign Language Education (French K-12\*, Spanish K-12\*)
- Mathematics Education (6-12)
- Music Education (K-12)
- Science Education (Biology 6-12, Chemistry 6-12, Physics 6-12)
- Social Science Education (6-12)

\* *Certification program only*

More information pertaining to the Secondary Programs is available in the [College of Education section](#) of this catalog under the Department of [Curriculum and Instruction](#) or on the Department of Curriculum and Instruction's [website](#). Students may also refer to the College of Education's Office for Academic and Student Services [website](#). For Music Education information, refer to the Dorothy F. Schmidt College of Arts and Letters [Department of Music](#).





# UNIVERSITY CATALOG

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## INFORMATION

Registration and records information and services are available at the following telephone numbers, websites or email address:

General Information	561-297-3041
Address changes	<a href="http://myfau.fau.edu">myfau.fau.edu</a>
Admissions Information:	
Graduate	561-297-3624
Undergraduate	561-297-3040
Email	<a href="mailto:registrar@fau.edu">registrar@fau.edu</a>
Enrollment Verifications	561-297-2711
Graduation	561-297-2731
Registration/FAU Self-Service	<a href="http://myfau.fau.edu">myfau.fau.edu</a>
Residency Reclassification	561-297-2408
Transcript Information	561-297-3056
Official Transcripts	<a href="http://myfau.fau.edu">myfau.fau.edu</a>
Unofficial Transcripts	<a href="http://myfau.fau.edu">myfau.fau.edu</a>

**Registration and Records information at FAU's Partner campuses:**

FAU Davie	954-236-1010
FAU Jupiter	561-799-8549

**Registration Requirement**

No student may attend a course for which he or she is not registered, either as a degree-seeking student or as a non-degree-seeking student.

## ORIENTATION, ADVISEMENT AND REGISTRATION FOR ENTERING DEGREE-SEEKING STUDENTS

All new, first baccalaureate, degree-seeking students are required to attend orientation, advisement and registration programs. The Office of New Student Orientation coordinates all orientation programs for undergraduate degree-seeking students. Orientation is designed to accomplish many goals: introduce students to FAU and the University's services and programs, provide academic advising and assist students with the challenges they will face as new students at FAU. Even if students attended another institution, orientation is essential for getting ahead at FAU because it provides the basic information needed to succeed at FAU. The program presents this information in the most concise manner possible so that a student's time at orientation is spent efficiently.

Detailed instructions pertaining to orientation, advisement and registration are sent to new students as they are admitted. For additional information, refer to the "New Student Orientation" heading in the [Student Services and Activities section](#) of this catalog, or visit the office's [website](#).

**Registration for Continuing Degree-Seeking Students**

Continuing students at FAU may register during the registration period (see the [Academic Calendar](#) for dates). Students use FAU Self-Service, available through [MyFAU](#), to register for courses.

**Academic Advising**

Academic advising is an integral part of the higher education experience. Its primary purpose is to assist students in developing meaningful educational plans compatible with their life goals. This is accomplished in a variety of ways, but always in collaboration with college, departmental or professional advising personnel. These meetings provide the student with an introduction to the campus, to student services and to the academic programs and requirements of the major.

## **Advising Policy Statement**

Florida Atlantic University recognizes and embraces its responsibility to provide students with the necessary and appropriate skills, abilities, information and resources to enable them to make enlightened decisions. To meet the challenges of excellence in education, this institution is committed to offering its students the opportunity to receive assistance and guidance in clarifying life and career goals, develop suitable educational plans, strengthen decision-making skills, increase their awareness of University policies and procedures and acquire information regarding University and community resources.

Students must be active participants in deciding the goals and direction of their university experience, and they are expected to avail themselves of all opportunities to become knowledgeable, self-directed and competent decision-makers. As partners in the advising process, the student and advisor work toward the common goal of enhancing the academic experience by devising the best possible academic program. However, students must ultimately take responsibility for their own progress toward a degree.

## **Advising in the Colleges**

The specific type of advising program adopted by the academic units at FAU varies by college and by department. Students are urged to check with their major college or department to familiarize themselves with the advising program pertaining to them.

The academic advising and registration process varies from college to college. Each process is described according to the college in which the student is enrolled.

Registration appointment times are assigned to currently enrolled students prior to registration. The [Registration Schedule](#) is available a few weeks prior to the beginning of registration for the upcoming term. Academic advising may occur at any point during the academic year. Academic advisement is not mandatory; however, certain circumstances may require some students to see an advisor. Please contact your college or department advising office to determine academic advising procedures and to make an appointment for advisement.

Although advising may not be required in every college, students should inform their colleges and individual departments of any changes made in their schedule so that these offices are able to keep accurate records. See "Determining a Semester Schedule" in this section for more information.

Closed Classes - In order to obtain permission to register for a filled class, check each college's procedure by selecting the "Closed Classes" option in the online course schedule. The current course

schedule is available at [myfau.fau.edu](https://myfau.fau.edu). In all cases, a signature, college stamp and override stamp are required for registration in person.

## COLLEGE-SPECIFIC ADVISING REQUIREMENTS

### DOROTHY F. SCHMIDT COLLEGE OF ARTS AND LETTERS (FAU BOCA RATON)

Academic advising in the Dorothy F. Schmidt College of Arts and Letters fosters relationships with undergraduate students to assist them in achieving their academic, personal, and professional goals. Students pursuing majors or minors in the College should plan to work closely with academic advisors throughout their program to ensure they understand and are meeting all degree requirements at the state, college, and university levels.

Students. . .

1. Attend and participate in a University orientation session. This session will provide general information about policies and processes essential to the student's success as well as facilitate initial interactions with an advisor as the student begins to plan a schedule and academic coursework.
2. Are advised by professional advisors in Student Academic Services as well as faculty members in certain academic departments. Students are expected to seek advisement in their respective major area as well as meet with academic advisors in Student Academic Services. Additional information about the appropriate resources and appointments are available by calling 561-297-3800 or visiting its [website](#).
3. Are expected to have prepared a tentative schedule prior to meeting with an advisor. Advisors are not able to register students for courses or plan exact schedules. Students will receive guidance and accurate information about appropriate or recommended course(s) but will develop a specific schedule and register themselves using the available online resources.
4. Are expected to schedule an appointment proactively with an advisor once a semester to ensure they remain on track to meet their academic goals and degree requirements within University completion guidelines. However, more frequent advising sessions may be helpful and allow additional opportunities to explore interests, discuss goals and obtain assistance with decision making as needed.

### DOROTHY F. SCHMIDT COLLEGE OF ARTS AND LETTERS (FAU DAVIE)

## Students with 60 or more credits. . .

1. Attend and participate in a University orientation session. This session will provide general information about policies and processes essential to the student's success as well as facilitate initial interactions with an advisor as the student begins to plan a schedule and academic coursework.
2. Are advised by professional advisors in Student Academic Services. Students are expected to seek advisement in their respective major area as well as for the remainder of the College and University requirements. Additional information about the appropriate resources and appointments are available by contacting Student Academic Services at 561-297-3800 or visiting its [website](#).
3. Are expected to have prepared a tentative schedule prior to meeting with an advisor. Advisors are not able to register students for courses or plan exact schedules. Students will receive guidance and accurate information about appropriate or recommended course(s) but will develop a specific schedule and register themselves using the available online resources.
4. Are expected to schedule an appointment proactively with an advisor once a semester to ensure they remain on track to meet their academic goals and degree requirements within University completion guidelines. However, more frequent advising sessions may be helpful and allow additional opportunities to explore interests, discuss goals and obtain assistance with decision making as needed..

## DOROTHY F. SCHMIDT COLLEGE OF ARTS AND LETTERS (FAU JUPITER)

### Students. . .

1. Attend University orientation in their first semester.
2. Meet with an academic advisor to discuss curriculum requirements and selection of courses and to design a program of study.
3. May need to seek advising services on the Boca Raton or Davie campus (or via phone/Skype appointment) depending on their particular major.

## COLLEGE OF BUSINESS (FAU BOCA RATON)

### New Students. . .

1. Attend College orientation and complete semester registration.

## Continuing Students. . .

1. Are required to meet with an academic advisor every semester. For appointment availability, visit the College's [website](#) or call 561-297-3688.
2. Are required to meet with an advisor the semester prior to the anticipated graduation date for a graduation audit.

## COLLEGE OF BUSINESS (FAU DAVIE)

### New Students. . .

1. Attend College orientation and complete semester registration.

### Continuing Students. . .

1. Are required to meet with an academic advisor every semester. For appointment availability, visit the College's [website](#) or call 954-236-1290.
2. Are required to meet with an advisor the semester prior to the anticipated graduation date for a graduation audit.

## COLLEGE OF BUSINESS (FAU JUPITER)

### Students. . .

1. Attend college orientation.
2. Make an appointment with an academic advisor in the Academic Services Office, SR 139, 561-799-8697.
3. Are required to meet with an advisor the semester prior to the anticipated graduation date for a graduation audit.

## COLLEGE OF EDUCATION (FAU BOCA RATON)

### New Students. . .

1. Attend College orientation.
2. Break up into groups according to major.

3. Are advised of selection of courses within group.
4. Complete registration (in person first semester, online or in person thereafter).

#### Continuing Students. . .

1. Are assigned permanent advisors once complete records are on file in the Office for Academic and Student Services, ED 230.
2. May make an appointment with their advisor or in the [Office for Academic and Student Services](#) (561-297-3570) at any point in the semester for academic advisement.
3. May see an advisor for counseling at time of registration each term.
4. Are expected to see an advisor the semester prior to student teaching and graduation.

## COLLEGE OF EDUCATION (FAU DAVIE)

#### New Students. . .

1. Attend College orientation.
2. Break into groups according to major.
3. Are counseled by an advisor.
4. Complete registration in LA 203.

#### Continuing Students. . .

1. Must have approval from an advisor to make changes in scheduled courses after the registration period.
2. Are expected to see an advisor for counseling at the time of registration for each term.
3. May secure advice and assistance at any time from an advisor at College of Education, ES 202, 954-236-1028.

## COLLEGE OF EDUCATION (FAU JUPITER)

#### New Students. . .

1. Attend College orientation.
2. Receive individual or group counseling from an advisor.
3. Complete registration in SR 139 or online through [myfau.fau.edu](https://myfau.fau.edu).

## Continuing Students. . .

1. Must have approval from an advisor to make changes in scheduled courses after the registration period.
2. Are expected to see an advisor for counseling at the time of registration for each term.
3. May secure advice and assistance at any time from an advisor at College of Education, 561-799-8135.

## COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

### All Students. . .

Are assigned an advisor upon admission to a program. Due to the sequential nature of all baccalaureate programs in the College of Engineering and Computer Science, students are strongly encouraged to remain in close contact with their assigned advisors when making decisions regarding their academic programs. Some departments require consultation with an advisor each semester. Click [here](#) for advisor information.

### New Students. . .

1. Attend College orientation.
2. Attend departmental orientation sessions where they meet advisors and develop individual programs of study.
3. Complete registration.
4. Should first consult with their advisor if it appears necessary to drop.

### Continuing Students. . .

1. Receive registration information and instructions in the mail.
2. Discuss progress with advisor each term, especially the term prior to graduation.
3. May self-advise and complete registration if they are following a planned program approved by their advisor. However, some departments require consultation with an advisor each semester.

## HARRIET L. WILKES HONORS COLLEGE

### All Students. . .

1. Attend the Honors College orientation. Only students who attend orientation will be assured of

early advisement.

2. During orientation, advising appointment material will be distributed to students. It will contain the advisor's name, location and time of the appointment.
3. Faculty members within the Honors College are the advisors. They will discuss with students the curriculum requirements and selection of courses and will aid in designing a program of study. If all registration holds have been cleared, students will register for classes following this appointment.
4. Students are required to consult with their advisor when making any changes to their schedule (adding/dropping classes, etc.) and also each semester during registration to discuss the schedule and register for the next term. Honors College students may register online once they meet with their advisor and their advising hold is removed. For more information, consult the College's [website](#).

## CHRISTINE E. LYNN COLLEGE OF NURSING

Students admitted to the Bachelor of Science in Nursing. . .

1. Attend College orientation when admitted to FAU.
2. Attend College of Nursing orientation when admitted to B.S.N. program.
3. Are expected to see the College academic advisor prior to the registration period each term if questions arise. Freshman Direct Admit Track and Accelerated Track advisors then register students in all the nursing courses.
4. Must see their advisor the semester prior to anticipated graduation.

Freshman Direct Admit Track information: [nursing.fau.edu/admissions/bachelor-of-science-nursing-program/freshman-direct-admit/index.php](https://nursing.fau.edu/admissions/bachelor-of-science-nursing-program/freshman-direct-admit/index.php)

Accelerated Track information: [nursing.fau.edu/admissions/bachelor-of-science-nursing-program/accelerated-bsn/index.php](https://nursing.fau.edu/admissions/bachelor-of-science-nursing-program/accelerated-bsn/index.php)

RN-B.S.N. Track Information: [nursing.fau.edu/admissions/bachelor-of-science-nursing-program/rn-to-bsn/index.php](https://nursing.fau.edu/admissions/bachelor-of-science-nursing-program/rn-to-bsn/index.php)

All admitted and continuing Nursing students. . .

1. Freshman Direct Admit Track and Accelerated Track meet with advisors at least twice a semester.
2. RN-B.S.N. Track students meet with advisor at least once a semester.

3. All B.S.N. students must see their advisor the semester prior to anticipated graduation.
4. Advisors for the Freshman Direct Admit Track and Accelerated Track register students in all nursing courses.

## CHARLES E. SCHMIDT COLLEGE OF SCIENCE (FAU BOCA RATON)

Students. . .

1. Attend College orientation in their first semester.
2. Plan a schedule of courses.
3. Complete registration (in person first semester, online thereafter).
4. Are expected to see an advisor at time of registration each term.
5. Are expected to see an advisor the semester prior to anticipated graduation.

Consult the College's [website](#) for more information.

## CHARLES E. SCHMIDT COLLEGE OF SCIENCE (FAU DAVIE)

Students. . .

1. Attend College orientation in their first semester.
2. Are expected to seek advisement from the Office of Academic Support Services in LA 421 and the faculty advisor in the student's major academic discipline.
3. Meet with an advisor to discuss curriculum requirements and selection of courses and design a program of study.
4. Fill out the registration forms and complete registration (with an advisor their first semester, online or in person thereafter).
5. Are expected to notify the Office of Academic Support Services before making changes in scheduled courses after the registration period.
6. Are expected to contact their advisor prior to registration each term.
7. May secure advice and assistance at any time from the [Office of Academic Support Services](#) and the faculty members in their major academic discipline.

## CHARLES E. SCHMIDT COLLEGE OF SCIENCE (FAU JUPITER)

Students. . .

1. Attend College orientation.
2. Make an appointment with an academic advisor in SR 139 and the faculty advisor in their major academic discipline.
3. Are expected to meet with an academic advisor during their first semester in the Charles E. Schmidt College of Science.
4. Meet with an advisor to discuss curriculum requirements and selection of courses and design a program of study.
5. Are expected to see an advisor before registration each term and the semester before anticipated graduation for a graduation audit.
6. May receive academic services through the Academic Programs Office, SR 118, 516-799-8697.

## COLLEGE OF SOCIAL WORK AND CRIMINAL JUSTICE

Students. . .

1. Must attend a University Orientation prior to their first semester, during which they will be advised on the selection of courses and directed on how to complete registration.
2. May make an appointment for advisement in Student Services at the Davie, Boca Raton or Jupiter campus any time after they have submitted their official transcripts to the Office of Undergraduate Admissions, and they have been posted. Click [here](#) for contact information.
3. Are expected to consult with an advisor during the advance and regular registration periods.
4. Are expected to meet with an academic advisor during the semester prior to the semester of anticipated graduation for a graduation audit and at any time the student needs academic advisement. Students are required to meet with an advisor at least once a year.

## COURSE LOAD

### **Undergraduates**

Full-time undergraduate students are those who are registered for 12 or more credits in any semester. A typical undergraduate course load is 15 or 16 credits with 18 credits being the maximum. Registrations exceeding this maximum must be approved in advance by the dean of the college.

The maximum undergraduate load in the summer semester is 9 credits each for short terms 2 and 3, and

18 credits for the full term 1. The maximum for the entire summer (whatever combination is taken) may not exceed 18 credits. Registrations exceeding this maximum must be approved in advance by the dean of the college.

Half-time undergraduate students are those who are registered for 6 to 11 credits. Any student registered for 5 or fewer credits is classified as less than half-time. Students who drop courses during a semester, reducing their registration below 12 credits, will be classified as outlined above.

## **Graduates**

For fall and spring semesters: Graduate students registered for 9 or more credits are considered full-time, registrations for 7 credits are considered 3/4-time and registrations for 4.5 credits are considered half-time.

For the summer semester: Graduate students registered for 6 credits are considered full-time, registrations for 5 credits are considered 3/4-time and registrations for 3 credits are considered half-time.

Registrations exceeding 15 credits in any semester must be approved in advance by the Graduate College. This procedure is accomplished by completing a Form 10-Request to Waive a University Requirement, available in any college dean's office. Graduate students who drop courses and reduce their enrollment below the full-time minimums will be regarded as part-time students. See below for exceptions: Graduate Student Enrollment Petitions.

Note: Students on F-1 visas, students on graduate assistantships, students living in on-campus housing and student athletes are required to register for a full-time course load.

## **COURSE SCHEDULE**

The course schedule is available at [www.fau.edu/registrar/courses/index.php](http://www.fau.edu/registrar/courses/index.php) (select searchable schedule). The University provides the current term's schedule and preliminary schedules for future terms up to 18 months in advance to allow for student planning. The schedule includes, but is not limited to, details on course sections, meeting times and room assignments. It is subject to change without notice.

### **Determining a Semester Schedule**

Prior to selecting courses for each semester, undergraduate and graduate students should:

1. Read the [Degree Requirements section](#) in this University Catalog for the requirements pertaining to the student's degree.
2. Check the prerequisites and course descriptions of the relevant courses in the Course Description sections within each college section in this catalog.
3. See the course schedule ([myfau.fau.edu](http://myfau.fau.edu)) to determine when and where the relevant courses are offered.
4. Review the Online Degree Audit information found at [myfau.fau.edu](http://myfau.fau.edu) in the Student Services tab.
5. See the subsection Course Load in this section for maximum course-load limits.
6. See University Forgiveness Policy in the [Academic Policies and Regulations section](#) if intending to repeat a course.
7. See an academic advisor
8. **Additional recommendations for undergraduates:** See the Undergraduate Enrollment in Graduate Courses subsection in the Academic Policies and Regulations section of this catalog if interested in enrolling in a graduate-level (5000-, 6000-level) course.
9. See the subsection [Transient Students](#) in this section if considering taking a course elsewhere.

### Waitlist Program

FAU's new waitlist program, accessible through [MyFAU](#), allows students to place themselves on a waitlist for classes that have reached the maximum enrollment limit. Students are notified by email if a spot opens in the class and are given a pre-determined amount of time to register. Should that time expire, the open seat is then made available to the next student on the list. Courses are selected for waitlist by the department offering the course. Therefore, waitlist courses may vary from semester to semester.

## DUAL ENROLLMENT FOR QUALIFIED HIGH SCHOOL STUDENTS

The High School Dual Enrollment Program allows qualified students in 6th through 12th grades to earn college credit toward a postsecondary degree or certificate at a Florida public institution that will also count as credit toward a high school diploma. For additional information, visit the Office of the Registrar's [website](#) or call 561-297-2009.

## RECLASSIFICATION TO FLORIDA RESIDENT STATUS FOR TUITION PURPOSES

Enrolled students who are classified as non-Florida residents for tuition purposes and who, after reading the determination of resident status for tuition purposes in [Florida Statute 1009.21](#), believe that they may qualify for in-state tuition, may submit a [Request for Residency Reclassification form](#), available online or from the Office of the Registrar. Forms must be submitted to the Registrar by the deadline published in the [Academic Calendar](#). Supporting documentation is required to substantiate residency for tuition purposes. Merely submitting documentation for Florida residency classification does not guarantee Florida residency status.

To appeal a residency determination, a student must submit a Residency Classification Appeal form to the Residency Appeals Committee through the Office of the Registrar. This form must be submitted by the last day of the current term in which the student intends to be reclassified.

The Residency Appeals Committee decision constitutes the final decision of Florida Atlantic University. A student may seek judicial review of this final University decision under [Section 120.68, Florida Statutes](#). This may be done by filing within thirty (30) days of the date of this decision: (i) a Notice of Appeal with the Agency Clerk of Florida Atlantic University; and (ii) a copy of the Notice of Appeal with the Clerk of the Fourth District Court of Appeal or the Court of Appeal for the district in which the student resides, together with any filing fees that may be prescribed by law.

## REGISTRATION FOR AUDITORS

Auditors are those individuals wishing to attend classes without receiving credit. Auditors who are FAU degree-seeking students need to fill out the [Request for Audit](#) form each semester that they register to audit a course. Students should check with their college to determine if there are limits on auditing courses. Students cannot change to audit status after the end of the drop/add period. Auditors who are not degree-seeking at FAU, must fill out the [Non-Degree Enrollment application](#) and the [Request for Audit](#) form.

All students (whether degree-seeking or non-degree-seeking) wishing to audit a course must also obtain approval from the instructor on the Request for Audit form (signature of instructor and college stamp are required). No college credit is given for audited courses. Audited courses appear on the student's transcript with a notation of AU. Regular tuition and fees apply. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>. Registration for auditors is conducted during the drop/add registration period. See the [Academic Calendar](#) for specific dates. Registration for auditors is on a space-available basis and, because of limitations in instructional

resources, the enrollment of auditors may be restricted in some courses.

### **60+ Audit Program**

The 60+ Audit Program allows Florida residents who are 60 years of age or older to audit, tuition-free (other registration fees still apply), courses appearing in the 60+ schedule of courses. A Florida resident is defined as an individual who has resided in the state for 12 consecutive months, prior to the beginning of classes, and who has established legal ties in Florida (see [Florida Statute 1009.21](#)).

The 60+ Audit Program's requirements and courses are posted on the Registrar's Office website for spring term and for summer/fall terms. The website provides a detailed explanation of the documents required to register for this program. To view details of the 60+ Audit Program, click [here](#). For additional information, call 561-297-3050.

## **REGISTRATION FOR NON-DEGREE-SEEKING STUDENTS**

Non-degree-seeking students are those who do not wish to enter a degree program at FAU but would like to take courses at FAU for credit, perhaps with the intention of transferring those credits to another institution or for their own enrichment. Undergraduate non-degree applicants must have earned a minimum of a high school diploma in order to be admitted in a non-degree status. Graduate non-degree applicants must have earned a minimum of a bachelor's degree in order to be admitted in a non-degree status. Non-degree-seeking students must process the [Non-Degree Enrollment application](#), available online or at the Office of the Registrar. A \$30 non-refundable and non-transferable fee must accompany the Non-Degree Enrollment application. Florida residency documentation and verification of compliance with the State of Florida's Measles/Rubella Immunization Policy also must be provided at the time of registration. Students who do not supply a completed [Non-Degree Residency application](#) along with supporting documentation will be classified for tuition purposes as a non-Florida resident.

Consult the [Academic Calendar](#) for registration dates. Registration of non-degree-seeking students is on a space-available basis and, because of limitations in instructional resources, the enrollment of non-degree-seeking students may be restricted in some courses.

Non-degree-seeking students are subject to the same academic standards and pay the same fees as degree-seeking students. Non-degree-seeking students are subject to all drop/add, withdrawal, and payment deadlines published in the [Academic Calendar](#). (Refer to Drop/Add and Withdrawal in the [Academic Policies and Regulations section](#) as well.) It is the student's responsibility to ensure that

course prerequisites and any other course qualifications have been met prior to registering. Check with the department offering the course(s) for prerequisites.

Non-degree-seeking students who decide to pursue a degree must change their status to degree-seeking by applying for admission to the University. An undergraduate or graduate admission application and all credentials necessary for admission to degree status must be submitted by the application deadline for the semester. All requirements for admission to degree programs in effect at that time must be met. Refer to the [Admissions section](#) for specific information.

Credits earned as a non-degree-seeking student will appear on an FAU transcript but are not intended for application to FAU degree programs. However, up to one-half of degree requirements earned in non-degree status at FAU may be applied to an undergraduate degree program, but only upon degree-seeking admission to the University and approval by the college in which the student's program is housed. For example, students who do not present transfer credits could apply up to 60 non-degree credits earned at FAU toward their 120-credit degree program. Students with transfer credits, for example 30 credits, may apply up to 45 non-degree credits earned at FAU toward their 120-credit degree program (120 credits minus 30 transfer credits = 90 credits remaining and  $1/2$  of 90 = 45 credits).

For graduate students, credits earned as a non-degree-seeking student will appear on an FAU transcript but are not intended for application to an FAU graduate program. Up to one-third of degree requirements earned in non-degree status may be applied to a degree program at FAU, but only upon degree-seeking admission to the University and approval by the college in which the student's program is housed. However, no college may count such credit in excess of one-third of the credits toward a graduate degree without an approved Form 10-Request to Waive a University Requirement.

Non-degree students who have not enrolled at FAU for three or more consecutive semesters must submit a new Non-Degree Enrollment application, a new Non-Degree Residency application and supporting documentation as noted above accompanied by a \$30 non-refundable, non-transferable application fee.

**Note:** Students in a non-degree-seeking status are not eligible for financial aid. Students who have been denied admission to FAU as degree-seeking undergraduates must wait three semesters before they are eligible to register as non-degree-seeking students.

**Note:** International students on J-1 visas may be admitted as non-degree-seeking students after

submission and processing of a non-degree application if they are coming to FAU as part of a reciprocal student exchange under an operative exchange agreement between FAU and their home institution, or if they are a sponsored student. Students coming on an exchange program must work with the Office of International Programs to meet all requirements of the exchange and to obtain information on how to apply as a non-degree-seeking student. Sponsored students seeking access as non-degree-seeking must work with their desired host department before applying for non-degree-student status. The J-1 visa will be issued by FAU for the specific purpose and period of study at FAU once the student is approved for the exchange or for non-degree status as a sponsored student.

## RETURNING STUDENTS

If you are a former degree-seeking FAU student, but not currently enrolled, your eligibility to return will depend on several factors. If you have not attended for at least three consecutive semesters (ex. fall, spring and summer semesters), you must re-apply for admission. Undergraduate students, click [here](#). Graduate students, click [here](#).

Degree-seeking students returning after an absence of more than a year may also be subject to the following:

1. If the last enrollment was more than one year (three consecutive semesters) ago, the student must file a new admissions application with the appropriate documents and submit a new application fee of \$30.
2. Any re-admission applicants who feel they qualify as Florida Residents for tuition purposes must complete the Residency Classification portion of their new application. Failure to provide all relevant information and supporting documents could result in a Non-Florida/out-of-state status, regardless of residency status since last attending FAU.
3. The student must be in good standing (eligible to return) at FAU and at any institution attended since last period of enrollment at FAU.
4. If the student has attended another institution since the last period of enrollment at FAU, official transcripts must be forwarded by the registrar of the other institution(s) directly to the FAU Office of Admissions for undergraduate students and to the Graduate College for graduate students.
5. Returning students under the age of 40 must submit proof of conformity to the Measles Immunization Policy of the State of Florida if they have not already done so. Check with [Student Health Services](#).
6. Students who have not enrolled for three consecutive semesters or more will not be allowed to enroll for courses without being fully admitted by either the Office of Admissions or the Graduate

College. Students whose admission has been denied must contact the relevant admissions office for re-evaluation of their status and must be admitted before they can return.

7. Students who re-apply to a program are not guaranteed re-admission to the program in which they were previously admitted. Due to possible changes in admissions standards and capacity at any given time, students may be denied admission even if their academic records remained the same or improved since their last enrollment.
8. Students will be required to follow the University Catalog guidelines in place at the time of re-admission.
9. Students who are returning after more than three consecutive semesters away from FAU must go through orientation again and pay the orientation fee.

If you are a non-degree-seeking student and you have attended within the last 12 months, go to [myfau.fau.edu](http://myfau.fau.edu) to begin the registration process. If it has been more than 12 months or three consecutive semesters (ex., fall, spring and summer semesters), you must file a [Non-Degree Residency Classification form](#), available online or at the Office of the Registrar.

## TRANSIENT COURSEWORK

Upon matriculation at Florida Atlantic University, undergraduate students are expected to take courses required for their degree in residence at FAU. (See the following section for exceptions for students matriculating with an A.A. degree from an FCS institution.) Students wishing to take courses elsewhere must follow the process found on the [FAU Transient Student website](#) and obtain approval in advance.

Also, students should be aware of the following requirements:

1. The last 30 upper-division credits must be taken at FAU;
2. At least 75 percent of the upper-division courses in the major must be taken at FAU. Some majors may require more than 75 percent. Consult the degree requirements section of the major for details.

Students who find it necessary to take an upper-division course elsewhere within their last 30 credits of enrollment may petition to do so via the Academic Petitions Process. See the Academic Petitions Process and Academic Appeals subsections in the [Academic Policies and Regulations section](#) of this catalog. This petition must be approved before students can submit their transient request at [www.fau.edu/transient](http://www.fau.edu/transient).

In order for a transient form to be approved, the student must be in good standing at FAU and eligible

to register for the term of the transient form. If the transient term is the first term of the student's admission, the student must also be registered for courses at FAU.

For information on financial aid for transient coursework, visit [www.fau.edu/finaid/getting-started/special-programs.php](http://www.fau.edu/finaid/getting-started/special-programs.php)

### **Transient Coursework for Students with an Associate in Arts from a Florida College System (FCS) Institution**

Students matriculating at FAU with an A.A. degree from an FCS institution may continue to earn credits at the FCS institution, provided that the following is met:

1. The course is the same prefix and course number as a course listed by FAU as required for the degree or as a course prerequisite for a required course for the degree.
2. Students must meet the same minimum grade requirements as the course grade minimums required of native students.
3. The earning of such credit *does not conflict* with the FAU's residency requirements in final semesters.

### **Transfer to Another Institution**

A student who plans to transfer from FAU to another institution should, at the earliest possible date, request that an official FAU transcript be forwarded by the Office of the Registrar to the new institution (see Transcripts within this section). Evaluation of transcripts is the responsibility of the new institution.

## **STUDENT RECORDS**

Student records submitted to the University become the property of the University and cannot be returned to the student or released to a third party. These records will be used by officials of the University in any manner deemed appropriate in order to guide students toward their academic objectives.

It is the policy of the University to include in the academic records of undergraduate students all appropriate college-level work attempted or completed at another institution. In the case of second baccalaureate and graduate students, only work attempted or completed at another institution after receipt of the baccalaureate degree and approved by a college representative for use in the FAU degree

program is included in the academic record.

### **Access to Student Records**

Florida Atlantic University regulations, federal law and state law guarantee certain rights pertaining to University records and personally identifiable information on file with the University. These rights may be exercised by any student or prior student. The parent or guardian of a student may exercise such rights when the student is under 18 years of age and/or a dependent under the Internal Revenue Service definition of dependent.

Additional information regarding access, rights and restrictions related to student records may be found at:

1. [University Regulation 4.008](#);
2. [Florida Statutes Chapter 1002](#);
3. [The Family Educational Rights and Privacy Act \("FERPA"\)](#) (20 U.S.C. § 1232g; 34 CFR Part 99);
4. The Office of the Registrar.

### **Hold on Records**

Student records may be placed in a hold status because of financial or other obligations to the University. While the student's records are on hold, registration will not be permitted nor will official transcripts be released. Records will be held until the obligation is cleared to the satisfaction of the office or department issuing the hold.

### **Transcripts**

Official transcripts of a student's FAU academic record are available from the Office of the Registrar. Official transcript requests may be made through [myfau.fau.edu](https://myfau.fau.edu). There is a \$10 charge per transcript. Official transcripts will not be issued for students with any financial obligations to the University. Please allow two business days for processing.

Unofficial transcripts are also available at [myfau.fau.edu](https://myfau.fau.edu).

## **STATISTICS (STUDENTS' RIGHT TO KNOW)**

For FAU graduation rates and other student statistics, visit the Office of Institutional Effectiveness and Analysis [website](#).

FAU's Clery Act Report, Disclosure of Campus Security Policy and Campus Crime Statistics, is available on the [FAU Police website](#). Paper copies may be obtained at the Police Department. The Clery Act also includes a Fire Safety Report.





# UNIVERSITY CATALOG

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## DIVISION OF STUDENT AFFAIRS

The Division of Student Affairs is responsible for matters of general student welfare and student activities. It is the leader in providing comprehensive and integrated campus life programs and services with a vision to cultivate a student-centered environment that contributes to students becoming socially responsible global citizens with an enduring connection to the University.

The Vice President for Student Affairs coordinates the overall operation, which includes the following departments: Campus Recreation, Career Center, Counseling and Psychological Services, Dean of Students Office, Housing and Residential Life, International Services, Military and Veterans Affairs, New Student Transitions and Family Engagement, Owls Care Health Promotion, Student Accessibility Services, Student Government, Student Health Services, Student Involvement, Student Media, Student Union, United Campus Ministries, Upward Bound, and Weppner Center for LEAD and Service Learning.

### **Vice President's Office**

The Vice President is the chief administrative officer for Student Affairs throughout the University. Student success is at the heart of every program and resource this office offers. All of its programs, services and facilities are built around students, with the goal of helping them become active participants on campus and beyond. For additional information or help, visit the Student Affairs [website](#).

### **Dean of Students Office**

The Dean of Students Office includes the Office of Student Conduct and Conflict Resolution, Victim Services and student care/case management services. The office strives to facilitate inclusive, civil, productive, value-based participation in the FAU community through advocacy services and restorative justice practices. The office oversees the Exceptional Circumstances Withdrawal (ECW) process and facilitates both the Beyond Food Program and the homeless verification process. Through this office, a student can receive assistance and/or a referral when an extenuating circumstance prevents them from succeeding academically.

### **Student Care/Case Management Services**

The Student Care/Case Management team is housed in the Dean of Students Office and provides advocacy and coordination of resources (both on campus and in the surrounding community) to students in need. The team assists students with navigating and understanding the services, processes and policies of the University. The student care/case managers work with the exceptional circumstance withdrawal process, work to help homeless and foster care students succeed academically, offer advice to students dealing with academic issues in the classroom, serve as contact for the Beyond Food program, and function as the starting point for students dealing with a host of other issues. Feel free to arrange an appointment by calling 561-297-3542.

Should students need help concerning personal, academic or social problems, the Dean of Students Office is ready to provide assistance. For information, call 561-297-3542 or visit [www.fau.edu/dean](http://www.fau.edu/dean). While the Dean of Students Office is physically located at the Boca Raton campus, staff members are available to travel to the Broward and Northern campuses to meet with students as needed.

### **Victim Services**

Victim Services is located in FAU's Wimberly Library (LY-3). The Victim Services staff is available to assist any student who may identify as a victim, whether the incident occurred recently, in the past, on or off campus. The staff is trained to provide students with information about appropriate resources and procedures.

## **BROWARD AND NORTHERN CAMPUSES STUDENT AFFAIRS**

Campus Life on the Broward and Northern campuses enhances the overall educational experiences of students by providing comprehensive and integrated campus life events and programs, services and facilities that challenge and support Florida Atlantic students through the promotion of academic success and student development. Relevant and desirable outcomes also relate to the goals of career readiness, leadership, wellness and life skills. Campus Life for the Davie, Fort Lauderdale and Dania Beach campuses is coordinated through the [Student Affairs offices](#) on the Davie campus. Campus Life for the northern campuses is coordinated through the [Student Affairs offices](#) on the John D. MacArthur Campus (Jupiter).

## **ACADEMIC COACHING AND CAREER ENHANCEMENT FOR STUDENT SUCCESS (ACCESS)**

The ACCESS Program and coaching center is located on the Boca Raton and Jupiter campuses as a

branch of [University Advising Services \(UAS\)](#) and provides selected students with academic coaching/advising, tutoring and major/career counseling. Services include regular meetings with an ACCESS academic coach/advisor with a focus on academic skill development. Students can expect to review progress in their courses; participation in time-management, study skills, test taking and special topics workshops conducted by ACCESS academic coaches/advisors; connection to academic support such as tutoring and supplemental instruction; participation in peer academic coaching; and enrollment in SLS 1301: Career and Life Planning, designed for students with major and career indecision. For additional information visit: [www.fau.edu/access](http://www.fau.edu/access)

## OFFICE OF ACADEMIC SUCCESS INITIATIVES

The Office of Academic Success Initiatives (ASI) coordinates a number of first-year experience programs aimed at easing a student's transition to Florida Atlantic and supporting them in defining and reaching their educational goals. FAU's signature online student success course, iSucceed, is designed to be taken by students in their first semester of enrollment. Each fall semester, first-year students are also eligible to enroll in a First-Year Interest Group (FIG) that connects them with faculty, advisors and other students in their college. Enrollment in each FIG is capped at 25 students to encourage the development of a community of students who share common interests. Students enrolled in a FIG are also paired with a Peer Academic Coach – an upper-class student who has been successful at FAU and offers informal guidance and advice.

ASI is also responsible for the assessment of FAU's general education curriculum, and supports the development of existing and new courses in that program through consultation and training. The assessment work extends through collaborations across the University to use student outcome and other data to inform practice and recommend improvements. For more information, visit this [website](#).

## ATHLETICS

Florida Atlantic University Athletics comprises 19 intercollegiate teams involving more than 500 student-athletes who compete in baseball, basketball, beach volleyball, cross country, football, golf, soccer, softball, spirit, swimming and diving, tennis, track and field, and volleyball.

For the latest news on FAU Athletics, follow the Owls at [www.fausports.com](http://www.fausports.com) or @fauathletics on Facebook, X/Twitter and Instagram.

# BUSINESS SERVICES

This office offers many services to the University community, including those below. For complete information, visit its [website](#).

## **Banking Services**

The Boca Raton campus has five ATMs located in the following locations: the lobby of the Student Union, the lobby of the Administration Building, the Breezeway Food Court, the lobby of the University Village Apartments, and the FAU football stadium. The Davie and Jupiter campuses each have an ATM in their student lounges.

## **Bookstore**

The University Bookstore on the Boca Raton campus is located on the Breezeway. For more information, call 561-297-3720. In Broward, call 954-236-1950. In Jupiter, call 561-799-8538.

## **Campus Copy**

Campus Copy is a full- and self-service copy center. It provides self-service coin- and card-operated copiers and offers complete, full-service copying, binding and finishing services. Color copies, transparencies, spiral binding, two computer work stations and a cash-to-card machine are just a few of the other services available. For more information, call 561-297-3508.

## **Copy Services**

Copy Services offers self-service coin- and card-operated convenience copiers throughout the campus. In addition to coin- and card-operated copiers, Copy Services provides copiers to meet departmental needs, billed by either auditron codes or meter readings.

## **Food Services**

FAU offers a dining program that includes residential dining, catering and popular-branded concepts. The well-balanced food services program creates the ideal campus dining experience to meet the needs of the diverse University community. Venues on the Boca Raton campus include Atlantic Dining Hall, the Breezeway Food Court, Dunkin' Donuts, the FAU Club, Outtakes convenience stores, Starbucks, and Subway. Venues on FAU's partner campuses are also available. Visit the Dining Services [website](#) for more information.

## **Owl Card Center**

Business Services administers the issuance of student Owl Cards. The Owl Card is the official picture identification and debit card for Florida Atlantic University students. The Owl Card is required of all

students and is available to faculty and staff. An Owl Card may be obtained by presenting an official, government-issued picture ID (driver's license, passport, military ID), a current tuition payment receipt, or proof of financial aid, scholarship or loan (award letter). The Owl Card is also the student's library card, meal plan card, Owl Bucks and Flex Bucks card and building access card for certain campus residence halls, computer labs and classrooms.

The Owl Card Center (561-297-2700) is located on the Boca Raton campus. Additional Owl Card Center services include full fax service, passport photos, Palm Tran Bus passes, visitor cards and laminating service.

For Owl Card information on the Davie campus, 954-236-1549; Fort Lauderdale campus, 954-762-5353; Jupiter campus, 561-799-8690.

### ***Owl Card Off-Line Debit Program***

The Owl Card Off-Line Debit Program utilizes a student's University ID and the most current technology available in off-line debit card systems. Card holders may put money on their cards in either the Owl Card Center or in cash-to-card machines located throughout campus. Owl Cards may then be used to pay for purchases at Campus Copy, computer labs (pay for print), select vending machines and washers and dryers in the residence halls.

### ***Owl Card Online Program (Owl Bucks)***

Florida Atlantic University's online declining balance account, better known as Owl Bucks, is a convenient, prepaid account designed for students, faculty and staff. Owl Bucks allows account holders to make purchases everywhere that Owl Bucks are accepted.

Anyone with an Owl Card may open an Owl Bucks account. Owl Bucks give spending flexibility at participating campus locations, including Atlantic Dining Hall, Breezeway Food Court, Outtakes, Starbucks and FAU Bookstore.

### **Palm Tran Bus Passes**

Business Services has a relationship with the Board of County Commissioners for the sale of Palm Tran Bus Passes. They are available for purchase in the Owl Card Center.

Palm Tran: [www.palmtran.org](http://www.palmtran.org)

Tri-Rail Information: [www.tri-rail.com](http://www.tri-rail.com)

### **Student Purchases with Office Depot and Corporate Express**

Business Services manages the contract with Office Depot and Corporate Express for University purchases. The contract and contract pricing are also extended to students. Students can go online and place orders with Office Depot and Corporate Express at discounted prices. Orders are delivered to the Business Services Office and can be picked up at the Owl Card Center. Most orders are delivered the next day. To place an order or to obtain information, visit [Business Services](#).

### **Administrative Offices - Business Services**

For questions, comments, or suggestions, contact 561-297-2041 or [bizservices@fau.edu](mailto:bizservices@fau.edu). The Office of Business Services is located on the Boca Raton campus in Student Services, Building 8, Suite 124.

## CAMPUS RECREATION

Campus Recreation creates movement and engagement opportunities to enhance the social and physical well-being of the FAU Community. All facilities and programs are available to FAU students with a valid Owl Card and also to Campus Recreation members. For more information about Campus Recreation facilities, programs and services, visit its [website](#) or call 561-297-4512.

### Boca Raton Campus Recreation Facilities and Programs

#### **Recreation and Fitness Center**

The FAU Recreation and Fitness Center is a state-of-the-art facility where students, faculty, staff and alumni can meet, workout, relax and enjoy being part of FAU campus life. Located on the Boca Raton campus at the northeast entrance of the Breezeway along University Drive, the FAU Recreation and Fitness Center is a modern, 77,000-square-foot facility offering:

- A 13,000-square-foot fitness center with more than 60 pieces of cardio equipment, two circuit-training units and a free-weight area;
- Two multipurpose rooms designed for group fitness and sport club practices;
- Cycling studio;
- Three multipurpose courts for basketball, volleyball, indoor soccer and badminton;
- An outdoor leisure and lap pool with zero-depth entry, three 25-yard lap lanes and outdoor lounge;
- Men's and women's health-club-style locker rooms;
- Social corridor with group seating, activity viewing, WiFi and more.

#### **Intramural Sports**

The Intramural Sports program provides student s and Rec Members an opportunity to participate in a

variety of competitive and recreational sports leagues, tournaments and special events. Create or join a team and check the [Campus Recreation website](#) for season start dates and registration information. Available sports vary but may include basketball, flag football, soccer, softball and volleyball.

### **Club Sports**

The Club Sports program promotes student participation in a variety of physical and athletic activities. Nearly 30 student organizations are considered sports clubs. Check the [Campus Recreation website](#) for current clubs, president contact information and practice schedules. Sport clubs may be highly competitive, such as surf and rugby, or instructional, such as Tae Kwon Do.

### **Group Fitness**

The Group Fitness program offers a variety of fitness class options to meet different schedules and styles. The motivating and educated instructors strive to provide safe and effective workouts to assist all participants in reaching their fitness goals. Typical classes include yoga, Pilates, kickboxing, strength, cycling and more. For more information, visit the [Campus Recreation website](#).

### **Personal Training**

Personal trainers act as expert guides and consultants who assist clients in reaching individually selected fitness goals. This is accomplished by teaching the client how to perform exercises correctly and effectively through individual program design and one-on-one training. For package options and pricing, visit the [Campus Recreation website](#).

### **Outdoor Adventures**

Outdoor Adventures serves students, faculty, staff and community members. Outdoor Adventures comprises gear rentals, adventure trips, challenge course programming, a climbing center and freshmen outdoor programs. The program is committed to offering adventure-based experiential education opportunities that promote personal growth, leadership development and respect for others and the natural world. View trip information on the [Campus Recreation website](#).

## **ADDITIONAL BOCA RATON CAMPUS RECREATION FACILITIES**

**Track and Field Complex:** Includes a synthetic turf field for student recreation use at designated times and an eight-lane performance track.

**Henderson Fields Complex:** The 6.5-acre home of Intramural Sports and Club Sports, the Henderson fields may be reserved by student organizations for special functions.

**Outdoor Basketball and Tennis Courts:** Six lighted tennis courts and four lighted basketball courts available for open recreation.

### **Challenge Course and Climbing Center**

FAU is home to the most comprehensive Challenge Course in South Florida. The course is located just north of the track and field complex and can be easily recognized by the 40-foot tower. With more than 30 low and high elements and numerous portables, the course can be customized to provide an experiential-based program for local organizations. Both FAU and the surrounding communities may book programming at the course. For more information, visit the [Challenge Course page](#) on the Campus Recreation website.

## **DAVIE CAMPUS AND JUPITER CAMPUS RECREATION**

The Student Wellness Center is located on the west side of the Davie campus. The center is a 3,400 square-foot, fully functional workout facility equipped with state-of-the-art cardio and strength equipment, showers and lockers. It also offers exercise programs, fitness evaluations, group fitness classes and fitness resources. The department provides opportunities for students to engage in recreational activities off campus, including waterparks, sporting events and various outdoor activities. All currently enrolled FAU students have a free membership. Memberships for faculty, staff, family and alumni are also available. For more information about recreation services on the Broward campuses, contact 954-236-1018, [browardwellness@fau.edu](mailto:browardwellness@fau.edu) or visit [www.fau.edu/campusrec/broward](http://www.fau.edu/campusrec/broward).

Campus Recreation on the Jupiter campus includes open recreation, intramural sports, outdoor programming and a limited number of gym memberships available at a local gym. To connect with Campus Recreation on the Jupiter campus, visit [Jupiter Campus Recreation](#) or call 561-799- 8696.

## **CAREER CENTER**

The nationally award-winning Career Center supports Florida Atlantic students, alumni and employer partners in building meaningful careers and a successful future in the global community. The Florida Atlantic Career Center is a comprehensive collection of credentialed professionals who are committed to supporting FAU students and alumni in developing and improving essential career skills, experiences and connections. The Career Center has been recognized state-wide and nationally and has helped

Florida Atlantic become one of the most career-centric universities in the nation.

The Career Center is available to meet with students at the Boca Raton, Davie and Jupiter campuses both in person and virtually. To connect with the Career Center:

Phone: 561-297-3533

Email: [career@fau.edu](mailto:career@fau.edu)

Instagram: @FAUCareerCenter

### **Career Coaching, Education and College Liaisons**

The Career Coaching and Education team provides one-on-one, evidence-based comprehensive services to help all students (first year – Ph.D. and alumni) build toward their futures, such as deciding on a major or career, résumé building, LinkedIn development, interviewing practice and assistance finding jobs and internships. The Center helps all students develop holistic career readiness skills and understand career pathways and the top career skills employers seek.

The College Liaison team involves individuals who provide personalized career services to colleges throughout the University. College liaisons build relationships with faculty, staff, employers, students, and community members to produce strong career ecosystems for professional success.

### **Kick Off Your Future**

Kick Off Your Future Career Readiness Module is a student's introduction to the career planning process, helping students build toward their future by understanding career pathways and salary potential. This module provides many benefits, including:

- An understanding of personal values, interests and skills and how these relate to academic majors and careers.
- An understanding of academic and career readiness skills requirements.
- An increased awareness of employment opportunities and wage prospects for each major.
- An understanding of all the critical career readiness resources at the Career Center.

### **Experiential Learning and Internships**

The Experiential Learning and Internships team specializes in securing internship and experiential learning opportunities for students to acquire industry experience, while equipping students with career competencies that will increase their employability skills upon graduation.

### ***Professional Internship (IDS 3949) 0-4 credits***

*Prerequisites: Students must have completed one semester at Florida Atlantic as evidenced by having an FAU GPA on record and permission of instructor*

This course offers students the opportunity to gain “real-world” exposure and supervised experience related to their major, specific field of study or career interests. Students integrate theories learned in the classroom with experiential activities acquired through direct involvement in on/off campus internship opportunities. Students develop marketable skills in preparation for future employment or graduate school studies. *Grading: S/U*

### ***Owls-on-the-Job Shadow Program***

The Owls-on-the-Job Shadow Program offers students a “first look” into an organization, to see what a day-in-the-life-of a career looks like. This valuable experience can range from half a day to 1 week. This program takes place during Florida Atlantic’s winter break and spring semester. For more information on the Owls-on-the-Job Shadow Program, contact an Internship Specialist at [intern@fau.edu](mailto:intern@fau.edu).

### ***Micro-Internships***

Micro-internships are paid, short-term (5-to-40 hours), project-based, professional assignments in a variety of functions and industries. When launching a career, micro-internships provide a tremendous opportunity. Not only can students and recent graduates explore different career paths and work on interesting assignments, they can also demonstrate their abilities to potential employers while building their professional portfolio and network. Students and recent graduates can create an account [here](#).

### **Employer & Community Engagement and Recruitment Services**

The Employer Engagement team works with employers to create individualized recruitment plans for recruiting Florida Atlantic talent for internship and career opportunities. The Employer Engagement team hosts a variety of on- and off-campus recruitment activities, including career fairs, networking events, on-campus interviews, virtual information sessions, and more. The team also specializes in educating employers on best practices for recruiting and hiring Florida Atlantic students and alumni.

### **Handshake**

Handshake is the #1-way college students find jobs. Handshake is the online job portal that allows students to search for full- and part-time job opportunities and find on- and off-campus jobs and internships. It allows students to register for career fairs and events and research companies that are hiring. Students should schedule an appointment on Handshake to meet with a career coach.

All newly admitted and current Florida Atlantic students and alumni have access to Handshake. Click [here](#) to access the account login.

## Premium Resources

**LinkedIn Learning:** LinkedIn Learning is a leading online learning platform assisting active FAU students, faculty and staff to discover and develop skills through an online library of high-quality, expert-led videos and courses. It has unique insights and provides a more personalized learning experience with instructional content relevant to an individual's professional interests and goals.

Courses may be accessed at any time from mobile devices and computers. Available for both iOS and Android. Click [here](https://www.fau.edu/linkedin-learning/) for details. <https://www.fau.edu/linkedin-learning/>

**Major KnOWLedge:** This is an early exploration tool that helps students identify personal interests and their relationships to career pathways. Students complete a career assessment that matches their results to majors at Florida Atlantic and occupations based on interests.

**Iris Photobooth:** Florida Atlantic students, alumni and faculty have access to professional headshots that may be used on platforms such as LinkedIn and Handshake. The Self-Service Iris Booth:

- Uses high-quality studio lighting and photography equipment.
- Allows users to approve or retake photos and displays posing tips.
- Allows users to crop photos, touch up blemishes, whiten teeth or apply filters.
- Instantly delivers digital photos via email.

**Big Interview:** Big Interview teaches communication skills, self-confidence, negotiation and other vital workplace-readiness competencies. Video interviewing is the way of the future. This feature helps ensure students are prepared to thrive in the workforce by offering training on virtual interviews with instant AI-generated feedback.

**Jobscan:** This is a résumé software tool that analyzes how a résumé would perform in an Applicant Tracking System (ATS). Jobscan's optimization technology is based on the same search and ranking algorithms used by top ATS and provides students with suggestions for formatting and key qualification and skill matching. The premium Jobscan account allow students to perform unlimited scans of their résumé to see how it performs in various Applicant Tracking Systems. Jobscan's résumé builder can also assist in creating and formatting a new document.

## CENTER FOR LEARNING AND STUDENT SUCCESS (CLASS)

As part of the Center for Teaching and Learning, the [Center for Learning And Student Success](#)

(CLASS) is available to assist all undergraduate students throughout their academic journey. CLASS cultivates student success and academic excellence by developing academic support and engagement programs that guide students to a future of lifelong learning.

CLASS, under the Division of Undergraduate Studies, coordinates:

1. The Science Learning Center: FAU's newest academic support center is located in the Schmidt Family Complex next to the FAU Stadium. This 4,500 square foot interactive center offers small group tutoring for students in both major based and general education science courses from chemistry and organic chemistry, biology and psychology to physics and anatomy. Microscopes, anatomy models, chemical models, and virtual reality equipment further enhance the learning experience. Appointments are available at [www.fau.edu/tutoring](http://www.fau.edu/tutoring).
2. Supplemental Instruction (SI): A series of weekly study sessions for students taking historically difficult courses from accounting and Spanish to chemistry and physics. SI is open to all students who want to improve their understanding of course material and improve their grades. Attendance is voluntary and FREE. SI is a chance to get together with people in the class to compare notes, to discuss important concepts, to develop strategies for studying and learning the subject and to test themselves before the professor does. At each SI session, students are guided through course material by an SI leader who has previously taken the course and earned an "A."
3. Tutoring programs: CLASS Tutoring Services provides free group tutoring by peer tutors in content-area courses. Peer tutors help improve performance in a difficult course by modeling effective study techniques and breaking down difficult concepts. Peer tutors are successful students who have earned at least an "A-" in the courses they tutor, have been recommended by their professors and have been trained in tutoring techniques through the tutor training program. Their goal is to help students review course content through the use of interactive learning strategies. Students can schedule appointments, but pending availability drop-in sessions are offered each week for many courses. CLASS also offers students the opportunity to become volunteer tutors through its Owl-to-Owl (OtO) Volunteer Tutoring program. Through this program, OtO tutors build upon their leadership skills, receive training and gain experience providing their peers with academic support, while earning volunteer hours.
4. eLearning and eTutoring: The eLearning academic support services provides students with resources to facilitate a successful online learning experience. The focus is to assist students with the integration of technology into fully online courses. CLASS offers extensive online tutoring for a variety of courses to help support students in both fully online and in person classes.
5. Civic Literacy Workshops: In order to earn a degree from FAU, students must demonstrate proficiency in Civic Literacy. This can be completed in various ways, including completion of

courses (AMH 2020 or POS 2041), CLEP testing, AP testing, or a Civic Literacy exam. CLASS offers workshops to help students learn the material so they can pass the Civic Literacy exam. For more information about the workshops, visit the [CLASS Civic Literacy website](#).

CLASS is located within the Center for Teaching and Learning in General Classroom South (GS-2, room 223). The CLASS Office is open 9 a.m. to 7 p.m. Monday through Thursday, 9 a.m. to 4 p.m. Friday and 1 to 5 p.m. Sunday. For information, visit the [CLASS website](#), call 561-297-0906 or email [stay@fau.edu](mailto:stay@fau.edu).

## CENTER FOR TEACHING AND LEARNING

The Center for Teaching and Learning (CTL) at Florida Atlantic University is dedicated to ensuring the academic success of every student and providing faculty the necessary tools and resources to excel in teaching. CTL's ultimate goal is the creation of a culture of engagement where students become fully engaged in the learning process, both with their instructors and with their peers, and where faculty from diverse disciplines can engage one another in the pedagogy of teaching, with the ultimate goal of enhancing student learning.

Located on the second floor of General Classroom South, CTL provides a variety of support services to help students to engage, achieve and excel. CTL houses the following divisions:

### **The Office of Academic Success Initiatives**

(ASI) coordinates several first-year experience initiatives including iSucceed, FAU's signature online student success course, and First-Year Interest Groups (FIGs). The office supports faculty teaching in the General Education Program through course development consultations and assessment of learning objectives. The ASI team also works with other units across the University on a range of assessments of student learning and other measures of success.

The Center for Learning And Student Success (CLASS) provides free Supplemental Instruction, tutoring and other support to students in courses throughout the Boca Raton and Broward campuses. Online support is available as well through the extensive eTutoring program. CLASS also provides Civic Literacy workshops to help students prepare to take the Civic Literacy exam and oversees the new Science Learning Center in the Schmidt Family Complex next to the FAU stadium.

The Math Learning Center provides free math tutoring for students on a drop-in basis, by appointment for one-on-one tutoring and online via eTutoring.

The Office for Undergraduate Research and Inquiry (OURI) provides support to students from all colleges and campuses interested in participating in research, scholarship and creative activities. OURI offers opportunities for undergraduate students to get funded, published, showcased, recognized and involved.

The University Center for Excellence in Writing provides appointment-based support on the Boca Raton, Broward and Jupiter campuses and online to help all members of the University community enhance their writing.

Stop by the Center for Teaching and Learning in General Classroom South or visit its [website](#).

## COMMUNITY OR STATE COLLEGE HONOR SOCIETY

Students who were members of Phi Theta Kappa at a community or state college are invited to join Alpha of Florida, the Phi Theta Kappa alumni association at Florida Atlantic University. Students can share their transfer experience, receive transfer information or learn how to continue their involvement with Phi Theta Kappa by calling Angel Nevin at 561-297-3962 or emailing [anevin@fau.edu](mailto:anevin@fau.edu). Please be advised the chapter is currently inactive, but inquiries are welcome.

## COUNSELING AND PSYCHOLOGICAL SERVICES (CAPS)

Counseling and Psychological Services (CAPS) strives to provide FAU students with quality, individualized, timely and effective mental health services that allow them to improve and maintain their mental well-being; therefore, meeting their educational, personal, emotional and psychological goals. CAPS offers individual, relationship and group counseling, psychiatric services, referral to the community, crisis intervention, consultations and an after-hours crisis line to currently enrolled FAU students. Its professionally trained multidisciplinary staff is dedicated to assisting students with a wide range of personal concerns through identification and development of healthy coping skills. The staff at CAPS provides a warm and caring office atmosphere in which students are treated with sensitivity and dignity. Records and information at CAPS are confidential and separate from all other University records. Information about students receiving services cannot be disclosed without their written permission and is —confidential except when disclosure is required by law.

To make an appointment at the Boca Raton campus, call 561-297-3540; at the Davie campus, call 954-

236-1210; at the Jupiter campus, call 561-799-8635.

## EDUCATION ABROAD

The Education Abroad Office, part of the Center for Global Engagement, provides services and leadership to strengthen the international dimensions of academic programs at Florida Atlantic University. Education Abroad is responsible for establishing, supporting and coordinating international learning activities for undergraduate and graduate students as well as faculty. These include:

1. Developing, managing and overseeing international academic programs, including study abroad and student exchange programs;
2. Developing and managing international cooperation agreements with academic institutions around the world;
3. Facilitating greater internationalization of the University and Colleges;
4. Serving as a liaison to state, regional, national and international education organizations and consortia.

The Education Abroad Office provides comprehensive services and support to undergraduate and graduate students who wish to study abroad. It also encourages and assists faculty in developing new educational programs abroad and to enhance existing programs. Education Abroad also maintains information on the general scholarships and postgraduate fellowship opportunities that are available. It serves as the FAU office for the Fulbright Student Program and Gilman and Boren study abroad award programs. For detailed information on the office's Study Abroad Programs, see the [Programs for Enrichment and Specialization section](#) of this catalog or visit its [website](#).

## FEE PAYMENT DROP BOX

The Boca Raton campus is the only campus location that provides the convenience of a drop box. The drop box is available in the Student Support Services Building (SU, 80). If the amount of fees due is known, students are encouraged to put checks in the drop box. Please write the Student ID number on the check. Do not deposit cash in the drop box. No envelopes are required. NOTE: By depositing check payments in the drop box, you are authorizing FAU to electronically process your check. The electronic debit to your checking account may be on the same day your check payment is processed.

## FINANCIAL AID

FAU's financial aid program is administered by the Student Financial Aid Office. In Boca Raton, call 561-297-3530; in Broward, call 954-236-1229; in Jupiter, call 561-799-8697. For information about financial aid, read the section on [Financial Assistance Opportunities](#) in this catalog or visit the Financial Aid [website](#).

## FRATERNITY AND SORORITY LIFE

The FAU campus provides a wide range of academic, social and community service activities for students, and membership in a fraternity or sorority is a great first step toward enjoying all the benefits that FAU has to offer. Collectively, fraternities and sororities constitute one of the largest student groups on campus, and they have all made the commitment to doing more and being more; to having an experience that develops them as better, more ethical men and women. The Office of Fraternity and Sorority Life encourages students to fully explore the non-committal opportunity offered to understand what makes FAU's fraternity and sorority community so impactful.

The best resource for more information about the FAU fraternity and sorority community is [www.fau.edu/fslife](http://www.fau.edu/fslife), where you can find more information about individual chapters and the overall experience here at FAU.

## GRADUATE AND PROFESSIONAL STUDENT ASSOCIATION

The Graduate and Professional Student Association (GPSA) is the official voice and advocate for the graduate and professional student population. Co-advised by professionals in the Division of Student Affairs and the Graduate College, GPSA strives to provide graduate-centric experiences, which develop students scholastically and professionally. Examples of such experiences are social programming, workshops, conference travel funding networking opportunities, academic and nonacademic support resources and graduate and professional student organizations (GPSOs). GPSA also acts as a conduit for the resolution of the needs and concerns unique to FAU graduate and professional students by serving on the Graduate Council in the [Graduate College](#).

Visit the GPSA [website](#) for information. Email [gpsa@fau.edu](mailto:gpsa@fau.edu) or connect in person at the Boca Raton campus UN 234; Davie campus, SD 203; and Jupiter campus, SR 151.

# HOUSING

## **Off-Campus Housing**

The Off-Campus Housing Service, a computerized list of area rooms, apartments and houses for rent. For information, call 561-297-3735 or visit the [website](#).

## **On-Campus Housing — Housing and Residential Education**

### ***Boca Raton Campus***

Approximately 4,700 students live in FAU Housing. Applications for FAU Housing are assigned on a first-come, first-served basis, with first-year students receiving preference in the residence hall communities. Students are encouraged to apply early as space is limited. Space is not available for married students or students with families.

The University offers two basic styles of housing accommodation: suite-style residence halls, primarily for first-year students and other undergraduate students, and apartments for upper-division students. All facilities are air-conditioned and include standard furnishings, utilities, cable TV service, wireless Internet access, laundry facilities and community lounges.

A number of student staff and full-time professional staff members are available throughout FAU Housing to assist with student needs. The Residential Education staff connect students to purposeful experiences and resources that support their academic success, personal development and community engagement as they progress toward graduation; advise students about the Resident Student Association and community-council groups in FAU Housing; and assist students in transitioning from home to on-campus life.

### ***Jupiter Campus***

Approximately 450 students live in three suite-style residence halls on the Jupiter campus. All full-time, first-year admitted students at the Harriet L. Wilkes Honors College are required to live on campus and purchase a meal plan for their first and second year. Exemptions from this policy may be requested for the following reasons:

1. Students are at least 24 years of age;
2. Students are married;
3. Students have a dependent child; or
4. Students are U.S. military veterans, returning from a tour of duty.

Non-Honors College students who attend the Jupiter campus can apply for housing also but are not

required to live on campus. Priority is given to Honors College students.

Click [here](#) for additional information about on-campus housing or contact:

Boca Raton Campus

561-297-2880

Email: [housing@fau.edu](mailto:housing@fau.edu)

Florida Atlantic University

Department of Housing and Residential Education

777 Glades Road

Boca Raton, Florida 33431

Jupiter Campus

561-799-8828

Email: [Jupiterhousing@fau.edu](mailto:Jupiterhousing@fau.edu)

FAU Jupiter/John D. MacArthur Campus

Department of Housing and Residential Education

5353 Parkside Drive

Jupiter, FL 33458

## INTERNATIONAL SERVICES

The International Services Office provides comprehensive programs and services for international students and scholars enrolled at the University or otherwise engaged in research and other academic pursuits. The office collaborates across the University to advance the recruitment, enrollment, retention, and graduation of international students. Key programs and services include: compliance, reporting and record maintenance for the F and J visa program under the Student and Exchange Visitor Program (SEVIS); pre-arrival, visa documentation and orientation services for newly admitted international students; international student advising and workshops/seminars on topics of interest for current international students; and academic/social/cultural integration support through the International Integration Initiative (I3@FAU). Signature events include International Education Week and the Festival of nations.

International students with F and J status have two visa-specific registration holds that must be cleared

prior to registration for courses: the IS hold (removed after the student obtains the form I-20 or DS-2019 and confirms that the appropriate F or J visa has been granted), and the MM hold (removed after the student provides proof of appropriate health insurance coverage in compliance with Florida Board of Governors statutes and University policies).

International students complete a mandatory immigration check-in process upon arrival to the University. Students must report to International Services and present their passport, visa, form I-20/DS-2019, and the arrival/departure record (which can be downloaded at [www.cbp.gov/I94](http://www.cbp.gov/I94) after arrival in the United States). Additionally, international students must report a local physical U.S. address to International Services within 10 days of arrival in the United States.

Annual medical insurance for all F and J students is required for 52 continuing weeks beginning in August of each academic year. Additionally, J-2 visa holders (dependents of J-1 students/scholars) are also required to purchase medical insurance in compliance with federal requirements for the J Exchange Visitor Program. F and J visa holders must purchase the University-approved insurance plan or provide an acceptable alternate insurance plan by submitting the Alternate Insurance Compliance Form. Contact the International Services by [email](#), phone (561-297-3049) or visit the [website](#).

## MAIL SERVICES

The Mail Center processes all University-related mail and shipments. This includes the internal University mail to and from all campuses, incoming and outgoing courier mail to and from other state agencies, all incoming and outgoing U.S. mail, and shipments handled by other carriers such as UPS, FedEx, Airborne and DHL. The Mail Center is the point of contact for all bulk mailings. Mail directed to resident students is handled by the Housing Department. For information on Mail Services, contact 561-297-3172.

For the convenience of students, faculty and staff, a self-service postal kiosk is located in Campus Copy. This kiosk offers self-service functions including books of stamps, express and priority mail and other USPS functions. There is no surcharge for any of the mail services offered.

## MATH LEARNING CENTER

The Math Learning Center (MLC), located in GS211, assists FAU students in developing their math problem solving skills. The MLC is staffed by graduate and undergraduate student tutors. All tutors

receive extensive training and are certified through the College Reading and Learning Association. The MLC also houses the Learning Assistant (LA) Program, providing active learning in the Calculus course sequence.

The MLC provides the following academic support services to FAU students for free:

- Drop-in tutoring during all hours of operation;
- Small group tutoring by appointment, as available;
- eTutoring (see [webpage](#));
- Review sessions for specific courses;
- SAM Lab (Succeed At Math) in GS207 for Methods of Calculus.

Visit the Math Learning Center's [webpage](#) for further information, including hours of operation

## MILITARY AND VETERANS STUDENT SUCCESS CENTER

Florida Atlantic University is approved for the education and training of veterans and their children under all public laws now in effect. The [Military and Veterans Student Success Center Affairs](#) (MVSSC), located on the Boca Raton campus (Bldg. 31E, Room 173), assists all U.S. military service members, veterans, and their dependents. MVSSC provides tuition and fee deferments in accordance with Florida Statute, Title XLVII, Chapter 1009.27, Out-of-State Tuition and Fee Waivers in accordance with Florida Statute 1009.26 (13) & (14), Veteran Non-Resident Tuition Waivers in accordance with Florida Statute 1009.26, Section 36, (12)(a), Department of Veteran Affairs (VA) work-study opportunities, and Side-X-Side Career Readiness programs.

Students who intend to use VA educational benefits at FAU should contact the MVSSC office before applying to the University and at least two months prior to the anticipated semester start date. This time is required to obtain the necessary information and documents for processing of educational benefits from the VA.

Veterans and other students receiving VA education benefits or military tuition assistance are eligible for one fee deferment per semester by completing FAU's VA Enrollment Certification Request form available [here](#), which provides students with additional days within the semester to pay tuition and fees; see [Student Services Last Day to Pay](#) page for deadline dates with VA deferment (updated each semester). Certification is not automatic and must be requested prior to the start of each term. Requests may be submitted as early as 30 days prior to the start of the semester. If not submitted on time, VA

cannot guarantee on-time payment.

### **Out-of-State Tuition and Fee Waiver Eligibility Criteria**

Section 1009.26 (13) & (14), Florida Statutes, established the Congressman C.W. “Bill” Young Veteran Waiver Program, which requires a state university to waive out-of-state fees for a person who is:

An honorably discharged veteran of the United States Armed Forces, the United States Reserve Forces, or the National Guard who physically resides in this state while enrolled in the institution

or

Entitled to and uses educational assistance provided by the United States Department of Veterans Affairs for a quarter, semester, or term beginning after July 1, 2015, who physically resides in this state while enrolled in the institution.

### **Florida Veteran Non-Resident Tuition Waiver Program Eligibility Criteria**

Section 1009.26, Section 36, (12)(a), Florida Statutes, waives out-of-state fees for a person who is:

An honorably discharged veteran of the United States Armed Forces, the United States Reserve Forces, or the National Guard **and** physically resides in this state while enrolled in the institution.

### **Rate of Pursuit**

Rate of Pursuit (RoP) applies specifically to Chapter 33. It differs from training time, which is used for all other chapters. Schools certify actual credit. VA calculates RoP by dividing the number of credit (or credit hour equivalents) being pursued by the number of credits considered to be full-time by the school. The resulting percentage is the student’s RoP. See FAU's full-time requirements [here](#) for undergraduate and graduate levels.

Examples: If full-time is 12 credits, then the RoP:

- 6 credits (or credit equivalents) is 50% ( $6, 12 = 50\%$ )
- 7 credits (or credit equivalents) is 58% ( $7, 12 = 58\%$ )

For more detail on the VA's summer enrollment RoP breakdown and graduate enrollment in non-individually defined semesters breakdown click [here](#).

Eligibility for VA benefits are determined by the Federal Department of Veterans Affairs as per VA rules and regulations. For questions regarding semester deferments, Out-of-State Tuition and Fee Waivers, enrollment certification and other all services, contact FAU’s MVSSC at 561- 297-4725 or by

emailing [veterans@fau.edu](mailto:veterans@fau.edu). For additional information regarding other veterans educational programs, VA monthly stipends or specific information about benefits and/or payments, contact the VA education hotline at 1-888-442-4551 or use the [Ask VA \(AVA\) portal](#).

## NEW STUDENT TRANSITIONS AND FAMILY ENGAGEMENT

The New Student Transitions and Family Engagement Office provides quality transitional experiences that maximize students' ability to achieve their dreams and goals and optimize their potential, assisting them in developing confidence and resourcefulness throughout their Florida Atlantic journey. New Student Transitions oversees three main sections:

- Orientation
- Family Engagement
- The Mentoring Project

### **Orientation**

Orientation is a required University-wide program for all new undergraduate students (first-time-in-college and transfer students). The purpose of the New Student Transitions and Family Engagement Office is to provide programs and services that facilitate the transition of new students into the University, prepare new students for the University's educational opportunities and integrate students into the campus community.

A comprehensive orientation is offered in partnership with each of the University's locations where student services are provided. Included are programs with the Boca Raton campus and transfer programs with the Davie and Jupiter campuses. Orientation for Wilkes Honors College students is also held in partnership with the Jupiter campus.

Orientation Leaders support all New Student Transitions and Family Engagement Programs. They are dedicated, spirited and highly trained individuals who ease the transition for incoming students and their families. By sharing their knowledge of campus resources and experiences at FAU, they support a smooth transition for new students.

The New Student Transitions and Family Engagement Office is located on the Boca Raton campus and may be reached at 561-297-2733. For more information about orientation at all campuses, click [here](#) or send an email to [orientme@fau.edu](mailto:orientme@fau.edu).

Since family involvement can be very important in determining student success, family members are

welcome to register as guests and participate in orientation.

## Family Engagement

The Family Engagement team assists families in supporting their students at Florida Atlantic. With a goal of building a positive experience for students and their families, this service provides direct family access to any questions and concerns regarding their students.

The Office of New Student Transitions and Family Engagement encourages families to stay connected with their student and the FAU community. Through multiple forms of media (newsletters, social media and ongoing family training), the office keeps families connected through the different stages of their students' collegiate career. Through Programs that include perspective seminars, the family spring events and the signature Owl Family Weekend, the Office of New Student Transitions and Family Engagement is here to ensure that families feel supported through their students' academic journey. For more information, click [here](#), contact the office at 561-297-2733 or email [owlfamily@fau.edu](mailto:owlfamily@fau.edu).

## The Mentoring Project

The Mentoring Project is designed to create pathways of opportunity and connection through relationships that promote student success. It connects undergraduate FAU students with faculty, staff, graduate students or peer mentors. Students who are new to FAU can request a "Connections" mentor any time during their first two terms of enrollment. Returning students serve as peer mentors or may be mentored through more than 20 mentoring opportunities offered through academic departments, Student Affairs or community service programs. For more information about mentoring, click [here](#) or email [mentoring@fau.edu](mailto:mentoring@fau.edu).

## OWLS CARE HEALTH PROMOTION

[Owls Care Health Promotion](#) empowers students to be healthy, responsible and successful by providing wellness information, dynamic programs and services on health-related issues, such as stress management, healthy lifestyle, sexual health and well-being, substance safety, healthy relationships, and much more. These services enhance the health of the Florida Atlantic community and increase opportunities for students' academic and personal success.

On the Boca Raton campus, the office is in the Schmidt Family Complex, SF-107, Suite 158A. On the Jupiter campus, the office is in the Student Resource Building, SR-MC03, in the Burrow. Self-Care and Wellness Resource locations can be found in the [MyFAU app](#). Need more information? Please email [wellness@fau.edu](mailto:wellness@fau.edu). Hours on both the Boca and Jupiter campuses vary and can be found in the Linktree

on [@fauowls care](#) on Instagram.

### **Owls Care Leaders**

Owls Care Leaders are NASPA-certified Peer Educators who serve as representatives for Owls Care Health Promotion, providing outreach and education on topics including stress management, bystander intervention, suicide prevention and more. For information on how to become an Owls Care Leader, call 561-297-1048 or visit the Owls Care Health Promotion [website](#).

### **Women's Resource and Community Connection**

The Women's Resource and Community Connection (WRCC), a program under Owls Care Health Promotion, is a student space that targets the meaning and belonging, health and wellness, career preparedness and student success of communities of women and other individuals at Florida Atlantic. The WRCC helps to connect students with the services and resources they need to do their best through outreach and education led by Owls Care Leaders. Owls Care Leaders serve as representatives for the WRCC and Owls Care Health Promotion.

For location and hours, follow [@fauowls care](#) on Instagram and visit the Linktree in bio.

## **PARKING AND TRANSPORTATION SERVICES**

Parking and Transportation Services is responsible for managing the parking program in the interest of providing safe, convenient and well-designed parking facilities for more than 30,000 students, faculty, staff and visitors. To properly manage the parking facilities, the department administers a vehicle registration program and corresponding sale of decals, plans and develops parking lots, administers the appeals process, enforces the parking rules and maintains financial accountability.

University traffic patrollers provide a constant presence within the lots and are available to answer questions regarding parking procedures and regulations. On the Davie campus, parking regulations are enforced by FAU and Broward College officials. On the Fort Lauderdale campus, parking rules in the public garage are enforced by the City of Fort Lauderdale. Parking and Transportation Services can be reached at 561-297-2771. For additional information and to purchase a decal, visit [www.fau.edu/parking](http://www.fau.edu/parking) .

## **PRE-COLLEGIATE PROGRAMS**

Pre-Collegiate Programs enhance the educational experiences of students by providing programs and services that are holistic and based on theories of learning and human development. The office's Upward Bound Program provides several services that promote entry in and completion of a postsecondary education. Additional services include:

- Advice and assistance in secondary and postsecondary course selection;
- Assistance in preparing for college entrance examinations and completing college admission applications;
- Information on the full range of federal student financial aid programs and benefits (including Federal Pell Grant awards and loan forgiveness) and resources for locating public and private scholarships;
- Assistance in completing financial aid applications, including the Free Application for Federal Student Aid;
- Guidance and assistance in secondary school re-entry, alternative education programs for secondary school dropouts that lead to the receipt of a regular secondary school diploma; entry into general educational development (GED) programs; or entry into postsecondary education;
- Education or counseling services designed to improve the financial and economic literacy of students or the students' parents, including financial planning for postsecondary education;
- Advocacy for underrepresented students;
- Training in leadership skills; assessments of students' educational goals and individual needs;
- Instruction in Mathematics through Pre-Calculus, Laboratory Science, Foreign Language, Composition and Literature.

For further information on the programs and services offered within Pre-Collegiate Programs, call 561-297-1185 or visit its [website](#).

## STUDENT ACCESSIBILITY SERVICES

[Student Accessibility Services \(SAS\)](#) takes great pride in the academic and personal achievements of students with disabilities. Florida Atlantic University is committed to providing equal access for individuals with disabilities to all academic, social, cultural and recreational programs. SAS is compliant with Section 504 of the Rehabilitation Act of 1973, as amended, and the Americans with Disabilities Act Amendments Act of 2008.

The mission of SAS is to collaborate with the institution's diverse community to ensure that all aspects of campus life — learning, working and living — are universally accessible. This office is committed

to providing quality and comprehensive individualized services and state-of-the-art assistive technology while adapting to the dynamic needs of the diverse student population of Florida Atlantic. SAS works with faculty and staff to ensure that reasonable accommodations are provided to FAU students. It seeks to form collaborations that promote an inclusive learning environment for students' social, academic and career success.

Numerous support services are available to students with disabilities, including:

- Disability consultation and support
- Classroom accommodations
- Note-taking services
- Testing accommodations
- Sign language/C-Print services
- Assistive technology training and access
- Learning strategies
- SAS Mentor Program
- Volunteer opportunities
- Scholarships

Self-identification and registration with SAS is at the student's option and is not mandatory. However, in order to receive authorized academic accommodations from FAU due to a disability, the student must register with SAS. Information on registering with SAS can be found on the SAS [website](#). Academic accommodations are based on self-report of the disability, effective prior accommodations, observation and interaction with the SAS consultant, as well as disability documentation submitted by the student. These accommodations are provided to support students in achieving academic success at the University as well as to assist them in developing the necessary compensatory skills they will need to be successful after graduation. All disability-related records are confidential and are released only with the student's written permission.

The SAS Office for the Boca Raton campus is located in SU 133. Call 561-297-3880 (voice) or 711 (TTY). Office hours are 8 a.m. to 5 p.m. (via phone only from 5 p.m. to 6 p.m.), Monday through Thursday and 8 a.m. to 5 p.m. on Friday.

The SAS Office for the Broward campuses is located at the Davie campus in LA 131. Call 954-236-1222 (voice) or 711 (TTY). Office hours are 8 a.m. to 5 p.m., Monday through Friday.

The SAS Office for the Jupiter campus is located in SR 111F. Call 561-799-8585 (voice) or 711

(TTY). Office hours are 8 a.m. to 5 p.m., Monday through Friday.

## STUDENT ACTIVITIES AND INVOLVEMENT

As a part of the total educational experience at Florida Atlantic University, student activities and involvement opportunities are regularly revised and updated to meet the needs and preferences of the student body.

The Student Activities and Involvement Office is in charge of four main areas: Registered Student Organizations, Student Government and Campus Activities. Student Activities and Involvement offers over 300 registered student organizations and a multitude of ways for students to connect at FAU. For a complete list of all organizations and student organization events, click [here](#).

Student Activities and Involvement is a resource for all students to stay engaged while at FAU. Students can get involved in Homecoming, events, internships, research, volunteer opportunities, media, Student Government, club sports and much more. For more information, call 561-297-3735 (Boca), 561-799-8724 (Jupiter) or 954-236-1001 (Broward) or visit this [website](#).

## STUDENT-ATHLETE SUCCESS CENTER

The Student-Athlete Success Center provides assistance to the more than 500 student-athletes at FAU as they strive to reach their educational goals while they compete in intercollegiate athletics. Academic counselors work closely with coaches, faculty and a variety of campus resources to help facilitate students' academic progress and personal development throughout college life. This is accomplished by instituting academic and social support programs, including, but not limited to, Academic Enhancement, Tutorial Services, Counseling, Secondary Advising, Study Hall, Eligibility Tracking, Career Development and Life Skills. The major emphasis with each of these programs is to provide students with the resources and fundamental skills that will foster academic achievement and promote the holistic development of the student-athlete population.

The Student-Athlete Success Center is located in the Oxley Center on the Boca Raton campus. For information, call 561-297-2297.

## OFFICE OF STUDENT CONDUCT

0325

The Office of Student Conduct (OSC) is a department within the Office of the Associate Vice President and Dean of Students/Division of Student Affairs. The purpose of the Office of Student Conduct is to support the educational mission of Florida Atlantic University by administering the Student Code of Conduct, described in [University Regulation 4.007](#), and serving as a resource to the University community and beyond.

The University's Student Code of Conduct is an integral part of the educational mission of the University. It emphasizes the development of each individual's acceptance of his or her own personal and social responsibilities, ensuring fairness in the implementation of the procedural requirements described in this regulation for all students.

The University's Student Code of Conduct is designed to provide and help maintain an atmosphere within the University Community that is conducive to academic pursuits. Serious action against a student, such as separation, is considered and invoked only when other remedies fail. The University, however, recognizes its responsibilities to all members of the University community, and the protection of personal, institutional rights and property is a primary focus of the process in Regulation 4.007.

## STUDENT EMPLOYMENT

The Student Employment Office provides information on both on-campus and off-campus jobs to degree-seeking students, regardless of financial need. The office maintains "Get a Job!," a current online job database available to students and employers. Call 561-297-6156 for details or visit the Student Employment [website](#).

## STUDENT GOVERNMENT

Florida Atlantic University (FAU) Student Government (SG) is the official voice and governing body of the student population. Modeled after the federal and state governments, FAU SG has three branches, Executive, Legislative and Judicial, serving students University wide and campus specific at the Boca Raton campus, Broward campuses and the Jupiter campus. In addition to being the student governing body, SG serves as one of the largest on-campus opportunities for student leadership, legislative action, lobbying and advocacy for the student experience.

The Executive Branch consists of the Student Body President, Vice President, Boca Raton Governor,

Broward Campuses Governor, and Jupiter Campus Governor and their Administrative Cabinets. The President represents the student body University wide to FAU administration, Florida Legislature and nationally. It is the responsibility of the executive branch to work on initiatives that improve campus life. The Student Body President, Vice President and Campus Governors are elected in the spring for one-year terms.

The Legislative Branch reflects students from three areas: Boca Raton campus, Broward campuses and Jupiter campus. There is a University-wide student senate and three campus-based houses of representatives. It is the responsibility of the legislative branch to maintain SG statutes that enable self-governance, allocate funding from the activity and service fee budget and provide a check and balance for executive programs. Legislators are elected each fall for one-year terms.

The Judicial Branch is composed of the Chief Justice and three campus-based Associate Justices. The Student Court interprets the law. The Student Court may hear cases regarding Student Body Constitution, statutory due process and violations. It also reviews SG statutes for legislation that may be unconstitutional according to the SG Constitution. Members of the Student Court are also trained hearing officers of the Student Affairs Student Conduct Board.

SG works closely with the departments of Activity & Service Accounting and Budget Office (ASAB) and Student Activities and Involvement to support student-centered activities and services.

Professional staff and faculty members support SG. The advisors are full-time administrators with advanced degrees in higher education administration, leadership and accounting who advise and support SG by assisting with the student coordination of University-wide and campus-based initiatives, providing training and advisement.

Visit the SG [website](#) for information. Email [gpsa@fau.edu](mailto:gpsa@fau.edu) or connect in person at the Boca Raton campus, UN 234; Davie campus, SD 214; and Jupiter campus, SR 151.

### **Students Advocating Volunteer Involvement (SAVI)**

The Student Government agency Students Advocating Volunteer Involvement ([SAVI](#)) provides community service and leadership opportunities to all interested students. SAVI offers students the opportunity to coordinate volunteer and fundraising events to support the community. SAVI also assists clubs and other student organizations in their community service efforts. SAVI is based on the Boca Raton, Broward and Jupiter campuses.

Contact [SAVI](#) for your campus:

Boca Raton campus: 561-297-3607

Broward campuses: 954-236-1183

Jupiter campus: 561-799-8724

## STUDENT HEALTH SERVICES

Student Health Services (SHS) provides high quality, affordable and accredited healthcare to registered FAU students at the Boca Raton, Jupiter, and Davie campuses. Its student-focused services offer a primary care solution to both commuter and residential students. A student's health and the ability to thrive academically are closely linked. It is the goal of Student Health Services' dedicated team of professionals to provide caring, confidential health and dental care and credible health information to help FAU students stay healthy, graduate on time and establish lifelong health habits. Students who pay the FAU health fee are eligible for services and have access to self-pay discounts. No payment is required at the time of service; any charges will be sent to the student's account. Insurance is not required to use Student Health Services, but SHS is an in-network provider with a number of major insurances. Check the [website](#) for a complete list. Schedule an appointment today or stop in to visit the campus medical, women's health, nutrition, or dental (Boca Raton campus only) clinic.

## STUDENT MEDIA

The Department of Student Media provides learning opportunities in media that promote student participation and enrichment through the practice of newspaper, television and radio journalism. The Department of Student Media plays an integral role at Florida Atlantic University by covering its wide-ranging events and programs, providing entertainment and giving students the opportunity to gain real-world experience in print journalism, television and radio broadcast production. Led by professional advisors, students involved in student media gain hands-on experience that can't be found in a classroom. In addition to building résumés, student media offer a wide range of paid and volunteer positions that allow students to focus on their academics while also committing time to producing materials and building portfolios. The Department of Student Media is located on the Boca Raton campus, Building 31 (UN), Room 207. For more information, call 561-297-0448 or visit [www.fau.edu/studentmedia](http://www.fau.edu/studentmedia).

# STUDENT UNION

## **Boca Raton Campus**

The [Student Union](#) is the community center for all members of the Florida Atlantic University campus, including students, faculty, staff and visitors. It contributes directly to the educational mission of Florida Atlantic by providing encouragement and opportunities for participation in educational, cultural and recreational activities. The facilities provide a central place for students and others to spend time learning, socializing and relaxing while feeling more closely connected to the campus. The Student Union is home to the eSports Gaming Center that includes gaming computers, a console gaming area and an area for billiards, foosball, air hockey and table tennis. The Student Union also provides a home for registered student organization meetings and events, including concerts, comedy shows, leadership conferences and much more.

## **Davie Campus**

Located on the Davie campus in Broward County, the 20,000-square-foot Student Union houses offices for Student Government and advisors, a student lounge with a computer room, a large multipurpose room for events, health and counseling services, Steve's Espresso Café and a 5,800-square-foot University bookstore. The Davie Student Union is also the place for students to get their Owl Cards, reserve study rooms, rent laptops/tablets or purchase a snack from vending machines. The Union is the center of campus life where students can gather, talk, relax or engage in various university activities and programs.

### ***Hours:***

Monday through Thursday, 7:30 a.m. to 11 p.m.

Friday, 7:30 a.m. to 7 p.m.

Saturday, 7:30 a.m. to 6 p.m.

Sunday, 11:30 a.m. to 7 p.m.

Direct inquiries to 954-236-1332. For further information, including upcoming events, call the building coordinator at 954-236-1314.

## **Jupiter Campus**

Located on the John D. MacArthur campus in Jupiter, the Burrow Student Union houses offices for Student Government and advisors, multiple lounge and study areas, a TV and video gaming consoles, academic and gaming computers, charging lockers, a wellness cart, microwave, water and ice machine, as well as Keurig and coffee vending machines. Recreational equipment includes a ping pong table,

billiards, foosball and air hockey, as well as video and board games. Outdoor recreational equipment such as basketballs, volleyballs, soccer and footballs are also available for check out. Other services include scantron check out, Night Owls dispatch, stamping of approved flyers for posting, lost and found and general event support. The Burrow is the center of campus life where events and programs occur frequently and students socialize, study and engage in various activities.

***Hours:***

Monday through Friday, 8:00 a.m. to 12:00 a.m.

Saturday through Sunday, 10:00 a.m. to 8:00 p.m.

Summer hours Monday through Friday, 9:00 a.m. to 5:00 p.m.

Call 561-799-8681 to reach the Burrow Front Desk.

## TESTING AND CERTIFICATION

The Testing and Certification Center provides testing services for FAU students, faculty, staff and the community.

Florida Atlantic University is a national, state and university test center. National tests include ACCUPLACER, ACT, CLEP, LSAT, MAT, PRAXIS and TOEFL. State and university tests include TEAS and other academic and professional tests. In addition, FAU is a Prometric test center. To view a listing of tests offered by Prometric, visit [www.prometric.com](http://www.prometric.com). Individuals may also schedule appointments to have correspondence tests proctored. Accommodations for students with disabilities are made available in coordination with Student Accessibility Services. For details, visit its [website](#).

Services for faculty include makeup testing on a limited basis, scoring multiple-choice tests and providing a computer analysis of the results via email. The Student Perception of Teaching forms are now completed online each semester. The results are available online through the FAU [website](#).

Contact the office for testing hours and services at [fautesting@fau.edu](mailto:fautesting@fau.edu) or 561-297-3160 on the Boca Raton campus and 954-236-1220 on the Davie campus. For more information, visit the Testing and Certification [website](#).

## TRANSFER STUDENT SERVICES

The Transfer Student Services Center provides a streamlined onboarding process for transfer students through:

- Comprehensive transfer admissions services;
- Pre-admission and transition academic advising;
- Facilitating student connection to on-campus resources.

In addition, Transfer Student Services publishes [Transition Guides](#) for students who are planning on transferring to FAU. The guides include transferrable lower-division courses for all undergraduate majors at FAU. They are designed to assist students navigate a smooth transfer.

For additional resources offered by Transfer Student Services, visit its [website](#) or reach out at 561-297-0165 or [transfer@fau.edu](mailto:transfer@fau.edu)

## TUITION AND BILLING SERVICES

[Student Financial Services](#), part of the Controller's Office, is responsible for the collection of all funds due to the University, student account billing, Financial Aid refunds and collection of delinquent accounts. For detailed information on such topics as payment deadlines, installment plans, direct deposit, Florida Prepaid, online payment and many more topics, please visit its [website](#).

Boca Raton Campus, Student Services Building, SU-80, Room 130

Hours: Monday through Thursday, 8 a.m. to 6 p.m.; Friday, 8 a.m. to 5 p.m.

Phone: 561-297-6101

Fax: 561-297-0683

[webcontroller@fau.edu](mailto:webcontroller@fau.edu)

## OFFICE OF UNDERGRADUATE RESEARCH AND INQUIRY (OURI)

Students are invited to distinguish their FAU education by participating in the process of discovery through undergraduate research and creative activity! FAU offers a wealth of resources for students to engage in these opportunities through the Office of Undergraduate Research and Inquiry (OURI). OURI provides students the unique opportunity to collaborate with faculty and fellow students on

scholarly research and inquiry projects and provides a variety of resources to support undergraduate students. These include: undergraduate research grants and the summer undergraduate research fellowship (SURF) that fund undergraduate research projects; the [Undergraduate Research Certificate](#), a 12-credit program that recognizes students' excellence in research; the Undergraduate Research Symposium that showcases student projects on three campuses; and the Florida Atlantic Undergraduate Research Journal, which publishes original creative projects and scholarly papers.

OURI also offers a variety of workshops designed to guide students through the process of finding a mentor, getting involved in research, research ethics, and communicating findings. There are also faculty workshops geared toward assisting in the process of designating undergraduate courses as research intensive (RI). Interested students may also join the Council for Scholarship and Inquiry (CSI), OURI's student organization, to learn more about the research process and engage with other students and faculty. Students are also encouraged to meet with OURI peer mentors and/or share their knowledge by serving as an OURI peer mentor. FAU's Office of Undergraduate Research and Inquiry is located in GS 212. For more information about undergraduate research and inquiry opportunities at FAU, visit [www.fau.edu/our](http://www.fau.edu/our) or reach the office at [our@fau.edu](mailto:our@fau.edu) or 561-297-OURI (6874).

## UNIVERSITY CENTER FOR EXCELLENCE IN WRITING

The University Center for Excellence in Writing (UCEW) is a free service for all members of the FAU community—undergraduate and graduate students, staff, faculty and visiting scholars alike. Its services are devoted to the support and promotion of writing. Trained writing center consultants help writers at any stage of the writing process (brainstorming, drafting, revising) with papers for courses, senior or master's theses, dissertations, job or graduate school applications, articles for publication, grant proposals and other documents. Consultants provide writing assistance rather than editing or proofreading services.

The UCEW provides a range of other services, including support for computer-facilitated teaching and learning for writing classes and hosting brown-bag discussions, workshops and presentations by guest speakers for FAU and the local community. The center also serves as the campus clearinghouse for research in literacy, pedagogy and computer-facilitated teaching of writing and for the Writing Across the Curriculum Program.

Writers are encouraged to take advantage of this free service, interact with other writers, gain perspective on their own work and develop additional strategies in reading and writing for all writing

projects.

The main branch of the University Center for Excellence in Writing is on the Boca Raton campus in GS 215. For a list of all sites and hours of operation and to register for services and schedule an appointment, visit the UCEW [website](#).

## UNIVERSITY POLICE

The Florida Atlantic University Police Department provides a full range of public safety services 24 hours a day, seven days a week on the Boca Raton and Jupiter campuses. Police are also present daytime hours on the other campuses. The FAU Police Department operates in accordance with the Police Standards and Training Commission in the state of Florida. Officers are fully trained professionals who are committed to assisting the University community in all of its public safety needs.

Some services provided by the University Police include vehicle, motorcycle, foot and bicycle patrol, criminal investigation, traffic enforcement, fingerprinting, accident investigation, special events management, crime prevention programs and victim advocacy.

The Victim Advocacy Program is for all students, faculty and staff who may become the victim of crime either off or on any FAU campus. The victim advocate can help with information about options in cases of rape, sexual harassment, stalking, cyber-stalking, domestic/relationship violence, assault, battery and other crimes. Information is available concerning victim compensation, obtaining an injunction (restraining order), reporting to the Dean of Students and referrals to campus and community resources. Individuals DO NOT have to file a police report to utilize the services of the victim advocate. Individuals may remain anonymous when talking to the advocate.

For information, call 561-297-0500 (after hours, this number is routed to Police dispatch), email [victimservices@fau.edu](mailto:victimservices@fau.edu), or visit [www.fau.edu/police/victimservices](http://www.fau.edu/police/victimservices). The Victim Services Office is located on the Boca Raton campus in the Wimberly Library, Room 156.

Campus Crime Statistics are available online through [www.fau.edu/police](http://www.fau.edu/police). The current police blotter, dates of upcoming self-defense classes (RAD) and educational information are also available at this website. Timely warnings or crime alerts will be posted to this site.

Crime Prevention Programs provide information on safety and security precautions to students, faculty

and staff members through seminars, bulletins, brochures and the website. University police personnel conduct training and provide crime prevention information each semester on these and other topics:

- Acquaintance Rape Programs for women and men
- Personal Safety - reduce your risk of becoming a victim
- Drugs and Alcohol
- Relationship Violence, Healthy Relationships
- Resident Housing Safety
- Burglary/Theft Prevention

University Police personnel are available to provide any additional crime prevention programming that may be needed to address an ongoing problem or special situation.

The Police Department encourages all members of the campus community to become involved in crime prevention. The department operates an Anonymous Crime-Reporting Program . Contact 561-297-3500 for more information.

**Rape Aggression Defense (RAD) Training** is a self-defense class offered to women only. These three-meeting classes are conducted on different campuses at different times of the year. Schedule information and registration are available on the Police [website](#). The FAU Police Department Central Police dispatch can provide more information at 561-297-3500.

The department operates an **Anonymous Crime Reporting Program** called "Silent Witness." Individuals can provide information through the Police [website](#).

Also available is the "Tips" line: a voice mail system that allows individuals to leave information for law enforcement concerning crime. The Tips line number is 561-297-4636. In emergencies, call 911.

Campus theft can be a serious problem. Resident halls, personal items and vehicles should be secured at all times. Make note of the serial numbers of all electronic items and check to see if these are covered by insurance. When parking, valuables should be placed in the trunk of the vehicle out of sight and the vehicle should be locked. Textbooks should be marked with the owner's name or an identifying mark somewhere on an inside page for proof of ownership so the books can be returned if recovered. Register bicycles with University Police in person at the Police station. Registration serves as a theft deterrent and aids in the recovery of bicycles.

The Community Service Officer (CSO) Program employs students in a security capacity on the Boca Raton campus. The objectives of the CSO Program are to provide a safer living and working

environment for the campus community by augmenting law enforcement presence and providing FAU students with campus safety information. All CSO employees are provided with basic security and first aid training and are in direct communication with Police dispatch.

Students, faculty and staff who are on the Boca Raton campus in the evening may call the Night Owls Campus Escort Service (561-297-6695) to accompany them safely to all locations on campus. These escorts work from dusk to the early hours of the morning when classes are in session.

"Code Blue" emergency telephones are located throughout the Boca Raton and Jupiter campuses. Students should locate the telephones in the area where they normally park. These phones feature safety lighting and ring directly to emergency providers.

Remember when calling 911 from cellular phones, give the location first so that dispatchers can transfer the call to the closest police agency.

Campus phones: dial 911 for emergency police, fire and medical response on all campuses. Central Dispatch for all FAU campuses is 561-297-3500.

### **Police Services by Campus**

***Dania Beach/SeaTech Campus:*** Call 911 for all emergencies. The on-campus number is 954-924-7000 (business hours). The FAU Police Department central Police dispatch is available at 561-297-3500.

***Davie Campus:*** Call 911 for all emergencies. On-campus number: 954-236-1140 (24 hours). The FAU Police Department central Police dispatch is available at 561-297-3500.

***Fort Lauderdale Campus:*** Call 911 for all emergencies. On-campus numbers are Higher Education Complex Security Desk: 954-201-7636 (24 hours) and Askew Tower: 954-201-7949 (business hours). The FAU Police Department central Police dispatch is available at 561-297-3500.

***Harbor Branch Campus:*** Call 911 for all emergencies. The FAU Police Department central policy dispatch is available at 561-297-3500. On-campus number: 772-528-5729 (business hours).

***Jupiter Campus:*** Call 911 for all emergencies. The FAU Police Department central Police dispatch is available at 561-297-3500. The FAU Police Department provides a full range of public safety services 24 hours a day, seven days a week on the John D. MacArthur campus in Jupiter. To ensure safety, it is suggested that staff members inform Campus Police when working alone late at night. The police

officer on duty can be reached at anytime by calling the cellular phone number 561-339-0015 or office number 561-799-8700.

More information about the FAU Police Department on all FAU campuses is available at the following:

Main Dispatch: 561-297-3500

Email: [faupd@fau.edu](mailto:faupd@fau.edu)

Website: [www.fau.edu/police](http://www.fau.edu/police)

## WEBSITE

Additional information is available on the Florida Atlantic University website at [www.fau.edu](http://www.fau.edu). Visit FAU's website to learn more about the University, its programs and its services.

## WEPPNER CENTER FOR LEAD AND SERVICE-LEARNING (LEAD AND SERVE)

The Weppner Center for LEAD and Service-Learning focuses on empowering students' pursuit of their own developmental growth by cultivating lifelong leadership skills and engaging in experiential service learning to become more effective citizens in their community.

Lead and Serve provides volunteer opportunities through Days of Service to immersive alternative break experiences known as Owl Breaks, develops leadership workshops and conferences such as iLead and WeLead: Community Engagement Conference, and encourages students to be civically minded by promoting voter engagement and democratic involvement.

Students can also become ambassadors of Lead and Serve by serving on the Student Government's Students Advocating for Volunteerism and Involvement (SAVI) board or applying to become an Elite Owl, a premier leadership position at Florida Atlantic. The department also collaborates with the College of Education to develop the [Leadership Studies Minor](#). More information about Lead and Serve can be found on its [website](#).



# UNIVERSITY CATALOG

## SUB MENU



### GENERAL INFORMATION

[Introduction to FAU](#)[General Information](#)[Academic Calendar](#)[Academic Policies and Regulations](#)[Admissions](#)[Appendices](#)[Campus Maps](#)[Degree Programs](#)[Degree Requirements](#)[Faculty and Administration](#)[Financial Assistance Opportunities](#)[Programs for Enrichment and Specialization](#)[Registration and Records](#)[Student Services and Activities](#)[Tuition, Fees and Refunds](#)

### ACADEMIC PROGRAMS

### COURSE DESCRIPTIONS

## TUITION, FEES AND REFUNDS

### REGISTRATION FEES

Tuition and other fees are due on or before the last day to pay (see the [Academic Calendar](#) and [Tuition and Billing Important Dates](#)). A student is not considered officially registered and may not attend

classes until fees are paid or arrangements are made to pay fees. Arrangements to pay fees include, but are not limited to: acceptance of a financial aid award; acceptance of a tuition deferment for pending financial aid; third party billing, including payment by the Florida Prepaid College Program; participation in one of the [University's payment plans](#) (not available during the summer semesters); or matriculation or non-resident waivers. Florida Statutes do not allow FAU to register any individual who has debts with the University.

Tuition and fees are charged for each credit scheduled based on the course level and the residency status of the student. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>. Tuition and fees are subject to change by the Florida Board of Governors at any time. For the most current tuition fees visit [www.fau.edu/controller/student-services/tuition-breakdown](http://www.fau.edu/controller/student-services/tuition-breakdown) or [www.fau.edu/regulations/chapter8](http://www.fau.edu/regulations/chapter8).

The tuition and fees apply to all courses, to all degree- and non-degree-seeking students and for all semesters unless specifically noted otherwise in official University publications. To determine their fee schedule, students auditing classes should read the [Registration for Auditors](#) section in this catalog.

All degree-seeking students should read the [Financial Assistance Opportunities](#) section of this catalog.

## STUDENT ACCOUNT AUTHORIZED USERS

Students can authorize others, such as parents, guardians or sponsors, to view their accounts and pay their bills. To authorize a user, the student submits the new user's email address and signs an electronic authorization on the FAU Billing website. Sign-up instructions can be found [here](#).

### **Repeat Course Surcharge Fee**

A student enrolled in the same undergraduate college credit course more than twice will be charged a Repeat Course Surcharge for the third and subsequent enrollments in the course. Individualized study courses and courses intended to continue over multiple semesters may be excluded from this charge. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>. See Repeat Course Surcharge in the [Academic Policies and Regulations](#) section for more details.

## SUNDRY FEES

To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>.

Late Payment Fee*	\$100
Late Registration Fee*	\$100
Application (fee is non-refundable)	\$30
Material and Supply Fee**	variable
Mandatory Photo ID Fee***	\$10
Freshman Orientation Fee	\$104
Required Overnight Housing Fee	\$35
Freshman Orientation Guest Fee(fees are non-refundable)	\$70
Freshman Tuition Deposit (fee is non-refundable)	\$200
Transfer Orientation Fee	\$54
Transfer Orientation Guest Fee (fees are non-refundable)	\$27
Transfer Student Tuition Deposit (fee is non-refundable)	\$100
eLearning Fee (per credit hour)	\$30
Transportation Access includes parking decal (fee is non-refundable)****	
Summer	\$32.04
Fall and Spring	\$76.90/per semester

\* See [Academic Calendar](#) for dates. An initial registration after the end of the Drop/Add period will incur a \$100 late registration fee.

\*\* Certain courses have been designated to include material and supply fees.

\*\*\* A mandatory photo ID fee must be paid during the first semester enrolled at FAU or for

replacement of a lost photo ID. This is a non-refundable fee. Students must present a paid fee receipt at the photo ID office in the Student Union, Boca Raton campus (or other campus locations) to have the photo ID processed.

\*\*\*\* All students are assessed a transportation access fee at the time of registration to be paid along with their tuition. This fee supports the University's transportation infrastructure and increases student access to transportation services. Upon registration, a student will be eligible to obtain a permit online through [myfau.fau.edu](https://myfau.fau.edu). Parking and Transportation Services is responsible for managing parking services on all FAU campuses. All students, whether part-time, full-time, day or evening or members of the Osher Lifelong Learning Institute, are required to pay a transportation access fee, which is included in the tuition at the time of registration. Decals may be obtained online at [myfau.fau.edu](https://myfau.fau.edu), under the "Students" tab. For more information, call 561-297-2771 or visit the Parking and Transportation Services [website](#) for a copy of the parking rules, an FAU map or visitor information.

## NON-RESIDENT TUITION EXEMPTION PROGRAM FOR INTERNATIONAL STUDENTS

International students attending any of Florida's state universities or community colleges may be eligible to apply for admission as residents for tuition purposes. In order to qualify, students must be from one of the countries with which Florida Linkage Institutes are established. Students are required to return home after their graduate study or undergraduate study, for a length of time equal to their exemption period. The Institutes also have criteria for selection of students who will receive out-of-state fee waivers.

For information about the Linkage Institutes in Florida and the state universities/community colleges that process applications for each particular institute, click [here](#). A student does not need to attend the Institute where the linkage office is located.

## VA CHAPTER 31 AND CHAPTER 33 – ASSESSMENT OF LATE FEES

In accordance with Title 38 US Code 3679 subsection (e), Florida Atlantic University adopts the following additional provisions for any students using U.S. Department of Veterans Affairs (VA) Post 9/11 G.I. Bill® (Ch. 33) or Vocational Rehabilitation & Employment (Ch. 31) benefits, while payment

to the institution is pending from the VA.

Florida Atlantic University will not:

- Prevent the student's enrollment;
- Assess a late penalty fee to the student;
- Require the student to secure alternative or additional funding;
- Deny the student access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students are required to:

- Produce the VA Certificate of Eligibility (COE) or a Purchase Order Number (PO#) by the Last Day to Drop/Add class (per Academic Calendar). The PO# is replacing the VA Form 28-1905 and is equivalent to the authorization number;
- Submit a request to be certified;
- Provide additional information needed to properly certify the enrollment as described in other institutional policies.

## ESTIMATES OF LIVING EXPENSES

Click [here](#) to see estimated costs of attendance at FAU. The figures provide a rough estimate of the basic expenses for full-time, Florida-resident undergraduate and graduate students and for full-time, Non-Florida resident undergraduate and graduate students for an academic year (fall and spring semesters).

### **Fee Payment Drop Box**

The Boca Raton campus is the only campus location that provides the convenience of a drop box. The drop box is available in the Student Support Services Building (SU 80). If the amount of fees due is known, students are encouraged to put checks in the drop box. Please write the Student ID number on the check. Do not deposit cash in the drop box. No envelopes are required. NOTE: By depositing check payments in the drop box, you are authorizing FAU to electronically process your check. The electronic debit to your checking account may be on the same day your check payment is processed.

### **Registration Cancellation by the University**

Unless prior payment arrangements have been made with the Controller's Office, failure to pay all

tuition and fees by the last day to pay as posted in the [Academic Calendar](#) and [Tuition and Billing Important Dates](#) will result in cancellation of the student's registration by the Controller's Office (i.e., all courses selected by the student).

Students cancelled for non-payment of fees may be reinstated. Reinstatement requires immediate fee payment in full using a Webcheck or credit card or requires other University-approved arrangements for fee payment (installment payment, deferment or third party billing), plus a \$100 late payment and a \$100 reinstatement fee. Reinstatement after the cancellation of classes requires an appeal to be filed with the Registrar's Office

### **Dishonored Checks**

Pursuant to Florida law, individuals have 15 days from receipt of “notice to tender payment to Florida Atlantic University” to pay for the full amount of a dishonored check, plus a service charge of \$25 if the face value of the check does not exceed \$50; \$30 if the face value of the check exceeds \$50, but does not exceed \$300; \$40 if the face value of the check exceeds \$300, but does not exceed \$800; and 5 percent of the face value of the check in the amount of \$800 or greater. Electronic check payments (WebChecks) returned due to entering an invalid account number will be assessed a \$25 service charge.

Unless this amount is paid in full within the specified time, the dishonored check may be turned over to the state attorney for criminal prosecution and/or to a collection agency.

Individuals who do not tender payment within the 15-day period are also subject to cancellation of registration with fee liability.

Individuals who have given two or more dishonored checks will be placed on a cash, money order or cashier's check basis for any subsequent registrations.

**Note:** Stopping payment on a check is considered the same as a dishonored check.

### **Dropping Courses**

Once courses are selected for the semester, no changes in course status occur unless the student initiates the changes. To drop a course(s), the University's formal drop procedure must be followed by accessing the appropriate option within FAU Self-Service, available through [MyFAU](#). Failing to attend the course(s), telling the instructor(s) of an intention to drop, failing to pay tuition and fees for a course(s) or similar action will not change the student's course selection status nor will it reduce fee liability. For more information regarding the drop procedure, refer to the [Academic Policies and Regulations section](#) of this catalog.

## Fee Liability

Fee liability (meaning payment is due for all tuition and fees) occurs when a fee deferment is accepted (i.e., deferrals for financial aid applicants who are approved to receive aid), arrangements for fee payment are made or a partial payment is made. Formally dropping a course(s) before the end of the drop/add period relieves the student of fee liability for the course(s) that are dropped. Formally dropping a course(s) after the drop/add period does not change fee liability. Students must still pay for the course(s) that they drop. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>.

## REFUND OF REGISTRATION FEES

1. Students who drop a class or withdraw from the University before the end of the first week of classes will receive a full refund, less non-refundable fees.
2. Students who withdraw from all full-term semester courses during the second through fourth weeks of the semester (other than for exceptional circumstances) will receive a 25 percent refund, less non-refundable fees.
3. Students who drop a class after the fourth week of classes will not receive a refund unless the drop takes place due to exceptional circumstances, such as illness, military conscription or death of an immediate family member. Situations such as employment changes, relocation of home, transportation problems, dislike for the instructor/course, etc., are not considered "exceptional circumstances." For more information, see Exceptional Circumstance Withdrawal below.
4. If a student drops a class after the drop/add period, a full refund, less any non-refundable fees, may be provided upon approval of the Fee Petition by the Office of the Controller, Tuition and Billing Services, SU 130. The [Fee Petition form](#) should be completed online and then printed and submitted along with the supporting documentation to substantiate the petition. The Fee Petition form must be submitted within six months after the last day of classes for the semester. Situations such as employment changes, relocation of home, transportation problems, dislike for the instructor/course, etc., are not considered circumstances for filing a fee petition.

## Refund

Signing up for [Direct Deposit](#) will expedite receipt of refunds for financial aid and all other refunds due from student accounts. All other refunds will be generated through checks and mailed to the address on file.

## REFUND OF HOUSING FEES

The Housing Contract cannot be cancelled after the opening date for housing. Any student who has not cancelled the Housing Contract before the opening date of housing will be responsible for all University housing fees for the academic year.

A full refund of housing fees will be granted if a student is denied admission to the University or is academically suspended and requests a cancellation before the opening date for housing.

Each resident is encouraged to become familiar with the terms, conditions and freshman residency requirement specified in the Housing Contract.

### Exceptional Circumstance Withdrawal (Medical Withdrawal)

Students withdrawing from all classes in the current semester due to exceptional circumstances, such as illness of the student, military conscription, becoming primary care-giver to immediate family member or death of an immediate family member (parent, spouse, child, sibling or grandparent), may receive a refund, less non-refundable fees, if the request for ECW is granted. Students seeking Exceptional Circumstance Withdrawals should contact the Associate Vice President and Dean of Students at 561-297-3542 for the appropriate paperwork or visit [www.fau.edu/dean/exceptional-withdrawal.php](http://www.fau.edu/dean/exceptional-withdrawal.php).

## WITHDRAWAL FROM THE UNIVERSITY

Students who withdraw from all full-term semester courses during the second through fourth weeks of the semester (other than for exceptional circumstances) will receive a 25 percent refund, less non-refundable fees. No refunds for withdrawal other than for exceptional circumstances will be granted after the fourth week of classes.

Undergraduate and graduate financial aid recipients who officially or unofficially withdraw from the University may be required to repay all or a portion of the grants and loans based on the last date of attendance at an academically related activity as documented by University records. For students who were originally enrolled in multiple parts of term, the last date of attendance would ONLY include all days attended in any parts of term within the semester, excluding any overlapping days attended. The Office of Student Financial Aid is responsible for calculating amounts that must be repaid by the student. Before withdrawing, please read all of the information on this topic [here](#).

### **Delinquent Accounts/Collections**

According to [Florida Statute 1010.03](#), each University is directed to exert every effort to collect all delinquent accounts, including utilizing a collection agency and restricting the release of transcripts, diplomas and other University services. Therefore, any student account with a balance more than 90 days past due is deemed eligible to be sent to collections. Once a student account is placed with a collection agency, the account will be assessed significant collection costs, up to 33.33 percent, in addition to the original account balance.







# UNIVERSITY CATALOG

## SUB MENU



### ACADEMIC PROGRAMS

**Interdisciplinary Programs**

Arts and Letters

Business

Education

Engineering and Computer Science

Honors College

Medicine

Nursing

Science

Social Work and Criminal Justice

### GENERAL INFORMATION

### COURSE DESCRIPTIONS

## INTERDISCIPLINARY PROGRAMS

Florida Atlantic University's interdisciplinary programs capitalize on the advancements and knowledge of various academic disciplines to offer students unique programs of study. By combining related and sometimes unrelated disciplines across FAU colleges, these programs prepare students for multifaceted careers.

The programs listed below are offered across multiple colleges. The University also offers interdisciplinary programs shared by various departments within a college. Those programs are listed within the specific college sections.

### Undergraduate Programs

- [Bachelor of Professional Studies](#)
- [Bachelor of Science with a Major in Data Science and Analytics](#)
- [Cybersecurity Minor and Certificate](#)
- [FAU Max Planck Honors Program](#)
- [Interdisciplinary Applications of Artificial Intelligence Minor and Certificate](#)

## **Undergraduate Minor**

- [Health Humanities](#)

## **Undergraduate Certificates**

- [Applied Mental Health Services](#)
- [Data Science](#)
- [Undergraduate Research Certificate](#)

## **Graduate Programs**

- [Master of Science with Major in Data Science and Analytics](#)
- [Master of Science with Major in Information Technology and Management](#)
- [Professional Master of Science with Major in Information Technology and Management](#)
- [Doctor of Philosophy with Major in Neuroscience](#)

## **Graduate Certificates**

- [Big Data Analytics](#)
- [Professional Big Data Analytics](#)
- [Cyber Security](#)
- [Transportation, Logistics and Supply Chain Management](#)

# **UNDERGRADUATE PROGRAMS**

## **PROFESSIONAL STUDIES**

### **BACHELOR OF PROFESSIONAL STUDIES (B.P.S.)**

*(Minimum of 120 credits required)*

The Bachelor of Professional Studies (B.P.S.) is a cross-disciplinary degree program designed for

working adults who have earned an A.A. or A.S. or have completed the State of Florida general education requirements but did not complete their bachelor's degree. This degree is for individuals who have been out of college more than one year and for whom completing a degree could lead to advancement or change in their career. The B.P.S. requires a minimum of 120 credits and completion of advanced coursework in six professional competency areas, which includes a required capstone project (IDS 4894).

Students pursuing a Bachelor of Professional Studies will have the flexibility to take courses across colleges at FAU and in various formats, including in-person day or evening courses or online courses. Professional Studies also offers a fully online program; however, it's important to note that due to the variety of course options available under this program, a specific course may not be available in this format. To verify if a particular course is available in a fully online format, please refer to the [course schedule](#) or reach out to [professionalstudies@fau.edu](mailto:professionalstudies@fau.edu) via email. Professional Studies students are not permitted to concurrently earn a B.A. or B.S. degree. Students must meet all University and state bachelor's degree requirements.

### Admission Requirements\*

1. Completion of an A.A., A.S. or the State of Florida general education requirements.
2. Program entry is for returning students who have not maintained continuous enrollment, as defined by University policy, at a state college and/or university.
3. Minimum 2.0 overall GPA.
4. Foreign Language Entrance Requirement: Two years of same foreign language in high school.\*\*

\* Exceptions will be considered by petition on a case-by-case basis.

\*\* If Foreign Language Entrance Requirement was not achieved in high school, students must complete the Foreign Language Graduation Requirement: Second semester proficiency at the college level.

### Degree Requirements

1. A minimum of 120 credits overall.
2. A minimum of a 2.0 FAU GPA.
3. A minimum of 30 upper-division credits must be earned at FAU.
4. A minimum of 45 upper-division credits must be 3000-4000 level or higher.
5. [Foreign Language Entrance Requirement](#).
6. [Civic Literacy Requirement](#): Only required if the student is entering the Florida

College/University Public System on or after fall 2018.

7. **Summer Credit Requirement:** Only required if the student is admitted to FAU with fewer than 60 transfer credits.
8. **Gordon Rule Writing and Computational Skill Requirement.** Student must earn a "C" or better in each course applied to this requirement.
9. General Education Requirement: [FAU's General Education Program](#) or A.A. degree from Florida public institution.
10. Core competencies of 18 credits. IDS 4894 required. Student must earn a "C" or better.

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## Core Competencies

*18 credits with a minimum of one course from each of the six areas. IDS 4894 required.*

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### Advanced Writing - 3 credits

Professional Writing	ENC 3213	3
Advanced Exposition	ENC 3310	3
Writing for Nonprofits	ENC 4354	3
Studies in Writing and Rhetoric	ENG 4020	3
Rhetoric of Argument	SPC 4517	3

### Professional Communication and Technology - 3 credits

Organizational Communication	COM 3120	3
Human Communication Theory	COM 3405	3
Introduction to Business Communication	GEB 3213	3
Health Delivery Systems	HSA 3111	3
Contemporary Issues of Digital Data Management	ISM 4041	3
Healthcare Information Systems	ISM 4381	3
Principles of Advertising	MAR 3326	3
Communication Skills for Public Managers	PAD 3438	3

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Data Management and Analysis with Excel	QMB 3302	3
Small Group Processes	SPC 3425	3
Intercultural Communication	SPC 3710	3
<b>Cultural Studies - 3 credits</b>		
Gender and Culture	ANT 4302	3
Ethics and the Justice System	CCJ 4054	3
Psychology of Human Development	DEP 3053	3
Culture and Environment: Latin America and the Caribbean	GEA 4405	3
Human Resource Management for Hospitality Industry	HFT 3221	3
Ethics and Power in Leadership	LDR 4204	3
Black Literature	LIT 4355	3
Women and Literature	LIT 4383	3
Literature and Environment	LIT 4434	3
LGBTQ+ Literature	LIT 4523	3
Human Resource Management	MAN 4301	3
Diversity and Social Vulnerability in Public Safety Administration	PAD 4894	3
Psychology of Women	SOP 3742	3
American Multicultural Discourse	SPC 3704	3
Gender, Race and Communication	SPC 4712	3
Environmental Sociology	SYD 3510	3
Poverty and Society	SYO 3534	3
<b>Leadership and Management - 3 credits</b>		
Entrepreneurship	ENT 4024	3

Introduction to Hospitality Management	HFT 3003	3
Meetings and Event Management	HFT 3741	3
Hospitality Marketing and Revenue Management	HFT 4503	3
Introduction to Health Professions	HSA 3104	3
Management of Long-Term Care Facilities	HSA 4223	3
Leadership and Social Change	LDR 3216	3
Theories of Leadership	LDR 4104	3
Introduction to Field Leadership	LDR 4250	3
Introduction to Management and Organizational Behavior	MAN 3025	3
Service Operations	MAN 4029	3
Managing for Excellence in Public and Nonprofit Sectors	PAD 4332	3
<b>Global Studies - 3 credits</b>		
Cultures of South Asia	ANT 3361	3
Global Environmental Politics and Policies	INR 4350	3
Contemporary Issues in Leadership	LDR 3115	3
World Literature: Critical Approaches	LIT 4225	3
Major Writers of World Literature in English	LIT 4244	3
International Business Negotiations	MAN 3442	3
International Business	MAN 3600	3
Globalization and Social Movements	SYP 3454	3
Global Social Change	SYP 4453	3
Study Abroad (must be upper division and an approved course)		3
<b>Career Enrichment Requirement - 3 credits</b>		

Professional Internship	IDS 3949	0-4
RI: Professional Capstone ( <b>Req uired</b> )	IDS 4894	1-4
Capstone Seminar on Leadership	LDR 4951	3
Professional Development	SLS 4342	3
Directed Independent Study	Any prefix with 4905/4906	1-4

### Electives (if needed)

If elective coursework is needed to complete the total of 120 credits or the upper-division or residency minimums, please see the program academic advisor for a list of suggested courses.

Returning students are highly encouraged to take SLS 3115, Foundations for Personal Academic and Professional Development in the first semester.

Students are strongly encouraged to gain practical experience through participation in internship opportunities. For more information, contact the FAU Career Center at 561-297-3533 or visit the [website](#).

## HONORS PROGRAM IN PROFESSIONAL STUDIES

The Honors in Professional Studies Program provides FAU's students in the Bachelor of Professional Studies (B.P.S.) program the opportunity to achieve academic excellence beyond the level of standard coursework. Students interested in pursuing the Honors designation in the Professional Studies Program need to meet the following eligibility and admission requirements.

### Requirements for Eligibility and Admission to the Honors in Professional Studies Program

The number of students in the program is limited to 20 percent of students within the Bachelor of Professional Studies Program. To be eligible for the program, students must:

1. Meet all university requirements to declare major in the B.P.S. program;
2. Complete the equivalent of a full-time enrollment semester at FAU (12 credits) with a cumulative GPA of at least 3.25; and
3. Submit a formal application after completion of, or in the semester when, 12 credits are

completed and prior to the beginning of the semester in which student seeks to enroll in the Honors in Professional Studies Program

The application package should include:

1. Application Form;
2. Unofficial transcript;
3. Personal statement;
4. A letter of support from a member of the Professional Studies Faculty (This should be from one of the faculty members from one of the 12 credits of courses already taken in requirement 2); and
5. Interview with Program's Coordinator and Advisor.

### **Requirements to Maintain Eligibility in the Honors Professional Studies Program**

1. Maintain good academic and ethical standing;
2. Maintain cumulative GPA of 3.25 in the 12 credits of Honors-in-the-Major coursework; and
3. Maintain cumulative GPA of at least 3.25 in the final 30 credits, which includes the Honors coursework.

If any of the above standards for maintaining eligibility in the program are not met, students will be advised accordingly on how to undertake remedial actions after meeting with the Program's Coordinator and Advisor.

Students will not be allowed to continue in the Honors in Professional Studies Program for:

1. Any violation of the Code of Academic Integrity; or
2. Any grade of less than a "B" in an Honors-in-the-Major course requirement.

### **Program Enrichment Requirements**

Honors-level enrichment seeks to enhance students' experience in the program. For students to receive the Honors-in-the-Major designation, the following enrichment requirements must be met:

#### ***General Enrichment Requirement***

Students in the Honors in Professional Studies Program will be required to complete one of the following:

1. Join a professional or honors organization;
2. Participate in extensive mentoring in practical research or internship by a faculty member (e.g., a

- Summer Undergraduate Research Fellowship (SURF), an Undergraduate Research Grant);
3. Submit research to any of the FAU Research Symposia;
  4. Submit research to FAU's Undergraduate Research Journal or appropriate external publication (to be approved by the Program's Coordinator and Advisor);
  5. Once per semester, attend a faculty seminar or professional development seminar (to be approved by the Program's Coordinator and Advisor); and

Other enrichment activity as approved by the Program's Coordinator and Advisor.

### ***Coursework Requirement***

The Honors in Professional Studies Program requires completion of 9 credits of coursework. These 9 credits can be any combination of Honors-Level designated courses or courses where additional enrichment requirements have been agreed upon between the student and the instructor of the course as per the guidelines of the Honors Compact contract.

### ***Honors Compact Procedure***

Students must register for an approved upper-division course that may be designated as Honors-level with an Honors Compact. These are to be determined in consultation with the Program's Coordinator and Advisor.

1. The student approaches the instructor and requests the course be designated as Honors;
2. The decision is entirely the instructor's; however, the Program's Coordinator and Advisor will work closely with instructors to facilitate the process.
3. Once the instructor and the student agree on the terms of the Honors Compact (ideally before the drop/add date), the signed document is forwarded to the University Honors Program Director for final approval.

Ideally, Honors courses (Honors Compacts) should be completed no later than the equivalent of the next to last semester at FAU.

### ***Honors Capstone Project Requirement***

Student will complete IDS 4894 RI: Professional Capstone (as an Honors Compact) for 3 credits. The final honors capstone product or performance is assessed by the faculty supervisor and involves a public capstone presentation or performance.

## DATA SCIENCE AND ANALYTICS BACHELOR OF SCIENCE (B.S.)

### Data Science in the Natural Sciences Concentration

### Data Science and Engineering Concentration

### Data Science in Business Concentration

*(Minimum of 120 credits required)*

The Bachelor of Science with Major in Data Science and Analytics (BSDSA) is a multi-college, interdisciplinary program jointly administered by the Department of Mathematics and Statistics in the Charles E. Schmidt College of Science, the Department of Electrical Engineering and Computer Science (EECS) in the College of Engineering and Computer Science, the Department of Information Technology and Operations Management (ITOM) in the College of Business, the Department of Political Science in the Dorothy F. Schmidt College of Arts and Letters and the School of Criminology and Criminal Justice in the College of Social Work and Criminal Justice. The program aims to prepare students with the essential skill sets across disciplines needed for data-driven applications in industry, business and government. To allow for maximum flexibility in career aspirations, students can select from three concentrations:

- [Data Science in the Natural Sciences Concentration](#)
- [Data Science and Engineering Concentration](#)
- [Data Science in Business Concentration](#)

### Admission Requirements

All students must meet the minimum admission requirements of the University. Refer to the [Admissions](#) section of this catalog.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete lower-division requirements including the requirements of the General Education Program, College Algebra and Introductory Statistics. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college, or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the BSDSA degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to

satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Capstone

The Capstone for the B.S. degree with major in Data Science and Analytics is a cross college course that can be taken multiple times with a minimum of 3 credits as a requirement for the degree. Students apply their theoretical knowledge, methods and tools acquired during the Data Science and Analytics program to a real-world problem and engage in processing data and applying appropriate analytic methods to the problem. Students implement a solution using appropriate tools and can work individually or in teams under the supervision of the course instructor or another faculty member. This can be accomplished in three ways: an approved Project, Research Experience or Written Thesis.

## Degree Requirements

The minimum number of credits required for the Bachelor of Science with major in Data Science and Analytics is 120 credits: 36 credits in the General Education Program, 48 credits of major requirements and up to 36 credits of general e lectives. Additional requirements:

1. A minimum of 45 upper-division credits;
2. Students must attain a minimum grade of "C" in all major courses to receive credit in the major; and
3. No major course with a pass/fail grade will be accepted.

The 48 required credits for the major are listed below.

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### Common Core

Tools for Data Science	CAP 2751	3
Experimental Design and Data Analysis	CAP 2753	3
Artificial Intelligence for Social Good	CCJ 3071	3
Data Science Capstone	ISC 4941	3
Mathematics for Data Science	MAP 2192	3
Data Management and Analysis with Excel	QMB 3302	3
Introductory Statistics	STA 2023	3
<b><i>Common Core Credits</i></b>		<b>21</b>

**Electives**


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Choose two courses from the List of Elective Courses for all Concentrations

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***Elective Credits*** **6**

**Data Science in the Natural Sciences Concentration****Concentration Core Requirements**


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RI: Introduction to Data Science	CAP 3786	3
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Introduction to Computational Mathematics	MAD 2502	3
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Computational Statistics	STA 3100	3
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***Concentration Core Credits*** **9**

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**Concentration Core Electives. Choose four courses.**


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Cryptography and Information Security	CIS 4362	3
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Graph Theory	MAD 4301	3
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Applied Mathematical Modeling	MAP 4103	3
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RI: Industrial Problems in Applied Math	MAP 4913	3
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Topology for Data Science	MTG 4325	3
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SAS for Data and Statistical Analyses	STA 3024	3
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Introduction to Biostatistics	STA 3173	3
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Applied Statistics 1 Lab	STA 4202L	1
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Statistical Designs	STA 4222	3
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Applied Statistics 1	STA 4234	2
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Probability and Statistics 1	STA 4442	3
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Probability and Statistics 2	STA 4443	3
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Applied Statistics 2	STA 4702	3
Applied Time Series and Forecasting	STA 4853	3
<b><i>Concentration Elective Credits</i></b>		<b>12</b>
<b><i>Concentration Credits</i></b>		<b>21</b>

## Data Science and Engineering Concentration

### Concentration Core Requirements

Introduction to Data Science and Analytics	CAP 4773	3
Introduction to Software Design	CEN 3062C	3
Introduction to Programming in Python	COP 3035C	3
Data Structures and Algorithm Analysis with Python	COP 3410C	3
<b><i>Concentration Core Credits</i></b>		<b>12</b>

**Concentration Core Electives. Choose three courses ~~or four courses~~ so that the total of concentration credits is 21.**

Introduction to Deep Learning	CAP 4613	3
Introduction to Artificial Intelligence	CAP 4630	3
Introduction to Data Mining and Machine Learning	CAP 4770	3
Introduction to Computer Systems Performance Evaluation	CEN 4400	3
Introduction to Database Structures	COP 3540	3
Introduction to Web Programming	COP 3834	3
Python Programming	COP 4045	3
Applied Database Systems	COP 4703	3
<b><i>Concentration Elective Credits</i></b>		<b>9</b>
<b><i>Concentration Credits</i></b>		<b>21</b>

\* Students who have taken a college-level introductory course in programming may substitute this course with one of the Concentration Elective Courses, with permission of the advisor.

## Data Science in Business Concentration

### Concentration Core Requirements

Business Communication for Data Analysts	GEB 3231	3
Introduction to Business Analytics and Big Data	ISM 3116	3
Data Mining and Predictive Analytics	ISM 4117	3
Advanced Business Analytics	ISM 4403	3

***Concentration Core Credits*** **12**

### Concentration Core Electives. Choose three courses.

Revenue Management and Predictive Analytics in the Hospitality and Tourism Industry	HFT 4481	3
Contemporary Issues of Digital Data Management	ISM 4041	3
Database Management Systems	ISM 4212	3
Management of Information Assurance and Security	ISM 4323	3
Social Media and Web Analytics	ISM 4420	3
Business Analytics for Marketing and Customer Relationship Management	MAR 4615	3

***Concentration Elective Credits*** **9**

***Concentration Credits*** **21**

## Electives Table

### Arts and Letters Electives

Research Methods in Bioarchaeology	ANT 4192	3
Information Technology in Public Administration	PAD 3712	3
Introduction to the Nonprofit Sector	PAD 4144	3
Quantitative Inquiry for Public Managers	PAD 4702	3
Research Methods for Public Management	PAD 4704	3
RI: Research Methods in Political Science	POS 3703	3
Public Opinion and American Politics	POS 4204	3
Sociological Analysis: Quantitative Methods	SYA 4400	3
<b>Business Electives</b>		
Business Communication for Data Analysts	GEB 3231	3
Revenue Management and Predictive Analytics in the Hospitality and Tourism Industry	HFT 4481	3
Introduction to Business Analytics and Big Data	ISM 3116	3
Contemporary Issues of Digital Data Management	ISM 4041	3
Data Mining and Predictive Analytics	ISM 4117	3
Database Management Systems	ISM 4212	3
Management of Information Assurance and Security	ISM 4323	3
Advanced Business Analytics	ISM 4403	3
Social Media and Web Analytics	ISM 4420	3
Business Analytics for Marketing and Customer Relationship Management	MAR 4615	3
<b>Engineering Electives</b>		
Introduction to Deep Learning	CAP 4613	3
Introduction to Artificial Intelligence	CAP 4630	3

Introduction to Data Mining and Machine Learning	CAP 4770	3
Introduction to Data Science and Analytics	CAP 4773	3
Introduction to Computer Systems Performance Evaluation	CEN 4400	3
Introduction to Database Structures	COP 3540	3
Introduction to Internet Computing	COP 3813	3
Python Programming	COP 4045	3
Applied Database Systems	COP 4703	3
<b>Science Electives</b>		
Solar System Astronomy	AST 3110	3
Laboratory Methods in Biotechnology	BSC 4403L	3
Concepts in Bioinformatics	BSC 4434C	3
RI: Introduction to Data Science	CAP 3786	3
Cryptography and Information Security	CIS 4362	3
Spatial Data Analysis	GEO 4167C	3
Photogrammetry and Aerial Photograph Interpretation	GIS 4021C	3
Applications of Geographic Information Systems	GIS 4048C	3
Geospatial Databases	GIS 4118	3
Graph Theory	MAD 4301	3
Applied Mathematical Modeling	MAP 4103	3
RI: Industrial Problems in Applied Math	MAP 4913	3
Epidemiology of Infectious Diseases	MCB 4276	3
Topology for Data Science	MTG 4325	3
Practical Cell Neuroscience	PCB 4843C	3

Computational Physics	PHZ 3151C	3
Mathematical Methods for Physics	PHZ 4113	3
SAS for Data and Statistical Analyses	STA 3024	3
Computational Statistics	STA 3100	3
Introduction to Biostatistics	STA 3173	3
Applied Statistics 1 Lab	STA 4202L	1
Statistical Designs	STA 4222	3
Applied Statistics 1	STA 4234	2
Probability and Statistics 1	STA 4442	3
Probability and Statistics 2	STA 4443	3
Applied Statistics 2	STA 4702	3
Applied Time Series and Forecasting	STA 4853	3
<b>Social Work and Criminal Justice Electives</b>		
Teen Technology Misuse	CCJ 4554	3
Methods of Research in Criminal Justice	CCJ 4700	3
Criminal Justice Technology	CJE 3692C	3
Crime Analysis	CJE 4663	3
Computer Crime	CJE 4668	3
Research Methods in Social Work	SOW 4403	3

## HEALTH HUMANITIES UNDERGRADUATE MINOR

*(Minimum of 15 credits)*

The minor in Health Humanities is open to all undergraduate students at FAU. The minor is awarded

upon graduation from an undergraduate program at FAU; it is not awarded independently of an undergraduate degree.

### ***Requirements***

Requirements for the minor include completion of 15 credits with a minimum overall GPA of 2.0. Students must complete at least 12 credits in the Dorothy F. Schmidt College of Arts and Letters, with at least 9 credits at the upper-division (3000-4000) level.

The courses listed below are all electives and are pre-approved for the minor. Courses from outside the College of Arts and Letters are listed so that students in those colleges may know which courses from their own college may be applied to the Health Humanities minor. For consideration of courses not listed below, please contact the minor program director, [Prof. Michael Rapoport](#).

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### **Dorothy F. Schmidt College of Arts and Letters**

#### ***Anthropology***

Introduction to Biological Anthropology	ANT 2511	3
The Anthropology of Death	ANT 4025	3
Environment and Disease	ANT 4463	3
Culture, Gender and Health	ANT 4469	3
Global Health and Culture	ANT 4489	3
Biological Anthropology	ANT 4514	3
Epidemics: Culture, Science and Policy	ANT 4532	3

#### ***English***

Victorian Genres and Themes (when related to health)	ENL 4264	3
Special Topics (when related to Illness, Madness and Visions)	LIT 2931	3
Literature and Environment	LIT 4434	3

#### ***History***

History of U.S. Drug and Alcohol Use	AMH 4315	3
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***Languages, Linguistics and Comparative Literature***

Spanish for Careers	SPN 2161	3
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Spanish for Healthcare Professionals	SPN 2162	3
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Intermediate Spanish Conversation	SPN 2240	3
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***Music***

Alexander Technique for the Musician	MUS 4802	3
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Introduction to Vocal Pedagogy	MVV 2601	3
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Vocal Pedagogy	MVV 4640	3
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***Philosophy***

Philosophy of Psychiatry	PHI 3453	3
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Philosophy of Medicine	PHI 3456	3
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Philosophy of Science	PHI 4400	3
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Biomedical Ethics	PHI 4635	3
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***Sociology***

Special Topics (when related to Care and Care Work)	SYA 3930	3
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Sociology of the Body	SYD 3804	3
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Sociology of Health, Medicine and Illness	SYO 3400	3
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Sociology of Mental Health	SYO 3410	3
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Drugs and Society	SYP 3550	3
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Sociology of Aging and Dying	SYP 3740	3
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**College of Business**

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***Health Administration***

Introduction to Health Professions	HSA 3104	3
Health Delivery Systems	HSA 3111	3
Health Care Medical Terminology	HSA 3534	3
Issues and Trends in Health Care	HSA 4113	3
International Healthcare Systems	HSA 4124	3
Management of Long-Term Care Facilities	HSA 4223	3
Health Law	HSA 4423	3
<b>Christine E. Lynn College of Nursing</b>		
Foundations of Caring in Nursing Situations (Nursing students only)	NUR 3115	3
<b>Charles E. Schmidt College of Science</b>		
<b><i>Biological Sciences</i></b>		
Molecular Genetics of Aging	BSC 4022	3
Climate Change Biology: Ecosystems to Human Health	BSC 4307	3
Concepts in Bioinformatics	BSC 4434C	3
Biology of Cancer	BSC 4806	3
Microbiology for Health Services	MCB 2004	3
Medical Bacteriology	MCB 4203	3
Epidemiology of Infectious Diseases	MCB 4276	3
Cell Biology	PCB 3023	3
Genetics	PCB 3063	4
Evolution	PCB 3674	3
Principles of Human Neuroanatomy	ZOO 4742	3

***Chemistry and Biochemistry***

RI: Introduction to Drug Design	CHM 4273	3
Introduction to Drug Development	CHM 4274C	3
Introduction to Drug Formulation	CHM 4276C	3
Medicinal Chemistry	CHM 4292	3
<b><i>Exercise Science and Health Promotion</i></b>		
Perspectives in Health	HSC 3102	3
Stress Management	HSC 4104	3
Substance Abuse	HSC 4143	3
Health Promotion	HSC 4581	3
Obesity: Biological, Psychological and Cultural Factors	PET 4263	3
<b><i>Interdisciplinary Studies</i></b>		
Health Science 1	IDS 2122	3
Introduction to Preprofessional Studies	PCB 3083	3
<b><i>Psychology</i></b>		
Psychopathology	CLP 4144	3
Clinical Psychology	CLP 4343	3
Psychology of Human Development	DEP 3051	3
Psychology of Women	SOP 3742	3

**CYBERSECURITY**  
**UNDERGRADUATE MINOR**  
**UNDERGRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

Cybersecurity is the study of methods to ensure information and system security. Industry and

government need an educated workforce to serve as information and systems security analysts, security and network administrators and more. Due their extensive expertise and facilities, the departments of Information Technology and Operations Management (in the College of Business), Electrical Engineering and Computer Science (In the College of Engineering and Computer Science) and Mathematics and Statistics (in the College of Science) have jointly designed the Cybersecurity Minor and Certificate. Three tracks, each requiring 12 credits, constitute the minor and certificate: Information Technology (IT), Computer Science (CS) and Mathematical Sciences (MS).

## Tracks

***IT Cybersecurity Track:*** The 12 credits should be completed as follows: one IT core course, two 3-credit courses from the IT elective list and one 3-credit course from the IT, CS or MS elective course lists. A maximum of 3 credits used for the minor may count toward other major requirements. A minimum of two courses (6 credits) must be exclusive to the minor.

***CS Cybersecurity Track:*** The 12 credits should be completed as follows: one CS core course, two 3-credit courses from the CS elective course list and one 3-credit course from the IT, CS or MS elective course lists.

***MS Cybersecurity Track:*** The 12 credits should be completed as follows: one MS core course, two 3-credit courses from the MS course list and one 3-credit course from the IT, CS or MS elective course lists.

## Admission

Open to students who satisfy the prerequisites required for each course in the program with a minimum grade of "C." Each track in the program requires 12 credits with minimum grades of "C" in all courses. Students cannot obtain both a certificate and a minor. All course materials are in English. All international students must demonstrate proficiency in English to enter the program.

The certificate is available to degree-seeking students, non-degree students and working professionals. Students pursuing the certificate may apply for it in the college where the track is located upon successful completion of the coursework.

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## IT Cybersecurity Track

### ***Required IT Core Course***

Business Data Communications	ISM 4220	3
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***IT elective courses: Select two from this list and one more from any track list***

Introduction to Cybersecurity	ISM 4320	3
Management of Information Assurance and Security	ISM 4323	3
Computer Forensics	ISM 4324	3

## CS Cybersecurity Track

### *Required CS Core Course*

Foundations of Cybersecurity	CNT 4403	3
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*CS elective courses: Select two from this list and one more from any track list. Additional courses may be used as replacements with prior approval of the department.*

Trustworthy Artificial Intelligence	CAP 4623	3
Introduction to Cryptographic Engineering	CDA 4321	3
Cyber Physical Systems Security	CIS 4213	3
Operating Systems Security	CIS 4367	3
Network and Data Security	CNT 4411	3

## MS Cybersecurity Track

### *Required MS Core Course*

Cryptography and Information Security	CIS 4362	3
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*MS elective courses: Select two from this list and one more from any track list*

RI: Introduction to Data Science	CAP 3786	3
Introduction to Coding Theory	MAD 4605	3
Mathematics of Cybersecurity	MAP 4190	3
Mathematics for Cryptography	MAS 4206	3

## THE FAU MAX PLANCK HONORS PROGRAM (MPHP)

Eligible College of Science majors in Biology, Psychology, Neuroscience and Behavior, and Medical Biology may apply to participate in this Jupiter-specific honors program for undergraduates. For students pursuing the MPHP, 3 to 6 of the elective credits in their individual program must be applied toward the requirements of the MPHP. These include successful completion of a Capstone experience (1 to 3 credits) and three different MPHP Enrichment courses (1 credit each) from those listed below. A minimum grade of "B" must be achieved in graded courses ("S" in non-graded courses) among these exclusive MPHP course options for the credits to count toward the requirements of the MPHP. Visit the [MPHP website](#) to apply.

### FAU Max Planck Honors Program Required Coursework

#### Core Course (required for all participants)

Honors Introduction to Neuroscience Research	PSB 4003	1
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#### Enrichment Course Electives (at a minimum, two different courses are required)

Honors Scientific Communication	BSC 4934	1
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Honors Advanced Cell Imaging for Neuroscientists	PCB 4933C	1
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Honors Advanced Genetics	PCB 4935	1
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Honors Advanced Physiology	PCB 4937C	1
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Honors Advanced Scientific Grant Writing	PCB 4956	1
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Honors Life Science Technologies	PSB 4110	1
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Honors Advanced Techniques in Neuroscience	PSB 4112C	1
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Honors Directed Independent Research	PSB 4916	0-3
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Honors Symposium Presentation	PSB 4922	1
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Honors Special Topics in Neuroscience	PSB 4931	1-3
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Max Planck Honors Seminar	PSB 4932	1
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Honors Journal Club in Neuroscience	PSB 4951	1
<b>Capstone Options</b> (at least 3 credits in one of the following courses is required)		
FAU Max Planck Honors Capstone	PSB 4902	1-3
Honors Mentored Research	PSB 4910	1-3
FAU Max Planck Honors Thesis	PSB 4970	1-3

## INTERDISCIPLINARY APPLICATIONS OF ARTIFICIAL INTELLIGENCE

### UNDERGRADUATE MINOR

### UNDERGRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

This minor or certificate require completion of four courses (12 credits) with a minimum grade of "C." Students must ensure that they have the necessary prerequisites for the selected courses. Waiver of prerequisites will be made on a case-by-case basis. Students cannot apply for both the minor and certificate in Interdisciplinary Applications of AI. Students can apply to one track at most.

The certificate is available to degree-seeking students, non-degree students and working professionals.

The minor is available to all undergraduate degree-seeking students and may be earned upon successful completion of the coursework below and the simultaneous completion of a bachelor's degree at FAU.

For the minor:

1. At least 9 of the 12 credits must be earned from FAU.
2. A t least 9 of the 12 credits must be upper-division credits.

### Tracks

The program contains four tracks from different disciplines.

**Societal Applications of Artificial Intelligence.** This 12-credit track is offered by the Department of Philosophy in the Dorothy F. Schmidt College of Arts and Letters. The program provides students with a fundamental awareness of how Artificial Intelligence (AI) operates, an understanding of how AI is utilized and comprehension of the consequences of those applications in various societal domains. The program requires no prior formal engineering or technical expertise.

**Core Courses - 6 credits**

Select two courses from the following four courses. At least one of the two core courses must be AMH 3372 or PHI 2681.

History of American Technology	AMH 3372	3
Applications of Artificial Intelligence	CAP 2603	3
Applied Machine Learning and Data Mining	CAP 4612	3
Ethics and Artificial Intelligence	PHY 2681	3

**Elective Courses - 6 credits**

Select two courses from the Electives Table.

**Business Applications of Artificial Intelligence.** This 12-credit track is offered by the Department of Information Technology and Operations Management (ITOM) in the College of Business. It requires no prior, formal engineering or technical experience. The program offers a business manager's level of understanding of Artificial Intelligence and how it can be positioned to improve efficiency and effectiveness across the organization, including what is the basket of AI tools that can be used in what business problems, how to customize available AI tools for the specific organizational problem and be successful, and how to avoid caveats.

**Core Courses - 6 credits**

Select two courses from the following four courses. At least one of the two core courses must be ISM 4041 or ISM 4421.

Applications of Artificial Intelligence	CAP 2603	3
Applied Machine Learning and Data Mining	CAP 4612	3
Contemporary Issues of Digital Management	ISM 4041	3
Artificial Intelligence and Digital Transformation for Business	ISM 4421	3

**Elective Courses - 6 credits**

Select two courses from the Electives Table.

**Technology Applications of Artificial Intelligence.** This 12-credit track is offered by the Department

of Electrical Engineering and Computer Science in the College of Engineering and Computer Science. Artificial Intelligence is making agriculture more precise and efficient, revealing new medical technologies and bringing the prospect of autonomous transportation and advanced manufacturing closer to reality. To become competitive, companies and corporations will have to embrace AI technological innovations to some extent. This program requires no prior formal engineering or technical experience. It provides students with knowledge and skills in the concepts, technologies and applications of Artificial Intelligence.

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### Core Courses - 6 credits

Applications of Artificial Intelligence	CAP 2603	3
Applied Machine Learning and Data Mining	CAP 4612	3

### Elective Courses - 6 credits

Select two courses from the Electives Table.

**Scientific Applications of Artificial Intelligence.** This 12-credit track is offered by the Department of Mathematics and Statistics in the Charles E. Schmidt College of Science. The program provides students, through hands-on experience, an introduction to how Artificial Intelligence impacts the analysis of scientific data to gain a better understanding of natural, physical and social phenomena.

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### Core Courses - 6 credits

Select two courses from the following three courses.

Applications of Artificial Intelligence	CAP 2603	3
RI: Introduction to Data Science	CAP 3786	3
Applied Machine Learning and Data Mining	CAP 4612	3

### Elective Courses - 6 credits

Select two courses from the Electives Table. At least one course must be chosen from the College of Science elective group.

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### Electives Table - 6 credits

Select two courses.

***College of Arts and Letters Courses***

History of American Technology	AMH 3372	3
New Media and Civic Discourse	COM 4603	3
Science Fiction	LIT 3313	3
Psycholinguistics	LIN 4701	3
Media, Culture and Technology	MMC 4263	3
Information Technology in Public Administration	PAD 3712	3
Artificial Intelligence and Ethics	PHI 2680	3
Philosophy of Mind	PHI 3320	3
RI: Research Methods in Political Science	POS 3703	3
Technology and Society	SYP 4421	3

***College of Business Courses***

Revenue Management and Predictive Analytics in the Hospitality and Tourism Industry	HFT 4481	3
Technology in Health Care Organizations	HSA 3191	3
Introduction to Business Analytics and Big Data	ISM 3116	3
Contemporary Issues of Digital Data Management	ISM 4041	3
Healthcare Information Systems	ISM 4381	3
Artificial Intelligence and Digital Transformation for Business	ISM 4421	3
Blockchain: Business Implications	ISM 4451	3
Project Management	MAN 4583	3
Business Analytics for Marketing and Customer Relationship Management	MAR 4615	3

Digital Marketing	MAR 4721	3
<b><i>College of Engineering and Computer Science Courses</i></b>		
Applications of Artificial Intelligence	CAP 2603	3
Tools for Data Science	CAP 2751	3
Applied Machine Learning and Data Mining	CAP 4612	3
Introduction to Deep Learning	CAP 4613	3
Introduction to Artificial Intelligence	CAP 4630	3
Trustworthy Artificial Intelligence	CAP 4623	3
Introduction to Data Mining and Machine Learning	CAP 4770	3
Introduction to Data Science and Analytics	CAP 4773	3
Special Topics (such as: Robotic Applications)	EEL 4930	3
<b><i>College of Science Courses</i></b>		
Solar System Astronomy	AST 3110	3
Laboratory Methods in Biotechnology	BSC 4403L	3
Concepts in Bioinformatics	BSC 4434C	3
RI: Introduction to Data Science	CAP 3786	3
Spatial Data Analysis	GEO 4167C	3
Photogrammetry and Aerial Photograph Interpretation	GIS 4021C	3
Applications of Geographic Information Systems	GIS 4048C	3
Geospatial Databases	GIS 4118	3
Mathematics of Data Science	MAP 2192	3
RI: Industrial Problems in Applied Math	MAP 4913	3
Epidemiology of Infectious Diseases	MCB 4276	3

Topology for Data Science	MTG 4325	3
Practical Cell Neuroscience	PCB 4843C	3
Computational Physics	PHZ 3151C	3
Mathematical Methods for Physics	PHZ 4113	3
Computational Statistics	STA 3100	3
Introduction to Biostatistics	STA 3173	3
Applied Statistics 1	STA 4234	3
RI: Shared and Automated Transport: Current Trends	URP 4712	3
<b><i>College of Social Work and Criminal Justice Courses</i></b>		
Artificial Intelligence for Social Good	CCJ 3071	3
Crime Analysis	CJE 4663	3
Computer Crime	CJE 4668	3

## UNDERGRADUATE CERTIFICATES

### APPLIED MENTAL HEALTH SERVICES

#### UNDERGRADUATE CERTIFICATE

*(Minimum of 17 credits required)*

The undergraduate certificate in Applied Mental Health Services, offered jointly by the Department of Psychology and by the Department of Counselor Education in the College of Education, provides a curricular experience for students who wish to pursue careers in clinical psychology, mental health counseling and allied human services that enhances the student's chosen major. This program is also specialized training for students who wish to pursue graduate degrees in these critical-need careers.

Students who have completed 60 credits with a GPA of 3.0 or better may apply for the certificate program. The program requires a minimum of 17 credits by completing the psychology and counselor education courses below. Students must attain a 3.0 GPA or better to qualify for the certificate. A grade

of "C-" or better (unless otherwise noted in the course description) is required in all psychology courses taken as part of the requirements for the Applied Mental Health Services certificate. Students receiving a bachelor's degree in the Department of Psychology will meet the requirements for certification by completing the courses listed below, as well as their prerequisites. Students from other departments should meet with an advisor to determine eligibility and requirements for this certificate program. Students who qualify will receive a certificate of completion and a notation on their transcript.

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### Required Courses - 15 credits

Psychopathology	CLP 4144	3
Clinical Psychology	CLP 4343	3
Neuropsychology	PSB 4240	3
Career and Lifespan Development	SDS 3340	3
Interpersonal Communication Skills	SDS 4410	3

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### Elective Courses - 2 credits, minimum

Forensic Psychology	CLP 4390	3
Special Topics (in Counseling)*, **	MHS 5930	3
University Student Mentoring and Peer Coaching *	SDS 3483	2
Police Psychology	SOP 4750	3
Psychology and the Law	SOP 4751	3

\* Course offered in the Department of Counselor Education in the College of Education.

\*\* Prerequisite: Permission of instructor.

## DATA SCIENCE UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

Data Science is the study of methods to manage, analyze and extract knowledge from data. Industry and government need an educated workforce with the necessary expertise to make use of the enormous volumes of data available to them. Due to their extensive expertise and facilities, the departments of Mathematics and Statistics and Electrical Engineering and Computer Science have jointly designed the Data Science certificate. This 15-credit certificate program has two tracks: Mathematical Sciences (MathSci) and Computer Science and Analytics (CS). The Data Science certificate draws the 15 credits from Computer Science, Mathematics and Statistics.

### Admission

The program is open to students who satisfy the prerequisite courses required for each course in the certificate curriculum. Both tracks - MathSci and CS - require two core courses and three elective courses for a total of 15 credits. All five courses must be completed with a grade of "C" or better.

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#### Core Courses - 6 credits

RI: Introduction to Data Science	CAP 3786	3 <b>or</b>
Introduction to Data Science and Analytics	CAP 4773	3 <b>or</b>
Introduction to Data Science	CAP 5768	3
Probability and Statistics for Engineers	STA 4032	3 <b>or</b>
Probability and Statistics 1	STA 4442	3 <b>or</b>
Stochastic Models for Computer Science	STA 4821	3

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#### Elective Courses by Track - 9 credits

##### *MathSci Track*

Select two from the following courses and one more from this list or the list of CS elective courses.

RI: Computational Statistics	STA 4102	3
Statistical Designs	STA 4222	3
RI: Statistical Learning*	STA 4241	3
Applied Statistics 1	STA 4234	2
Applied Statistics 1 Lab	STA 4202L	1

Applied Statistics 2*	STA 4702	3
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Applied Time Series and Forecasting	STA 4853	3
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\* Recommended electives.

### ***CS Track***

Select two from the following courses and one more from this list or the list of MathSci elective courses.

Introduction to Deep Learning	CAP 4613	3
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Introduction to Artificial Intelligence	CAP 4630	3
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Introduction to Data Mining and Machine Intelligence	CAP 4770	3
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Introduction to Computer Systems Performance Evaluation	CEN 4400	3
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Introduction to Database Structures	COP 3540	3
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Applied Database Systems	COP 4703	3
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## **UNDERGRADUATE RESEARCH UNDERGRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

To recognize undergraduate students' excellence in undergraduate research, the Office of Undergraduate Research and Inquiry (OURI) has established the Undergraduate Research Certificate. Requirements for the Research Certificate include completion of 12 credits of research exposure, skill-building and intensive courses as well as dissemination of the outcomes of students' research and inquiry through a research presentation or exhibition.

Degree-seeking undergraduate students may earn the Research Certificate by completing the following requirements.

1. 12 credits of coursework related to undergraduate research from the following:
  - a. Up to 6 credits of General Education Program courses or Honors Core courses (for Wilkes Honors College students) at the Research Level including:

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**Research Exposure, General Education Courses Approved List**


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Honors Introduction to Anthropology	ANT 2000	3
Life Science Lab or RI: Life Science Lab	BSC 1005L	1
Contemporary Chemical Issues	CHM 1020C	3
General Chemistry For the Health Sciences	CHM 2032	3
General Chemistry 1	CHM 2045	3
Honors Psychopathology	CLP 4143	3
Principles of Macroeconomics	ECO 2013	<b>3 or</b>
Principles of Microeconomics	ECO 2023	3
Disability and Society	EEX 2091	3
The Blue Planet	ESC 2000	3
Honors 20th Century Europe	EUH 2341	3
Honors Freshman Seminar in History	HIS 1933	3
Honors Ways of Knowing	PHI 2361	3
Honors Privacy	POS 3623	3
Introductory Statistics	STA 2023	3
Social Problems	SYG 2010	3

- b. Up to 3 credits of Research Skill-Building coursework in research methods from the approved list below.
- c. At least 3 credits of Research-Intensive-designated courses and/or Directed Independent Research. Honors thesis and courses with honors compacts can substitute for the Research-Intensive designation.

2. Presentation at one of the FAU Undergraduate Research Symposia (Boca Raton, Broward and Jupiter), Senior Engineering Design Showcase or appropriate discipline-specific conferences, symposia, exhibitions, or showcases (internal or external), as approved by the University's

Undergraduate Research Curriculum Committee. For internal symposia, students register for a zero-credit course: IDS 4914, Undergraduate Research Forum. For the Senior Engineering Design Showcase, students will receive credit for the dissemination of their research upon successful completion of one of the following courses: CGN 4804C, EGN 4952C, EOC 4804L or EML 4551 with a minimum grade of "C."

Additional stipulations include:

1. Courses that are taken S/U may count toward the certificate with a grade of Satisfactory; for courses with standard grading, students must complete the courses with a minimum grade of "C."
2. A maximum of 3 transfer credits may be applied to the certificate.
3. Course substitutions will be reviewed by the Undergraduate Research Curriculum Committee on a case-by-case basis.
4. Students should consult with the Office of Undergraduate Research and Inquiry and/or their undergraduate advisor for more information.

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### Research Skill-Building Approved List

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A&L	Archaeological Research Methods	ANT 4116	3
A&L	Research Methods in Bioarchaeology	ANT 4192	3
A&L	Research Methods in Cultural/Social Anthropology	ANT 4495	3
A&L	Architectural Research Methods and Analysis	ARC 3091	3
A&L	Architectural Theory	ARC 4219	3
A&L	Architectural Design 7	ARC 4327	3
A&L	Architectural Design 8	ARC 4328	3
A&L	Advanced Architectural Design 1	ARC 5328	3

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A&L	Topical Design Studio	ARC 5352	3
A&L	Introduction to Urban Design	ARC 6305	3
A&L	Conflict and Communication	COM 3462	3
A&L	Principles of Research Writing	ENC 4138	3
A&L	Research and Bibliographic Methods	FOL 3880	3
A&L	Program Evaluation in Public Management	PAD 4320	3
A&L	Quantitative Inquiry for Public Managers	PAD 4702	3
A&L	Research Methods for Public Management	PAD 4704	3
A&L	RI: Research Methods in Political Science	POS 3703	3
A&L	Qualitative Research Methods	SYA 4310	3
A&L	Sociological Analysis: Quantitative Methods	SYA 4400	3
BUS	RI: Honors Seminar in Economics	ECO 4935	3
BUS	Health Research Methods	HSA 4700	3
BUS	Operations Management Applications	MAN 4504	3

BUS	Data Management and Analysis with Excel	QMB 3302	3
BUS	Quantitative Methods in Administration	QMB 3600	3
EDU	Multidisciplinary Introduction to Research	EDF 2910	1
EDU	Multidisciplinary Research Methods 1	EDF 2911	1
EDU	Education in a Multicultural Society	EDF 3610	3
EDU	Responsible Conduct of Research	EDG 4361	2
ENG	Experimental Design and Data Analysis	CAP 2753	3
HON	Honors Research Methods in Cultural Anthropology	ANT 4495	3
HON	Honors Introduction to Programming for Visual Art	ART 3657C	4
HON	Honors Game Studies	ART 4640	4
HON	Honors 3D Computer Game Development	ART 4653C	4
HON	Honors Introduction to Data Science	COP 3076	3
HON	Honors Religion and Politics in Latin America	CPO 4305	3

HON	Honors Econometrics: Applied Regression Analysis	ECO 4412	3
HON	Honors Interdisciplinary Critical Inquiry Seminar	IDS 3632	1-3
HON	Honors Computational Social Science	ISS 4304	3
HON	Honors General Microbiology	MCB 3020	3
HON	Honors General Microbiology Lab	MCB 3020L	1
HON	Honors Cell Biology	PCB 4102	4
HON	RI: Honors Research Methods in Psychology	PSY 3213	3
HON	Honors Research Methods in Psychology Lab	PSY 3213L	1
NUR	Nursing Research	NUR 4165	3
SCI	Biochemistry 1	BCH 3033	3
SCI	Plant Physiology Lab	BOT 4503L	2
SCI	Plant Biotechnology	BOT 4734C	3
SCI	Life of a Biologist	BSC 2844	1
SCI	Introduction to Biological Research	BSC 3453	1
SCI	Biological Research Writing	BSC 3481	2

SCI	Honors Research	BSC 4917	3
SCI	Honors Thesis	BSC 4918	3
SCI	Special Topics	BSC 4930	1-3
SCI	Comparative Animal Behavior	CBH 4024	3
SCI	Organic Chemistry 1	CHM 2210	3
SCI	Quantitative Analysis	CHM 3120	2
SCI	Introduction to Physical Chemistry	CHM 3400	3
SCI	Inorganic Chemistry	CHM 3609	3
SCI	Critical Thinking in Environmental Science	EVS 4021	3
SCI	Introduction to Undergraduate Research 1	IDS 1911	1
SCI	Introduction to Undergraduate Research 2	IDS 1913	1
SCI	Fundamentals of Research and Inquiry	IDS 3910	1
SCI	Introduction to Undergraduate Research and Design	IDS 3911	1
SCI	Applied Mathematical Modeling	MAP 4103	3
SCI	Issues in Human Ecology	PCB 3352	3

SCI	Genetics Lab	PCB 4067L	3
SCI	Comparative Animal Physiology Lab	PCB 4723L	1
SCI	Cellular Neuroscience and Disease	PCB 4842	3
SCI	Research Methods in Psychology	PSY 3213	3
SCI	Experimental Design and Statistical Inference	PSY 3234	3
SCI	Introduction to Animal Locomotion	ZOO 4373	
SWCJ	Methods of Research in Criminal Justice	CCJ 4700	3
SWCJ	Research Methods in Social Work	SOW 4403	3

## GRADUATE PROGRAMS

### DATA SCIENCE AND ANALYTICS

#### MASTER OF SCIENCE (M.S.)

**Data Science via Scientific Inquiry Concentration**

**Data Science and Engineering Concentration**

**Data Science in Business Concentration**

**Data Science in Society Concentration**

The Master of Science with Major in Data Science and Analytics (MSDSA) is a multi-college interdisciplinary program jointly administered by the Department of Mathematics and Statistics in the Charles E. Schmidt College of Science, the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science, the Department of Information

Technology and Operations Management in the College of Business and the Department of Political Science in the Dorothy F. Schmidt College of Arts and Letters. The program aims to prepare students with essential skill sets needed to analyze small, fast, big, massive and complex data. To allow for maximum flexibility in career aspirations, students may select from four concentrations:

- [Data Science via Scientific Inquiry Concentration](#), Department of Mathematics and Statistics
- [Data Science and Engineering Concentration](#), Department of Electrical Engineering and Computer Science (EECS) (This concentration is also available fully online.)
- [Data Science in Business Concentration](#), Department of Information Technology and Operations Management
- [Data Science in Society Concentration](#), Department of Political Science

### **Admission Requirements**

To be admitted to the MSDSA program, applicants must:

1. Have obtained a bachelor's degree from an accredited institution and possess a minimal background consisting of MAC 2233 (Methods of Calculus) or equivalent and STA 2023 (Introductory Statistics) or equivalent. Students applying to the Data Science and Engineering concentration must have completed a college-level introductory programming course with a minimum grade of "C." Knowledge of Python and statistical packages such as R, as well as coursework in linear algebra are recommended for all concentrations;
2. Have an undergraduate GPA of 3.0 or higher in the last 60 credits of undergraduate coursework;
3. Submit two letters of recommendation for all concentrations, except the Data Science and Engineering concentration;
4. Have attained scores of at least 151 (verbal) and 151 (quantitative) on the Graduate Record Examination (GRE). GRE scores more than five years old are not acceptable normally. GRE is not required for admission to the Data Science and Engineering concentration;
5. Be proficient in written and spoken English. International students from non-English-speaking countries must present a score of at least 500 (paper-based test) or 213 (computer-based test) or 79 (internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing System (IELTS); and
6. Meet other requirements of the FAU Graduate College.

### **Curriculum Requirements**

The MSDSA program offers both thesis and non-thesis options. Both options require a minimum of 30 credits. Students are required to take one common core course, two additional core courses, four concentration courses and three elective courses for the total of 30 credits. The exact courses taken are

to be determined by the students and their advisory committee. The thesis option requires only one elective course and 6 thesis credits. Students selecting the thesis option must complete and defend a written thesis successfully.

### Data Science via Scientific Inquiry Concentration

#### Common Core Courses

Introduction to Data Science	CAP 5768	3
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Biostatistics	STA 5195	3
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#### *Take one additional core course*

Data Mining and Machine Learning	CAP 6673	3
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Introduction to Business Analytics and Big Data	ISM 6404	3 or
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Quantitative Methods in Political Science	POS 6746	3
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#### *Take four concentration courses*

Computer Data Security	CIS 6370	3
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Data Analysis and Modeling for Cybersecurity	CAI 6803	3
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Introduction to Cryptology and Information Security	MAD 5474	3
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Graph Theory	MAD 6307	3
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Cryptanalysis	MAD 6478	3
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Applied Computational Topology	MTG 6329	3
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Statistical Computing	STA 6106	3
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Survival Analysis	STA 6177	3
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Regression Analysis	STA 6236	3
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Mathematical Statistics	STA 6326	3
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Applied Time Series Analysis	STA 6857	3
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***Take three elective courses from the Electives Table. Thesis option requires only one elective course and 6 thesis credits.***

### **Data Science and Engineering Concentration** (This concentration is also available fully online.)

#### **Common Core Courses**

Introduction to Data Science	CAP 5768	3
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Data Mining and Machine Learning	CAP 6673	3
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#### ***Take one additional core course***

Biostatistics	STA 5195	3 <b>or</b>
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Introduction to Business Analytics and Big Data	ISM 6404	3 <b>or</b>
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Quantitative Methods in Political Science	POS 6746	3
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***Take four concentration courses, any course with the prefix CAP offered by the EECS Department, or CEN 6405***

***Take three elective courses from the Electives Table. Thesis option requires only one elective course and 6 thesis credits.***

### **Data Science in Business Concentration**

#### **Common Core Courses**

Introduction to Data Science	CAP 5768	3
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Introduction to Business Analytics and Big Data	ISM 6404	3
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#### ***Take one additional core course***

Biostatistics	STA 5195	3 <b>or</b>
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Data Mining and Machine Learning	CAP 6673	3 <b>or</b>
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Quantitative Methods in Political Science	POS 6746	3
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***Take four concentration courses***

Quantitative Communication Research	COM 6316	3
Data Mining and Predictive Analytics	ISM 6136	3
Database Management Systems	ISM 6217	3
Advanced Business Analytics	ISM 6405	3
Social Media and Web Analytics	ISM 6555	3
Data Management and Analysis with Excel	QMB 6303	3
Data Analysis for Managers	QMB 6603	3

*Take three elective courses from the Electives Table. Thesis option requires only one elective course and 6 thesis credits.*

### Data Science in Society Concentration

#### Common Core Courses

Introduction to Data Science	CAP 5768	3
Quantitative Methods in Political Science	POS 6746	3

*Take one additional core course*

Biostatistics	STA 5195	3 or
Data Mining and Machine Learning	CAP 6673	3 or
Introduction to Business Analytics and Big Data	ISM 6404	3

*Take four concentration courses*

Advanced Anthropological Research 2	ANG 6092	3
Quantitative Reasoning in Anthropological Research	ANG 6486	3
Social Networks and Big Data Analytics	CAP 6315	3
Quantitative Communication Research	COM 6316	3
Social Media and Web Analytics	ISM 6555	3

Seminar in Political Behavior	POS 6208	3
Research Design in Political Science	POS 6736	3
Seminar in Advanced Research Methods	SYA 6305	3

*Take three elective courses from the Electives Table. Thesis option requires only one elective course and 6 thesis credits.*

## Electives Table

### ***Business Analytics***

Data Mining and Predictive Analytics	ISM 6136	3
Database Management Systems	ISM 6217	3
Introduction to Business Analytics and Big Data	ISM 6404	3
Advanced Business Analytics	ISM 6405	3
Social Media and Web Analytics	ISM 6555	3
Data Management and Analysis with Excel	QMB 6303	3
Data Analysis for Managers	QMB 6603	3

### ***Database and Cloud Computing***

Multiprocessor Architecture	CDA 6132	3
Cloud Computing	CEN 5086	3
New Directions in Database Systems	COP 6726	3
Theory and Implementation of Database Systems	COP 6731	3
Database Management Systems	ISM 6217	3

### ***Data Mining and Machine Learning***

Introduction to Neural Networks	CAP 5615	3
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Social Networks and Big Data Analytics	CAP 6315	3
Data Mining for Bioinformatics	CAP 6546	3
Machine Learning for Computer Vision	CAP 6618	3
Deep Learning	CAP 6619	3
Reinforcement Learning	CAP 6629	3
Artificial Intelligence	CAP 6635	3
Data Mining and Machine Learning	CAP 6673	3 <b>or</b>
Applied Machine Learning	CAP 6610	3
Information Retrieval	CAP 6776	3
Web Mining	CAP 6777	3
Advanced Data Mining and Machine Learning	CAP 6778	3
Big Data Analytics with Hadoop	CAP 6780	3
Computational Advertising and Real-Time Analytics	CAP 6807	3
Computer Performance Modeling	CEN 6405	3
Data Mining and Predictive Analytics	ISM 6136	3
<b><i>Data Security and Privacy</i></b>		
Computer Data Security	CIS 6370	3
Data Analysis and Modeling for Cybersecurity	CAI 6803	3
Management of Information Assurance and Security	ISM 6328	3
Introduction to Cryptology and Information Security	MAD 5474	3
Cryptanalysis	MAD 6478	3
Quantum Mechanics 2	PHY 6646	3
<b><i>Scientific Applications and Modeling</i></b>		

Photogrammetry and Aerial Photography Interpretation	GIS 6028C	3
LiDAR Remote Sensing and Applications	GIS 6032C	3
Web GIS	GIS 6061C	3
Geospatial Databases	GIS 6112C	3
Hyperspectral Remote Sensing	GIS 6127	3
Spatial Data Analysis	GIS 6306	3
Special Topics (Quantum Information Processing)	PHY 6938	3
Computational Physics	PHZ 5156	3
Numerical Relativity	PHZ 7609	3
<b><i>Social Data Science</i></b>		
Advanced Anthropological Research 1	ANG 6090	3
Advanced Anthropological Research 2	ANG 6092	3
Quantitative Reasoning in Anthropological Research	ANG 6486	3
Social Networks and Big Data Analytics	CAP 6315	3
Quantitative Communication Research	COM 6316	3
Quantitative Methods in Political Science	POS 6746	3
Research Design in Political Science	POS 6736	3
Seminar in Advanced Research Methods	SYA 6305	3
<b><i>Statistics and Data Applications</i></b>		
Biomedical Data and Informatics	BSC 6459	3
Biostatistics	STA 5195	3
Statistical Computing	STA 6106	3
Survival Analysis	STA 6177	3

Biostatistics - Longitudinal Data Analysis	STA 6197	3
Applied Statistical Methods	STA 6207	3
Regression Analysis	STA 6236	3
Mathematical Statistics	STA 6326	3
Applied Time Series Analysis	STA 6857	3
Applied Computational Topology	MTG 6329	3

## **INFORMATION TECHNOLOGY AND MANAGEMENT MASTER OF SCIENCE (M.S.)**

**Advanced Information Technology Concentration**

**Business Analytics Concentration**

**Computer Science Data Analytics Concentration**

**Cybersecurity Concentration**

**Information Technology Management Concentration**

The Master of Science with Major in Information Technology and Management (MSITM) is jointly offered by the Department of Electrical Engineering and Computer Science (EECS) in the College of Engineering and Computer Science and the Department of Information Technology and Operations Management (ITOM) in the College of Business. Designed for highly motivated individuals with computing and/or managerial backgrounds, the program aims to prepare students for a management career in the area of information technology in organizations. To allow for maximum flexibility in career aspirations, students can select from four concentrations: Advanced Information Technology, emphasizing the technical aspect of organizational IT systems; Information Technology Management, focusing on the management issues of IT in organizations; Business Analytics; Computer Science Data Analytics; and Cybersecurity. The program is offered in person with the Business Analytics and the Information Technology Management concentrations offered in person and fully online.

### **Admission Requirements**

To be admitted to the MSITM program applicants must have:

1. An undergraduate degree in Computer Science, Information Engineering Technology or an IT-related field of study. Applicants with another undergraduate degree and documented work

- experience of two or more years in an IT function will be evaluated as well;
2. An undergraduate GPA of 3.0 or higher;
  3. GRE or GMAT scores more than five years old are normally not acceptable. The GRE and the GMAT requirement is waived for any student who has a baccalaureate degree from either FAU's Department of Electrical Engineering and Computer Science (EECS) or FAU's Department of Information Technology and Operations Management (ITOM) with a GPA of at least 3.25 (out of a possible 4.0) in the last 60 credits attempted prior to graduation. GRE/GMAT is not required for admission to the Advanced Information Technology Concentration, Computer Science Data Analytics Concentration and Cybersecurity Concentration;
  4. International students from non-English-speaking countries must be proficient in written and spoken English as evidenced by a score of at least 500 (paper-based test) or 213 (computer-based test) or 79 (Internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing System (IELTS); and
  5. Meet other requirements of the FAU Graduate College.

## Degree Requirements

Students in all concentrations are required to complete 30 graduate credits, or ten, 3-credit courses (5000 level or higher), with a 3.0 GPA or better to graduate.

Students in the Advanced Information Technology, ~~Computer Science Data Analytics~~, and Cybersecurity concentrations will be awarded the degree by the College of Engineering and Computer Science, while those in the Information Technology Management and Business Analytics concentrations will have their degrees awarded by the College of Business. For more information about the Master of Science in Information Technology and Management degree program, call the Department of Electrical Engineering and Computer Science at 561-297-3482, or email [ceecs@fau.edu](mailto:ceecs@fau.edu).

## Advanced Information Technology Concentration (30 credits)

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### Students are required to take the following three courses:

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Software Engineering	CEN 5035
Theory and Implementation of the Database Systems	COP 6731
Management of Information Systems and Technology	ISM 6026

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*In addition, students must take five electives from graduate courses with prefixes CAP, CDA, CEN,*

***CIS, COP, COT and CNT offered by the Department of Electrical Engineering and Computer Science (EECS).***

**The last two electives must be chosen from the following ITOM courses:**

Mobile Apps for Business	ISM 6058
Data Mining and Predictive Analytics	ISM 6136
Information Technology Project and Change Management	ISM 6316
Management of Information Assurance and Security	ISM 6328
Enterprise Information Technology Service Management	ISM 6368
Advanced Business Analytics	ISM 6405
Business Innovation with Artificial Intelligence	ISM 6427C
Blockchain and Crypto Assets: Digital Business Transformation	ISM 6455
Web-Based Business Development	ISM 6508
Information Technology Sourcing Management	ISM 6509
Social Media and Web Analytics	ISM 6555
Special Topics	ISM 6930
Data Management and Analysis with Excel	QMB 6303

### **Information Technology Management Concentration (30 credits)**

**Students are required to take the following six courses offered by the College of Business:**

Management of Information Systems and Technology	ISM 6026
Information Technology Project and Change Management	ISM 6316

Management of Information Assurance and Security	ISM 6328
Web-Based Business Development	ISM 6508
Information Technology Sourcing Management	ISM 6509
Communication Strategies for Business Professionals and Core-Course Follow-Up	GEB 6215

**Students must take one elective from the following ITOM courses:**

Mobile Apps for Business	ISM 6058
Data Mining and Predictive Analytics	ISM 6136
Enterprise Information Technology Service Management	ISM 6368
Advanced Business Analytics	ISM 6405
Business Innovation with Artificial Intelligence	ISM 6427C
Blockchain and Crypto Assests: Digital Business Transformation	ISM 6455
Social Media and Web Analytics	ISM 6555
Special Topics	ISM 6930
Data Management and Analysis with Excel	QMB 6303

***In addition, students must take three electives from graduate courses with prefixes CAP, CDA, CEN, CIS, COP, COT and CNT offered by the Department of Electrical Engineering and Computer Science (EECS).***

**Computer Science Data Analytics Concentration (30 credits)**

**Students are required to take the following three courses offered by the Electrical Engineering and Computer Science (EECS) Department:**

Introduction to Data Science	CAP 5768
Software Engineering	CEN 5035

*In addition, students must take four EECS Department electives as follows: two graduate courses with the prefix CAP and two graduate courses with prefixes CAP, CDA, CEN, CIS, COP, COT and CNT.*

**The last three electives must be chosen from the following ITOM courses:**

Data Mining and Predictive Analytics	ISM 6136
Database Management Systems	ISM 6217
Introduction to Business Analytics and Big Data	ISM 6404
Advanced Business Analytics	ISM 6405
Business Innovation with Artificial Intelligence	ISM 6427C
Social Media and Web Analytics	ISM 6555
Special Topics	ISM 6930
Data Management and Analysis with Excel	QMB 6303
Data Analysis for Managers	QMB 6603

**Note:** Students in this concentration may satisfy the requirements for the [Big Data Analytics certificate](#). Follow up with the EECS advisor to see if the student meets all the requirements for the certificate.

### **Business Analytics Concentration (30 credits)**

**Students are required to take the following six courses offered by the College of Business:**

Management of Information Systems and Technology	ISM 6026
Data Mining and Predictive Analytics	ISM 6136
Introduction to Business Analytics and Big Data	ISM 6404
Business Innovation with Artificial Intelligence	ISM 6427C

Advanced Business Analytics	ISM 6405 <b>or</b>
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Social Media and Web Analytics	ISM 6555
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Communication Strategies for Business Professionals and Core-Course Follow-Up	GEB 6215
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**Students must take one elective from the following ITOM courses:**

Mobile Apps for Business	ISM 6058
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Information Technology Project and Change Management	ISM 6316
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Management of Information Assurance and Security	ISM 6328
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Enterprise Information Technology Service Management	ISM 6368
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Blockchain and Crypto Assets: Digital Business Transformation	ISM 6455
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Web-Based Business Development	ISM 6508
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Information Technology Sourcing Management	ISM 6509
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Special Topics	ISM 6930
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Data Management and Analysis with Excel	QMB 6303
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***In addition, students must take three electives from the EECS Department as follows: two graduate courses with the prefix CAP and one graduate course with prefixes CAP, CDA, CEN, CIS, COP, COT and CNT.***

### **Cybersecurity Concentration (30 credits)**

**Students are required to take the following three courses:**

Software Engineering	CEN 5035
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Theory and Implementation of the Database Systems	COP 6731
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Management of Information Systems and Technology	ISM 6026
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**Students must take three cybersecurity courses from the list below. Course substitution is allowed with the advisor's prior approval.**

Cryptographic Engineering	CDA 5326
Practical Aspects of Modern Cryptography	CIS 5371
Computer Data Security	CIS 6370
Distributed Systems Security	CIS 6375
Cryptocurrencies and Blockchain Technologies	CIS 6730
Secret Sharing Protocols	COT 6427
Data Analysis and Modeling for Cybersecurity	CAI 6803

**Students must take two Electrical Engineering and Computer Science (EECS) courses with prefixes of CAP, CDA, CEN, CIS, COP, COT, CTS or CNT offered by the EECS department.**

**The last two electives must be chosen from the following Information Technology and Operations Management (ITOM) courses:**

Management of Information Assurance and Security	ISM 6328
Digital Forensics Management	ISM 6376
Business Innovation with Artificial Intelligence	ISM 6427C
Blockchain and Crypto Assets: Digital Business Transformation	ISM 6455
Special Topics	ISM 6930

## **INFORMATIONAL TECHNOLOGY AND MANAGEMENT MASTER OF SCIENCE (M.S.) PROFESSIONAL PROGRAM**

**Advanced Information Technology Concentration**

**Business Analytics Concentration**

**Computer Science Data Analytics Concentration**

**Information Technology Management Concentration**

The Professional Master of Science with major in Information Technology and Management is a self-supporting program offered jointly by the Department of Electrical Engineering and Computer Science

in the College of Engineering and Computer Science and the Department of Information Technology and Operations Management in the College of Business. This program is designed for working professionals. It offers four concentrations and requires 30 credits. Degree requirements are listed in the tables below. The program is offered in person with the Business Analytics and the Information Technology Management concentrations offered in person and fully online.

### **Advanced Information Technology Concentration (30 credits)**

**Students are required to take the following three courses:**

Software Engineering	CEN 5035
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Theory and Implementation of the Database Systems	COP 6731
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Management of Information Systems and Technology	ISM 6026
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*In addition, students need to take six electives from the graduate courses with prefixes CAP, CDA, CEN, CIS, COP, COT and CNT offered by the Department of Electrical Engineering and Computer Science (EECS).*

**Lastly, one elective course must be chosen from the following ITOM courses:**

Mobile Apps for Business	ISM 6058
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Data Mining and Predictive Analytics	ISM 6136
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Information Technology Project and Change Management	ISM 6316
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Management of Information Assurance and Security	ISM 6328
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Enterprise Information Technology Service Management	ISM 6368
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Advanced Business Analytics	ISM 6405
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Business Innovation with Artificial Intelligence	ISM 6427C
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Blockchain and Crypto Assets: Digital Business Transformation	ISM 6455
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Web-Based Business Development	ISM 6508
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Information Technology Sourcing Management	ISM 6509
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Social Media and Web Analytics	ISM 6555
Special Topics	ISM 6930
Data Management and Analysis with Excel	QMB 6303

### **Information Technology Management Concentration (30 credits)**

**Students are required to take the following six courses offered by the College of Business:**

Management of Information Systems and Technology	ISM 6026
Information Technology Project and Change Management	ISM 6316
Management of Information Assurance and Security	ISM 6328
Web-Based Business Development	ISM 6508
Information Technology Sourcing Management	ISM 6509
Communication Strategies for Business Professionals	GEB 6217

**Students must take two electives from the following ITOM courses:**

Mobile Apps for Business	ISM 6058
Data Mining and Predictive Analytics	ISM 6136
Enterprise Information Technology Service Management	ISM 6368
Advanced Business Analytics	ISM 6405
Business Innovation with Artificial Intelligence	ISM 6427C
Blockchain and Crypto Assets: Digital Business Transformation	ISM 6455
Social Media and Web Analytics	ISM 6555
Special Topics	ISM 6930

Data Management and Analysis with Excel

QMB 6303

*In addition, students must take two electives from graduate courses with prefixes CAP, CDA, CEN, CIS, COP, COT and CNT offered by the Department of Electrical Engineering and Computer Science (EECS).*

### Computer Science Data Analytics Concentration (30 credits)

**Students are required to take the following three courses offered by the Electrical Engineering and Computer Science (EECS) Department:**

Introduction to Data Science	CAP 5768
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Software Engineering	CEN 5035
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Theory and Implementation of the Database Systems	COP 6731
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*In addition, students must take five EECS department electives as follows: two graduate courses with the prefix CAP and three graduate courses with prefixes CAP, CDA, CEN, CIS, COP, COT and CNT.*

**The last two electives must be chosen from the following ITOM courses:**

Data Mining and Predictive Analytics	ISM 6136
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Database Management Systems	ISM 6217
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Introduction to Business Analytics and Big Data	ISM 6404
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Advanced Business Analytics	ISM 6405
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Business Innovation with Artificial Intelligence	ISM 6427C
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Social Media and Web Analytics	ISM 6555
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Special Topics	ISM 6930
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Data Management and Analysis with Excel	QMB 6303
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Data Analysis for Managers	QMB 6603
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**Note:** Students in this concentration may satisfy the requirements for the [Big Data Analytics certificate](#). Follow up with the EECS advisor to see if the student meets all the requirements for the certificate.

### **Business Analytics Concentration (30 credits)**

**Students are required to take the following seven courses offered by the College of Business:**

Management of Information Systems and Technology	ISM 6026
Data Mining and Predictive Analytics	ISM 6136
Introduction to Business Analytics and Big Data	ISM 6404
Advanced Business Analytics	ISM 6405
Business Innovation with Artificial Intelligence	ISM 6427C
Social Media and Web Analytics	ISM 6555
Communication Strategies for Business Professionals	GEB 6217

**Students must take one elective from the following ITOM courses:**

Mobile Apps for Business	ISM 6058
Information Technology Project and Change Management	ISM 6316
Management of Information Assurance and Security	ISM 6328
Enterprise Information Technology Service Management	ISM 6368
Blockchain and Crypto Assets: Digital Business Transformation	ISM 6455
Web-Based Business Development	ISM 6508
Information Technology Sourcing Management	ISM 6509
Special Topics	ISM 6930
Data Management and Analysis with Excel	QMB 6303

***In addition, students must take two electives from the EECS department as follows:one graduate***

*course with the prefix CAP and one graduate course with prefixes CAP, CDA, CEN, CIS, COP, COT and CNT.*

## NEUROSCIENCE

### DOCTOR OF PHILOSOPHY (PH.D.)

*(Minimum of 72 credits required)*

The Neuroscience Graduate doctoral program (NGP) is a multi-college, multi-institute interdisciplinary degree program organized in partnership with the FAU Brain Institute. Graduate-level instruction is provided by faculty in multiple departments located in the Charles E. Schmidt College of Science, the Charles E. Schmidt College of Medicine, the College of Engineering and Computer Science, the College of Education and the Harriet L. Wilkes Honors College. Affiliated faculty from the Max Planck Florida Institute for Neuroscience and Scripps Research Florida also participate in the program.

The program aims to equip students with the advanced conceptual and technical skills needed to forge productive, neuroscience-oriented careers in industry, academia and government. To allow for maximum flexibility in career aspirations, students have the opportunity to pursue thesis research in laboratories located in any of the Colleges and Institutes noted above. Program faculty have expertise in a broad range of research areas, including cellular and molecular neuroscience, cognitive and behavioral neuroscience, computational neuroscience, synaptic plasticity, brain development, learning and memory, neuroimmunology, auditory and speech neuroscience, visual neuroscience and neurology. The work is directed at understanding the mechanisms underlying neurodegeneration, stroke, autism, epilepsy, depression, sleep disorders and drug addiction, in order to advance effective treatments.

#### **Admission Standards**

The program seeks to admit applicants who are academically excellent and have completed an undergraduate or M.S. degree demonstrating substantial training in the biological sciences, psychology, or engineering and computer sciences. Recommended preparation includes upper-division courses in biology (molecular/cellular biology, genetics, physiology), psychology (animal and human behavior, learning and memory, cognition), chemistry (organic chemistry, biochemistry), mathematics (statistics and calculus) and computer engineering and programming. Prior coursework in neuroscience is desirable, and evidence of prior research experience is particularly important. A competitive applicant usually will have prior research experience and should describe their research experience in the Statement of Purpose/Personal Statement.

#### **Admission Requirements**

All students must meet the minimum graduate admission requirements of the University. Refer to the Prospective Students and Admissions sections on the [Graduate College website](#). Additional requirements are:

1. Completion of a bachelor's or M.S. degree from a regionally accredited institution in an appropriate major, prior to anticipated start date in the Ph.D. program.
2. Minimum GPA of 3.40 as an undergraduate and/or M.S. student.
3. Complete sets of transcripts from all previous collegiate institution(s) attended.
4. A minimum of three letters of recommendation, preferably from instructors and advisors who are familiar with the applicant's recent academic and research experiences.
5. An essay of Purpose/Interests in the form of a Personal Statement.
6. GRE scores are optional.
7. International students whose native language is not English must score at least 79-80 (Internet-based test) on the Test of English as a Foreign Language (TOEFL). Satisfactory TOEFL scores can offset verbal GRE scores at the discretion of the program's Recruitment Committee. Additionally, international students whose transcripts are from non-U.S. institutions must have their credentials evaluated course-by-course. International students must also demonstrate competency in spoken English.

Previous graduate coursework may be applied toward the course requirements of the Neuroscience Ph.D. Students may receive up to 15 credits earned beyond the baccalaureate degree, including up to 9 credits of Core course credit, not to include Laboratory Rotations and Neuroscience Seminar, based on comparable courses taken prior to admission. Transfer credits must be approved by the Program Steering Committee and the Graduate College. Evaluation of transfer credits will be based on content and will require an official copy of each course syllabus for assessment.

### **Degree Requirements**

The Doctor of Philosophy with Major in Neuroscience is a research-intensive degree requiring a minimum of

72 credits beyond the baccalaureate degree. The following are specific requirements for this degree:

1. Completion of 21 core credits listed in Required Core Courses.
2. Completion of 9 elective credits from the courses listed in Elective Courses.
3. Completion of 24 dissertation credits.
4. The remaining 18 credits may include elective coursework at the 6000-level or above, advanced research or dissertation research credits that support the student's research plan with approval of the student's Ph.D. supervisor.

5. Completion of Neuroscience Ph.D. Lab Rotations, representing eight-week research internships in different laboratories during the fall and spring semesters of Year 1.
6. Acceptance into the laboratory of an approved program faculty member for thesis research by the end of the spring semester of Year 1.
7. Achievement of a “B” or higher grade in all courses, with an overall GPA of at least 3.0 maintained.
8. With the exception of Neuroscience Seminar and Laboratory Rotations, no core or elective courses can be taken with the option of satisfactory/unsatisfactory grading.
9. Students must enroll in the Neuroscience Seminar each fall and spring semester for the entire time they remain in program, with the expectation that most students will graduate in five years. Starting in Year 2, the Neuroscience Seminar will be taken for 0 credit.
10. Admission to Ph.D. candidacy requires the writing and successful public defense of an original dissertation research proposal.
11. Degree completion requires the writing and successful public defense of a dissertation describing the context, approach, results and impact of thesis research.
12. Students are expected to publish at least one peer-reviewed research paper as first author involving research activities described in their thesis proposal prior to degree completion.

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### Required Core Courses

Brain Diseases: Mechanisms and Therapy	BMS 6736	3
Scientific Communication	BSC 6846	3
Neuroscience Seminar* <i>(fall and spring of Year 1)</i>	PSB 6920	2
Cellular and Molecular Neuroscience	PSB 6345	3
Systems and Integrative Neuroscience	PSB 6346	3
Neuroscience Ph.D. Lab Rotation <i>(fall and spring of Year 1)</i>	PSB 6910L	4
Experimental Design 1**	PSY 6206	3 or
Computational Neuroscience 1**	ISC 6460	3

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**Required Core credits** **21**

<b>Dissertation</b>	PSB 7980	<b>24</b>
<b>Elective Courses (some may have prerequisites)</b>		
<i>Choose at least three courses from the list</i>		
Bioinformatics: Bioengineering Perspectives	BME 6762	3
Practical Cell Neuroscience	BSC 6417C	3
Biomedical Data and Informatics	BSC 6459	3
Introduction to Neural Networks	CAP 5615	3
Introduction to Data Science	CAP 5768	3
Foundations of Vision	CAP 6411	3
Data Mining for Bioinformatics	CAP 6546	3
Artificial Intelligence	CAP 6635	3
Data Mining and Machine Learning	CAP 6673	3
Biosignal Processing	EEE 5286	3
Seminar in Human Perception	EXP 6208	3
Seminar in Cognition	EXP 6609	3
Special Topics in Cognition (such as Attention and Consciousness, Machine Perception and Cognitive Robotics)	EXP 6930	3
Neural Plasticity	GMS 6021	3
Principles of Neuroimmunology	GMS 6708	3
Nonlinear Dynamical Systems	ISC 5453	3
Cognitive Neuroscience	ISC 5465	3

Methods in Complex Systems	ISC 6450	3
Computational Neuroscience 1	ISC 6460	3
Neurobiology of Addiction	PCB 5844	3
Advanced Cell Physiology	PCB 6207	3
Neurophysiology	PCB 6835C	3
Adult Neurogenesis	PCB 6848	3
Advanced Neurophysiology Lab	PCB 6837L	3
Seminar in Behavioral Neuroscience	PSB 6058	3
Developmental Neurobiology	PSB 6515	3
Developmental Neuropsychology	PSB 6516	3
Special Topics in Behavioral Neuroscience (such as Functional Neuroanatomy)	PSB 6930	3
Experimental Design 2	PSY 6207	3
Special Topics (such as Neuroscience of Sleep)	PSY 6930	3
Neural Bases of Human Communication	SPA 5107	3
Adult Language Disorders	SPA 6410	3
Genetics of Communication Disorders	SPA 6438	3
Biostatistics	STA 5195	3
Human Neuroanatomy	ZOO 6748	3
<b>Electives credits</b>		<b>9</b>
<i>Additional elective coursework at the 6000 level or above, advanced research or dissertation credits that support the student's research plan</i>		<b>18</b>
<b>Total</b>		<b>72</b>

\* Neuroscience Seminar (PSB 6920) is taken in the fall and spring of Year 1 for 1 credit per semester. In later years, it is taken for 0 credit every fall and spring semester.

\*\* Students must either take Experimental Design 1 (PSY 6206) or Computational Neuroscience 1 (ISC 6460), but need not take both.

### **Supervisory Committee Requirements**

By mutual agreement, students identify their final Ph.D. supervisor and research lab before the end of the spring semester of Year 1. A Supervisory Committee, including the Ph.D. supervisor and three other graduate faculty, knowledgeable in aspects of the project, is assembled during the fall of Year 2. Students are encouraged to include on their committee one faculty-level member who is not a member of the Neuroscience Graduate Program, including graduate faculty from other institutions. The Ph.D. supervisor serves as the chair of the Supervisory/Dissertation Advisory Committee, except when the supervisor is an affiliate FAU faculty member at the Max Planck Florida Institute or the Scripps Research Institute Florida. The chair of the committee must have a full-time appointment at FAU, with affiliate faculty serving as co-chairs.

### **Qualifying Exam and Proposal Defense**

Students in the Neuroscience doctoral program must prepare a written grant proposal modeled on NIH or NSF templates for predoctoral fellowship applications. The proposal will be targeted to their chosen area of research. Students will present their proposal orally in an open forum advertised to the University community, followed by an oral examination consisting of questions from the student's Supervisory Committee. Following the defense, committee members vote to either pass, pass with conditions, or fail the student. If passed with conditions, students must be able to satisfy any conditions set by the committee within three months prior to resubmission of their proposal for a second oral examination.

### **Doctoral Dissertation Defense**

Students in the Neuroscience doctoral program will develop a written dissertation following the format required by the Graduate College, present the findings of their research orally in a forum open and advertised to the public, followed by an oral examination by the student's Dissertation Committee. Following the defense, committee members vote to either pass, pass with conditions, or fail the student. Students must satisfy any conditions imposed by the committee within three months prior to resubmission of their proposal for a second oral examination. The committee shall determine whether the student passes or fails the thesis defense examination and allows for a re-examination following the rules of the Graduate College.

# GRADUATE CERTIFICATES

## BIG DATA ANALYTICS GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

The digital age is here to stay. Organizations now own and have access to unfathomable amounts of data. New technologies and efforts are needed to move on to the next phase of the digital revolution - the data revolution. To provide students with the knowledge necessary in this age of Big Data, the Department of Electrical Engineering and Computer Science (EECS) and the Department of Information Technology and Operations Management (ITOM) have jointly designed the Big Data Analytics graduate certificate. This 12-credit certificate allows graduate students to expand their knowledge and skills in the concepts, technologies, and tools of business intelligence, data analytics and business analytics and be recognized for their achievement. The certificate program has two tracks: Computer Science (CS), which is also available fully online, and Business (BU).

### Tracks

**CS Track:** The Big Data Analytics certificate with a track in Computer Science will be granted to a student who completes three 3-credit courses from the CS Data Analytics course list and one 3-credit course from the ITOM Business Analytics course list.

**BU Track:** The Big Data Analytics certificate with a track in Business will be granted to a student who completes three 3-credit courses from the ITOM Business Analytics course list and one 3-credit course from the CS Data Analytics course list.

### Admission

**CS Track:** Open to students who have a B.S. degree in Computer Science or in a related field of Science or Engineering and a GPA of at least 3.0. Students must satisfy the prerequisites for each course in the program. All four courses must be completed with a GPA of 3.0 or better. All course materials are in English; all international students must demonstrate proficiency in English to enter the program.

**BU Track:** Open to students who have a bachelor's degree in Business or in a related field and a GPA of at least 3.0. Students must satisfy the prerequisites for each course in the program. All four courses must be completed with a GPA of 3.0 or better. All course materials are in English; all international students must demonstrate proficiency in English to enter the program.

## Big Data Analytics Courses by Track

### *CS Data Analytic Courses*

Select three from this list and one from the list of ITOM courses.

Introduction to Neural Networks	CAP 5615	3
Introduction to Data Science	CAP 5768	3
Social Networks and Big Data Analytics	CAP 6315	3
Data Mining for Bioinformatics	CAP 6546	3
Applied Machine Learning	CAP 6610	3
Deep Learning	CAP 6619	3
Data Mining and Machine Learning	CAP 6673	3
Information Retrieval	CAP 6776	3
Web Mining	CAP 6777	3
Advanced Data Mining and Machine Learning	CAP 6778	3
Big Data Analytics with Hadoop	CAP 6780	3
Computer Performance Modeling	CEN 6405	3
Deep Learning	CAP 6619	3
Computational Advertising and Real-Time Data Analytics	CAP 6807	3

### *ITOM Business Analytics Courses*

Select three from this list and one from the list of CS courses.

Data Mining and Predictive Analytics	ISM 6136	3
Database Management Systems	ISM 6217	3
Introduction to Business Analytics and Big Data	ISM 6404	3
Advanced Business Analytics	ISM 6405	3

Business Innovation with Artificial Intelligence	ISM 6427C	3
Social Media and Web Analytics	ISM 6555	3
Data Management and Analysis with Excel	QMB 6303	3
Data Analysis for Managers	QMB 6603	3

## **BIG DATA ANALYTICS**

### **GRADUATE CERTIFICATE**

### **PROFESSIONAL PROGRAM**

*(Minimum of 12 credits required)*

The Professional Big Data Analytics certificate is designed for working professionals currently enrolled in self-supporting programs in the College of Business or College of Engineering and Computer Science. This is a stand-alone certificate tailored for working professionals and alumni with graduate degrees who are looking for specialized knowledge in Big Data Analytics. The certificate consists of 12 credits offered jointly by the colleges and two tracks from which to choose courses. Tracks and lists of courses are the same as for the Big Data Analytics graduate certificate noted above.

## **CYBER SECURITY**

### **GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

Cybercrime-related issues especially impact the State of Florida because a significant part of the state's economic development comes from tourism, international banking and high-tech industries. The number of scientists, engineers and experts needed with special skills in cyber security exceeds the number available. The Cyber Security certificate provides opportunities for graduate students to expand their knowledge and skills to meet the needs of the cyber security field. Due to their extensive expertise and facilities, the departments of Electrical Engineering and Computer Science (EECS) and Mathematics and Statistics have jointly designed the Cyber Security certificate. This 12-credit certificate program has two tracks: Computer Science (CS), which is also available fully online, and Mathematics (Math).

## Tracks

**CS Track:** The Cyber Security certificate with a track in Computer Science will be granted to a student who completes four 3-credit courses as follows: three 3-credit courses from the CS Cyber Security course list and one 3-credit course from either the CS or the Math Cyber Security course list.

**Math Track:** The Cyber Security certificate with a track in Mathematics will be granted to a student who completes four 3-credit courses as follows: three 3-credit courses from the Math Cyber Security course list and one 3-credit course from either the Math or the CS Cyber Security course list.

## Admission

**CS Track:** Open to students who have a B.S. degree in Computer Science or in a related field of Science or Engineering and a GPA of at least 3.0. Students must satisfy the prerequisites for each course in the program. All four courses must be completed with a GPA of 3.0 or better. All course materials are in English; all international students must demonstrate proficiency in English to enter the program.

**Math Track:** Open to students who have a bachelor's degree in mathematics or in a related field and a GPA of at least 3.0. Students must satisfy the prerequisites for each course in the program. All four courses must be completed with a GPA of 3.0 or better. All course materials are in English; all international students must demonstrate proficiency in English to enter the program.

## Cyber Security Courses by Track

### *CS Cyber Security Courses*

Select three from this list and one more from this list or the list of Math courses. Additional courses may be used as replacements with prior approval of the EECS Department.

Practical Aspects of Modern Cryptography	CIS 5371	3
Computer Data Security	CIS 6370	3
Distributed Systems Security	CIS 6375	3
Secret Sharing Protocols	COT 6427	3
Data Analysis and Modeling for Cybersecurity	CAI 6803	3

### *Math Cyber Security Courses*

Select three from this list and one more from this list or the list of CS courses.

Introduction to Cryptology and Information Security	MAD 5474	3
Cryptanalysis	MAD 6478	3
Coding Theory	MAD 6607	3
Number Theory and Cryptography	MAS 6217	3

## TRANSPORTATION, LOGISTICS AND SUPPLY CHAIN MANAGEMENT GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

To provide students with the knowledge necessary in this age of connected supply chains, the Department of Information Technology and Operations Management (ITOM) in the College of Business and the Department of Civil, Environmental and Geomatics Engineering (CEGE) in the College of Engineering and Computer Science offer a jointly designed certificate in Transportation, Logistics and Supply Chain Management. This 12-credit certificate permits graduate students to expand their knowledge on the technical skills of transportation engineering and the analytical business decision-making skills of supply chain management.

### Admission

This certificate program is open to students who have a bachelor's degree in business or engineering or in a related field and a GPA of at least 3.0. Students must satisfy the prerequisites for each course in the program.

### Curriculum

All four required courses must be completed with a GPA of 3.0 or better. All course materials are in English; all international students must demonstrate proficiency in English to enter the program.

### Required Courses by Department

#### *ITOM Department*

Select two from the list, one of which must be MAN 6596.

Operations Management	MAN 6501	3
Project Management	MAN 6581	3

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Supply Chain Management	MAN 6596	3
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***CEGE Department***

Select two from the list.

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Transportation System Analysis	TTE 6501	3
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Transportation and Supply Chain Systems	TTE 6507	3
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Maritime Freight Operations	TTE 6508	3
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# UNIVERSITY CATALOG

## SUB MENU



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### GENERAL INFORMATION

### COURSE DESCRIPTIONS

# DOROTHY F. SCHMIDT COLLEGE OF ARTS AND LETTERS

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- [School of the Arts](#) (*Music, Theatre and Dance, Visual Arts and Art History*)
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- [Visual Arts and Art History](#)
- [Women, Gender and Sexuality Studies](#)

[Link to Course Descriptions for the College of Arts and Letters](#)

**Accreditation:** Florida Atlantic University is an accredited institutional member of the National

## Association of Schools of Music.

The Dorothy F. Schmidt College of Arts and Letters offers Bachelor of Arts degrees (B.A.) with majors in Anthropology, Art, Communication Studies, English, History, Interdisciplinary Studies, Jewish Studies, Multimedia Studies, Music, Philosophy, Political Science, Sociology, Theatre, and Languages, Linguistics and Comparative Literature. The College also offers a Bachelor of Architecture (B.Arch.), Bachelor of Public Management (B.P.M.) and a Bachelor of Public Safety Administration (B.P.S.A.). The Bachelor of Fine Arts (B.F.A.) may be earned in Art and Theatre. The College also awards the Bachelor of Music (B.M.), and a Bachelor of Music Education (B.M.E.) is offered in conjunction with the College of Education. University programs leading to teacher certification in art and foreign languages are available to undergraduate students registered in the Dorothy F. Schmidt College of Arts and Letters. In addition, the College offers several minors available at the undergraduate level.

For graduate students, the College offers a range of Master of Arts (M.A.) degrees with majors in Anthropology, Communication, English, History, Political Science, Sociology, and Languages, Linguistics and Comparative Literature as well as an interdisciplinary M.A. degree with major in Women, Gender and Sexuality Studies. The College also offers Master of Music (M.M.), Master of Nonprofit Management (M.N.M.) and Master of Public Administration (M.P.A.) degree programs.

Master of Fine Arts degrees (M.F.A.) may be earned in Studio/Fine Arts, Creative Writing, Media, Technology and Entertainment, and Theatre. (The M.F.A. in Media, Technology and Entertainment is currently on suspension and not accepting students.)

A combined degree program - Bachelor of Architecture/Master of Urban and Regional Planning Advanced Standing - is offered jointly by the Dorothy F. Schmidt College of Arts and Letters and the Charles E. Schmidt College of Science. For a complete description of this B.Arch./M.U.R.P. Advanced Standing Program, see the Department of Urban and Regional Planning.

Graduate students may obtain the Master of Arts in Teaching (M.A.T.) degree in Anthropology.

A Doctor of Philosophy degree (Ph.D.) with a Major in Comparative Studies and a Doctor of Philosophy degree (Ph.D.) with Major in Public Administration are offered by the Dorothy F. Schmidt College of Arts and Letters as well.

In addition, the College offers several certificate programs, interdisciplinary in nature, at both the undergraduate and graduate levels.

Each type of program—bachelor's degree programs, master's degree programs, the doctoral program and the certificate programs—is described in the following sections. The course offerings pertaining to each program are listed by department at the end of the College section.

## BACHELOR'S DEGREE PROGRAM INFORMATION

### General Studies Degree Program

The University offers a Bachelor of General Studies (B.G.S.) degree program that allows students to design a plan of study to meet their personal interests and career goals. The 120-credit program includes 15 credits of upper-division coursework in one discipline, which students select in consultation with an advisor. For more B.G.S. details and degree requirements, please refer to the [Degree Programs section](#) of this catalog.

### Degree Requirements

To receive a bachelor's degree in the Dorothy F. Schmidt College of Arts and Letters, students must complete the following requirements.

## BACHELOR OF ARCHITECTURE

1. The School of Architecture requires that all prerequisites be met prior to enrolling in the upper-division (3000 level or above) design studio sequence. Failure to fulfill all prerequisites prevents entry into any design studio. Students who have not met prerequisites will be administratively withdrawn from the course at the time the deficiency is determined to exist.
2. The last 30 upper division credits (5000-level courses) must be earned in residence at FAU.
3. Students in Architecture should consult their program's student manual/handbook for more detailed information.

## BACHELOR OF ARTS

*(Freshmen and transfer students with fewer than 30 credits)*

1. All degree requirements of the University. (See [Degree Requirements section](#) of this catalog.)
2. All requirements in the major. Refer to the description of major requirements listed with each undergraduate degree program in this section.
3. Majors in Art History, History, Music and Philosophy will take 9 credits in Arts and Letters

electives.

4. The University Foreign Language Graduation Requirement.
5. A cumulative average of "C" or better in all coursework attempted. At least a "C" or better in each course in the major, minor or certificate. All courses in the major must be graded. Pass/Fail is not accepted.
6. File an Application for Degree form, available at the Office of the Registrar. File with the Office of Student Academic Services.
7. Certification by the faculty of the College for the awarding of the degree.

### **Additional Admission Requirements**

Any student who does not have a "C" average in freshman English will be required to take further expository writing. Proficiency in a foreign language is strongly recommended for admission to programs leading to a Bachelor of Arts degree.

## **BACHELOR OF ARTS**

*(Transfer students with 30 credits or more)*

1. All degree requirements of the University, with a minimum of 120 credits in academic courses, except Architecture, which requires 159 approved credits (see the [Degree Requirements section](#) of this catalog).
2. All requirements in the major. Refer to the description of major requirements listed with each undergraduate degree program in this section. All coursework transferred from another institution in the major field must be approved in writing by the chair of the major department.
3. A minimum of 9 credits (12 credits at the upper division in the School of Communication and Multimedia Studies) within the Dorothy F. Schmidt College of Arts and Letters but outside the major department, excluding courses used to satisfy the foreign language requirement and any course used to satisfy lower-division General Education requirements in Arts and Letters. The Departments of Anthropology, English, Political Science, Sociology, and Languages, Linguistics and Comparative Literature do not require Arts and Letters electives. These departments treat this requirement as "free" electives.
4. A cumulative average of "C" or better in all coursework attempted. At least a "C" or better in each course in the major, minor or certificate. All courses in the major must be graded. Pass/Fail is not accepted.
5. File an Application for Degree form, available at the Office of the Registrar. File with the Office of Student Academic Services.

6. Certification by the faculty of the College for the awarding of the degree.

## **BACHELOR OF FINE ARTS, BACHELOR OF MUSIC, BACHELOR OF MUSIC EDUCATION**

*(Freshmen and transfer students with fewer than 30 credits)*

1. All degree requirements of the University, including the University Foreign Language Requirement (Bachelor of Fine Arts-Art majors only; Bachelor of Fine Arts-Theatre, Bachelor of Music and Bachelor of Music Education majors are excluded from this requirement). (See [Degree Requirements section](#) of this catalog.)
2. All requirements in the major. Refer to the description of major requirements listed with each undergraduate degree program in this section.
3. A cumulative average of "C" or better in all coursework attempted.
4. The University Foreign Language Graduation Requirement (Bachelor of Fine Arts-Theatre, Bachelor of Music and Bachelor of Music Education majors are excluded from this requirement.)
5. At least a "C" or better in each course in the major, minor or certificate. All courses in the major must be graded. Pass/Fail is not accepted.
6. File an Application for Degree form, available at the Office of the Registrar. File with the Office of Student Academic Services.
7. Certification by the faculty of the College for the awarding of the degree.

## **BACHELOR OF FINE ARTS, BACHELOR OF MUSIC, BACHELOR OF MUSIC EDUCATION**

*(Transfer students with 30 credits or more)*

1. All degree requirements of the University, with a minimum of 120 credits in academic courses. (See the [Degree Requirements section](#) of this catalog.)
2. All requirements in the major. Refer to the description of major requirements listed with each undergraduate degree program in this section. All coursework transferred from another institution in the major field must be approved in writing by the chair of the major department.
3. A cumulative average of "C" or better in all coursework attempted
4. At least a "C" or better in each course in the major, minor or certificate. All courses in the major must be graded. Pass/Fail is not accepted.
5. The Foreign Language Entry Requirement.
6. File an Application for Degree form, available at the Office of the Registrar. File with the Office

of Student Academic Services.

7. Certification by the faculty of the College for the awarding of the degree.

## BACHELOR OF NONPROFIT MANAGEMENT AND BACHELOR OF PUBLIC ADMINISTRATION

Refer to the admission and degree requirements under the [School of Public Administration](#) header.

## SECOND BACCALAUREATE DEGREE REQUIREMENTS

### Bachelor of Arts and Bachelor of Fine Arts Programs

1. A minimum of 30 credits must be earned in residence at FAU, in addition to the first degree (a minimum total of 150 credits for concurrent degrees).
2. Satisfy the admission requirements of the college granting the second degree.
3. Satisfy all College and department degree requirements. Refer to Degree Program Requirements under the major department listed below.
4. File an Application for Degree form, available at the Office of the Registrar. File with the Office of Student Academic Services.

## MASTER'S DEGREE PROGRAM INFORMATION

The **Master of Arts degree** is offered in Anthropology, Communication, English, History, Languages, Linguistics and Comparative Literature, Political Science, Sociology, and Women, Gender and Sexuality Studies.

The **Master of Arts in Teaching degree** is offered in the Department of Anthropology.

The **Master of Fine Arts degree** is offered in Fine Arts in the Department of Visual Arts and Art History, in Creative Writing in the Department of English, in Media, Technology and Entertainment in the School of Communication and Multimedia Studies and in Design and Technology and Performance in the Department of Theatre and Dance. (The M.F.A. in Media, Technology and Entertainment is currently on suspension and not accepting students.)

The **Master of Music degree** is offered in the School of the Arts, Department of Music.

The **Master of Nonprofit Management** and the **Master of Public Administration** are offered in the School of Public Administration.

## **M.A., M.A.T., M.F.A., M.M. ADMISSION REQUIREMENTS**

To be admitted to the Master of Arts, the Master of Arts in Teaching, the Master of Fine Arts or the Master of Music degree program, the student must meet the following criteria:

1. For Visual Arts and Art History and Political Science:
  - a. At least a 3.0 average in the 60 credits prior to receipt of the bachelor's degree or a graduate degree from an accredited institution.
  - b. For Anthropology, Communication, the English M.A., Sociology, Theatre and Women, Gender and Sexuality Studies: At least a 3.0 average in the 60 credits prior to receipt of the bachelor's degree and competitive GRE scores.
  - c. For the M.A. in Languages, Linguistics and Comparative Literature and the M.F.A. in Creative Writing: At least a 3.0 grade point average in the last 60 undergraduate credits.
  - d. For Music: A baccalaureate in music and a satisfactory audition, writing sample or portfolio depending on desired concentration.
  - e. For History: At least a 3.0 average in the 60 credits prior to receipt of the bachelor's degree, a 155 on the verbal portion and a 4.0 on the analytical writing section of the GRE.
2. Recommendation for admission by the proposed major department and the Dorothy F. Schmidt College of Arts and Letters graduate committee.
3. An undergraduate degree in the discipline (since departments may vary in requirements, students should discuss their qualifications with the department).
4. Master of Fine Arts students must pass an acting audition, pass a directing evaluation or have portfolios evaluated, depending upon their major sequence.

### **Master's Degree Requirements**

To be eligible for the Master of Arts, Master of Arts in Teaching, Master of Fine Arts, Master of Music, Master of Nonprofit Management or Master of Public Administration degree from the Dorothy F. Schmidt College of Arts and Letters, the student must complete all University requirements for the degree. To be recommended by the department and the graduate committee, the student must meet all departmental requirements.

Graduate students must meet the language requirement set by each department in the College of Arts and Letters for their graduate degree programs.

## DOCTORAL DEGREE PROGRAM INFORMATION

The Dorothy F. Schmidt College of Arts and Letters offers Doctor of Philosophy degrees in Comparative Studies and in Public Administration.

Comparative Studies is the application of various approaches within the humanities, arts and social sciences to the study of significant issues. The Ph.D. in Comparative Studies also involves developing expertise in advanced interdisciplinary and multidisciplinary study, including exploration of topics and materials from at least two traditional disciplines (e.g., political science and English literature; anthropology and history; art history, literature and communication).

The Ph.D. in Public Administration offers paths of study in Administrative Theory and Inquiry, Public Policy Studies, Organizational Studies, Public Budgeting and Financial Administration, and Urban and Regional Planning. Also, students are allowed to assemble paths of study of their own devising.

Admission and degree requirements for these Ph.D. programs are listed under the Comparative Studies Department or School of Public Administration headings later in this section.

## INTERDISCIPLINARY MINORS

### ENVIRONMENT AND SOCIETY UNDERGRADUATE MINOR

*(Minimum of 12 credits required)*

The undergraduate minor in Environment and Society introduces students to the intersecting fields of Environmental and Climate Science, Environmental Humanities (inclusive of Literature and the Visual Arts), Political Science, Sociology, History, and Women, Gender, and Sexuality Studies. Careers in Environmental Journalism, Environmental Consulting, and Climate Change Mitigation and Postsecondary Education in Environmental Humanities and Environmental Studies require interdisciplinary study across the humanities, geosciences and social sciences. The expanding academic discipline of Environmental Humanities, which recognizes that our environmental dilemmas are fundamentally problems of ethics and political power, demands fluency in this expanding field of study.

Students may earn this minor by completing 12 credits in courses that focus on Environment and Society. Students may choose from the content courses below to meet the 12-credit requirement.

Of the 12 credit hours required for the minor, 9 must be at the upper-division level; at least 75 percent of required credits for the minor must be completed at FAU; and students completing the minor must earn a minimum overall FAU grade point average of 2.0 within the coursework required. Program Coordinator: Dr. Stacey Balkan, Department of English, [sbalkan@fau.edu](mailto:sbalkan@fau.edu)

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### Required Courses

Hazards, Climate and People	EVR 4112	3
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Literature and Environment	LIT 4434	3
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### Elective Courses (choose two from table below, at least one must be upper division)

American Environmental History	AMH 3630	3
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America and the Sea	AMH 4694	3
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Exploring Natural Habitats as a Curriculum for Young Learners	EEC 4237	3
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The Blue Planet	ESC 2000	3
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Environmental Science and Engineering	ENV 3001C	3
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Environmental Science and Sustainability	EVR 1001	3
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Climate Change: The Human Dimensions	EVR 1110	3
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Environment and Society	EVR 2017	3
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Climate Change: Myths, Realities and Solutions	EVR 3114	3
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Comparative Environmental Politics	INR 4054	3
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Global Environmental Politics and Policies	INR 4350	3
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Environmental Journalism	JOU 4314	3
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U.S. Environmental Law and Policy	POS 4697	3
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Environmental Sociology	SYD 3510	3
Sociology of Climate and Disaster	SYP 4464	3
Gender and Climate Change	WST 2351	3
Green Consciousness	WST 4349	3

## FILM AND VIDEO UNDERGRADUATE MINOR

*(Minimum of 16 credits required)*

The undergraduate minor in Film and Video gives students in any major the opportunity to bring together courses from several departments and colleges into a multidisciplinary curriculum emphasizing all aspects of film and video. Participating are faculty from communication and multimedia studies, literature, languages, anthropology, theatre and other disciplines. Students are offered scholarly study of the history, theory and criticism of film, video and television as well as hands-on courses in video production. The minor structures FAU's current course offerings in film and video to guide undergraduate students through a cohesive study of film and its related disciplines.

This program is open to all degree-seeking students, with the exception of those pursuing the B.A. in Multimedia Studies (Film and Media concentration). Students may enroll with the program director at any time but must be enrolled by the time they apply for graduation. The minor will be awarded upon completion of the bachelor's degree. A student who already holds a baccalaureate degree may pursue the minor in conjunction with a second bachelor's degree. All courses taken in the program may be counted toward other general and specific graduation requirements, and courses taken to fulfill other requirements may be applied to the film and video program.

The curriculum consists of four parts: the core course, Film Appreciation, which introduces students to basic critical and technical concepts in film analysis; one course in the history of film and video; one course in theory and/or criticism; and two courses in production and/or contexts. Students must follow the distribution guidelines and complete a minimum of five courses. Each course must be completed with a grade of "C" or better to be counted toward the minor. At least 75 percent of all credits for the minor must be earned from FAU. In addition to the regular curriculum, other courses with significant attention to film and video may be approved by the program director.

**Core Course (required)**

Film Appreciation	FIL 2000	3
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**History (one course required)**

Film to the 1940s	FIL 4036	4
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Film since the 1940s	FIL 4037	4
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Traditions of Documentary Film	FIL 4364	4
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**Theory and Criticism (one course required)**

Film Theory	FIL 3803	4
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Film Criticism	FIL 4851	3
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Media Criticism	MMC 4501	3
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**Production and Contexts (two courses required)*****Production***

Television Production	RTV 3543C	4
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Digital Film Production	RTV 3531	4
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Experimental Cinema	RTV 3229	4
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Producing and Directing Documentary Film	RTV 3332C	4
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Scriptwriting	FIL 4106	4
Dramatic Writing for Stage and Screen 1	TPP 4600	3
<i>Contexts</i>		
Anthropology of Film	ANT 3391	3
Literature and Film	ENG 4114	3
Women and Film	FIL 4056	3
Radical Film, New Media and Social Movements	FIL 4058	4
RI: Hollywood, Censorship and Regulation	FIL 4672	4
Studies in Asian Cinema	FIL 4843	3-4
Introduction to the Business of Motion Pictures	GEB 3052	3
Italian Cinema: From Text to Screen	ITT 3520	3
Italian-American Cinema	ITT 3522	3
U.S. Telecommunication Industry	RTV 4403	3
Spanish Literature and Film	SPT 4720	3
Sex, Violence and Hollywood	WST 4337	3

## HEALTH HUMANITIES

## UNDERGRADUATE MINOR

*(Minimum of 15 credits)*

The minor in Health Humanities is open to all undergraduate students at FAU. The minor is awarded upon graduation from an undergraduate program at FAU; it is not awarded independently of an undergraduate degree. For minor details click [here](#).

## MUSEUMS, ARCHIVES AND PUBLIC HISTORY UNDERGRADUATE MINOR

*(Minimum of 18 credits required)*

This 18-credit multidisciplinary minor in Museums, Archives and Public History is designed to train undergraduate students in the increasingly sophisticated and interconnected fields of public history, museum studies, archive and records management, conservation of art and artifacts, historic preservation, material culture, digital humanities and web-based exhibit design, and material culture. The minor equips students with the latest skills to serve in associated jobs in the public and private sectors, including professional opportunities in museums, galleries, historical societies, archaeological sites, libraries, private and corporate collections, and archives. At least 75 percent of the 18 credits required for the minor must be completed at FAU. Students completing the minor must have a minimum overall FAU grade point average of 2.0 within the coursework required.

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### Core Courses (9 credits)

#### *Required*

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Introduction to Public History	HIS 3065	3
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#### *Two of the following:*

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Museum Studies and Gallery Practices	ARH 4794	3
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Introduction to Archives	HIS 3080	3
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Historic Preservation	HIS 3086	3
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*Elective Courses\* (9 credits)*

American Material Culture to 1860	AMH 4302	3
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American Material Culture from 1860	AMH 4303	3
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Real Archaeology	ANT 3190	3
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Native-American Culture and Society	ANT 3312	3
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Florida Archaeology	ANT 4158	3
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Internship in Anthropology	ANT 4940	1-3
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History of Ceramics	ARH 4013	3
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Medieval Art and Archaeology	ARH 4200	3
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Renaissance Art and Architecture	ARH 4305	3
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Baroque Art and Architecture	ARH 4350	3
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18th- and 19th-Century Art	ARH 4371	3
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Modern Art: 1863-1945	ARH 4450	3
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Contemporary Art	ARH 4470	3
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American Painting and Sculpture	ARH 4610	3
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History of Photography	ARH 4710	3
Art History Internship	ARH 4940	1-4
Introduction to Archives	HIS 3080	3
Historic Preservation	HIS 3086	3
Internship in Public History	HIS 4944	1-3
Introduction to the Nonprofit Sector	PAD 4144	3
Funding for Nonprofit Organizations	PAD 4202	3
Financial Management of Nonprofit Organizations	PAD 4203	3

\* Additional courses that fulfill the elective requirements may be added in the future.

## PEACE, JUSTICE AND HUMAN RIGHTS UNDERGRADUATE MINOR

*(Minimum of 12 credits required)*

The Peace, Justice and Human Rights (PJHR) minor is designed to provide an enriching educational experience for degree-seeking students interested in themes of peace, social justice and human rights. For details about the minor, see the [Peace, Justice and Human Rights minor and certificate](#) entry below.

## SPORT STUDIES UNDERGRADUATE MINOR

*(Minimum of 12 credits required)*

The undergraduate minor in Sport Studies gives students in any major the opportunity to bring together courses from across Arts and Letters to explore various aspects of sports and society that will help

strengthen their ability to see sports not just as a game, but as a significant aspect of modern society.

This minor is open to all degree-seeking students and will be awarded upon completion of a bachelor's degree. A student who already holds a baccalaureate degree may pursue the minor in conjunction with a second bachelor's degree. All courses taken in the program may be counted toward other general and specific graduation requirements, and courses taken to fulfill other requirements may be applied to this minor.

Requirements for the minor include completion of four courses (12 credits) with a minimum grade of "C" and a 2.5 GPA. At least 75 percent of all credits for the minor must be earned from FAU. In addition to the regular curriculum, other courses with significant attention to sport studies may be approved by the program director.

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### **Required Courses (select four courses, 12 credits)**

American Sports History	AMH 4611	3
Sports Journalism	JOU 3313	3
Management Principles in Exercise Science and Health Promotion	PET 4404	3
Sports Communication	PUR 3463	3
The Sociology of Sport	SYP 3650	3
Gender and Sport	WST 4614	3
Sport-related courses as approved by coordinator		3
Sport-related internship in major area		3

## CERTIFICATE PROGRAMS

Arts and Performance Entrepreneurship  
Asian Studies  
Caribbean and Latin American Studies  
Classical Studies  
English as a Second Language (ESL) Studies  
Ethics, Law and Society  
Ethnic Studies  
Film and Culture  
Literary Translation  
Nonprofit Executive Leadership  
Peace, Justice and Human Rights  
Professional and Technical Writing  
Public Ethics and Leadership  
Public Policy  
Religious Studies  
Sexuality and Gender Education  
Undergraduate Research  
Women, Gender and Sexuality Studies

The Dorothy F. Schmidt College of Arts and Letters offers certificates of study in interdisciplinary fields at the undergraduate and graduate levels. Courses taken for a certificate program may be used to fulfill other general and specific degree requirements, just as courses taken to fulfill other requirements may be applied to the certificate curriculum. Certificates are awarded upon completion of the certificate requirements. The certificates are described below. For more information, please visit [www.fau.edu/artsandletters/certificate-programs.php](http://www.fau.edu/artsandletters/certificate-programs.php).

## ARTS AND PERFORMANCE ENTREPRENEURSHIP UNDERGRADUATE MINOR OR CERTIFICATE

*(Minimum of 12 credits required)*

The Undergraduate Arts and Performance Entrepreneurship **minor** or **certificate** provides artists, writers and performers the entrepreneurial skills needed to forge their freelance careers. This program is meant for anyone whose career trajectory is likely to follow the freelance model. Students may earn this minor or certificate by completing 12 credits: two required entrepreneurship courses (6 credits) and two additional electives in their area of concentration (6 credits).

**Required**

Entrepreneurship	ENT 4024	3
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Arts and Performance Entrepreneurship 1	MUM 3052	3
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**Two of the following courses**

Museum Studies and Gallery Practices	ARH 4794	3
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Building a Web Portfolio	ART 4632C	3
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Literary Publishing and Editing	CRW 4723	3
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Writing for Nonprofits	ENC 4354	3
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Introduction to the Music Business	MUM 3301	3
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Legal Issues for the Musician	MUM 3303	3
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Arts and Performance Entrepreneurship 2	MUM 4053	3
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Introduction to the Nonprofit Sector	PAD 4144	3
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Funding for Nonprofit Organizations	PAD 4202	3
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Financial Management of Nonprofit Organizations	PAD 4203	3
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Audition and Career Forum	TPP 4224	3
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**Description/ Information**

The **minor** is available to all undergraduate degree-seeking students and may be earned upon successful completion of the coursework above and the simultaneous completion of a bachelor's degree at FAU.

The **certificate** is available to degree-seeking students, non-degree students, and working professionals. Students pursuing the certificate may apply for it in the College of Arts and Letters Office of Student Academic Services upon successful completion of the coursework.

Students cannot obtain both a certificate and a minor. Each program requires 12 credits, with minimum grades of "C" required in all courses for the minor and certificate. For the minor, at least 9 of the 12

credits must be earned at FAU.

### Timely Graduation

Minors and certificates should be considered an optional direction for elective credits. Students may not add a minor or certificate without permission from an Arts and Letters advisor (and main college advisor if different). Students are generally not permitted to add a minor/certificate after earning 90 credits or if completing it will result in an Excess Hour Surcharge.

## ASIAN STUDIES UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The certificate in Asian Studies introduces undergraduate students to continuity and change in the Asian world, encompassing East Asia, the Middle East and South Asia. A variety of careers in this era of globalization necessitate knowledge of international affairs. Students in the Asian Studies certificate will benefit from being exposed to diverse approaches to the study of Asia.

Students may earn this certificate by completing 15 credits in courses that focus on Asia. No more than 9 of these credits may be earned in a single discipline. Students may choose from the content courses below to meet the 15-credit requirement.

Cultures of South Asia	ANT 3361	3
Islamic History	ASH 3222	3
The Modern Middle East	ASH 3223	3
The Ottoman Empire	ASH 3233	3
History of East Asia	ASH 3300	3
Women in Asian History	ASH 3384	3
The Crusades	ASH 4210	3

History of Modern China	ASH 4404	3
History of Modern Japan	ASH 4442	3
History of Modern India	ASH 4550	3
Indian Civilization	ASH 4560	3
History of Eastern Ideas	ASH 4600	3
Comparative Politics: Middle East	CPO 4403	3
Beginning Hebrew Language and Culture 1	HBR 1120	4
Beginning Hebrew Language and Culture 2	HBR 1121	4
Intermediate Hebrew Language and Culture 1	HBR 2220	4
Beginning Japanese Language and Culture 1	JPN 1120	4
Beginning Japanese Language and Culture 2	JPN 1121	4

## **CARIBBEAN AND LATIN AMERICAN STUDIES UNDERGRADUATE CERTIFICATE**

*(Minimum of 15 credits required)*

The certificate in Caribbean and Latin American Studies is awarded to undergraduate students completing multidisciplinary studies of Latin America and the Caribbean in conjunction with an academic major, usually in one of the departments represented in the curriculum. It is approximately the equivalent of an interdisciplinary minor. The certificate program seeks to provide the student with both an overview of the region's heritage as well as an opportunity to pursue upper-division study in

several disciplines focused on current affairs. The successful completion of the program will prepare the student for a wide range of job opportunities and graduate programs in and dealing with Latin America and the Caribbean.

The curriculum consists of three parts:

1. A required overview course, **Introduction to Latin American Studies**, LAS 2000 (3 credits);
2. Four additional courses from the list of **core courses below**. No more than two can be taken from any one department (12 credits);
3. Students must demonstrate an **intermediate level of proficiency in a language** of the region other than English. This can be achieved by one of two means: passing the CLEP test through the 2220 level, or a passing grade in a 2220-level language course. Heritage or "native" learners of one of the region's languages should discuss their language skills with a certificate advisor in order to determine if they should CLEP or take a special language course for heritage learners.

Students are advised to enroll first in LAS 2000 and then continue their studies in any order. Students must earn a grade of "C" or better in each course applicable to the certificate. These courses may be counted toward other general and specific graduation requirements. **No more than two core courses may be in the student's major.** Students who already hold a baccalaureate degree may pursue the certificate as a non-degree-seeking student or in conjunction with a second bachelor's degree. Students are encouraged to study in a country of the region through FAU Study Abroad Programs.

### Core Courses

This is not an exhaustive list. Students may take any course with content focused on the region. The following are examples:

The Maya and Their Neighbors	ANT 3163	3
South America Before Columbus	ANT 3165	3
Latin American Politics	CPO 4303	3
Geography of Latin America and the Caribbean	GEA 4405	3
Colonial Latin American History	LAH 3100	3

Latin American Independence	LAH 3133	3
Modern Latin American History	LAH 3200	3
History of Mexico	LAH 4430	3
History of the Caribbean	LAH 4470	3
History of Cuba	LAH 4480	3
Special Topics in Latin American History	LAH 4930	3
Caribbean Literatures in English	LIT 4192	3
Latin American Culture and Civilization*	SPN 3501	3
Latin American Literature in Translation	SPT 4130	3
Introduction to Hispanic Literature*	SPW 3030	3
Special Topics*	SPW 4930	1-3

\* Courses taught in Spanish and may require prerequisites.

## CLASSICAL STUDIES UNDERGRADUATE CERTIFICATE

*(Minimum of 18 credits required)*

The certificate in Classical Studies, available to undergraduate students, is a multidisciplinary program in the ancient Greek and Roman foundations of Western culture. Program offerings include courses in history, philosophy, literature, languages, social and political theory, the arts, archaeology and rhetoric. In addition to courses that pertain directly to Greco-Roman antiquity, the curriculum includes select courses that treat the reception and influence of classical culture in later historical contexts, including

contemporary popular culture. The program will be especially valuable to students pursuing careers in law, medicine, the ministry, education or public service.

The Classical Studies Program welcomes students from any of FAU's colleges and those who have earned degrees elsewhere. Along with the certificate curriculum, the program also sponsors lectures by visiting scholars and other special events.

Complete one of the options below to earn the certificate:

**Option 1 (six courses):** Six lecture courses, at least three of which must be from the core list.

**Option 2 (six courses):** Two semesters of either Classical Greek or Latin and four lecture courses, at least two of which must be from the core list.

**Option 3 (six courses):** Two semesters of Classical Greek, two semesters of Latin and two courses from the core list.

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### Lecture Courses

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#### *Core Courses*

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Backgrounds for Literature	ENL 3425
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History of Greek Civilization	EUH 4403
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History of Roman Civilization	EUH 4411
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Special Topics*	FOL 4933
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Ancient Philosophy	PHH 3100
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#### *Elective Courses*

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Topics - Art History*	ARH 4930
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Special Topics*	LIT 4930
Special Topics*	POT 4932
Classical Rhetoric	SPC 3233
<b><i>Reception Courses</i></b>	
Medieval Literature	ENL 4210
Special Topics*	FRW 4930
History of Christianity to 1500	HIS 3432
Dante: The Commedia in Translation	ITT 4440
Seminar: Special Topics*	LIT 6934
Medieval and Renaissance Philosophy	PHH 3280
<b>Language Courses**</b>	
Beginning Classical Greek Language and Culture 1	GRE 1120
Beginning Classical Greek Language and Culture 2	GRE 1121
Beginning Latin 1	LAT 1120
Beginning Latin 2	LAT 1121

\* Check website link below for specific course title each term.

\*\* Language courses may be used to satisfy the University Foreign Language Graduation requirement.

## ENGLISH AS A SECOND LANGUAGE (ESL) STUDIES UNDERGRADUATE AND GRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The certificate in English as a Second Language (ESL) Studies is open to all undergraduate, graduate and nondegree students at FAU. The ESL Studies certificate aims to prepare those who wish to teach ESL in a variety of settings, in the United States or abroad.

ESL certificate courses taken to fulfill other degree requirements at FAU may be applied toward the certificate. For more information, visit this [website](#).

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### Required Courses (15 credits)

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#### ESL Certificate Undergraduate Program

Introduction to  
Linguistics

LIN 3010

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#### ESL Certificate Graduate Program

Principles of Linguistic  
Analysis

LIN 6135

Applied Linguistics and  
TESOL

TSL 4251

Applied Linguistics and  
TESOL

TSL 4251

*(choose any three of the following)*

*(choose any three of the following)*

Structure of Modern  
English

LIN 4680

Structure of Modern  
English

LIN 4680

Sociolinguistics

LIN 4600

Sociolinguistics

LIN 6601

Bilingualism

LIN 4620

Bilingualism

LIN 6622

Special Topics	LIN 4930	Second Language Acquisition	LIN 6720
Introduction to TESOL	TSL 4080	Research in Foreign Language Learning Theories	FLE 6892
		Intercultural Communication	SPC 6715
All courses must be completed with a grade of "C" or better and with an overall average of "B."		All courses must be completed with a grade of "B" or better.	

## **ETHICS, LAW AND SOCIETY**

### **UNDERGRADUATE CERTIFICATE**

*(Minimum of 15 credits required)*

The Ethics, Law and Society certificate program for undergraduate students encourages the study of normative and value issues in the humanities, social sciences and the arts. Ethical competence is becoming increasingly important in professional life. This certificate program is aimed at preprofessionals in law, health care and business as well as disciplinary majors. It may be advantageous for students who plan professional careers to be able to demonstrate formal training or interest in ethics. That aside, students are well served by examining the complex relationship between the normative enterprises of law, morality and politics.

Students are required to take five (3-credit) upper-division courses, earning a grade of "B" or better in each course, for a total of 15 credits with the following distribution.

#### **General Ethics (one course)**

Ethical Theory

PHI 4661

Moral Problems	PHI 3638
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**Philosophy (one course)**

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Philosophy of Law	PHM 3400
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Social and Political Theory	PHM 3200
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Philosophy of Sexuality	PHM 3020
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Feminist Philosophy	PHM 3123
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Biomedical Ethics or RI: Biomedical Ethics	PHI 4633
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Environmental Ethics	PHI 3640
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Ancient Philosophy	PHH 3100
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Medieval and Renaissance Philosophy	PHH 3280
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Late Modern Philosophy	PHH 4440
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**Political Science (two courses)**

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Law and American Society	POS 3691
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Constitutional Law: Government Powers and Limits	POS 4603
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Constitutional Law: Civil Rights and Liberties	POS 4604
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The Judicial Process	POS 4609
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U.S. Environmental Law and Policy	POS 4697
Ancient Political Thought	POT 4013
Modern Political Thought	POT 4054
International Law: Foundations and Institutions	INR 3403
International Law of Peace and Diplomacy	INR 3413
International Law of Armed Conflict	INR 3433
War and Peace	INR 4006
The Politics of Human Rights	INR 4075
<b>Course in a third discipline (one course)</b>	
History of American Immigration and Ethnicity	AMH 3530
Law in U.S. History	AMH 4558
The Civil Rights Movement	AMH 4575
Ethics and Architecture	ARC 4202
Conservation Biology	BSC 3052
Any Business Law course	BUL
Ethics and the Justice System	CCJ 4054

Issues in Criminal Law	CCJ 4931
Criminal Law and the Constitution	CJL 4064
Judicial Administration and the Criminal Courts	CJL 4510
News Media Ethics	COM 4621
Principles of Hospitality Law	HFT 3603
History of Human Rights	HIS 3204
The Holocaust	JST 4701
Mass Communication Law and Regulation	MMC 4200
Ethics in Nursing	NUR 4826
Administrative Process and Ethics	PAD 4604
Contemporary Social Theory	SYA 3120
Social Control and Deviance	SYP 3570
Gender and Society	SYD 3800
Class Status and Power	SYO 3530
Intersectional Feminist Politics in the U.S.	WST 4404
Gender-Based Violence and Social Movements	WST 3325

## ETHNIC STUDIES UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The Ethnic Studies certificate program is open to all degree-seeking undergraduate students and is designed to be taken concurrently with the student's major. Students who already hold a baccalaureate degree may pursue the certificate as a non-degree-seeking student or in conjunction with a second bachelor's degree. The program is especially appealing because courses may be counted toward other general and specific graduation requirements in the student's major. Likewise, courses taken to fulfill other requirements can be applied to the Ethnic Studies Program.

### Certificate Requirements

A student must earn a minimum of 15 credits in Ethnic Studies courses with a grade of "C" or better in each course in order to receive the certificate. Once satisfactorily completed, the certificate will be awarded and the student will receive a transcript notation designating completion of the program. Each student participating in the program must fulfill the following requirements:

1. Satisfactory completion of one of the Core Courses. See eligible Core Courses below.
2. Satisfactory completion of four Distribution Courses in at least three disciplines/departments. See eligible courses divided by discipline/department below.

### Curriculum

The curriculum of the Ethnic Studies certificate program offers students the outstanding benefits of an interdisciplinary education. Students have the option of choosing from a menu of courses that covers various aspects of ethnicity or various ethnicities. The curriculum is grounded in core courses devoted to the critical study of the main concepts and methodologies related to ethnicity. Besides focusing on these concepts, the courses examine different theories of ethnicity and race as well as other issues about the creation and legitimization of ethnicity emerging from its social and historical construction. Consistent with the viewpoint of the program, the core courses are taught from an interdisciplinary perspective.

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### Core Courses

*(select one of the following)*

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History of American Immigration and Ethnicity	AMH 3530	3
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Race and Ethnic Relations	SYD 3700	3
Minorities and the Media	MMC 3601	3
American Multicultural Discourse	SPC 3704	3
Intercultural Communication	SPC 3710	3
Gender, Race and Communication	SPC 4712	3
Ethnicity and Communication	SPC 4718	3
<b>Distribution Courses</b> <i>(select four of the following from at least three disciplines/departments)</i>		
<b><i>Anthropology</i></b>		
African-American Anthropology	ANT 4315	3
Cultures of South Asia	ANT 3361	3
Cultural Anthropology	ANT 4414	3
Gender and Culture	ANT 4302	3
Native-American Culture and Society	ANT 3312	3
<b><i>Communication</i></b>		
Storytelling in Popular Culture	COM 4703	3

***Curriculum and Instruction***

Education in a Multicultural Society	EDF 3610	3
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Introduction to Diversity for Educators	EDF 2085	3
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***English***

African-American Literature to 1895	AML 4604	3
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African-American Literature 1895-Present	AML 4607	3
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American-Indian Literature	AML 4640	3
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Asian-American Literatures	AML 4673	3
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Caribbean Literatures in English	LIT 4192	3
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Jewish-American Literature	AML 4663	3
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U.S. Latino/a Literatures	AML 4630	3
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***History***

African-American History to 1877	AMH 3571	3
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African-American History since 1877	AMH 3572	3
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The Civil Rights Movement	AMH 4575	3
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History of the Caribbean	LAH 4470	3
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Islamic History	ASH 3222	3
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Slavery and Abolition in the Americas	HIS 4451	3
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Women in Asian History	ASH 3384	3
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***Jewish Studies***

American-Jewish History, 1492-1990	JST 4415	3
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The Holocaust	JST 4701	3
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Classical Jewish Civilization	JST 3403	3
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***Languages, Linguistics, and Comparative Literature***

Introduction to Latin American Studies	LAS 2000	3
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Italian-American Cinema	ITT 3522	3
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***Music***

Ethnomusicology	MUH 3514	3
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Jazz in American Society	MUH 3801	3
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**Philosophy**

Africana Philosophy	PHP 3781	3
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***Political Science***

Comparative Politics: Middle East	CPO 4403	3
The Comparative Politics of Ethnic Conflict	CPO 4724	3
Religions and World Politics	CPO 3761	3
<b><i>Sociology</i></b>		
Self and Society	SYP 3110	3
Social Change	SYP 3400	3
<b><i>Women's Studies</i></b>		
Intersectional Feminist Politics in the U.S.	WST 4404	3

## **FILM AND CULTURE**

### **GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

This certificate program is available for master's and doctoral students. It provides a flexible curricular framework for an interdisciplinary focus on film and culture. The program is ideal for preparing graduate students in any department or college to write a thesis or dissertation in the area of film and culture studies or simply to demonstrate coherent knowledge for teaching or other purposes.

Admission to the Film and Culture Graduate Certificate is limited to students currently enrolled in a graduate program at Florida Atlantic University. Credits earned for graduate degree programs will also count for the certificate if approved by advisors in both programs. Requirements include the two core courses below and two graduate-level elective courses. Applications for the certificate should be submitted to the [certificate director](#) upon successful completion of the required courses with a minimum grade of "B" in each.

### **Required Core Courses**

Film Theory and Criticism	FIL 6807	3
Film History and Historiography	FIL 6026	3
<b>Recommended Electives (select two courses)*</b>		
Mass Media Theory	MMC 6408	3
Sex, Violence and Hollywood	WST 6339	3
Italian Culture through Film	ITT 6524	3
The Business of Motion Pictures	GEB 6055	3
Contemporary Motion Picture Business Management	GEB 6056	3
Special Topics in Spanish-American Literature	SPW 6939	3

\* Substitutions may be made with the approval of the certificate director.

## LITERARY TRANSLATION GRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The graduate certificate in Literary Translation, offered jointly by the English Department and the Department of Languages, Linguistics and Comparative Literature, offers students an opportunity to study and practice literary translation in more depth during the course of their studies. Literary translation is an increasingly in-demand vocation in the rapidly globalizing world. This certificate gives students tangible training in the field and acknowledgment of that training. Through directed coursework in the history and practice of translation, as well as through a capstone translation project, students gain knowledge and competency beyond that of their cohort who simply take a class or two in the field. Students typically work from Spanish, French, Italian, German or Hebrew into English or the

reverse. However, students are welcome to work in a wide variety of other languages. This is not a certificate in simultaneous interpretation, technical translation or any other type of non-literary translation.

## Certificate Requirements

### Coursework

(15 credits, no more than one of the required courses may be transferred from another institution, to be approved on a case-by-case basis).

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#### Required - Translation workshop

*(must be taken twice)*

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Translation Workshop	CRW 6024	3
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#### Required

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History and Theory of Translation	FOT 6807	3
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#### Required - Two of the following courses

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Foundations of Languages, Linguistics and Comparative Literature	FOL 6731C	3
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Topics in Translation Studies	FOT 6930C	3
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History of the English Language	LIN 6107	3
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### Capstone Project (LIT 6914) 0-3 credits

The final translation project usually is a continuation/expansion of a translation project on which the student has begun work during one of the translation workshops. The parameters of the project (page count, paratextual material, etc.) are decided upon by the student and the advisor. These projects are longer than a seminar paper but shorter than a thesis: 15-20 poems or 25-30 pages of prose. The project is supervised by a primary advisor and a secondary advisor who is an expert in the project's source

language. (Students most typically translate into their native language.) The student should consult the director of the certificate program for guidance in selecting advisors.

## **NONPROFIT EXECUTIVE LEADERSHIP GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

This 12-credit graduate certificate program is available to students who have completed an undergraduate degree. Students may enroll in this certificate program while pursuing a degree in another discipline at FAU or independent of other graduate work.

For admission to this certificate program, students should have a B average (3.0) at the graduate level or an overall undergraduate GPA of 3.0. Students not matriculating at FAU should complete a non-degree seeking student application through the Registrar's Office. Credits earned for graduate degree programs will also count for the certificate, if approved by advisors in both programs. Applications for the certificate should be submitted to the graduate (master's) programs coordinator in the School of Public Administration upon successful completion of the required courses with a minimum grade of "B" in each.

Requirements include the successful completion of four courses: two core courses and two electives chosen from the list below.

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### **Required Core Courses**

Introduction to Nonprofit Management	PAD 6142	3
Public Policy and Nonprofit Organizations	PAD 6143	3

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### **Recommended Electives (select two courses)\***

Public Leadership	PAD 6063	3
Organization and Administrative Behavior	PAD 6106	3

Volunteer Management in Nonprofit Organizations	PAD 6145	3
Governance in Nonprofit Organizations	PAD 6149	3
Legal and Ethical Issues in Nonprofit Organizations	PAD 6165	3
Human Resource Management for Nonprofits	PAD 6166	3
Management in Nonprofit Organizations	PAD 6168	3
Fundraising for Nonprofits	PAD 6206	3
Grant Writing and Project Management	PAD 6233	3
Financial Management for Nonprofit Managers	PAD 6260	3

\* Substitutions may be made with the approval of the graduate programs coordinator.

## PEACE, JUSTICE AND HUMAN RIGHTS UNDERGRADUATE MINOR UNDERGRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

The Peace, Justice and Human Rights (PJHR) minor and certificate are designed to provide an enriching educational experience for students interested in themes of peace, social justice and human rights. The minor and certificate have a tailored curriculum that allows students flexibility to design a program matching their personal interests and their academic and professional objectives. Graduates enter fields such as law, international relations, social and community work and education. The minor is available for degree-seeking students and the certificate is for non-degree-seeking students.

### **Requirements for the Certificate:**

Students who are non-degree-seeking may complete the PJHR certificate, which has the same requirements and offers the same tailored curriculum as the minor as noted below.

**Requirements for the Minor:**

1. 12 credits of coursework in the area of the minor.
2. 9 of the 12 credits must be upper-level credits.
3. At least 75 percent of all required credits must be completed at FAU.
4. Students completing the minor must have a minimum overall FAU GPA of 2.0 within the coursework required.

Students are required to complete 12 credits from the two categories of classes listed below. No more than 6 credits may be taken from any one department.

**Core Courses (6 credits required)**

Anthropology of Peace and Violence	ANT 4409	3
History of Human Rights	HIS 3204	3
Introduction to Peace Studies	PAX 3001	3
Rhetoric of Social Protest	SPC 4633	3
Special Topics (Human Rights)	SYA 4930	3

**Elective Courses (6 credits required)**

Human and Cultural Rights	ANT 4006	3
Ethics in Business	BUL 4443	3
Organized Crime and the Business of Drugs	CCJ 4642	3
Human Trafficking: A Global Justice Issue	CCJ 4694	3

International Criminal Justice Systems	CJE 4174	3
Global Development and Inequality of Nations	CPO 4033	3
The Comparative Politics of Ethnic Conflict	CPO 4724	3
Introduction to Diversity for Educators	EDF 2085	3
The Educated Citizen in a Global Context	EDF 2854	3
Equity Issues in Multicultural Education	EDF 3203	3
Educators in a Multicultural Society	EDF 3610	3
History of European Sexuality	EUH 4684	3
Radical Film, New Media and Social Movements	FIL 4058	3
International Law: Foundations and Institutions	INR 3403	3
International Organization	INR 3502	3
The Politics of Human Rights	INR 4075	3
Global Environmental Politics and Policies	INR 4350	3
Advanced Diplomacy	INR 4503	3
Literature of War	LIT 4605	3
International Communication	MMC 4301	3

Introduction to the Nonprofit Sector	PAD 4144	3
Diversity and Social Vulnerability in Public Safety Administration	PAD 4894	3
Special Topics	PAX 4930	3
Honors Ethics of Social Diversity	PHI 2642	3
Honors Biomedical Ethics	PHI 3633	3
Environmental Ethics	PHI 3640	3
Honors Ethics in Business, Government and Society	PHI 3653	3
Ethical Theory	PHI 4661	3
Philosophy of Law	PHM 3400	3
Honors Punishment	POS 2692	3
Family Violence	SOW 4141	3
Issues in Counseling Women	SOW 4357	3
Intercultural Communication	SPC 3710	3
Capstone in Communication and Civic Life	SPC 4271	3
Special Topics (Law)	SYA 4930	3
Globalization and Social Movements	SYP 3454	3

Globalization and Inequality	SYP 4453	3
Gender and Climate Change	WST 2351	3
Gender-Based Violence and Social Movements	WST 3325	3
Green Consciousness	WST 4349	3

## PROFESSIONAL AND TECHNICAL WRITING UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

Undergraduate students at FAU who wish to enhance their skills and experience in the field of professional writing should pursue the Professional and Technical Writing certificate (PTWC). This certificate offers an interdisciplinary approach to writing instruction and experience, with courses drawing from departments across the University, including English, Communications, Marketing, Management Information Systems, Business and Public Administration. Elective courses are designed to complement students' requirements within their majors, as well as provide students interested in writing and communication with additional, well-rounded training that they will need to succeed in today's digital workplace.

PTWC requirements include a final portfolio that demonstrates students' writing abilities, a required course in professional writing and an internship that includes real-world training in writing.

The certificate is awarded to students who complete 15 credits from the list of approved courses below and the portfolio requirement. The student will receive a transcript notation designating completion of the program. For more information, please visit the [PTWC webpage](#) or contact the [certificate director](#).

### Required Courses (6 credits)

Professional Writing	ENC 3213	3
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**OR**

Communicating Business Information	GEB 3213	3
<b>AND</b>		
English Internship	ENG 4940	3
<b>OR</b>		
Outside internship approved by CPTW director		3
<b>Elective Courses (9 credits, select three from list below)</b>		
Creative Writing	CRW 3010	3
Writing for the Technical Professions	ENC 2248	3
Advanced Exposition	ENC 3310	3
Principles of Research Writing	ENC 4138	3
Writing for Nonprofits	ENC 4354	3
Studies in Writing and Rhetoric	ENG 4020	3
Public and Community Relations	PUR 4411	3
Social Media and Web Technologies	ISM 4054	3
Creative Advertising Strategy: Concepts and Design	MAR 4334	3
Communication Skills for Public Managers	PAD 3438	3

Funding for Nonprofit Organizations	PAD 4202	3
Public Speaking	SPC 2608	3
One special topics class focused on professional communication or writing from any department, approved by the CPTW director		3

### Portfolio Requirement

Students must submit a final portfolio, including a résumé, a formal report, a job letter or other example of professional correspondence and one other professional writing sample. For more details on portfolio requirements and assessment, contact the PTWC Director, Julia Mason, at [jmason32@fau.edu](mailto:jmason32@fau.edu).

## PUBLIC ETHICS AND LEADERSHIP GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

This 12-credit graduate certificate program is available to students who have completed an undergraduate degree. Students may enroll in this certificate program while pursuing a graduate degree at FAU or independent of other graduate work.

For admission to this certificate program, students should have a B average (3.0) at the graduate level or an overall undergraduate GPA of 3.0. Students not matriculating at FAU should complete a non-degree seeking student application through the FAU Registrar's Office. Credits earned for graduate degree programs also count for the certificate, if approved by advisors in both programs. Applications for the certificate should be submitted to the graduate (master's) program coordinator in the School of Public Administration upon successful completion of the required courses with a minimum grade of "B" in each.

Requirements include the successful completion of four courses: two core courses and two elective courses chosen from the list below.

**Required Core Courses (6 credits)**

Public Leadership	PAD 6063	3
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Ethical and Legal Foundations in the Public Sector	PAD 6436	3
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**Elective Course Options (6 credits, select two courses)\***

Public Administration and Public Policy	PAD 6036	3
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Organization and Administrative Behavior	PAD 6106	3
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Legal and Ethical Issues in Nonprofit Organizations	PAD 6165	3
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Human Resource Management for Nonprofits	PAD 6166	3
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Public Budgeting and Finance	PAD 6227	3
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Financial Management for Nonprofit Managers	PAD 6260	3
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Strategic Planning in the Public Sector	PAD 6333	3
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Human Resource Management in the Public Sector	PAD 6417	3
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Special Topics	PAD 6931	3
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\* Substitutions may be made with the approval of the graduate (master's) programs coordinator.

**PUBLIC POLICY**  
**GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

This certificate program is available to master's and doctoral students. It provides a flexible curricular framework for a focus on public policy. The program is ideal for preparing graduate students in any department or college to demonstrate knowledge for future service in public policy implementation or analysis, or other purposes such as teaching.

Admission to the Public Policy Certificate program is limited to students currently enrolled in a graduate program at Florida Atlantic University. Credits earned for graduate degree programs will also count for the certificate, if approved by the advisors in both programs. Requirements include the successful completion of four courses (12 credits) with a minimum grade of "B" in each, chosen from the list below. Applications for the certificate program should be submitted to the graduate (master's) programs coordinator in the School of Public Administration upon successful completion of the required courses.

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**Select four courses\***

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Seminar in Administrative Policy Making	PAD 6035	3
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Public Administration and Public Policy	PAD 6036	3
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Public Policy and Nonprofit Organizations**	PAD 6143	3
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Public Finance and Policy Analysis	PAD 6205	3
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Program Review and Analysis**	PAD 6327	3
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Seminar in Policy Implementation	PAD 6365	3
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Public Policy Process	PAD 6385	3
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Regulation***	PAD 6612	3
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Special Topics (TBD)	PAD 6931	3
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\* Substitutions may be made with the approval of the graduate (master's) programs coordinator.

\*\* Has prerequisite.

\*\*\* Has policy course prerequisite.

## RELIGIOUS STUDIES UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The certificate in Religious Studies promotes the academic study of religion. Any degree-seeking undergraduate student in good standing may enroll. Recognizing the significance of religion within human culture, the program advocates constructive, critical analysis of religion, seeking to be as open-minded and pluralistic as possible. It does not sanction any specific religion, but strives to treat religion as similar to other social, political and cultural phenomena representative of the universal panorama of human culture. Because the program is interdisciplinary in orientation and scope, participating students are encouraged to take courses from several departments.

The certificate is awarded to students who complete 15 credits from a list of approved classes with a grade of "C" or higher. No more than two courses may be in the student's major. Two of these must be core courses, one course that focuses on methods for studying religion and one that focuses on the content of religion. The other courses may be selected from a list of approved electives that devote at least half of their content to religion.

The following classes meet the stated criteria:

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### **Core Courses (two courses required)**

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#### *Methods Courses (one course required)*

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Anthropology of Religion	ANT 3241	3
Old Testament	REL 3213	3
Philosophy of Religion	PHI 4700	3

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#### *Content Courses (one course required)*

History of Christianity to 1500	HIS 3432	3
History of Christianity since 1500	HIS 3434	3
History of Eastern Ideas	ASH 4600	3
History of Hasidism	JST 4464	3
Islamic History	ASH 3222	3
Reformation Europe	EUH 4144	3
Religion in America	AMH 4620	3
<b>Elective Courses (choose three from any of the above courses or from the list below)</b>		
History of East Asia	ASH 3300	3
The Holocaust	JST 4701	3
Jewish Wisdom	JST 3513	3
The Modern Middle East	ASH 3223	3
Religions and World Politics	CPO 3761	3

## UNDERGRADUATE RESEARCH UNDERGRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

To recognize undergraduate students' excellence in undergraduate research, the Office of Undergraduate Research and Inquiry (OURI) has established the [Undergraduate Research Certificate](#). Requirements for the Research Certificate include completion of 12 credits of research exposure, skill-building and intensive courses as well as dissemination of the outcomes of students' research and inquiry through a research presentation or exhibition.

## WOMEN, GENDER AND SEXUALITY STUDIES

The Center for Women, Gender and Sexuality Studies offers a variety of opportunities for students:

1. **Undergraduate [Minor in Women, Gender and Sexuality Studies](#)**

2. **Women, Gender and Sexuality Studies Concentration**

This concentration is available as part of the [B.A. in Interdisciplinary Studies](#).

3. **Women, Gender and Sexuality Studies Certificate**

This option is available to students who have completed an undergraduate degree and either want a graduate certificate while working toward an M.A. in another area, or want a graduate certificate independent of other graduate work. Successful students will complete four graduate courses for 12 credits. (Listed below.)

4. **Sexuality and Gender Education [Certificate](#)**

This is a collaborative certificate program between the Sandler School of Social Work and the Center for Women, Gender and Sexuality Studies. Details below.

5. **Master of Arts in Women, Gender and Sexuality Studies**

This option is a core of the Center for Women, Gender and Sexuality Studies and is explained in greater detail under department descriptions found [here](#).

6. **Women, Gender and Sexuality Studies courses available as electives**

This option is open to students throughout the University.

Each of the options above employs an interdisciplinary approach to gender-related issues. Students receive credit for specific courses in a variety of fields, including anthropology, criminal justice, communication, English, history, languages and linguistics, literature, nursing, political science, sociology, and of course, women's studies. The underlying goal of the Women, Gender and Sexuality Studies Program is to understand the broad range of experiences that reflect class, race, ethnicity, disability, sexual orientation and age and the interconnections that shape these experiences. The Women, Gender and Sexuality Studies Program prepares students to think critically about the political, social, economic and historical forces that shape women's and men's lives, along with responses through activism and advocacy.

Undergraduate students whose programs allow electives are encouraged to enroll in the center's course, Introduction to Women's Studies. Program faculty includes professors from many departments who stress student participation in colloquia, conferences, workshops and other engagements across disciplines.

For more information, contact the Center for Women, Gender and Sexuality Studies at 561-297-3865 or email [wsc@fau.edu](mailto:wsc@fau.edu).

## **WOMEN, GENDER AND SEXUALITY STUDIES** **GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The graduate certificate in Women, Gender and Sexuality Studies is available to students who have completed an undergraduate degree. There are two options available for students interested in the graduate certificate.

1. Students may enroll in the certificate program while pursuing a degree in another discipline.
2. Students may enroll in the certificate program independent of other graduate work.
3. Students will complete 12 credits of graduate courses, 3 credits of which should be taken from one of the Women's Studies core graduate courses.
4. At least 6 credits should be earned outside of a student's major for those students working toward a graduate degree.
5. Students may choose courses from a wide selection offered by departments throughout FAU.
6. Students must receive a grade of "B" or better.
7. Approval of courses from the Center for Women, Gender and Sexuality Studies should be obtained prior to enrolling.

## **SEXUALITY AND GENDER EDUCATION** **GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

This collaborative certificate program between the Sandler School of Social Work and the Center for Women, Gender, and Sexuality Studies is available for master's and doctoral students. It provides a

flexible curricular framework for a focus on Sexuality and Gender Studies within social work and related professions.

From a context that emphasizes the values of diversity, equity, inclusion and social justice, the Graduate Certificate in Sexuality and Gender Education (SAGE) is designed to prepare graduate students to acquire, integrate and apply knowledge of issues related to sex, sexuality and gender. For students pursuing clinical careers, the certificate is designed to provide credits toward certification as a sex therapist based on Florida Department of Health's current requirements as well as toward certification as a sex educator, counselor or therapist with the American Association of Sex Educators, Counselors, and Therapists (AASECT). For students pursuing other careers, the certificate offers the opportunity to demonstrate their knowledge of issues connected to service, facilitation, leadership and advocacy with vulnerable populations, especially marginalization related to sex, sexuality and gender.

Admission to the this certificate program is limited to students currently enrolled in any graduate program at Florida Atlantic University. Credits earned for graduate degree programs also count for the certificate if approved by advisors in both programs. Requirements include the two core courses below and two graduate-level elective courses, one from each program (SOW and WST). Applications for the Graduate Certificate should be submitted to the Director of the Center for Women, Gender, and Sexuality Studies upon successful completion of the required courses with a minimum grade of "B" in each. Advising for the SAGE Graduate Certificate is shared between the Director of Graduate Studies in the Center and the SAGE Coordinator at the School of Social Work.

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### **Required Core Courses**

Social Work and Human Sexuality	SOW 6153	3
Sexuality and Gender Studies	WST 6604	3

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### **Recommended Electives (choose two courses, one from each area)**

Conflict Resolution	SOW 6158	3
Ethical Issues in Contemporary Social Work Practice	SOW 6296	3
Social Work Practice with Survivors of Human Trafficking	SOW 6786	3
Special Topics (if applicable)	SOW 6930	3

Gender, Sexuality, Myth and Reality	WST 6306	3
Gender-Based Violence and Social Movements	WST 6327	3
Intersectional Feminist Politics in the U.S.	WST 6405	3
Feminist Theory and Praxis	WST 6564	3
Gender, Health and Power	WST 6615	3
Special Topics in Women's Studies	WST 6934	3
Feminization of Poverty	WST 6938	3

## DEPARTMENTS IN THE DOROTHY F. SCHMIDT COLLEGE OF ARTS AND LETTERS

The College includes the schools/departments/programs of Anthropology, Architecture, Communication and Multimedia Studies, Comparative Studies, English, History, Jewish Studies, Interdisciplinary Studies, Philosophy, Political Science, Public Administration, Sociology, Women, Gender and Sexuality Studies, and Languages, Linguistics and Comparative Literature. Three departments associated with the arts — Music, Theatre and Dance, and Visual Arts and Art History — are grouped under the heading of "School of the Arts."

## ANTHROPOLOGY

### Faculty:

Harris, M. S., Chair.; Brown, C. T.; Ellis, A.; Garriga-Lopez, A.; Martinez, V.; Napora, K.; Rynkiewich, K.

[Link to Master's Programs](#)

## ANTHROPOLOGY BACHELOR OF ARTS (B.A.)

*(Minimum of 120 credits required)*

The Anthropology Department offers an undergraduate program that provides a framework for understanding human cultures and societies through culture, archaeology, adaptation and evolution. The department also offers an [Honors Program](#) for qualified students and a [minor](#).

Anthropology prepares students for understanding the past and the present of a rapidly globalizing world by developing knowledge of contemporary national, ethnic and cultural complexities. Graduates with a major in Anthropology have a knowledge and understanding of the cultures of Western and non-Western peoples and are qualified to work in local, national and international agencies and the corporate world. An undergraduate degree in Anthropology provides the foundation for a graduate degree in Anthropology and any of the other social sciences. Students who have graduated with a degree in Anthropology from FAU have also gone on to graduate work in law, medicine, journalism, education and other graduate programs.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Outline of the Anthropology Major**

In addition to the College and University requirements, an Anthropology major must satisfy the following departmental requirements:

1. Three credits in an introductory course;
2. Six credits in biological anthropology courses (3000 level or above);
3. Six credits in archaeology courses (3000 level or above);
4. Six credits in sociocultural courses (3000 level or above);
5. Six credits in research methods courses;
6. Nine credits in electives (anthropology courses at the 3000 level or above from any of the subfields);

7. Thirty-six credits total in anthropology; a grade of "C" or better is required for a course in anthropology to count toward the major.

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### **Introductory Courses (3 credits)**

University Honors Seminar in Anthropology	ANT 1930	3
Introduction to Anthropology	ANT 2000	3
Frauds, Myths and Mysteries: Science and Pseudoscience in Archaeology	ANT 3016	3
Culture and Society	ANT 2410	3
Introduction to Biological Anthropology with Lab	ANT 2511&L	3
Anthropology Study Abroad	ANT 2952	1-6

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### **Upper-Division Courses (33 credits)**

#### ***Biological Anthropology Courses (6 credits minimum)***

Human Variation	ANT 3516	3
Human Evolution	ANT 3586	3
Environment and Disease	ANT 4463	3
Biological Anthropology	ANT 4514	3
Forensic Anthropology	ANT 4520	3
Primate Behavior	ANT 4552	3

Directed Independent Study	ANT 4905	1-3
Directed Independent Research	ANT 4917	1-3
Directed Independent Research (S/U)	ANT 4918	0-3
Special Topics	ANT 4930	1-3
Anthropology Study Abroad	ANT 4957	1-6
<i>Archaeology Courses (6 credits minimum)</i>		
Stones and Bones: Unearthing the Past	ANT 3114	3
Archaeology of Europe	ANT 3143	3
The Maya and Their Neighbors	ANT 3163	3
South America Before Columbus	ANT 3165	3
Real Archaeology	ANT 3190	3
Native-American Culture and Society	ANT 3312	3
Development of Ancient Civilization	ANT 4141	3
Florida Archaeology	ANT 4158	3
Directed Independent Study	ANT 4905	1-3
Directed Independent Research	ANT 4917	1-3

Directed Independent Research (S/U)	ANT 4918	0-3
Special Topics	ANT 4930	1-3
Anthropology Study Abroad	ANT 4957	1-6
<i>Sociocultural Anthropology Courses (6 credits minimum)</i>		
Peoples Around the World	ANT 3212	3
Anthropology of Religion	ANT 3241	3
Cultures of South Asia (WAC course)	ANT 3361	3
Anthropology of Film: An Introduction to Visual Anthropology	ANT 3391	3
Anthropological Linguistics	ANT 3610	3
Gender and Culture	ANT 4302	3
Human and Cultural Rights	ANT 4006	3
Economic Anthropology	ANT 4266	3
The Anthropology of Politics	ANT 4274	3
African-American Anthropology	ANT 4315	3
Asian Medical Systems	ANT 4365	3
Anthropology of Peace and Violence	ANT 4409	3

Social Anthropology	ANT 4412	3
Anthropology of Sex and Gender	ANT 4413	3
Cultural Anthropology	ANT 4414	3
Anthropology of Nature	ANT 4419	3
Systems and Institutions in Anthropological Perspective	ANT 4425	3
Psychological Anthropology	ANT 4433	3
Culture, Gender and Health	ANT 4469	3
Global Health and Culture	ANT 4480	3
Epidemics, Culture, Science and Policy	ANT 4532	3
Directed Independent Study	ANT 4905	1-3
Directed Independent Research	ANT 4917	1-3
Directed Independent Research (S/U)	ANT 4918	0-3
Special Topics	ANT 4930	1-3
Anthropology Study Abroad	ANT 4957	1-6
<b><i>Research Methods Courses (6 credits minimum)</i></b>		
Archaeological Research Methods	ANT 4116	3

Research Methods in Bioarchaeology	ANT 4192	3
Research Methods in Cultural Anthropology	ANT 4495	3
Ethnographic Fieldwork	ANT 4802	3-6
Fieldwork in Archaeology	ANT 4824	3-6
Directed Independent Study	ANT 4905	1-3
Directed Independent Research	ANT 4917	1-3
Directed Independent Research (S/U)	ANT 4918	0-3

### Foreign Language Requirement

Anthropology majors are required to take 8 credits of appropriate college-level courses in one modern foreign language. College-level transfer credits or credits earned through CLEP or Advanced Placement Examination may satisfy or be applied toward the foreign language requirement for graduation.

### Free Electives

The remaining credits of upper-division work are defined as free electives. Students are advised to select courses relevant to their interests in anthropology. STA 2023 (Introductory Statistics) is recommended for students interested in a quantitative approach to anthropology, and LIN 3010 is recommended as an introduction to linguistics.

Three elective credits from departments outside Anthropology, but taught by anthropologists at FAU (e.g., courses in Comparative Studies, History, Art History, Women, Gender and Sexuality Studies), may be substituted for the free- electives part of the major with permission of the Anthropology Department chair.

Many anthropology courses fulfill some requirements for interdisciplinary certificate programs at FAU, such as the Ethnic Studies, Women, Gender and Sexuality Studies, and Caribbean and Latin American Studies certificates.

## HONORS PROGRAM IN ANTHROPOLOGY

The Honors Program in Anthropology encourages students to engage in the subject more intensely and engage in significant original research while undergraduates. Because Anthropology is a field and laboratory science, students should seek opportunities, in consultation with their faculty advisor(s), to conduct or participate in original research.

### Admission Requirements

1. FAU students must have completed between 60 and 90 credits with an overall GPA of at least 3.5 and a GPA in Anthropology courses of at least 3.5.
2. Transfer students must complete 9 upper-division Anthropology credits with a GPA of at least 3.5 in those classes at FAU before they are eligible to apply for the Honors Program. Transfer students must also earn an overall GPA of at least 3.5 to be eligible for admission to the program.
3. Students should complete an application provided by the department, including a personal statement addressed to the chair of the department explaining why they seek honors in the field. Students should also solicit a letter from one Anthropology Department faculty member supporting their application. Completed applications will be reviewed by faculty. Admission to the Honors Program is contingent on approval by the department faculty.

### Standards for Maintaining Active Status

1. Once accepted, students must maintain a GPA of 3.5 overall and in the Anthropology major. Students may request a temporary probationary status for a semester in the Honors Program if their GPA falls below the required level. However, subsequent failure to raise the GPA will result in dismissal from the Honors Program.
2. Continued enrollment in the program is contingent upon strict adherence to the Code of Academic Integrity. Any violation of the Code will be grounds for dismissal from the Honors Program.

### Honors-Level Enrichment

To receive the designation of Honors in the Major, students in the program shall enhance their education in Anthropology by completing 39 credits in Anthropology courses and performing **at least three** of the following:

1. Interdisciplinary research as part of the Honors Thesis (see below);

2. Original research as part of the Honors Thesis;
3. Successful completion of Honors Compacts in at least two upper-division Anthropology courses;
4. Leadership, including, for example:
  - a. Documented service on an official University committee;
  - b. Documented service as an officer of an anthropology club, society or other organization, whether affiliated with FAU or not;
  - c. Documented service to the Department of Anthropology as, for example, chair or organizer of a research symposium or speakers' colloquium;
5. Documented field and laboratory experience such as:  
Attendance at a field school or participation as a laboratory assistant;
6. Documented civic engagement on anthropological issues in the public arena.

## Thesis Requirement

1. Students in the Honors Program must consult with at least one faculty member of their choice about their honors research prior to embarking on the research;
2. Students shall complete with a grade of "B+" or higher a minimum of a two-semester sequence (6 credits) of Honors Thesis in Anthropology (ANT 4972) culminating in the presentation of an honors thesis approved by the faculty;
3. Students shall defend the thesis research orally before the faculty;
4. Students shall publicly disseminate the results of their research, for example:
  - a. Through a poster or presentation at a conference or symposium, such as the FAU Undergraduate Research Symposium or a departmental symposium; or
  - b. Through submission of the manuscript of research report or article to a research journal, such as FAU's Undergraduate Research Journal.

Students will receive the designation "Honors in Anthropology" at the time of graduation upon satisfactory completion of the foregoing requirements if they also fulfill all normal distribution requirements for the Anthropology major and provided they have earned a GPA of at least 3.5 overall and a GPA of at least 3.5 in all Anthropology courses at graduation. Students who fail to meet any of these requirements, will receive credit for all work successfully completed but will not be certified as having received honors.

Students interested in the Honors Program in Anthropology should contact the chair of the Department of Anthropology.

## **ANTHROPOLOGY**

### **UNDERGRADUATE MINOR**

*(Minimum of 15 credits required)*

1. For students majoring in another field, a minor in Anthropology shall consist of a minimum of 15 credits in upper-division anthropology courses, earned in any five courses at the 3000 level or above.
2. A minimum of 12 credits must be taken in residence at FAU.
3. A grade of "C" or better is required for a course in anthropology to count toward the minor.

### **Anthropology Study Abroad Programs**

The Department of Anthropology participates in Florida Atlantic University's Study Abroad Programs and offers ANT 2952 and ANT 4957. The department also operates a Field School in Ecuador with programs in archaeology and ethnographic methods in which students may participate during the summer terms. To participate, students enroll in ANT 4802 or ANT 4824.

## **MASTER'S PROGRAMS**

### **ANTHROPOLOGY**

#### **MASTER OF ARTS (M.A.)**

*(Minimum of 30 credits required)*

The M.A. degree in Anthropology focuses on the interplay of method, data and theory in anthropology and allows for specialization in the subfields of cultural anthropology, biological anthropology or archaeology. The graduate program's emphasis is on the linkage of "materials" analysis (e.g., bone, shell, ceramic, lithic, interview/observational and behavioral data) to major schools of anthropological thought. The department's program aims to contextualize and advance the understanding of being human in the past and the present. The degree prepares students for doctoral work in anthropology.

### **Admission Requirements**

The applicant must have earned a baccalaureate degree from an accredited institution with a GPA of 3.0 or higher in the last 60 credits taken for that degree. The GRE is recommended but not required. The application requires (1) a Statement of Purpose and (2) two letters of recommendation sent directly to the department. The application must have the approval of the department. Where there is a

deficiency in a requirement for admission or some other problem, the applicant may be admitted conditionally as decided by the department.

## Degree Requirements

The M.A. curriculum requires completing a minimum of 30 credits and maintaining a 3.0 GPA in all coursework. The minimum passing grade in each course is "B."

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### Core Requirements - 19 credits minimum

Seminar in Anthropological Theory	ANG 6034	3
Proposal Development and Writing	ANG 6095	3
Seminar in Archaeology	ANG 6115	3
Seminar in Biological Anthropology	ANG 6587	3
Seminar in Cultural Anthropology	ANG 6490	3
Quantitative Reasoning in Anthropological Research	ANG 6486	3
Master's Thesis (may take multiple times)	ANG 6971	1-6

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### *Methods Requirement: At least one course from this list*

Research Methods in Archaeology	ANG 6199	3
Research Methods in Sociocultural Anthropology	ANG 6492	3
Research Methods in Bioarchaeology	ANG 6535	3

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### *At least 8 credits from this list*

Internship in Anthropology <i>(may take multiple times)</i>	ANG 5940	2-4
Advanced Anthropological Research 1	ANG 6090	3
Advanced Anthropological Research 2	ANG 6092	3
Directed Independent Study <i>(may take multiple times)</i>	ANG 6905	1-4
Special Topics	ANG 6930	1-3

Prior to registering for courses in the first semester of graduate study, the student must consult with the department's graduate advisor to determine the likely sequencing of coursework in the student's program.

The Admissions Committee may determine that the applicant must enroll in undergraduate anthropology courses as a condition for graduate work. These remedial courses are not applicable to graduate credit.

Students must demonstrate proficiency of a language appropriate to their field of specialization. Students can fulfill this requirement by completing a two-semester sequence in a language or a Reading for Research course (e.g., FRE/GER/SPN 5060). Alternatively, students may demonstrate proficiency in a language by examination as determined by the department.

A public thesis proposal defense is required. Work on the thesis is expected to begin upon successful defense of the proposed research. Students must be enrolled for a minimum of 1 or up to a maximum of 6 credits in ANG 6971 during the semesters they are working on the thesis and the semester in which they expect to graduate.

### **Admission to Candidacy**

After completion of the thesis proposal defense, a student is eligible for admission to candidacy. The student must file an approved Plan of Study form no later than the third semester of the student's program. In preparing the plan, the student should take professional objectives into consideration as well as all department and University requirements. A completed Research Compliance Verification

form must be attached to the Plan of Study form. After the plan has been filed, subsequent major changes must be approved by the chair of the department, the student's advisor and the dean of the Graduate College.

## **ANTHROPOLOGY**

### **MASTER OF ARTS IN TEACHING (M.A.T.)**

*(Minimum of 36 credits required)*

The Department of Anthropology also offers a Master of Arts in Teaching (M.A.T.) degree designed for any student wishing to prepare for teaching at the elementary, secondary or community college level. This program is particularly appropriate for current teachers who are looking to build anthropological knowledge into their curricula and advance their teaching credentials.

Admission requirements are the same as for the M.A. program. The M.A.T. total course requirements are 36 credits earned in core courses, pedagogy, DIS courses (6 credits), teaching internship (6 credits) and completion of a modified thesis (3 credits).

## **ART**

([Art](#) programs are listed following **Women, Gender and Sexuality Studies**, under **School of the Arts, Visual Arts and Art History**.)

## **ARTS AND HUMANITIES**

([Arts and Humanities](#) is listed under **Interdisciplinary Studies**.)

## **SCHOOL OF ARCHITECTURE**

### **Faculty:**

Choma, J., Director; Lyn, F. E., Associate Director; Abbate, A. J.; Bolojan, D.; Caldierón, J-M.; Camargo, D.; d'Anjou, P.; Granger, W.; Huber, J.; Ligler, H.; Rodgers, T.; Sandell, J.; Vermisso, E.; White, D.; Yousif, S.

The School of Architecture prepares students for the professional practice of architecture. Situated in

the broader context of the humanities and social sciences, the curriculum is composed of specialized courses in history, theory, technology and design communication built around a core of a progressive sequence of architectural design studios.

The School offers the Bachelor of Architecture (B.Arch.), an accredited first professional degree. It offers a preprofessional lower-division program and an upper-division professional degree program. Both are limited-access programs. The School also offers a minor in Architectural Studies.

For students interested in pursuing graduate-level studies in planning in addition to their professional degree in architecture, the School of Architecture and School of Urban and Regional Planning offer an Advanced Standing degree program. See the School of Urban and Regional Planning section for more information.

### **Program Accreditation**

In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture and the Doctor of Architecture. A program may be granted an eight-year, three-year or two-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may require a preprofessional undergraduate degree in architecture for admission. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

The School of Architecture offers the following NAAB-accredited degree program: B.Arch. (159 credits, undergraduate and graduate, as required). Next accreditation visit for all programs: 2025.

[Link to Architectural Studies Minor](#)

[Link to Advanced Standing Bachelor of Architecture/Master of Urban and Regional Planning Program](#)

## **ARCHITECTURE**

### **BACHELOR OF ARCHITECTURE (B.ARCH.)**

*(Minimum of 159 credits required)*

Lower-division courses are offered at the Boca Raton campus

Upper-division courses are offered at the Fort Lauderdale campus

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or state college or through equivalent coursework at another regionally accredited institution.

Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) . All prerequisite courses must be completed by the School's designated date or within the first year after transferring to FAU and before reaching senior status (90 total credits).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Application to Lower-Division Preprofessional Program**

Prior to applying to the School of Architecture, admission to the University is required. (Refer to the [Admissions section](#) of this catalog.)

### **Lower-Division Preprofessional Course Sequence**

In addition to the General Education requirements, the following courses are required.

*A minimum grade of "C" is required for each architecture (ARC-prefixed) course. A grade of "C-" or below does not meet this requirement. When a grade below a "C" is earned, the course will not count toward any portion of the 159-credit requirement.*

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#### **Year 1 (Freshman Level)**

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Architectural Design 1

ARC 1301

4

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Culture and Architecture	ARC 2208	3
Architectural Design 2	ARC 1302	4
Materials and Methods 1	ARC 2461	3
<b>Year 2 (Sophomore Level)</b>		
Architectural Design 3	ARC 2303	4
Architectural Theory 1	ARC 2201	3
Architectural Design 4	ARC 2304	4
Architectural Structures 1	ARC 2580	3
Methods of Calculus	MAC 2233	3
College Physics 1	PHY 2053	4

### Application to Upper-Division Professional Degree Program

The following students are eligible to apply to the professional degree program:

1. Students who have successfully completed the lower-division preprofessional program at Florida Atlantic University or equivalent coursework at any college or university;
2. Students with an approved Associate of Arts (A.A.) degree in Architecture from Broward College, Hillsborough Community College, Indian River State College, Miami Dade College, Palm Beach State College, St. Petersburg College or Valencia Community College;
3. Transfer students from an accredited degree program in architecture.
4. Transfer students from a preprofessional degree program in architecture.
5. Transfer students with international equivalency.

Students applying to the professional degree program with an approved A.A. preprofessional degree in Architecture or transfer students from an accredited program in architecture must submit evidence of having completed the necessary prerequisite courses or course equivalents. Course equivalents for in-

state colleges are determined by state guidelines. Course equivalence from other accredited programs is verified by faculty review of the corresponding published course descriptions and syllabi. Only grades of "C" or better are accepted for all required courses. Courses for which grades of "C-" or lower are indicated in official transcripts shall not be accepted for credit toward the 159-credit requirement.

Applicants with any portion of their education completed abroad must have their foreign credentials evaluated by an accredited independent evaluation service. This evaluation should reflect a course-by-course evaluation with a cumulative grade point average for each institution attended. The course descriptions and syllabi must be translated into English by such evaluation agency or by the institution from which the student is transferring. The National Association of Credential Evaluation Services ([www.NACES.org](http://www.NACES.org)) has a list of agencies. In addition, applicants with international academic backgrounds must demonstrate English proficiency by earning a minimum score of 550 on the Test of English as a Foreign Language (TOEFL). International applicants must also verify nation of citizenship with the appropriate documentation. Applicants who wish to transfer from out-of-state or international institutions must submit course descriptions from their institutions' catalog of each architecture, mathematics and physics course earned with a grade of "C" or better.

Transfer applicants seeking approval for equivalency or substitution of published courses in the curriculum at the 3000-4000 level, taken outside Florida's State University System, must submit copies of the original course syllabus and assignments. In addition, students must submit evidence of completed coursework (papers, exercises, drawings, examinations, etc.) demonstrating levels of accomplishment (understanding or ability) required for each course. The School of Architecture, at its sole discretion, may accept or deny equivalency or substitution of required courses based on reference to the Student Performance Criteria (SPC) for each course as determined by the faculty. In the event a course is denied, it may qualify for elective credits.

Applications to the School of Architecture are accepted only from students who have been accepted for admission to Florida Atlantic University. Applicants must demonstrate the potential to successfully complete the professional degree program. Admission and placement is determined by the faculty upon review of each application to ensure students have met all academic requirements through the demonstration of the following. The decision by the faculty to recommend admission and placement is final and may not be appealed.

1. Overall Grade Point Average (GPA);
2. TOEFL score of 550 or greater for students whose primary language is not English;
3. Official transcripts of academic records;
4. Copies of published course descriptions and syllabi for the purpose of determining conformance

of courses submitted as equivalent to the required courses in the curriculum;

5. Assigned sample of writing;
6. Portfolio of student work;
7. Completed application to the School of Architecture.

### **Automatic Admission into the Upper Division Bachelor of Architecture Program for Students from FAU Lower Division Foundations Pre-Architecture Program**

Any student currently or formerly registered in the FAU Lower Division Foundations Pre-Architecture program will be automatically accepted into the FAU Bachelor of Architecture Program if they meet the following qualifications:

- Successful completion of all courses listed below with a minimum grade of B:
  - ARC 1301 Architectural Design 1
  - ARC 1302 Architectural Design 2
  - ARC 2303 Architectural Design 3
  
- Successful completion of all courses listed below:
  - ARC 2208 Culture and Architecture: The Master Builder
  - ARC 2201 Architectural Theory 1
  - ARC 2461 Materials and Methods 1
  - MAC 2233 Methods of Calculus (or higher)
  - PHY 2053 College Physics (or higher)
  
- Cumulative GPA of 3.0 or higher.

In addition, the following courses must be successfully completed prior to enrollment in any Upper Division design studio:

- ARC 2304 Architectural Design 4
- ARC 2580 Architectural Structures 1

Successful completion is defined as a minimum grade of C or better for all ARC courses, MAC 2233 and

PHY 2053. Notifications of Automatic Admission will be sent in early February. Students who do not meet these qualifications must submit an application and portfolio for admission into the Upper Division Bachelor of Architecture Program.

## **Priority Consideration for Admission into the Upper Division Bachelor of Architecture Program For Applicants from the Florida State University System or Florida College System**

Any applicant who has completed coursework at an institution in the Florida State University System or the Florida College System, and who meets the requirements listed below may apply for Priority Consideration for Admission into the Bachelor of Architecture Program at FAU.

- Successful completion of the following courses with a minimum grade of B:
  - ARC 1301 Architectural Design 1
  - ARC 1302 Architectural Design 2
  - ARC 2303 Architectural Design 3
  - ARC 2208 Culture and Architecture: The Master Builder
  - ARC 2201 Architectural Theory 1
  - ARC 2461 Materials and Methods 1
  
- Successful completion of all courses listed below:
  - MAC 2233 Methods of Calculus (or higher)
  - PHY 2053 College Physics (or higher)
  
- Cumulative GPA of 3.2 or higher.

Successful completion is defined as a minimum grade of C or better for all ARC courses, MAC 2233 and

PHY 2053. Students who are offered Priority Consideration Admission will not be required to submit a portfolio. Students who do not meet these qualifications must submit an application and portfolio for admission into the Upper Division Bachelor of Architecture Program.

Students accepted under priority consideration must complete their AA degree prior to start of the Bachelor of Architecture program. In addition, the following courses must be successfully completed prior to enrollment in any Upper Division design studio:

- ARC 2304 Architectural Design 4
- ARC 2580 Architectural Structures 1

### **Deadlines for Priority Consideration Application**

The following Priority Consideration Application deadlines occur in early spring.

- Priority Consideration Application Submission – Mid January

- Decision Letters Sent – Early February
- Priority Deposit Submission to Reserve Position (non-refundable) – Early March

To view specific annual deadlines, see [Architecture Admissions](#).

### **Application Deadlines for Fall Enrollments**

School of Architecture applications, including portfolios, are due prior to the end of business on the last Friday of February.

### **Portfolio Submissions and Requirements**

Students applying for admission to the School of Architecture must submit a portfolio of work. Portfolios that are not submitted with the application shall not be accepted. Refer to the School of Architecture [Portfolio Submission Requirements](#).

### **Summer Admission Eligibility**

Students who have successfully completed all of the following prerequisites may be eligible for summer admission:

- ARC 1301 Architectural Design 1
- ARC 1302 Architectural Design 2
- ARC 2303 Architectural Design 3
- ARC 2304 Architectural Design 4
- ARC 2208 Culture and Architecture: The Master Builder
- ARC 2461 Materials and Methods 1
- ARC 2201 Architectural Theory 1
- ARC 2580 Architectural Structures 1
- PHY 2053 College Physics 1
- MAC 2233 Methods of Calculus
- ENC 1101 College Writing 1
- ENC 1102 College Writing 2
- All General Education requirements

Please contact an academic advisor for more information.

### **Upper-Division Professional Degree Course Sequence**

All students admitted to the B.Arch. program are expected to enter the professional course sequence with the ability to prepare graphic presentations utilizing normative, descriptive, architectural drawing techniques.

*A minimum grade of "C" is required for each architecture (ARC-prefixed) course, including electives. A grade of "C-" or below does not meet this requirement. When a grade below a "C" is earned, the course will not count toward any portion of the 159-credit requirement. The 159-credit requirement must be met by all students seeking the first professional B.Arch. degree.*

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### **Year 3 (Junior Level)**

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Architectural Visualization Methods 1	ARC 3133	3
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Architectural Design 5	ARC 3320	4
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Materials and Methods of Construction	ARC 3463	3
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Pre-Modern Architecture History and Theory	ARC 3710	3
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Site Planning and Engineering	ARC 3374	3
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Architectural Design 6	ARC 3321 <b>or</b>	
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Vertical Studio	ARC 4322	4
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Architectural Structures 2	ARC 3503	3
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Environmental Technology 1	ARC 3610	3
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Architectural Visualization Methods 2	ARC 3185C	3
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Architectural Research Methods and Analysis	ARC 3091	3
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### **Year 4 (Senior Level)**

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Architectural Theory	ARC 4219	3
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Architectural Design 7	ARC 4326 <b>or</b>	
Vertical Studio	ARC 4322	4
Modern Arch. History and Theory	ARC 4712	3
Architectural Design 8	ARC 4327 <b>or</b>	
Vertical Studio	ARC 4322	4
Environmental Technology 2	ARC 4620	3
Architectural Structures 3	ARC 4504	3
Electives		12

**Note:** Students may enroll once in ARC 4322, Vertical Studio, as a substitute for one of the following: ARC 3321, ARC 4326 or ARC 4327. Prerequisites and corequisites for each of the above courses must be passed with a grade of "C" or better. (See [Course Descriptions section](#) for ARC 3321, ARC 4326 and ARC 4327 for further information.)

### Year 5 (Thesis Level)

Advanced Architectural Design 1	ARC 5328	6
Professional Practice: Project Versus Practice	ARC 5271	1
Professional Practice: Craft and Collaboration in Design and Making	ARC 5272	1
Professional Practice: Financial and Business Management for the Practice of Architecture	ARC 5275	1

Professional Practice: Principles of Practice	ARC 5280	1
Professional Practice: Communication Methods for Design and Construction	ARC 5283	1
Professional Practice: Contractual Relationships and Risk Management	ARC 5287	1
Topical Design Studio	ARC 5352	6
Introduction to Urban Design	ARC 6305	3
Electives (3000, 4000, 5000 level)		12

### School of Architecture Student Handbook

Policies and protocols regarding registration, ethical conduct, discipline and other matters are found in the current edition of the *School of Architecture Student Handbook*. The School of Architecture may publish amendments and modifications as needed on an ongoing basis.

### Intellectual Property

Student work submitted to the School of Architecture to satisfy course or degree requirements is the property of the School. Students, as authors of the original work, retain all rights to the intellectual property of such work, including papers, drawings, models and other materials. At the discretion of the faculty, all student submissions may be retained, returned or discarded.

### Enhanced Learning Opportunities

The School of Architecture may organize field trips and travel study programs (domestic and international) to provide an opportunity to enrich the educational experience. While students are encouraged to participate in these activities, additional fees may apply. Students interested in international study opportunities should register with the Office of International Programs.

### Scholarships and Grants

The School of Architecture offers a number of stipends, grants and other financial assistance on an annual basis. Students are encouraged to apply. (See the School of Architecture Student Handbook for more information.)

## ARCHITECTURAL STUDIES UNDERGRADUATE MINOR

*(Minimum of 15 credits required)*

The undergraduate minor in Architectural Studies offers students the possibility to gain insight into the discipline of Architecture, broadening students' global backgrounds on the relationship between the built environments and cultural meaning. The minor is available to all full-time, degree-seeking FAU students, except those enrolled in the Pre-Architecture or Bachelor of Architecture programs. However, students transferring out of the Pre-Architecture or Bachelor of Architecture programs may opt to receive recognition for their efforts spent in the major by completing the requirements for the minor.

Students must complete 15 credits from the lists of courses below, with 9 credits required in upper-level courses. A grade of "C" or better is required for all courses taken in the minor. A minimum of 75 percent of all minor courses must be completed at FAU. To apply for the minor, students must complete an application and submit it to the Dorothy F. Schmidt College of Arts and Letters. The application may be submitted once the final course is in progress. The minor will be noted on students' transcripts.

**For completion of the undergraduate minor, the School of Architecture offers the following courses annually:**

Architectural Design 1	ARC 1301*	4
Architectural Design 2	ARC 1302*	4
Architectural Theory 1 <i>(instructor permission required)</i>	ARC 2201	3
Culture and Architecture: The Master Builder	ARC 2208	3
Architectural Design 3	ARC 2303*	4
Architectural Design 4	ARC 2304*	4

Materials and Methods 1 <i>(instructor permission required)</i>	ARC 2461	3
Architectural Research Methods and Analysis	ARC 3091	3
Architectural Visualization Methods 1	ARC 3133*	3
Pre-Modern Architectural History and Theory	ARC 3710	3
Architectural Theory	ARC 4219	3
Designing Safer Communities with CPTED	ARC 4384	3
* These courses are available only to students enrolled in the Pre-Architecture or Bachelor of Architecture programs and may count toward the minor for those students transferring out of either of those two programs.		
<b>Additional courses available for the minor appear below. These are offered on a rotation basis:</b>		
Color Material Space	ARC 4134	3
Ethics and Architecture	ARC 4202	3
Architectural Detail Generation	ARC 4482	3
Modern Architectural History and Theory 2	ARC 4712	3
Architects and Engineers: Histories of a Relationship	ARC 4742	3
Historic Preservation	ARC 4801	3
Special Topics	ARC 4930	1-6

Architecture and Urbanism Study Abroad	ARC 4950	3
Architecture Study Abroad	ARC 4955	1-6
Literature and Criticism in Architecture	ARC 5221	3
Sustainability and Tropical Architecture	ARC 6598	3

## ARCHITECTURE TO URBAN AND REGIONAL PLANNING

### BACHELOR OF ARCHITECTURE (B.ARCH.) TO MASTER OF URBAN AND REGIONAL PLANNING (M.U.R.P.) ADVANCED STANDING PROGRAM

This combined program is jointly offered by the Dorothy F. Schmidt College of Arts and Letters and the Charles E. Schmidt College of Science. For a complete description and all requirements for the B.Arch./M.U.R.P. Advanced Standing Program, see the program listing in the College of Science's [Department of Urban and Regional Planning](#) section.

## SCHOOL OF COMMUNICATION AND MULTIMEDIA STUDIES

### Faculty:

Mills, C., Director; Bargsten, J.; Charbonneau, S.; Darlington, P.; Durnell-Uwechue, N.; Eason, S.; Fejes, F.; Guneratne, A.; Heidt, S.; Hofmann, M.; Lewter, B.; McAfee, F.; Mulvaney, B.; O'Hara, T.; Pendakur, M.; Petrich, K.; Poole, D.; Prusher, I.; Reilly, S.; Robé, C.; Santaniello, N.; Scodari, C.; Sim, G.; Sobnosky, M.; Trapani, W.; Von Spalding, R.; Williams, D.; Winn, L.

### Mission

The mission of the FAU School of Communication and Multimedia Studies (SCMS), carried out through its courses, research and services, is to help provide the knowledge and skills that will allow students to understand and contribute to the increasingly communication- and media-oriented environment. Communication courses are designed to help students become: 1) more ethical, effective communicators in all contexts, from interpersonal to large public gatherings, print, radio, television, film and emerging technologies, and 2) more critical and analytical consumers of communication in all

its many aspects.

In the undergraduate program, the School offers a variety of liberal arts and technically oriented courses that cover theoretical, historical, multicultural, analytical, critical and performance approaches to communication processes and media. At the same time, the program allows students to emphasize areas of particular interest: communication studies; film and media, and multimedia journalism.

The School's overarching goal for its graduates is to provide them with a broad liberal arts education. Students will be afforded the opportunity to gain a technical and/or professional orientation sufficient to qualify them for a first job in any business or institution that needs employees who are effective communicators. Students will also be afforded the background needed to pursue further education in communication or related fields.

The School offers a B.A. in Communication Studies and a B.A. in Multimedia Studies with a concentration in Film and Media or a concentration in Multimedia Journalism. It also offers advanced degrees in Communication and Multimedia Studies, with an M.A. in Communication and an M.F.A. in Media, Technology and Entertainment. (The M.F.A. is currently on suspension and not accepting students.)

[Link to Minors](#)

[Link to Master's Programs](#)

## COMMUNICATION STUDIES BACHELOR OF ARTS (B.A.)

*(Minimum of 120 credits required)*

[Link to Multimedia Studies](#)

Students who enroll for a Bachelor of Arts degree with a major in Communication Studies must meet all University and Dorothy F. Schmidt College of Arts and Letters requirements. These include satisfactory completion of a total of 120 credits, 60 of which must be earned at a four-year college or university, and 8 credits in sequence in a single foreign language. **A student whose GPA falls below 2.0 will be dropped from the major. A GPA of 2.0 or higher is required to transfer to the major.**

The B.A. in Communication Studies is a problem-focused program that emphasizes contemporary cultural concerns while situating these within the broader historical context of communication and cultural theory. The purpose of the degree is to provide students with the awareness, knowledge, motivation and skills to develop communication strategies to address the problems of a global society, and the emphasis is on all forms of civic engagement. The program examines the strategic role that symbol systems play in constructing meaning in a fast-changing, information-based, media-saturated and culturally diverse world. Courses examine how meaning informs and persuades individuals, and introduce students to the history and theories of how communication operates in societies. The goals are for students to develop both high level oral and written communication skills and critical thinking and analytical problem-solving skills, and to become active in civic life.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

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### **Core**

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Introduction to Communication and Civic Life	COM 2053	3
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Senior Capstone: Capstone in Communication and Civic Life	SPC 4271	3
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### **Theory (three courses required)**

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Human Communication Theory	COM 3405	3
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New Media and Civic Discourse	COM 4603	3
Classical Rhetoric	SPC 3233	3
Contemporary Rhetoric	SPC 3235	3
Rhetorical Foundations of Publics and Counterpublics	SPC 3272	3
Rhetorical Theories of Persuasion	SPC 3542	3
Intercultural Theory	SPC 3717	3
<b>Methods (two courses required)</b>		
American Multicultural Discourse	SPC 3704	3
Rhetorical Analysis of Democracy (WAC course)	SPC 4273	3
Rhetoric of Argument (WAC course)	SPC 4517	3
Rhetorical Criticism (WAC course)	SPC 4680	3
<b>Communication Skills (two courses required)</b>		
Storytelling in Popular Culture	COM 4703	3
Interpersonal Communication	SPC 2300	3
Public Speaking	SPC 2608	3
Small Group Processes	SPC 3425	3

Argumentation and Debate	SPC 4513	3
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**Contexts (three courses required)**

Communication, Gender and Language	COM 3014	3
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Organizational Communication	COM 3120	3
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Conflict and Communication	COM 3462	3
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Political Communication	COM 3500	3
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Communication Internship	COM 3945	3
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Media and Sexual Identities	COM 4094	3
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Strategic Communication	COM 4150	3
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Corporate Communication	COM 4201	3
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Rhetoric and Aesthetics of Contemporary Culture	COM 4411	3
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Non-Verbal Communication in a Diverse Society	COM 4461	3
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Peace, Conflict and Oral Narrative	COM 4707	3
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Minorities and the Media	MMC 3601	3
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International Communication	MMC 4301	3
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Media, Representation and Diversity	MMC 4704	3
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Public and Community Relations	PUR 4411	3
Gender and Television	RTV 4412	3
Intercultural Communication	SPC 3710	3
Studies in Rhetoric	SPC 4232	3
Leadership and Communication	SPC 4443	3
Propaganda	SPC 4540	3
Rhetoric of Social Protest	SPC 4633	3
Gender, Race and Communication	SPC 4712	3
Ethnicity and Communication	SPC 4718	3

## **HONORS PROGRAM IN COMMUNICATION**

The Honors Program in Communication allows highly motivated and well-prepared students to pursue a course of study organized around a specific topic, area of interest or creative project. Students take a special sequence of courses both within and outside the School. In their last semester they complete a senior honors thesis or a senior honors project under the direction of a School faculty advisor.

## **MINORS**

### **COMMUNICATION STUDIES UNDERGRADUATE MINOR**

*(Minimum of 18 credits required)*

A minor in Communication Studies requires that the student complete both MMC 1540 and COM 2053 plus 12 credits in courses with COM, SPC or MMC prefixes, no less than 9 credits of which must be at

the 3000 level or above. At least 15 of the 18 credits must be taken at FAU.

## **FILM AND VIDEO** **UNDERGRADUATE MINOR**

*(Minimum of 16 credits required)*

The undergraduate minor in [Film and Video](#) gives students in any major the opportunity to bring together courses from several departments and colleges into a multidisciplinary curriculum emphasizing all aspects of film and video.

## **POLITICAL COMMUNICATION** **UNDERGRADUATE MINOR**

*(Minimum of 12 credits required)*

The undergraduate minor in [Political Communication](#) gives students in any major the opportunity to bring together courses from Communication and Multimedia Studies and Political Science into a multidisciplinary curriculum. Students are offered scholarly study of political networks as well as hands-on courses in political advocacy and campaigning.

## **PUBLIC RELATIONS** **UNDERGRADUATE MINOR**

*(Minimum of 15 credits required)*

The undergraduate minor in Public Relations provides students with a solid foundation of the principles and practices in the field of public relations. The minor helps prepare students for careers in publicity, promotion, public affairs, government relations and media relations.

This minor is open to all degree-seeking students and will be awarded upon completion of a bachelor's degree. A student who already holds a baccalaureate degree may pursue the minor in conjunction with a second bachelor's degree. All courses taken in the program may be counted toward other general and specific graduation requirements, and courses taken to fulfill other requirements may be applied to this minor.

Requirements for the minor include completion of five courses (15 credits) with a minimum grade of "C" and a 2.5 GPA. Students are required to take 12 credits from the required list with one elective option. At least 12 credits for the minor must be earned from FAU. In addition to the regular curriculum, other courses with significant attention to public relations may be approved by the SCMS director.

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### **Required Courses - 12 credits**

Communication Internship (or other approved elective)	COM 3945	3
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Corporate Communications	COM 4201	3
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Public Relations and the Press	PUR 3009	3
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Public and Community Relations	PUR 4411	3
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### **Elective Option - 3 credits; select one course from the following\***

Organizational Communication	COM 3120	3
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Strategic Communication	COM 4150	3
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Fundamentals of Multimedia	DIG 3110	3
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Photojournalism	JOU 4601	3
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Writing for the Media	MMC 2121C	3
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Intercultural Communication	SPC 3710	3
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\* or approved special topics course

## **SPORT STUDIES**

### **UNDERGRADUATE MINOR**

*(Minimum of 12 credits required)*

The undergraduate minor in [Sport Studies](#) gives students in any major the opportunity to bring together courses from across Arts and Letters to explore various aspects of sports and society that will help strengthen their ability to see sports not just as game, but as a significant aspect of modern society.

## **MULTIMEDIA STUDIES**

### **BACHELOR OF ARTS (.B.A.)**

**Film and Media Concentration**

**Multimedia Journalism Concentration**

*(Minimum of 120 credits required)*

Students who enroll for a Bachelor of Arts degree with Major in Multimedia Studies must choose one of two concentrations: the Film and Media concentration or the Multimedia Journalism concentration. In addition, students must meet all University and Dorothy F. Schmidt College of Arts and Letters requirements. These include satisfactory completion of a total of 120 credits, 60 of which must be earned at a four-year college or university, and 8 credits in sequence in a single foreign language.

**Students in the Multimedia Journalism concentration whose GPA falls below 2.0 will be dropped from the major. Students in the Film and Media concentration whose GPA falls below 2.5 will be dropped from the major. A GPA of 2.0 or higher is required for transfer to this major.**

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog

course description and a copy of the syllabus for assessment.

### **Film and Media Concentration**

The Film and Media concentration is a comprehensive curriculum that includes courses in media studies, media production, and digital media, including computer animation. Courses analyze the power and responsibility of American and international media from formal, historical, economic and ideological perspectives. This concentration is committed to helping students understand media texts in relation to the worlds they represent. Its course of study emphasizes not only the meanings of these texts, but also the processes by which these meanings are constructed and disseminated. The goal is to help undergraduates understand the study and creation of visual media within the larger contexts of human audiovisual and verbal expression and to shape students into sophisticated readers and producers of visual culture. Courses consider both mainstream and alternative media and include industrial and artistic approaches, linking production techniques and aesthetics to industry, history and politics.

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#### **Core - the following courses are required**

Digital Culture	DIG 2202	3
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Introduction to Media Studies	MMC 1540	3
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Introduction to Media Production	MMC 2130	3
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#### **Capstone - one course from the following**

Communication Internship	COM 3945	3
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Multimedia Practicum	VIC 4943	4
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#### **History - one course from the following required**

History and Theory of Computer Arts and Animation	DIG 4026	4
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Film to the 1940s	FIL 4036	4
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Film since the 1940s	FIL 4037	4
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**Practice Fundamentals - one course from the following required**

Fundamentals of Digital Media Practice	DIG 3110	4
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Fundamentals of 3D Computer Animation	DIG 3305C	4
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Digital Film Production	RTV 3531	4
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**Theory and Criticism - two courses from the following required**

Studies in New Media	COM 4332	3
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Film Appreciation	FIL 2000	3
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Film Theory	FIL 3803	3
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Film Criticism	FIL 4851	3
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Media Criticism	MMC 4501	3
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**Practice and History/Criticism - five courses from the following required, with a minimum of 15 credits)\***

*Practice*

Introduction to Game Programming	CAP 4028	3
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Digital Film Editing	DIG 3207	4
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Digital Audio Recording and Editing	DIG 3253C	4
Advanced 3D Computer Animation	DIG 3306C	4
Advanced 3D Computer Modeling for Animation	DIG 3323C	4
3D Video Game Design	DIG 3725C	3
Immersive Media for Games and Virtual Reality	DIG 3773C	3
Visual Design for Film, Animation and Games	DIG 4122C	4
Advanced Digital Compositing for Animation	DIG 4394C	4
Producing and Directing Fiction Film	DIG 4412	4
Scriptwriting	FIL 4106	4
Exhibition Practices in Film, Video and Media	FIL 4613	4
Production Management for Film and TV	FIL 4647	3
Interactive Digital Media	MMC 3711	4
New Media Narrative	MMC 4713	4
Television Production	RTV 3543C	4
Experimental Cinema	RTV 3229	4
Producing and Directing Documentary Film	RTV 3332C	4

*History and Criticism*

Media and Sexual Identities	COM 4094	3
Video Game Studies	DIG 4713	3
Women and Film	FIL 4056	3
Radical Film, New Media and Social Movements	FIL 4058	4
Traditions of Documentary Film	FIL 4364	4
Digital Documentary	FIL 4378	3
RI: Hollywood, Censorship and Regulation	FIL 4672	4
Studies in Asian Cinema	FIL 4843	3
Special Topics	FIL 4930	3
Cultural Study of Globality	IDS 4332	3
Minorities and the Media	MMC 3601	3
Media, Culture and Technology	MMC 4263	3
Media, Representation and Diversity	MMC 4704	3
Special Topics	MMC 4930	3
Gender and Television	RTV 4412	3

\* Courses listed in History, Theory and Criticism and Practice may be substituted in this category if

they are not used to fill other requirements.

### **Multimedia Journalism Concentration**

The Multimedia Journalism concentration prepares students to work in the new media convergence environment — where competition, deregulation and digital technology break down the barriers between print, radio, television and the Internet. Students are expected to develop strong basic writing and analytical skills. Then they are expected to become adept at writing and producing for multiple media platforms simultaneously, exhibiting the versatility necessary to succeed in a quickly evolving and growing media market, as well as to fully exercise the civic responsibilities of journalists for the lively functioning of democratic institutions.

Before enrolling in JOU 4181, Coverage of Public Affairs, students in the Multimedia Journalism concentration must take the Multimedia Journalism Skills Test (spelling, grammar and punctuation), which is offered at the University Testing and Certification Center every semester, or pass MMC 2121C with a minimum grade of "C." The test must be passed, may be taken a maximum of two times and may only be taken once in a given semester.

JOU 4181 thus serves as the gateway course to the next Multimedia Journalism Performance and Production courses in the curricular sequence: RTV 4301, Broadcast Journalism; JOU 4342, Multimedia Journalism; and the capstone course RTV 4304, Advanced Broadcast Journalism (or its “Disciplinary Core” alternative VIC 4943, Multimedia Practicum).

### **Required Credits for the B.A. in Multimedia Studies: Multimedia Journalism Concentration (120 credits):**

General Education Program (44 credits)

Multimedia Journalism Major (38 credits)

College of Arts and Letters Electives (12 credits)

Free Electives (26 credits)

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#### **Core (the following courses are required)**

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U.S. Journalism	JOU 4004	3
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Introduction to Media Studies	MMC 1540	3
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Public Opinion	MMC 4640	3
Multimedia Practicum	VIC 4943	4 <b>or</b>
Advanced Broadcast Journalism	RTV 4304	4
<b>Production (the following courses are required)</b>		
News and News Reporting	JOU 3101	3
Coverage of Public Affairs	JOU 4181	3
Multimedia Journalism	JOU 4342	3
Broadcast Journalism	RTV 4301	4
<b>Focus (select a minimum of 12 required credits from the list below)</b>		
Political Communication	COM 3500	3
Communication Internship	COM 3945	3
Studies in New Media	COM 4332	3
News Media Ethics	COM 4621	3
Fundamentals of Multimedia	DIG 3110	4
Web Research for Journalists	DIG 4820	3
Traditions of Documentary Film	FIL 4364	4

Feature and Freelance Writing	JOU 4308	3
Environmental Journalism	JOU 4314	3
International Reporting	JOU 4316	3
Photojournalism	JOU 4601	4
Special Topics	JOU 4930	3
Mass Communication Theory	MMC 3403	3
Mass Communication Law and Regulation	MMC 4200	3
Media, Culture and Technology	MMC 4263	3
Public and Community Relations	PUR 4411	3
Producing and Directing Documentary Film	RTV 3332C	4
Digital Film Production	RTV 3531	4
Television Production	RTV 3543C	4
U.S. Telecommunication Industry	RTV 4403	3
Intercultural Communication	SPC 3710	3

### **Communication Study Abroad**

Students may receive from 1 to 4 credits for participating in one of the many University-approved Study Abroad Programs offering courses relevant to the major.

### **Communication Internship**

Students may receive 3 credits for practical experience working 12 to 16 hours per week in a communication-related business or industry. The course culminates in a research paper or project in which the student evaluates the experience by methodologies learned in other communication courses. Students must have a minimum GPA of 2.5 overall and a GPA of 3.0 in the School. Permission from the SCMS is required.

## MASTER'S PROGRAMS

[Link to M.F.A. in Media, Technology and Entertainment](#)

### COMMUNICATION

#### MASTER OF ARTS (M.A.)

*(Minimum of 30 credits required)*

The central objective of the Master of Arts program in the School of Communication and Multimedia Studies is to equip students with historical, theoretical and critical knowledge of oral, written, visual and aural symbol systems, the institutions and processes that produce them and the audiences/readers who engage them. Emphasis is placed on research skills, the cultivation of original scholarship in communication and cognate fields and the critical examination of primary and secondary source materials. The goal is to enhance and focus students' ongoing or future efforts in communication-related professions or activities or to prepare them for doctoral studies and/or academic careers. For information, refer to [www.fau.edu/scms](http://www.fau.edu/scms).

#### Admission Requirements

1. Applicants should have:
  - a. A baccalaureate degree from an accredited institution;
  - b. A minimum 3.0 grade point average in the last 60 undergraduate credits attempted;
  - c. Competitive Graduate Record Exam (GRE) demonstrating strength in verbal, analytic and writing scores.
2. Applicants must submit a 500-word typewritten statement of their goals, aspirations and reasons for seeking the M.A. in Communication. Care should be taken to align educational and career goals with the program and faculty specialization offered by the School of Communication and Multimedia Studies.
3. Applicants must submit two letters of recommendation detailing academic abilities and

performance.

4. Applicants should submit a sample of their academic writing (no fewer than 3,000 words). The writing sample should exhibit sufficient depth and sophistication of thought as well as quality and clarity of writing so as to justify admission into the master's program.
5. International applicants must also meet the additional requirements listed elsewhere in this catalog.
6. Students need not have an undergraduate specialization in communication to apply for the M.A. program.
7. Deadline for applications (online and postmarked): September 1 for spring admissions and March 1 for fall admission.

### **Admission Requirements for Degree Candidacy**

A student may be admitted to candidacy for the degree of Master of Arts with Major in Communication after having satisfied the following requirements.

1. The student must complete 9 or more credits of graduate coursework in Communication with a GPA of 3.0 or better.
2. The student must complete all other College and University requirements.
3. The student must be recommended by the department and thesis supervisory committee.
4. The student must be formally accepted into the Master of Arts program by the SCMS. Non-degree-seeking, master's-level students are not permitted to enroll for more than 6 credits in SCMS courses without being formally accepted into the program.
5. If a student is awarded a graduate teaching assistantship, that student is required to enroll in COM 6944, Theory and Practice of Teaching Communication, in their first year of study.

### **Requirements for Degree, Thesis Option**

*(Minimum of 30 credits required)*

1. Nine credits of required courses:
  - a. COM 6400 (3 credits), Introduction to Graduate Studies in Communication;
  - b. COM 6424 (3 credits), Communication Theory;
  - c. COM 6318 (3 credits), Communication Research and Design.
2. Fifteen credits of approved electives, of which a minimum of 9 must be in Communication. Any coursework in a department other than Communication must be approved in writing by a Communication faculty advisor prior to enrollment.
3. Six credits of thesis research.
4. Courses taken to satisfy the foreign language requirement cannot be applied to the degree.
5. Submission of an approved thesis.

6. A minimum 3.0 GPA on all work completed.
7. A grade of "B" or higher on all credit applied to the degree.

### **Requirements for Degree, Non-Thesis Option**

*(Minimum of 30 credits required)*

1. Nine credits of required courses:
  - a. COM 6400 (3 credits), Introduction to Graduate Studies in Communication;
  - b. COM 6424 (3 credits), Communication Theory;
  - c. COM 6318 (3 credits), Communication Research and Design.
2. Twenty-one credits of elective courses, of which 21 must be in Communication. Any coursework in a department other than Communication must be approved in writing by a Communication faculty advisor prior to enrollment.
3. Satisfactory completion of a written comprehensive examination or professional project.
4. Courses taken to satisfy the foreign language requirement do not count toward the 30-credit degree requirement.
5. A minimum of 3.0 GPA on all work completed.
6. A grade of "B" or higher on all credit applied to the degree.
7. Additional requirements that the student's advisory committee may prescribe.

## **MEDIA, TECHNOLOGY AND ENTERTAINMENT MASTER OF FINE ARTS (M.F.A.)**

*(Minimum of 60 credits required)*

**The M.F.A. is currently on suspension and not accepting students.**

The Master of Fine Arts program in the School of Communication and Multimedia Studies is an interdisciplinary degree offered in collaboration with the Department of Electrical Engineering and Computer Science. The degree combines film, video, interactive media and computer animation faculty with computer science and engineering faculty to provide graduate students innovative approaches to digital entertainment that stretch creative and scientific boundaries. Students are challenged to think in artistic, scientific and industrial terms about: 1) innovative forms of digital media practice within film and video production, video gaming, web-based interactive media and mobile media; 2) new pipeline models for media production, such as 3D processing for film and game development; 3) practical applications, such as interface design, hardware and software, enhanced content delivery and ubiquitous computing.

The program is intended to prepare students for creative careers in the emerging field of digital media. The related entertainment industries along with the evolving interdisciplinary nature of the arts require a combination of skills from the traditional media of film and television. They also require a deep understanding of the effects of interactivity upon the quality of experience as well as grounding in the computer sciences to understand hardware build, coding, interface design and data delivery within multimedia systems. Therefore, the program emphasizes collaboration across the faculty and programs of Multimedia Studies and Computer Science and Engineering while envisioning expanded cross-disciplinary activities throughout the University. The fundamental philosophy of the program stresses creativity of expression, experimentation and excellence in execution as well as innovation in the field of entertainment technologies and an earnest appreciation of the fine arts.

With these goals in mind, students are able to develop a number of technical proficiencies within 2D and 3D computer animation; interactive, web-based and mobile media; video production and post production; multimedia integration and content delivery. Following a collaborative work model, students are also able to develop specializations within the program while learning to map their technical skill sets onto a broad range of industry settings and using a broad range of visualization strategies.

## **Admission Requirements**

1. A baccalaureate degree (B.A., B.F.A. or B.S.) from an accredited institution. Applicants will be drawn from a range of fields and should have an undergraduate degree in computer animation, new media, information technology, media arts, computer science and engineering or a related discipline with a 3.0 GPA.
2. Competitive Graduate Record Exam (GRE) scores.
3. In addition to a completed online application form submitted to the Graduate College, the applicant must submit items 4 through 8 to the degree program office.
4. A 500-word personal statement. The personal statement should articulate the applicant's areas of interest and compatibility of those interests with the M.F.A. program. The personal statement is an opportunity for the student to express his or her background and interest in the degree program; the statement will be read by the faculty panel as a measure of creativity, self-awareness and vision.
5. Writing sample. The writing sample is used to demonstrate the candidate's imagination; the candidate must describe an interactive media experience that has inspired him or her to enter the field, outlining the specific qualities that made the experience meaningful.

6. Portfolio list. The portfolio list is a record of the applicant's creative material; it should include a concise description of each project, the month and year of completion, the applicant's creative role and the purpose of the project. The material should give an idea of the range and depth of the candidate's creative ability, and formal recognition such as awards, publication, jobs and exhibitions should be noted. When listing creative materials prepared for a class or publication, the name of the institution or the publication should be included.
7. Creative work sample. The creative work sample is the portfolio that represents the candidate's best or most relevant work.
8. Letters of recommendation. A minimum of three letters of recommendation from a variety of sources are required; these may be from teachers and industry supervisors.
9. International applicants must also meet the additional requirements listed on the Graduate College website.
10. Applicants must submit all materials listed above no later than March 1 to be considered for fall enrollment. Exceptionally qualified applicants may be considered after that date at the discretion of the graduate faculty.

## Degree Requirements

The Master of Fine Arts is an intensive, two-plus year program that requires 60 credits, of which 42 are requirements, 12 are electives and 6 are thesis. As part of the required coursework, students must complete an advanced portfolio or present a creative digital media project that they design and produce on their own or as part of a team.

An overall GPA of at least 3.0 must be maintained in all coursework toward the degree and a minimum grade of 3.0 must be earned in all required courses. There is project work required each semester, and the degree cannot be completed in less than two years of four full-time semesters.

## Course Requirements

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### Core - 39 credits

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3D Production for Interactivity	DIG 6547	4
Graduate Media Technology Studio	DIG 6575L	4
Creating Interactive Culture	MMC 6707	4

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Portfolio Workshop (may be repeated)	DIG 6589	4
Survey in Digital Media Techniques	DIG 6436	4
Preproduction, Prototyping and Previsualization	DIG 6546	4
Studies in New Media	MMC 6715	4
Experimental Cinema <i>(may be replaced with alternate production course)</i>	FIL 6409	4
Interactive Interface Design	DIG 6605	4
<b>Master's Thesis - 9 credits</b>		
<i>Complete 9 credits from the following options</i>		
Master's Thesis <i>(may be taken over multiple terms)</i>	FIL, JOU, MMC, RTV, SPC 6971	1-6
<b>Electives - 12 credits</b>		
Exhibition Practices in Film, Video and New Media	ART 6684	4
Multimedia Systems	CAP 6010	3
Multimedia Programming	CAP 6018	3
Foundations of Vision	CAP 6411	3
Mobile Multimedia	CNT 6515	3

Video Communication	CNT 6885	3
Special Topics	COM 6931	3
Topics in Computer Science <i>(including Computer Animation, Cutting-Edge Web Technologies, iPhone Programming, Android Programming)</i>	COT 5930	3
Topics in Computer Science <i>(including Visual Information Retrieval)</i>	COT 6930	3
Video Processing	DIG 6645	3
Film Theory and Criticism	FIL 6807	3
Film History and Historiography	FIL 6026	3
Video Production Workshop	FIL 6365	4
Special Topics	FIL 6931	3
Studies in Film and Television	FIL 6935	3
Special Topics	JOU 6931	3
Special Topics <i>(including Video Game Studies)</i>	MMC 6931	3
Special Topics	RTV 6931	3
Special Topics	SPC 6931	3

*May select additional electives from the College of Engineering and Computer Science.*

For more details, visit the program's [website](#). Questions may be directed to Dr. Francis X. McAfee, Program Director, at [mcafee@fau.edu](mailto:mcafee@fau.edu).

## COMPARATIVE STUDIES

**Faculty:** E. Berlatsky, Director; Associated College Faculty

### **Definition of Comparative Studies**

Comparative Studies is the application of various approaches within the humanities, arts and social sciences to the study of significant issues. The Ph.D. in Comparative Studies also involves developing expertise in advanced interdisciplinary and multidisciplinary study: exploration of topics and materials from at least two traditional disciplines (e.g., political science and English literature; anthropology and history; art history, literature and communication). Students select a concentration from the following choices: [Culture, Society and Politics](#); [Cultures, Languages and Literatures](#); [Design, Aesthetics and the Arts](#); [Fine and Performing Arts](#); and [Public Intellectuals](#). The latter two concentrations are on hiatus and currently not accepting students.

## COMPARATIVE STUDIES DOCTOR OF PHILOSOPHY (PH.D.)

### **Concentrations:**

**Culture, Society and Politics**

**Cultures, Languages and Literatures**

**Design, Aesthetics and the Arts**

**Fine and Performing Arts**

**Public Intellectuals**

### **Admission Requirements (for all concentrations)**

1. A statement of intent that outlines the applicant's goals and objectives and how this interdisciplinary program can help the applicant achieve these.
2. A B.A., B.F.A., B.S., M.A., M.S., M.F.A., B.Arch, M.Arch, M.Des or M.M. degree. Students with other undergraduate or graduate degrees, such as M.B.A. or J.D., may also be considered. An applicant must submit a paper, approximately 20 pages in length and with scholarly

documentation, that will demonstrate the applicant's analytical and explanatory skills and command of the discipline in the area of the master's degree.

3. Three descriptive letters of recommendation, including at least two from professors whose course(s) the student has taken. These letters should be current and should attest to the applicant's intellectual qualifications for the Ph.D. in Comparative Studies.
4. Approval of Ph.D. executive committee.
5. It is recommended, but not required, that students submit competitive verbal, quantitative and analytic GRE scores from within the last five years.

## **Application Procedures**

1. Applications may be obtained from the Graduate College.
2. All application materials, including letter of intent, transcripts, three letters of reference and writing sample, should be sent to the Graduate College, Florida Atlantic University, Boca Raton, FL 33431.
3. Application deadline for Fall: January 15.

## **Culture, Society and Politics Concentration**

The Culture, Society and Politics concentration of the Ph.D. Program in Comparative Studies is designed to foster interdisciplinary and multidisciplinary study in the social sciences. It is structured to allow students the opportunity to develop deep expertise in one of three primary areas - sociology, anthropology or political science - and to bring their interests and scholarship related to these areas into conversation with other disciplines both within and outside of traditional social science fields. At the heart of the program is a commitment to the belief that comparative models of inquiry lead to unique advancements in the production *of* new knowledge and a greater awareness *of* the larger implications of such knowledge generally.

As an interdisciplinary and multidisciplinary program, the Comparative Studies: Culture, Society and Politics concentration draws on the strengths *of* the various departments in the Dorothy F. Schmidt College of Arts and Letters as well as the broader graduate programs of Florida Atlantic University. Areas of particular strength include: (Anthropology) sociocultural and medical anthropology; bioarchaeology, ethnoarchaeology, zooarchaeology and primatology; (Sociology) studies of gender, agriculture, adulthood, adolescence, childhood, race, social class and economics; (Political Science) comparative politics, American politics, international relations, public policy and law, post-conflict resolution, democracy and democratization, political behavior and quantitative methods.

The program is structured so that students follow a cohesive plan of study that includes both an

interdisciplinary social science core and, in close consultation with their advisory committees, the development of two specific areas of specialization that might themselves be multidisciplinary. The program encourages students to address issues in cultures, societies and/or politics from multiple perspectives and to seek the convergence of these perspectives through the insights of interdisciplinary approaches.

This program invites students to explore the interplay among cultures, societies and politics, as well as theories and methodologies, technologies and pedagogies. Toward this end, students are expected to attend Ph.D. Colloquia in addition to their formal coursework. While most graduates of the program will prepare for the challenge of the academy in an increasingly globalized society, others will prepare for a variety of non-academic opportunities, including positions in public and private organizations.

## Degree Requirements

### 1. Minimum Standards

Ph.D. students will take a minimum of 48 credits if matriculating with a master's degree or 78 credits if matriculating with a bachelor's degree, 24 of them at the 7000 level. The concentration requires a minimum 36 credits of coursework and 12 dissertation credits. No grade lower than "B" may apply to the degree. To continue in the program, students must maintain a "B" (3.0) grade point average on all work attempted toward the degree.

### 2. Distribution Requirements

For students entering with a bachelor's degree, completion of the following requirements along with all requirements for earning a Master's en Passant degree in their primary field of study (e.g., Anthropology, Communication and Multimedia Studies; Political Science, Sociology) are needed. Students entering with a bachelor's or master's degree are required to complete the following:

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#### Core - 12 credits

Theory and Criticism	CST 7309	3 credits
Research Design in Social Science	CST 7912	3 credits
Interdisciplinary Perspectives	CST 7936	6 credits

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#### Electives - 24 credits

*Select 24 credits at the 5000, 6000 or 7000 level, 15 of which must be concentrated in a program in the College of Arts and Letters. No more than 12 of the 24 credits may be at the 5000 level.*

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### **Research and Dissertation - 12 credits (minimum)**

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Advanced Research and Study <i>(as needed)</i>	CST 7910	1-9 credits
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Dissertation <i>(12 credits minimum, may be taken over multiple terms)</i>	CST 7980	12 credits
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### **3. Qualifying Exams**

Students begin the program as a Doctoral Student. After completing 18 credits of coursework in the distribution requirements for the program, students will be required to submit an Application for Qualification, which, if approved, will advance them to the status of Doctoral Scholar.

Through the application, the Ph.D. Executive Committee will review the applicant's current progress to date through the program, their skills as a scholar/researcher and their progress in planning for the Comprehensive Examination. After its review, the committee will make one of two decisions: to advance the student to Doctoral Scholar or to deny advancement. If advancement is denied, the student may choose to reapply one more time the following semester. Failure to be advanced will result in dismissal from the program.

### **4. Comprehensive Exams**

Comprehensive Exams consist of a written and oral component. In the semester after completing 32 graduate credits in the program, typically fall of Year 3, the student will take the Written Comprehensive Examination in the eighth week of the semester and the Oral Comprehensive Examination in the tenth week of the semester. The Comprehensive Examinations are administered and evaluated by the student's dissertation committee (see dissertation section below). In consultation with the student, the committee will compile a reading list from which the exams will be constructed. This list will not be based solely on the student's coursework, but will include as well readings that the exam committee deems foundational for the student's program of study. The successful completion of this written component is followed by the oral exam within two weeks, which examines, beyond the limits of the written exam, the extent of the student's mastery of the material. Students who fail the written exam may retake it one time only. Students who fail the oral exam may retake it one time only. Failure to pass either exam on the second

attempt will initiate the dismissal process from the program, consistent with the Provost's policy.

## 5. Satisfactory Completion of a Dissertation

By the end of the second year of coursework, the student will ask a faculty member to serve as the major professor for the dissertation. In consultation with the major professor, the student will ask at least two to three other faculty members to serve on the committee. The student will defend his/her Dissertation Prospectus the semester after passing the comprehensive examinations, typically at the beginning of spring in Year 3. The dissertation will contain original research and will be defended before the student's committee and others.

## Cultures, Languages and Literatures Concentration

The Cultures, Languages and Literatures concentration is an interdisciplinary and multidisciplinary course of study that enables doctoral students to develop expertise within traditional disciplines and across disciplinary and cultural boundaries. At the heart of the program is the recognition that cultures, languages and literatures are most fruitfully understood through comparative modes of analysis that include an ever-changing landscape of theory and methodologies.

This concentration is both interdisciplinary (the integration of different fields) and multidisciplinary (the comparative analyses of different fields), consistent with the original approved design of the Ph.D. in Comparative Studies. Primary areas of strength for this broadly based program include studies of literature and migration, rhetoric and composition, U.S. multiethnic literatures, early modern literatures, gender, sexuality and embodiment, modernity and postmodernity in literature, space and place in literature, and postcolonial literature and culture. The curriculum also draws from such disciplines as Anthropology, Art History, Communication, History, Peace Studies, Philosophy and Religion, Political Science, Sociology, Women, Gender and Sexuality Studies, among others.

This program promotes interdisciplinary and multidisciplinary work through a cohesive course of study. All students follow an interdisciplinary core curriculum before developing, in consultation with their advisory committees, areas of specialization which might themselves be multidisciplinary. Students are encouraged to address issues in cultures, languages and literatures from multiple perspectives and to seek the convergence of these perspectives through the insights of interdisciplinary interests.

This program invites students to explore the interplay among cultures, languages and literatures, as well as theories and methodologies, technologies and pedagogies. Toward this end, students will be expected to attend Ph.D. Colloquia in addition to their formal coursework. While most graduates of the

program will prepare for the challenge of the academy in an increasingly globalized society, others will prepare for a variety of non-academic opportunities, including positions in public and private organizations.

## Degree Requirements

### 1. Minimum Standards

Ph.D. students will take a minimum of 48 credits if matriculating with a master's degree or 78 credits if matriculating with a bachelor's degree, 24 of them at the 7000 level. The concentration requires a minimum 36 credits of coursework and 12 dissertation credits. No grade lower than "B" may apply to the degree. To continue in the program, students must maintain a "B" (3.0) grade point average on all work attempted toward the degree.

### 2. Distribution Requirements

For students entering with a bachelor's degree, completion of the following requirements along with all requirements for earning a Master's en Passant degree in their primary field of study (e.g., Communication and Multimedia Studies; English; Languages, Linguistics and Comparative Literature; or Women, Gender and Sexuality Studies) are needed. Students entering with a bachelor's or master's degree are required to complete the following:

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#### Core - 12 credits

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Theory and Criticism	CST 7309	6 credits
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Interdisciplinary Perspectives	CST 7936	6 credits
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#### Electives - 24 credits

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*Select 24 credits at the 5000, 6000 or 7000 level, 15 of which must be concentrated in a program in the College of Arts and Letters. No more than 12 of the 24 credits may be at the 5000 level.*

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#### Research and Dissertation - 12 credits (minimum)

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Advanced Research and Study (as needed)	CST 7910	1-9 credits
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Dissertation

CST 7980

12 credits

*(12 credits minimum may be taken over multiple terms)*

### 3. **Qualifying Exams**

Students begin the program as a Doctoral Student. After completing 18 credits of coursework in the distribution requirements for the program, students will be required to submit an Application for Qualification, which, if approved, will advance them to the status of Doctoral Scholar.

Through the application, the Ph.D. Executive Committee will review the applicant's current progress to date through the program, their skills as a scholar/researcher and their progress in planning for the Comprehensive Examination. After its review, the committee will make one of two decisions: to advance the student to Doctoral Scholar or to deny advancement. If advancement is denied, the student may choose to reapply one more time the following semester. Failure to be advanced will result in dismissal from the program.

### 4. **Comprehensive Exams**

Consist of a written and oral component. In the semester after completing 32 graduate credits in the program, typically fall of year three, the student will take the Written Qualifying Examination in the eighth week of the semester and the Oral Qualifying Examination in the tenth week of the semester. The Qualifying Examinations are administered and evaluated by the student's dissertation committee (see dissertation section below).

In consultation with the student, the committee will compile a reading list from which the exams will be constructed. This list will not be based solely on the student's coursework, but will include as well readings that the exam committee deems foundational for the student's program of study. The successful completion of this written component is followed by the oral exam within two weeks, which examines, beyond the limits of the written exam, the extent of the student's mastery of the material.

Students who fail the written exam may retake it one time only. Students who fail the oral exam may retake it one time only. Failure to pass either exam on the second attempt will initiate the dismissal process from the program, consistent with the Provost's policy.

### 5. **Language Requirement**

In a language other than English, the student must demonstrate working knowledge either by passing a written translation exam or by successfully completing (with a grade of "B" or better) a "reading for research" course at the graduate level, which does not count toward the required minimum credits for the Ph.D.

## 6. Satisfactory Completion of a Dissertation

By the end of the second year of course work, the student will ask a faculty member to serve as the major professor for the dissertation. In consultation with the major professor, the student will ask at least two to three other faculty members to serve on the committee. The student will defend his/her Dissertation Prospectus the semester after passing the comprehensive examinations, typically at the beginning of spring in year three. The dissertation will contain original research and will be defended before the student's committee and others.

## Design, Aesthetics and the Arts Concentration

The Design, Aesthetics and the Arts concentration of the Ph.D. Program in Comparative Studies is designed to foster interdisciplinary and multidisciplinary study in the philosophy/theory of aesthetics, design and the fine arts. It is structured to allow students the opportunity to develop deep expertise in these areas, through the disciplines of Philosophy, Design, Architecture, Visual Arts and Art History, Music, Film, Communication and Multimedia Studies, and Theatre, and to bring their interests and scholarship related to these areas into conversation with one another and with other disciplines. At the heart of the program is a commitment to the belief that comparative models of inquiry lead to unique advancements in the production of new knowledge and a greater awareness of the larger implications of such knowledge generally.

As an interdisciplinary and multidisciplinary program, the Design, Aesthetics and the Arts concentration draws on the strengths of the various departments and schools in the Dorothy F. Schmidt College of Arts and Letters, as well as the programs of the Shenkar College of Engineering and Design, with whom FAU has a Memo of Understanding (MOU), and the broader graduate programs of Florida Atlantic University.

The program is structured so that students follow a cohesive plan of study that includes both an interdisciplinary core in Design, Aesthetics and the Arts and, in close consultation with their advisory committees, the development of two specific areas of specialization that might themselves be multidisciplinary. The program encourages students to address issues in design, aesthetics and the arts from multiple perspectives and to seek the convergence of these perspectives through the insights of interdisciplinary approaches.

This program invites students to explore the interplay among and within design, aesthetics and fine arts cultures, as well as theories and methodologies and technologies and pedagogies. Toward this end, students are expected to attend Ph.D. Colloquia, when possible and available, in addition to their formal coursework. While many graduates of the program will prepare for the challenge of the academy in an

increasingly globalized society, others will prepare for a variety of non-academic opportunities, including positions in public and private organizations, companies or corporations.

## Degree Requirements

### 1. Minimum Standards

Ph.D. students will take a minimum of 48 credits if matriculating with a master's degree or 78 credits if matriculating with a bachelor's degree, 24 of them at the 7000 level. The concentration requires a minimum 36 credits of coursework and 12 dissertation credits. No grade lower than "B" may apply to the degree. To continue in the program, students must maintain a "B" (3.0) grade point average in all work attempted toward the degree.

### 2. Distribution Requirements

For students entering with a bachelor's degree, completion of the following requirements along with all requirements for earning a master's *en passant* degree in their primary field of study (e.g., Graphic Design, Music, Theatre), are needed. Students entering with a bachelor's or master's degree are required to complete the following courses.

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#### Core - 12 credits

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Theory and Criticism	CST 7309	6 credits
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Interdisciplinary Perspectives	CST 7936	6 credits
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#### Electives - 24 credits

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*Select 24 credits at the 5000, 6000 or 7000 level. No more than 12 of the 24 credits may be at the 5000 level.*

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#### Research and Dissertation - 12 credits (minimum)

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Advanced Research and Study (as needed)	CST 7910	1-9 credits
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Dissertation (12 credits minimum may be taken over multiple terms)	CST 7980	12 credits
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### **3. Qualifying Exams**

Students begin the program as a doctoral student. After completing 18 credits of coursework in the distribution requirements for the program, students will be required to submit an Application for Qualification, which, if approved, will advance them to the status of Doctoral Scholar. Through the application, the Ph.D. Executive Committee will review the applicant's current progress to date through the program, their skills as a scholar/researcher and their progress in planning for the Comprehensive Examination. After its review, the committee will make one of two decisions: to advance the student to Doctoral Scholar or to deny advancement. If advancement is denied, the student may choose to reapply one more time the following semester. Failure to be advanced will result in dismissal from the program.

### **4. Comprehensive Exams**

Comprehensive Exams consist of a written and oral component. In the semester after completing 32 graduate credits in the program, typically fall of Year 3, the student will typically take the Written Comprehensive Examination in the eighth week of the semester and the Oral Comprehensive Examination in the tenth week of the semester. The Comprehensive Examinations are usually administered and evaluated by the student's dissertation committee (see dissertation section below). In consultation with the student, the committee will compile a reading list from which the exams portfolio will be constructed. This list will not be based solely on the student's coursework, but also will include readings that the exam committee deems foundational for the student's program of study. The successful completion of this written component is followed by the oral exam within two weeks, which examines beyond the limits of the written exam, the extent of the student's mastery of the material. Students who fail the written exam may retake it one time only. Students who fail the oral exam may retake it one time only. Failure to pass either exam on the second attempt will initiate the dismissal process from the program, consistent with the Provost's policy.

### **5. Satisfactory Completion of a Dissertation**

By the end of the second year of coursework, the student will ask a faculty member to serve as the major professor for the exams and dissertation. In consultation with the major professor, the student will ask at least two to three other faculty members to serve on the committee. The student will defend his/her Dissertation Prospectus the semester after passing the comprehensive examinations, typically at the beginning of spring in Year 3. The dissertation will contain original research and will be defended before the student's committee and others. Because of the unique nature of this program, the dissertation may be traditional scholarship but will more likely be something more innovative. This will comprise theoretical or empirical research, as well as innovative/experimental research.

The proposed output for such a Ph.D. endeavor will feature:

1. Strong written element (either proto-monograph, three essays or combination), as well as
2. Audio-visual, interactive, spatial or performative elements.

Collaborative Ph.D. work will be allowed in special cases (with academic peers, unique professionals or high-profile experts, as deemed appropriate by Ph.D. committee).

## **Fine and Performing Arts Concentration**

**This program is on hiatus and currently not accepting students.**

The Fine and Performing Arts concentration in Comparative Studies provides a breadth of training and experience across the traditional divisions of the arts for those who already have developed professional skills in one or more areas, such as dance, music, theatre and/or the visual arts. The concentration offers a balance between a series of core courses and an individually prescribed curriculum. Analytical studies cover fundamental research resources and techniques as well as current theoretical trends in each discipline. Creative studies offer the opportunity to explore the ways in which each discipline expresses specific themes as well as the potential for creative communication through the integration of two or more of the arts. A course in the fundamental concepts and history of aesthetic theory is also a requirement for all students.

The goal of the program is to enable students to be conversant in the arts as a whole. To this end, all students are required to take traditional seminars in areas outside their chosen discipline. Over half the courses required for completion of the degree, however, are to be chosen by the student from among the offerings in Comparative Studies and other departmental listings with the guidance of an advisor and the approval of the Ph.D. committee. Comprehensive examinations are required for candidacy. Upon acceptance, a dissertation on a topic involving both analytical and creative aspects will allow students to develop a base of knowledge and a degree of flexibility useful both in the traditional and in the increasingly interdisciplinary academic world of the arts.

## **Curriculum**

The curriculum for the concentration in Fine and Performing Arts in Comparative Studies is organized as follows:

1. Five required core courses;
2. 24-27 credits of courses that address the primary, secondary and comparative areas of focus;

3. 12-15 credits of dissertation.

## Grading

The program's procedures for grading are as follows: "A," "A-": expected progress; "B+": improvement needed; "B": lowest passing grade.

## Admission Requirements

The following admission requirements are in addition to the admission requirements found at the beginning of this Comparative Studies section:

1. Four credits of or demonstration of an intermediate-level proficiency of one foreign language (may be met during Ph.D. study and must be met before admission to candidacy).
2. A portfolio, dossier or audition as specified by the School of the Arts, if appropriate.
3. A copy of the student's application to the Graduate College. Students should be aware that the Graduate College outlines its own set of admission requirements in addition to this program's admission requirements.
4. Résumé.

## Degree Requirements

### 1. Minimum Standards

Ph.D. students will take a minimum of 54 credits in courses in three areas: required core courses in comparative arts and aesthetics; seminars offered in music, theatre and the visual arts; and electives related to their area of focus. No grade lower than "B" may apply to the degree. To continue in the program, students must maintain a "B" (3.0) grade point average on all work attempted toward the degree.

### 2. Distribution Requirements

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Analytical and Creative Studies in the Arts

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Aesthetics and Philosophy of the Arts

6 credits

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Music Core: Concepts, Culture and Creation

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Theatre Core: Performance Theory and Practice

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Art Core: A Thematic Study

9 credits

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Studies in comparative, major or secondary areas (including at least 6 credits from the arts component of the Public Intellectuals program) 27 credits

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Dissertation 12 credits

### 3. **Comprehensive Exams**

Upon completion of coursework, the student takes a sequence of comprehensive exams: a written exam followed by an oral exam. Upon successful completion, the student qualifies to advance to candidacy.

### 4. **Language/Research**

The student must demonstrate working knowledge of a language other than English by successfully completing (with a grade of "B" or better) 4 credits, at the intermediate level or its equivalent, of one foreign language at the university level.

### 5. **Satisfactory Completion of a Dissertation**

## **Public Intellectuals Concentration**

**This program is on hiatus and currently not accepting students.**

The Public Intellectuals concentration is an interdisciplinary program for students interested in advanced study and life as a public intellectual. While "public intellectual" often connotes a famous name, public intellectuals also include journalists, artists, architects, legislators, clergy, museum curators, environmental planners, community organizers, as well as teachers and scholars whose work defines, shapes and influences public issues.

The program explores historical, conceptual and practical relationships among such areas as public policy, mass media, literature, aesthetics, ethics, gender studies, culture and rhetoric. Its goal is to combine theoretical with concrete analysis and to strive for this integration in every core course, producing students who are theoretically confident and knowledgeable about the world they hope to understand and change.

## **Curriculum**

The curriculum for the Public Intellectuals concentration in Comparative Studies is organized as follows:

1. Two semester-long required core courses;

2. Two courses in public intellectual theory and method;
3. A minimum of three courses in the student's concentration;
4. 15 credits in electives. These can be chosen from Comparative Studies courses or from other graduate programs in the University. A practicum, if undertaken, will count as elective credit, and the student's advisory committee will determine the degree of credit. Students undertaking a practicum before the completion of the program core courses and/or before establishing an advisory committee must have the practicum approved and credits established by the Ph.D. executive committee.

### **Public Intellectuals Program Paths of Study**

In addition to paths of study listed below, students may petition to design their own focus with the approval of the Public Intellectuals executive committee.

1. Global and Local: Movements and Transformations
2. Art, Literature and Culture(s)
3. Feminism, Gender and Sexuality
4. Technology, Environment and Society
5. Media and Communication
6. Peace Studies

### **Degree Requirements**

#### **1. Minimum Standards**

A Ph.D. student will take a minimum of 51 credits in courses in three areas: required core courses in Comparative Studies; the three 7000-level Comparative Studies courses that are the student's path of study; and electives from 7000-level courses or 6000-level courses within other departments and programs. No grade lower than "B" may apply to the degree. To continue in the program, students must maintain a "B" (3.0) grade point average on all work attempted toward the degree.

#### **2. Distribution Requirements**

Required Core Courses	6 credits
Public Intellectual Theory and Method Courses	6 credits
Student's Major Concentration	9 credits
Electives	15 credits

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Advanced Research and Study

3 credits

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Dissertation

12 credits

### 3. **Public Matters Core Course Sequence**

Students admitted to the program may take no more than 6 credits before registering in the core course sequence. Students who do not complete each course with a passing grade must retake and pass the course at its next offering in order to remain in good standing.

### 4. **Qualifying Exams**

Students begin the program as a Doctoral Student. After completing 18 credits of coursework in the distribution requirements for the program, students will be required to submit an Application for Qualification, which, if approved, will advance them to the status of Doctoral Scholar.

Through the application, the Ph.D. Executive Committee will review the applicant's current progress to date through the program, their skills as a scholar/researcher and their progress in planning for the Comprehensive Examination. After its review, the committee will make one of two decisions: to advance the student to Doctoral Scholar or to deny advancement. If advancement is denied, the student may choose to reapply one more time the following semester. Failure to be advanced will result in dismissal from the program.

### 5. **Comprehensive Exams**

Upon completion of coursework, the student takes a sequence of comprehensive exams: a written exam followed by an oral exam. Upon successful completion, the student qualifies to advance to candidacy.

The second exam is taken upon completion of the student's other coursework and is administered and evaluated by the student's advisory committee. The second exam is based on a dissertation proposal and a bibliography developed by the student and approved by the student's advisory committee.

Students who fail an exam may retake it one time only.

### 6. **Language/Research Tools Requirement**

Proficiency is required in the use of two research tools. At least one of these tools must be a language other than English demonstrating an intermediate level of proficiency. The other tool, if not a language, should be the demonstration of a skill relevant to life as a public intellectual, e.g., planning and organizing a public issue conference, publishing a substantial critical essay or

journalistic work in a public venue, or developing a media production or live performance. This skill must be approved by the program director.

## 7. Satisfactory Completion of a Dissertation

# ENGLISH

### Faculty:

Buckton, O., Chair; Adams, R.; Balkan, S.; Barrios, B.; Berlatsky, E.; Blakemore, S., Emeritus; Bucak, P.; Chenovick, C.; Dagbovie-Mullins, S.; Fox, R.; Furman, A.; Galin, J.; Hagood, T.; Hinshaw, W.; Klein, S.; Lettman, S.; Low, J., Emeritus; MacDonald, I.; Mason, J.; McGuirk, C., Emeritus; McKay, B.; Medina, D.; Miller, T.; Mitchell, S.; Murtaugh, D., Emeritus; Schwartz, J.; Scroggins, M., Emeritus; Stockard, E.; Taylor, T. J.; Thomas, C.; Ulin, J.; Vado, K.

### Instructors:

Amadori, C.; Blount, J.; Cassanetti, N.; Cervone, S.; Chasteen, N.; Cohen, J.; Criscuolo, M.; Fedden, V.; Fox, P.; Frost, T.; Gifford, S.; Gothard, A.; Jones, S.; Henson, J.; Kelly, W.; Kiley, E.; Miller, D.; Mullen, J.; Osborne-Parker, T.; Polak, K.; Potter, R.; Redman, F.; Rooney, S.; Salisbury, L.; Trewick, L.; Trotter, D.; Wedding, C.; White, J.; Zvolensky, J.

[Link to Master's Programs](#)

## ENGLISH

### BACHELOR OF ARTS (B.A.)

#### Professional and Creative Writing Concentration

*(Minimum of 120 credits required)*

English majors develop advanced skills in writing and critical interpretation that are valued by employers in a number of fields. They have established careers in law, medicine, entertainment, communications, information technology, journalism, speech writing, government, publishing and teaching.

All English majors acquire a broad background in literature in English taking courses that stress literary history, literary genres and the achievements of individual authors. Depending upon their particular interests, majors may also pursue a concentration in Professional and Creative Writing. The

Professional and Creative Writing concentration includes courses in both creative writing and rhetoric/composition. Creative writing courses focus on the writing of poetry, fiction and non-fiction. Rhetoric and composition courses focus on the professional, analytical, academic and theoretical dimensions of writing.

Qualified undergraduate majors may apply to the [Honors Program in English](#) or [Honors Program in Creative Writing](#). An [English Internship Program](#) and Secondary Education Program are also available.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Degree Requirements**

All courses listed below have as a prerequisite the successful completion of the English Composition sequence (ENC 1101 and ENC 1102, or their equivalents, with minimum grade of "C"). Grades in all courses taken in the major must average "C" or 2.0 or higher, and no course with a grade of "D+" or below will count toward the major. Students whose grades in major courses average below a "C" or 2.0 will not be able to graduate with an English major. Except where noted, courses cannot be counted twice. With these conditions being met, completion of the English major will require 39 credits drawn from the following:

### **English Undergraduate Curriculum (39 credits)**

(Courses cannot be counted twice.)

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**Introduction to Literary Studies**

ENG 3822

**3**

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(It is strongly recommended that students take this course concurrently with or before their first

upper-division English course. English majors should not take any more than three upper-division courses before taking ENG 3822.)

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**Criticism** **3**

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Literary Theory	LIT 3213	3
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Philosophy of Literature	PHI 3882	3
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**Literature\***

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(At least two courses must pay significant attention to literature before 1800. These courses are marked by \* below. No more than 6 credits at the 2000 level.)

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**Category 1: Literature of Ethnicity, Gender and Culture** **6**

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Florida Women Writers	AML 3264	3
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Florida Writers	AML 3265	3
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African-American Literature to 1895	AML 4604	3
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African-American Literature 1895 to Present	AML 4607	3
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U.S. Latino/a Literatures	AML 4630	3
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American-Indian Literature	AML 4640	3
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Jewish-American Literature	AML 4663	3
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Asian-American Literatures	AML 4673	3
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Irish Literature	LIT 3184	3
Comparative Literature	LIT 4061	3
Caribbean Literatures in English	LIT 4192	3
World Literature: Critical Approaches	LIT 4225	3
Postcolonial Literature	LIT 4233	3
Major Writers of World Literature in English	LIT 4244	3
Black Literatures	LIT 4355	3
Women and Literature	LIT 4383	3
Comparative European Romanticism	LIT 4604	3
Directed Independent Research	LIT 4915	1-3
Directed Independent Research	LIT 4916	0-3

*AML 4930, ENG 4932, ENL 4930 and LIT 4930 are Special Topics courses and may also count for this category if approved by the department.*

## **Category 2: American and British Literature & Specialized Subjects and Genre Studies 15**

American Literature to 1865	AML 2010	3
American Literature from 1865	AML 2020	3
American Novel: 19th Century	AML 3111	3

American Novel: 20th Century	AML 3121	3
Literature of the South	AML 3263	3
Colonial and Early American Literature	AML 4213	3
American Literature: 19th-Century Traditions	AML 4223	3
American Literature: 20th-Century Movements	AML 4242	3
Major American Writers: 19th Century	AML 4311	3
Major American Writers: 20th Century	AML 4321	3
Directed Independent Research	AML 4915	1-3
Directed Independent Research	AML 4916	0-3
Literature and Film	ENG 4114	3
British Literature to 1798	ENL 2012	3
British Literature since 1798	ENL 2022	3
British Novel: 18th Century*	ENL 3112	3
British Novel: 19th Century	ENL 3122	3
British Novel: 20th Century	ENL 3132	3
Backgrounds for British and American Literature	ENL 3425	3

Medieval Literature*	ENL 4210	3
Renaissance Literature*	ENL 4220	3
17th-Century Literature*	ENL 4221	3
18th-Century Literature*	ENL 4230	3
British Romanticism	ENL 4243	3
Victorian Literature	ENL 4251	3
Victorian Genres and Themes	ENL 4264	3
20th-Century British Literature	ENL 4273	3
Chaucer*	ENL 4311	3
Shakespeare*	ENL 4333	3
Milton*	ENL 4341	3
Directed Independent Research	ENL 4915	1-3
Directed Independent Research	ENL 4916	0-3
Modern Drama	LIT 3043	3
Fantasy Literature	LIT 3312	3
Science Fiction	LIT 3313	3

Literature of Adolescence	LIT 3333	3
Detective Fiction	LIT 3344	3
Literary Genres	LIT 4001	3
Modern Poetry	LIT 4032	3
Contemporary Drama	LIT 4094	3
Literature and Environment	LIT 4434	3
Literature and Social Movements	LIT 4484	3
Literature of War	LIT 4605	3
<i>AML 4930, ENG 4932, ENL 4930 and LIT 4930 are Special Topics courses and may also count for this category if approved by the department.</i>		
<b>Category 3: Writing and Rhetoric</b>		<b>3</b>
Advanced Exposition	ENC 3310	3
Professional Writing	ENC 3213	3
Principles of Research Writing	ENC 4138	3
Writing for Nonprofits	ENC 4354	3
Special Topics	ENC 4930	3
Directed Independent Research	ENC 4915	1-3

Directed Independent Research	ENC 4916	0-3
Studies in Writing and Rhetoric	ENG 4020	3
Creative Writing	CRW 3010	3
Fiction Workshop 1	CRW 4120	3
Fiction Workshop 2	CRW 4121	3
Creative Writing: Non-Fiction Writing	CRW 4211	3
Poetic Forms	CRW 4311	3
Poetry Workshop 1	CRW 4310	3
Poetry Workshop 2	CRW 4321	3
Literary Editing and Publishing	CRW 4723	3
Special Topics	CRW 4930	3
Honors Creative Writing Seminar	CRW 4932	3
Structure of Modern English	LIN 4680	3

**Category 4: Courses that may be taken from another department in Arts and Letters. Please see advisor for these courses.**

#### **Electives at 3000 level and above (9 credits)**

Students must complete an additional 9 credits, choosing courses from Categories 1-4. All must be earned at the 3000 or 4000 level. With departmental approval, 3 credits may be taken from another

department in the College of Arts and Letters, provided the course has an English disciplinary focus (e.g., SPT 4130, Latin American Literature in Translation). The department offers an internship, ENG 4940, a 1-6 credit course that also counts toward electives.

### Optional Area of Concentration in Professional and Creative Writing

Students interested in pursuing more specialized study in writing may wish to complete the Professional and Creative Writing concentration. While all B.A. English students are required to take 39 credits of introductory courses, courses in categories 1, 2, and 3, and electives, the distribution of credits required for the Professional and Creative Writing concentration emphasizes additional study and practice of various forms of composition.

### English Undergraduate Curriculum with Professional and Creative Writing Concentration - 39 credits

(Courses cannot be counted twice.)

Creative Writing	CRW 3013	3
Professional Writing	ENC 3213	3
<b>Literary Theory/Criticism</b>		<b>3</b>
Introduction to Literary Studies	ENG 3822	3
Literary Theory	LIT 3213	3
<b>Category 1: Literature of Ethnicity, Gender and Culture</b> ( <i>courses as offered above</i> )		<b>6</b>
<b>Category 2: American and British Literature, Specialized Subjects and Genre Studies</b> ( <i>courses as offered above</i> )		<b>6</b>
<b>Category 3: Writing and Rhetoric</b> ( <i>Courses as offered above. Students must choose 6 credits of Category 3 CRW courses and 6 credits of Category 3 ENC/ENG/LIT courses</i> )		<b>12</b>
<b>Electives</b>		<b>6</b>
<b>Total</b>		<b>39</b>

### Electives at 3000 level and above (6 credits)

Students must complete an additional 6 credits, choosing courses from Categories 1-4. All must be earned at the 3000 or 4000 level. With departmental approval, 3 credits may be taken from another department in the College of Arts and Letters, provided the course has an English disciplinary focus (e.g., SPT 4130, Latin American Literature in Translation). The department offers an internship, ENG 4940, a 1-6 credit course that also counts toward electives.

## HONORS PROGRAM IN ENGLISH

The Honors Program in English provides the opportunity for qualified majors to undertake advanced literary research in a community of their undergraduate peers. This program is especially recommended for students who plan to pursue a graduate degree in literary studies.

### Eligibility Requirements

1. Minimum overall GPA of 3.0 and a GPA of 3.5 or above in English major courses;
2. Completion of 60 credits, including at least 15 upper-division English major credits;
3. Completion of ENG 3822, Introduction to Literary Studies, or LIT 3212, Literary Theory (or, may petition to take either concurrently with the Honors Seminar).

### Application Requirements

1. A copy of the student's (unofficial) current transcript highlighting all English major courses;
2. A one-to-two page statement of purpose detailing why the student is applying to the Honors Program and describing the possible focus of the student's honors thesis;
3. A copy of a critical essay the student wrote for an English class that exemplifies the student's best work (no more than 10 pages). Please include the course name and instructor.

### Program Requirements

The English Honors Program entails taking two related courses (3 credits each) in the fall and spring and completing an honors thesis between 20-40 pages.

1. *Honors Seminar, ENG 4932*: Required for honors students but open to those interested in more advanced literary study. Allows students to synthesize the literary knowledge and critical skills gained in the English major. More intensive and interactive than the department's other courses and organized in ways that anticipate graduate-level courses. Topics of the seminar change from year to year. Offered once a year in the fall.
2. *RI: Honors Research, ENG 4910*: Facilitates the writing of the honors thesis, the final aim of the

course. Exposes students to the standards and best practices of research-level literary scholarship while also preparing the ground for the students' intended research topics. May include library research visits, presentations on different research and analytical methodologies and peer editing workshops. At the end of spring semester, students will present their theses at an Honors Research course event or the Undergraduate Research Symposium. Offered once a year in the spring.

*Students will receive the designation “Honors in English” at the time of graduation upon satisfactory completion of the following requirements:*

1. Fulfillment of all normal field distribution requirements for the English major;
2. Completion, with a grade of "B" or higher, of Honors Seminar and Honors Research;
3. Achievement of an overall GPA of at least 3.0 and a GPA of at least 3.5 in all English courses at the time of graduation;
4. Completion of a thesis of substance and quality that meets with the approval of the course instructor and/or thesis chair.

Students in the Honors Program in English who complete all requirements, but do not meet the GPA requirements for honors at the time of graduation, will receive credit for all work completed, but will not be certified as having received honors. Students who engage in academic dishonesty will be dismissed from the Honors Program and face additional penalties from the University.

For more information, contact Dr. Julieann Ulin at [julin@fau.edu](mailto:julin@fau.edu).

## HONORS PROGRAM IN CREATIVE WRITING

### Eligibility Requirements

1. Completion of at least 60 credits toward degree;
2. Successful completion of CRW 3010 (Creative Writing) and at least two 4000-level creative writing workshops. At least one of these workshops must be in the genre (poetry, fiction or creative nonfiction) for which the student is applying;
3. Minimum overall GPA of 3.0 with a minimum GPA of 3.5 in English major courses.

**Note:** Students who do not meet the GPA requirements or who have not taken a second 4000-level workshop may apply for the course and may be admitted to the program if their applications are considered strong enough. However, in order to receive the honors designation upon graduation, students must meet the GPA requirements.

### Application Requirements

1. A writing sample in the genre in which the student is applying (student's thesis will be written in that genre). For prose (fiction or creative nonfiction), please submit a minimum of 10 pages. For poetry, a minimum of 6 poems (each poem must start on a new page);
2. A brief (200-250 words) statement of intent explaining the student's interest in the program and what the student hopes to achieve in the program, with a cover sheet attached;
3. A copy of the student's (unofficial) current transcript with all English major courses highlighted.

### **Program Requirements**

The Honors Program in Creative Writing entails completion of the Honors Creative Writing Seminar, *CRW 4932*: This course provides a structured framework for students in the Honors Creative Writing Program to complete their honors thesis (either a work of fiction, nonfiction or a collection of poetry). Provides information about post-graduate opportunities for creative writers. Examines works of fiction, poetry and creative nonfiction in more depth and with more of an eye toward craft than may have been possible in previous coursework.

**Note:** Students will receive the designation “Honors in Creative Writing” at the time of graduation upon satisfactory completion of the following requirements:

1. Fulfillment of all normal field distribution requirements for the English major;
2. Completion of the Honors Creative Writing Seminar with a grade of “B” or higher, which includes the completion of a thesis of substance and quality that meets with the approval of the course instructor and a second faculty reader (assigned by the Department of English);
3. Achievement of an overall GPA of at least 3.0 and a GPA of at least 3.5 in all English courses at the time of graduation.

Students in the Honors Program in Creative Writing who complete all requirements, but do not meet the GPA requirements for honors at the time of graduation, will receive credit for all work completed, but will not be certified as having received honors. Students who engage in academic dishonesty will be dismissed from the Honors Program and face additional penalties from the University.

For more information, contact Dr. Becka McKay at [rmckay3@fau.edu](mailto:rmckay3@fau.edu).

## **ENGLISH** **UNDERGRADUATE MINOR**

*(Minimum of 15 credits required)*

Students majoring in any discipline other than English are eligible to minor in English. The minor encourages breadth of knowledge in literary studies and offers experience in critical analysis. Fifteen credits in English courses must be completed. Four out of five of these classes must be taken at Florida Atlantic University, and at least four out of the five classes must be taken in the English Department. If a course is taken outside of the English Department, it must be approved by the department and have a literary studies focus. English Education majors should note that no more than one course can count toward both the major and the English minor.

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### Course requirements (15 credits)

Introduction to Literary Studies (recommended)	ENG 3822	3 or
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Literary Theory	LIT 3213	3
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#### *One of the following four 2000-level survey courses:*

American Literature to 1865	AML 2010	3
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American Literature from 1865	AML 2020	3
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British Literature to 1798	ENL 2012	3
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British Literature since 1798	ENL 2022	3
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<i>One course from Category 1</i>		3
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*(See tables in [Bachelor of Arts with Major in English](#) above.)*

<i>Two upper-division courses, excluding ENC 3213</i>		6
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*(See tables in [Bachelor of Arts with Major in English](#) above.)*

### English Internship Program

Internships are extremely important for students pursuing careers related to English studies. The Department of English has developed a diverse internship program that allows students to gain hands-

on experience in a wide variety of settings.

The internship program is highly selective, not just in terms of academics, but also in terms of drive, hunger, and innovation. Internship agencies capture FAU's best talent, and many of the internships have become full-time paid positions for FAU students.

### **Eligibility Requirements**

1. The student must be an English major at Florida Atlantic University.
2. The student must be of junior or senior standing.
3. The student must be residing in Florida and available for frequent on-campus meetings at the university.
4. The student must have no less than a 3.0 overall grade point average AND a 3.0 in the English major.
5. The student must obtain and submit one letter of recommendation from an FAU English Department faculty member from whom s/he has taken a course. The recommendation should be emailed from the faculty member directly to the internship director.

**Note:** Some of the internship agencies require a cover letter and writing samples.

### **Secondary Education Program**

A program leading to teacher certification in English is available through the Department of [Curriculum and Instruction](#) in the College of Education.

## **MASTER'S PROGRAMS**

A program of study toward each degree will be designed upon beginning work toward the degree, and all work counting toward the degree must receive departmental approval beforehand. Courses may be allowed from other disciplines or departments when determined to be purposeful in the student's curriculum. The credits that the University allows as transfer from other institutions will be considered by the same criteria if they are to count as part of the coursework for the degree. Unless such exceptions are made, all work will be chosen from Department of English, the Dorothy F. Schmidt College of Arts and Letters offerings. No course with a grade below "B-" (2.67) will count toward the degree. A minimum GPA of 3.0 must be maintained for graduation.

### **Assistantships**

Graduate assistantships are awarded yearly on a competitive basis, selection being made in early spring

for the following fall. Duties include teaching, tutoring and/or research assistance. The award is for one year (two semesters), with the possibility of being recommended for renewal in a second year. Assistantship awards require students to be registered for 9 credits and include a stipend and a full tuition waiver, though students remain responsible for fees. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>. Since the department awards assistantships as both an opportunity to gain teaching experience and a means to progress steadily toward completion of the degree, other job commitments while holding the assistantship are discouraged.

[Link to M.F.A. in Creative Writing](#)

## ENGLISH

### MASTER OF ARTS (M.A.)

#### Rhetoric and Composition Concentration

#### Science Fiction and Fantasy Concentration

*(Minimum of 30 credits required)*

#### Admission Requirements

Admission to the program requires a minimum 3.0 grade point average in the last 60 credits of undergraduate work and a submitted copy of competitive GRE scores. In addition to coursework and test scores, the following are required: a writing sample (a scholarly paper for the literature program; creative work for the Creative Writing concentration), a statement of purpose (3-4 pages) outlining preparation for graduate study and two letters of recommendation.

The writing sample, statement of purpose, letters of recommendation and copies of the application form, official transcripts and GRE scores should be sent directly to the Graduate College. The deadline for M.A. applicants for summer and fall is January 15; for spring it is November 1. The deadline for Creative Writing M.F.A. applicants is January 15. The original application form as well as official transcripts and GRE scores should be sent to the Graduate College.

Applicants who do not have a bachelor's degree in English may be required to complete additional coursework in the field before beginning work that counts toward the master's degree.

#### Program Requirements

*Minimum of 30 credits:* The program requires 24 credits of graduate coursework and 6 credits of thesis

or comprehensive exam.

## **General Degree Requirements**

1. Research Methods for Advanced Literary Study (ENG 6009), required during the first term of graduate study or as soon thereafter as possible.
2. Literary Criticism 1 or 2 (ENG 5018 or 5019).
3. Thesis or comprehensive exam (6 credits).

## **Language Requirements**

Graduate students in the English M.A. program are required to demonstrate an ability to think about the workings of language through formal study, historical research or proficiency equivalent to a year of study. Students can fulfill this requirement in the following ways:

1. LIN 6107: History of the English Language. Students who opt to take LIN 6107 as their language requirement may also count this course toward their degree. -
2. Two semesters of college-level coursework of a language other than English.
3. Readings for Research (FRE/GER/SPN 5060) offered by FAU's Department of Languages, Linguistics and Comparative Literature or an approved equivalent outside course.
4. Passing a Foreign Language Achievement Test (FLATS) or College-Level Examination Program (CLEP) to demonstrate proficiency in a foreign language.

## **Historical Degree Requirements**

1. One Medieval and/or Early Modern (pre-1699) course.
2. One 18th and/or 19th century (1700-1899) course.
3. One 20th and/or 21st century (1900-present) course.

## **Areas of Concentration**

The department offers two concentrations for students who would like to specialize in Rhetoric and Composition or Science Fiction and Fantasy.

### **Rhetoric and Composition Concentration**

In addition to the two required courses and three historical coverage requirements identified under the headings of General and Historical Degree Requirements, the student will plan, under advisement, a program in Rhetoric and Composition including three courses in the area of specialization. The concentration culminates in a thesis or comprehensive exam within the area of specialization.

### **Science Fiction and Fantasy Concentration**

In addition to the two required courses and three historical coverage requirements identified under the headings of General and Historical Degree Requirements, the student will plan, under advisement, a program in Science Fiction and Fantasy including three courses in the area of specialization (one or more of these courses will also fulfill the period-specific requirements). The concentration culminates in a thesis or comprehensive exam within the area of specialization.

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### Core - 6 credits

Literary Criticism 1	ENG 5018	3 or
Literary Criticism 2	ENG 5019	3
Research Methods for Advanced Literary Study	ENG 6009	3

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### Electives - 18 credits

Select credits at the 5000 or 6000 level with the prefix of AML, ENC, ENG, ENL or LIT. Must include the 9 credits of required Historical courses (pre-1700, 1700-1900, 1900-present) noted above in Historical Degree Requirements.

Thesis or Exam		6
Master's Thesis <i>(may be taken over two terms)</i>	AML / ENC / ENG / ENL / LIT 6971	6 or
Reading for Comprehensive Exams <i>(may be taken over two terms)</i>	LIT 6900	1-6

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### Rhetoric and Composition Concentration

Must complete 9 credits at the 5000 or 6000 level with course prefix of ENC. These 9 credits cannot include Master's Thesis (XXX 6971).

## Science Fiction and Fantasy Concentration

Must complete 9 credits of Science Fiction and Fantasy coursework at the 5000 or 6000 level from the Department of English. This coursework can meet historical requirements. Coursework cannot include Master's Thesis (XXX 6971) or Reading for Comprehensive Exams (LIT 6900).

## CREATIVE WRITING

### MASTER OF FINE ARTS (M.F.A.)

*(Minimum of 48 credits required)*

#### Program Requirements

The program requires 42 credits of graduate coursework and 6 credits of thesis.

The student selects, under advisement, seven courses in creative writing (typically workshops), six courses from the areas of literature, theory and rhetoric, and ENG 6009, Research Methods for Advanced Literary Study. Creative writing courses include the following, and can be repeated for credit: CRW 5025, Creative Writing Workshop; CRW 6024, Creative Writing: Genre and Form; CRW 6130, Workshop: Fiction Writing; CRW 6236, Creative Non-Fiction Workshop; CRW 6331, Workshop: Poetry Writing. This program does not have a language requirement.

#### Core - 3 credits

Research Methods for Advanced Literary Study	ENG 6009	3
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#### Select 21 credits from the following courses

Creative Writing Workshop <i>(may be repeated)</i>	CRW 5025	3
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Creative Writing: Genre and Form <i>(may be repeated)</i>	CRW 6024	3
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Workshop: Fiction Writing <i>(may be repeated)</i>	CRW 6130	3
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Creative Non-Fiction Writing <i>(may be repeated)</i>	CRW 6236	3
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Workshop: Poetry Writing ( <i>may be repeated</i> )	CRW 6331	3
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### Electives - 18 credits

Select 6 courses (18 credits) at the 5000 or 6000 level from the Department of English, excluding CRW 5025, 6024, 6130, 6236, 6331

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### Thesis - 6 credits

Master's Thesis ( <i>may be completed over two terms</i> )	CRW 6971	1-6
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## HISTORY

### Faculty:

Kanter, D., Chair; Bennett, E.; Cunningham, C.; Dalin, M.; Dunlea, C.; Engle, S.; Finucane, A.; Ganson, B.; Hanne, E.; Holloway, K.; Kollander, P.; Lowe, B., McGetchin, D.; Mitton, S.; Norman, S.; Rose, M.; Scott, J.; Shannon, K.; Sharples, J.; Weinberg, E.

History majors use the study of the past to make sense of a complicated world. Developing insights into past human experiences prepares students for a wide variety of fields, including law, teaching, public history, business, government, communication and even medicine. Professions and professional schools in today's world look for applicants who have broad interests and backgrounds and analytical and verbal skills rather than narrow field specialization. History is a flexible and broad discipline and majors learn how to think critically, evaluate evidence and write with clarity and strength. Students interested in the Bachelor of Arts degree may pursue the traditional major or the major and one concentration. [Concentrations](#) available include Africana History, British History, Legal History and Religious History as detailed below. An undergraduate [Honors Program in History](#) program and a [minor in History](#) are also available. Two combined programs are offered, which allow students to earn a bachelor's and master's degree in as little as five years. In the graduate area, the department offers a Master of Arts degree.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and

major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

[Link to Combined B.A./M.A. Programs](#)

[Link to Master's Program](#)

## **HISTORY**

### **BACHELOR OF ARTS (B.A.)**

**Africana History Concentration**

**British History Concentration**

**Legal History Concentration**

**Religious History Concentration**

*(Minimum of 120 credits required)*

In addition to other requirements as stipulated by the University and the College, the student pursuing a Bachelor of Arts Degree in History will be required to complete a minimum of 42 credits, including two 3-credit survey courses in World history (WOH) and U.S. history (AMH) (e.g., either WOH 2012 or WOH 2022 and either AMH 2010 or AMH 2020), a course in historical methods (HIS 3150) and senior seminar (HIS 4935) selected from courses listed in the tables below.

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#### **Basic Courses (12 credits)**

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*One of the following WOH courses*

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History of Civilization 1

WOH 2012

**3 or**

History of Civilization 2	WOH 2022	3
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*One of the following AMH courses*

U.S. History to 1877	AMH 2010	3 or
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U.S. History since 1877	AMH 2020	3
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*Both of the following capstone courses*

RI: Historical Methods	HIS 3150*	3
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RI: Senior Seminar	HIS 4935	3
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\* History majors are required to take HIS 3150 before completing 90 credits toward graduation. HIS 3150 is also a prerequisite for HIS 4935.

**The remaining coursework must include a minimum of 30 credits of 3000-level-or-above courses, including:**

**United States History (6 credits)**

American Capitalism since 1890	AMH 3371	3
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History of American Technology	AMH 3372	3
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The American South	AMH 3400	3
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History of Florida	AMH 3420	3
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Work and Workers in U.S. History	AMH 3500	3
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History of American Immigration and Ethnicity	AMH 3530	3
U.S. Constitutional History	AMH 3550	3
History of U.S. Women	AMH 3560	3
African-American History to 1877	AMH 3571	3
African-American History since 1877	AMH 3572	3
American Environmental History	AMH 3630	3
Colonial North America	AMH 4110	3
The American Revolution	AMH 4133	3
The Age of Jefferson and Jackson	AMH 4150	3
Civil War and Reconstruction	AMH 4170	3
The U.S. in the Era of World War I and World War II	AMH 4231	3
U.S. since 1945	AMH 4270	3
America in the 1960s	AMH 4273	3
American Material Culture to 1860	AMH 4302	3
American Material Culture from 1860	AMH 4303	3
History of U.S. Drug and Alcohol Use	AMH 4315	3

American Politics since 1750	AMH 4350	3
Shopping, Travel and Leisure	AMH 4377	3
Urban History of the United States	AMH 4460	3
Diplomatic History of the U.S.	AMH 4512	3
Law in U.S. History	AMH 4558	3
History of African-American Women	AMH 4574	3
The Civil Rights Movement	AMH 4575	3
American Sports History	AMH 4611	3
Religion in America	AMH 4620	3
America and the Sea	AMH 4694	3
Special Topics in American History	AMH 4930	3
<b>European History (6 credits)</b>		
20th-Century Europe since World War II	EUH 3206	3
Modern Eastern Europe	EUH 3320	3
20th-Century Europe to World War II	EUH 3343	3
History of Modern France	EUH 3451	3

History of Modern Germany	EUH 3462	3
History of Modern Russia	EUH 3570	3
Women in European History	EUH 3619	3
Medieval History	EUH 4120	3
Renaissance Europe (1350–1500)	EUH 4140	3
Reformation Europe (1500–1650)	EUH 4144	3
Early Modern Europe (1650–1789)	EUH 4200	3
19th-Century Europe	EUH 4233	3
History of Greek Civilization	EUH 4403	3
History of Roman Civilization	EUH 4411	3
Hitler and Nazi Germany	EUH 4465	3
Medieval England	EUH 4500	3
Modern Britain	EUH 4502	3
Tudor-Stuart England	EUH 4511	3
British Empire	EUH 4530	3
Modern Ireland	EUH 4538	3

History of European Sexuality	EUH 4684	3
Special Topics in European History	EUH 4930	3
<b>Latin American History (6 credits)</b>		
Colonial Latin American History	LAH 3100	3
Latin American Independence	LAH 3133	3
Modern Latin American History	LAH 3200	3
Women in Latin American History	LAH 3721	3
Indians in Latin American History	LAH 4131	3
History of Mexico	LAH 4430	3
History of the Caribbean	LAH 4470	3
History of Cuba	LAH 4480	3
Special Topics in Latin American History	LAH 4930	3
<b>World History (6 credits)</b>		
History of African Diaspora	AFH 3512	3
Special Topics in African History	AFH 4930	3
Islamic History	ASH 3222	3

Modern Middle East	ASH 3223	3
The Ottoman Empire	ASH 3233	3
History of East Asia	ASH 3300	3
Women in Asian History	ASH 3384	3
The Crusades	ASH 4210	3
Modern Iran	ASH 4242	3
History of Modern China	ASH 4404	3
History of Modern Japan	ASH 4442	3
History of Modern India	ASH 4550	3
Indian Civilization	ASH 4560	3
History of Eastern Ideas	ASH 4600	3
History of Chinese Thought	ASH 4602	3
Zen and Buddhism	ASH 4603	3
Islamic Intellectual History	ASH 4624	3
Asia and the West	ASH 4630	3
Special Topics in Asian History	ASH 4930	3

**History Electives (6 credits; may be taken from the above courses or may include the following)**

Introduction to Archives	HIS 3080	3
Historic Preservation	HIS 3086	3
History of Human Rights	HIS 3204	3
Introduction to Public History	HIS 3065	3
History of Christianity to 1500	HIS 3432	3
History of Christianity since 1500	HIS 3434	3
History of Science	HIS 3462	3
Aerospace History	HIS 4322	3
History of Western Ideas	HIS 4345	3
Religion in the Atlantic World	HIS 4435	3
Magic and Superstition in the Atlantic World	HIS 4437	3
Slavery and Abolition in the Americas	HIS 4451	3
Directed Independent Study	HIS 4906	2-3
Special Topics	HIS 4930	1-3
Internship in Public History	HIS 4944	1-3

History Study Abroad	HIS 4957	1-6
Senior Thesis in History	HIS 4970	3
World War II	WOH 4244	3
Gandhi and Hitler	WOH 4405	3
<b>Electives Cross-Listed with Jewish Studies</b>		
Classical Jewish Civilization	JST 3403	3
Modern Jewish Civilization	JST 3404	3
American-Jewish History 1492-1990	JST 4415	3
The Jews of Spain and the Middle East	JST 4417	3
Ancient Israel	JST 4424	3
The Holocaust	JST 4701	3

Transfer students planning on a History major are expected to have completed one course each of survey-level history courses in U.S. history and World history before entering FAU. Otherwise they will have to take AMH 2010/2020 and/or WOH 2012/2022 in addition to 30 credits of upper-division work. No grade below "C" in a history course will count as fulfilling requirements for the major, and no history course may be taken under a pass/fail option.

### **Concentrations within the History Major**

Students interested in pursuing more specialized study in the areas of Africana history, British history, legal history or religious history may wish to complete one of the concentrations below.

Students still fulfill all requirements for the History major as stipulated above, but to complete a concentration they need to include the following courses in their program.

## Africana History Concentration

Students must take both core courses and choose three courses from the list of elective courses.

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### Core Courses

African-American History to 1877	AMH 3571	3
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African-American History since 1877	AMH 3572	3
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### Elective Courses (choose three courses)

History of the African Diaspora	AFH 3512	3
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Special Topics in African History	AFH 4930	3
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American Immigration and Ethnicity	AMH 3530	3
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Slavery and Abolition in the Americas	AMH 4451	3
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History of African-American Women	AMH 4574	3
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The Civil Rights Movement	AMH 4575	3
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American Sports History	AMH 4611	3
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History of the Caribbean	LAH 4470	3
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*Any Senior Seminar, Special Topics or 5000-level graduate course that focuses on Africana history.*

## British History Concentration

Students must take the three core courses below and choose two from the list of elective courses.

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**Core Courses**

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Medieval England	EUH 4500	3
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Modern Britain	EUH 4502	3
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Tudor-Stuart England	EUH 4511	3
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**Elective Courses (choose two courses)**

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Colonial North America	AMH 4110	3
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History of Modern India	ASH 4550	3
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British Empire	EUH 4530	3
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*Any Senior Seminar, Special Topics or 5000-level graduate course in British history.*

**Legal History Concentration**

Students must choose 15 credits from the core and elective courses in the following list.

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**Core Courses (choose three courses)**

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The American Revolution	AMH 4133	3
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The Age of Jefferson and Jackson	AMH 4150	3
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Medieval England	EUH 4500	3
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Tudor-Stuart England	EUH 4511	3
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**Elective Courses (choose two courses)**

History of Florida	AMH 3420	3
History of American Immigration and Ethnicity	AMH 3530	3
American Environmental History	AMH 3630	3
The Civil Rights Movement	AMH 4575	3
Special Topics (such as History of Law in America or History of Prisons in America)	AMH 4930	3
History of Human Rights	HIS 3204	3

**Religious History Concentration**

Choose at least 15 credits from the following list, with at least one course taken in all four areas: U.S., Asian, Judaic and European history.

Religion in America	AMH 4620	3
Islamic History	ASH 3222	3
Indian Civilization	ASH 4560	3
History of Eastern Ideas	ASH 4600	3
Reformation Europe (1500-1650)	EUH 4144	3
History of Christianity to 1500	HIS 3432	3
History of Christianity since 1500	HIS 3434	3

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*Any Senior Seminar, Special Topics or 5000-level graduate course in religious history*

## HONORS PROGRAM IN HISTORY

To be eligible for the Honors Program in History, students must have completed between 60 and 90 credits with an overall GPA of at least 3.2 and a GPA in history courses of at least 3.5. Such students will receive the designation "Honors in History" at the time of graduation upon satisfactory completion of the following requirements:

1. Completion of all normal field distribution requirements for the History major with a 3.5 at the time of graduation.
2. An overall GPA of at least 3.2.
3. Receipt of a grade of "B" or higher in both RI: Historical Methods (HIS 3150) and RI: Senior Seminar (HIS 4935).
4. Completion of a 40-50-page Senior Thesis (HIS 4970, 3 credits) with a grade of "B" or higher, under the direction of a tenured or tenure-track faculty member.

Students in the Honors Program in History who complete all requirements but do not meet the GPA requirements for honors at the time of graduation will receive credit for all work completed but will not be certified as having received honors. Students interested in the Honors Program in History should contact the director of Undergraduate Studies of the Department of History, Dr. Patricia Kollander, [kollande@fau.edu](mailto:kollande@fau.edu).

## HISTORY UNDERGRADUATE MINOR

*(Minimum of 18 credits required)*

Students majoring in any discipline other than History are eligible to complete a minor in History. This minor allows students to tailor their courses to a particular area of history or select a broad assortment of courses in different areas. The minor requires completion of 18 credits in history courses, at least 15 of which must be at the upper division in at least two out of five geographical areas (U.S., Europe, Africa, Latin America, Non-Western). Of the 18 credits, at least 15 must be taken at FAU. Students

interested in the minor should contact the Department of History.

## Secondary Education Program

A program leading to teacher certification in Social Science is available through the Department of [Curriculum and Instruction](#) in the College of Education.

[Link to Combined Program with Wilkes Honors College](#)

## HISTORY

### BACHELOR OF ARTS (B.A.) TO MASTER OF ARTS (M.A.) COMBINED PROGRAM

*(Minimum of 150 or 156 credits required)*

The B.A./M.A. with major in History combined degree program enables outstanding students to graduate with both a Bachelor of Arts in History (B.A.) and a Master of Arts in History (M.A.) in as little as five years. The program is 150 credits (B.A./M.A. with thesis option) or 156 credits (B.A./M.A. without thesis option). Students complete 120 credits for the undergraduate degree and 30 credits (thesis option) or 36 credits (non-thesis option) for the graduate degree. Students complete the undergraduate degree first, taking no more than 12 credits of graduate coursework in their senior year, which are then used to satisfy requirements for both degrees. Prospective students must formally apply to this program and meet all admission requirements.

### Admission Requirements

1. Each applicant must be a declared History major at Florida Atlantic University, with 60-90 credits completed toward the B.A. degree, including HIS 3150: RI: Historical Methods, and HIS 4935: RI: Senior Seminar.
2. Applicants must have a minimum 3.25 GPA for the last 60 undergraduate credits attempted.
3. Applicants must submit two letters of recommendation, written by tenured or tenure-earning members of the Department of History.
4. Applicants must provide a writing sample as part of their application. This should be a term paper or lengthy essay.
5. Applicants must provide a two-to-three-page typed, double-spaced autobiographical statement indicating the nature of their preparation for graduate work and the reasons for seeking the combined B.A./M.A. degree in History.
6. Prospective applicants for the combined B.A./M.A. degree in History are encouraged to schedule

an interview with the department's Director of Graduate Studies.

7. The application deadline is October 15 for Spring admission, and June 1 for Fall admission.

### **Undergraduate Course Replacements**

In their senior year, students admitted to the combined degree program may take up to 12 credits of graduate coursework, which are then used to satisfy requirements for both degrees. This will be accomplished by substituting 12 credits of free elective credit at the upper division (3000- 4000- level) with HIS 5060: The Historical Experience, and 9 credits of additional graduate coursework with the course prefix AMH, EUH, HIS, LAH, or WOH at the 5000 or 6000 level.

### **Degree Requirements**

To be eligible for the combined B.A./M.A. degree in History, students must fulfill the following requirements:

1. Completion of all requirements for the B.A. in History major, in addition to other requirements as stipulated by the University and the College.
2. Completion of all requirements for the M.A. in History major, on either the thesis or non-thesis option.

## **MASTER'S PROGRAM**

### **HISTORY**

#### **MASTER OF ARTS (M.A.)**

*(Minimum of 30 or 36 credits required)*

### **Admission Requirements**

The Master of Arts degree in History is designed to prepare graduates for doctoral work in history; for museum, preservation and public history work; for employment in education, government or industry; for admission to law school; to qualify instructors in history for community college teaching; and to enhance historical skills and content for secondary school social studies teachers.

1. Each applicant should have a baccalaureate degree from an accredited institution, preferably with an undergraduate major in history. Applicants without an undergraduate history major may be admitted on condition that appropriate undergraduate coursework in history be completed in addition to all requirements for the M.A. degree.

2. Applicants must have a minimum 3.0 grade point average (GPA) for the last 60 undergraduate credits attempted.
3. Applicants must have two letters of recommendation sent directly to FAU via the online application portal.
4. Applicants must upload, as part of their online application, a writing sample. This should be a term paper or lengthy essay.
5. Applicants must upload, as part of their online application, a two-to-three-page typed, double-spaced autobiographical statement indicating the nature of their preparation for graduate work and the reasons for seeking the M.A. in history.
6. Prospective applicants for graduate work in history are encouraged to schedule an interview with the department's director of Graduate Studies.
7. Applicants who fail to meet the GPA requirements, and/or who lack a strong background in history, may be admitted on a conditional basis.

### **Degree Requirements**

The Master of Arts in History has two options: 1) the thesis option, requiring 30 credits with a minimum of 24 credits of graduate coursework and completion of the M.A. thesis, for which a minimum of 6 additional credits must be earned; and 2) the non-thesis option, requiring 36 credits of graduate coursework. Graduate courses in history are of two types: readings (5000 level) and research seminars (6000 level). These readings and research seminars are offered in the following fields: Asian, Comparative, European, Florida, Latin American, Middle Eastern, Public, U.S. and World History. Students must choose a major field from among the following: European, U.S., and World History. Those who select U.S. History as their major field may include in their total program up to two public history courses, including internships.

While students may take additional credits of directed independent studies (DIS), only 3 credits may be counted toward the degree requirements. Similarly, even though students may take more internship credits, only 3 credits may be applied to the total number required for the degree.

A grade of "B-" or below will not be accepted for credit toward the M.A. degree in History.

### **Qualifying Examination**

In addition to the other degree requirements, all students must take and pass a qualifying examination at the end of their course of study. To pass, all students must earn at least a "B" grade on each question. The exam may be taken twice, but those students who do not pass the second time will be dismissed from the program. Those students who achieve a superior performance on the entire exam will be designated as having passed "with distinction."

For thesis-option students, this will consist of an oral examination that includes a defense of the thesis along with questions related to the larger field in which the thesis is located. For non-thesis students, the examination will consist of three written questions, of which two will be in the primary field and one in a secondary field.

Students must be enrolled at FAU during any semester in which they take the exam. Students in the non-thesis option who need to take the exam are expected to notify the graduate director in writing at least two weeks before the date it is administered and to abide by all of the procedures set out in the program website: [www.fau.edu/history/graduate.php](http://www.fau.edu/history/graduate.php).

**For the M.A. with Major in History (Thesis Option), more specific degree requirements are:**

1. All M.A. students must take HIS 5060 (The Historical Experience), a basic course that deals with historiography and changing patterns of historical interpretation, as well as with research techniques and methodologies. Students should take this course as early in their program as possible.
2. To assure a proper distribution of courses by field, graduate students must take a minimum of 12 credits of graduate coursework in their major/thesis field (European, U.S., or World History) and a minimum of 9 credits in non-major/non-thesis fields.
3. All M.A. students must complete a minimum of 6 credits of thesis research (HIS 6971) and complete an acceptable master's thesis.
4. Graduate students may not take undergraduate courses for graduate credit.
5. Graduate students who also serve as graduate assistants in the Department must complete, in addition to all other requirements, the 3-credit course HIS 5944, Teaching Practicum. Credits for this course may not be counted as part of the requirements for the 36-credit, non-thesis M.A. degree.

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**Core - 3 credits**

The Historical Experience	HIS 5060	3
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**Thesis Option - 27 credits**

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**Electives - 21 credits**

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*Select a minimum of 18 credits from the Department of History, including a minimum of 9 credits at*

*the 5000 level in reading seminars and a minimum of 9 credits at the 6000 level in research with prefixes of AMH, EUH, HIS, LAH or WOH. Students may substitute up to 3 credits from outside the Department for History credits, with permission of the Director of Graduate Studies.*

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## **Thesis - 6 credits**

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Master's Thesis <i>(may be taken over multiple terms)</i>	HIS 6971	6
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### **Application for the M.A. Thesis Option**

All students admitted to the M.A. program in History will be on a non-thesis trajectory. Students may switch to the M.A. thesis option under the following conditions:

1. Students must have achieved a minimum overall GPA of 3.75 in their graduate program by the end of the second semester of full-time study (or after completing 15 credits studying part time);
2. Students must submit the following to the director of Graduate Studies prior to the last day of class of the second semester of full-time study (or the last day of class of the semester when the student will have completed 15 credits studying part time):
  - a. A brief paragraph indicating which professor ideally would serve as thesis advisor and explaining why the student would like to work with that particular professor;
  - b. A 3-5 page overview of the thesis (explain what the thesis is about, how existing literature on the topic is deficient, and what the thesis is proposing that is new) and a preliminary bibliography.

After grades are in for the semester during which the student is applying for the thesis option, the director of Graduate Studies will verify the applicant's overall GPA; if this falls below 3.75, the student must pursue the non-thesis option.

If the student meets the GPA requirement, the director of Graduate Studies will forward the application to the graduate committee members. The committee will communicate its decision to the Graduate Studies director, who will inform the student whether the project is accepted and, if so, under what conditions the student may proceed to write the thesis. If the application is not approved, the student must pursue the non-thesis option.

If approved for a thesis, the student's thesis advisor will put together a three-member thesis committee to oversee the research and writing of the thesis. This proposal and determination of the thesis committee must be submitted and approved by the graduate director and department chair before the

student can register for thesis credits. The foreign language requirement must also be met before the student is permitted to enroll in thesis research.

**For an M.A. with Major in History (Non-Thesis Option), more specific degree requirements are:**

1. All M.A. students must take HIS 5060 (The Historical Experience).
2. To assure proper distribution of course by field, graduate students in the non-thesis option should take 18 credits in their major field (European, U.S., or World History) and the remaining 15 credits in other fields.
3. Graduate students in the non-thesis option may not take undergraduate courses for graduate credit.
4. Graduate students who also serve as graduate assistants in the department must complete, in addition to all other requirements, the 3-credit HIS 5944: Teaching Practicum. Credits for this course may not be counted as part of the requirements for the 36-credit non-thesis M.A. degree.

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**Core - 3 credits**

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The Historical Experience	HIS 5060	3
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**Non-Thesis Option - 33 credits**

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*Select a minimum of 30 credits from the Department of History, including a minimum of 12 credits at the 5000 level in reading seminars and a minimum of 18 credits at the 6000 level in research with prefixes of AMH, EUH, HIS, LAH or WOH. Students may substitute up to 3 credits from outside the Department for History credits, with permission of the Director of Graduate Studies.*

**The Plan of Study**

All students in the M.A. program in history must file with the Graduate College a Plan of Study upon completion of 9 credits of qualified coursework. This form is completed by the student in consultation with the graduate director. Approval of this plan certifies that the student has demonstrated the ability to do acceptable graduate work. Those students who make changes to their Plan of Study after the original plan is submitted are required to file a Revision to an Existing Plan of Study form in the last semester before graduation. The forms for completion can be accessed through the [Graduate College website](#). Failure to file these forms as required will prevent the student from graduating.

**Foreign Language Requirement**

In addition to the other degree requirements, all students must fulfill the department language

requirement before conferral of the degree through one of the following three options.

1. Passing one semester of a foreign language at the intermediate level (2220) at FAU or the equivalent at another university, as determined by the History Department's graduate committee.
2. Passing an equivalency exam at the intermediate (2220) level.
3. Passing the graduate Reading for Research course (FRE/GER/SPN 5060).

It is strongly encouraged that students fulfill this requirement soon after beginning their graduate studies.

To qualify for the M.A. degree in history, all students must have the recommendation of the graduate director and the department chair, as well as the dean of the Dorothy F. Schmidt College of Arts and Letters.

## INTERDISCIPLINARY STUDIES

### INTERDISCIPLINARY STUDIES BACHELOR OF ARTS (B.A.)

#### **Concentrations:**

**Arts and Humanities**

**Community and Visual Design**

**Pre-Law**

**Social Science**

**Women, Gender and Sexuality**

*(Minimum of 120 credits required)*

The Interdisciplinary Studies program is for students who wish to concentrate generally in the arts, humanities and social science without a specific departmental major. The knowledge and intellectual training provided is good preparation for graduate study in the fields of the arts and humanities, the study of law, the ministry and careers in public service professions. Five concentrations are available within the Interdisciplinary Studies program: Arts and Humanities, Community and Visual Design, Pre-Law, Social Science, and Women, Gender and Sexuality. The program is also available fully online with three options: the general degree program, the general program with the Arts and Humanities concentration, and the general program with the Social Science concentration.

Students who wish to pursue the Interdisciplinary Studies major should contact [The Office of Student Academic Services](#) for advising and more information. Degree requirements for Interdisciplinary Studies and the five concentrations are shown below.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Degree Requirements**

In addition to the University and College requirements for admission and graduation, including the University foreign language graduation requirement, the requirements for the major in Interdisciplinary Studies are as follows:

1. 39 credits; 30 must be upper division.
2. 15-18 credits must be in a single discipline, with a minimum of 12 upper-division credits. No more than 18 credits may be taken in any one area.
3. Up to 15 credits from another college may be applied to the major.
4. Students choose a primary area of concentration and develop a plan of study in consultation with the program director. Courses may be taken from across the college.
5. Earn a "C" or better in all courses applied toward the major. No course taken on a pass/fail basis may be counted for the major.
6. All students must take IDS 3949 or SLS 4342 for 3 credits (or an approved equivalent) and IDS 3890.
7. IDS 4930, when offered, may substitute for IDS 3890.

### **Areas of Concentration**

Five areas of concentration are available: Arts and Humanities; Community and Visual Design; Pre-

Law; Social Science; and Women, Gender and Sexuality. The program director must approve appropriate courses from other disciplines.

### **Arts and Humanities Concentration**

Students may choose from the following disciplines: Architecture, Communication and Multimedia Studies; English; History; Languages, Linguistics and Comparative Literature; Music; Philosophy; Theatre and Dance; Art and Art History; and Women, Gender and Sexuality Studies. The program director may approve courses from any of these disciplines or programs as well as appropriate courses from other disciplines across the University and/or other disciplines or programs within the College of Arts and Letters.

### **Community and Visual Design Concentration**

Students may choose from the following disciplines: Architecture, Art, Multimedia Studies: Film and Media, Political Science, Public Administration and Sociology. The program director may approve courses from any of these disciplines or programs as well as appropriate courses from other disciplines (Geography, Business, Urban Planning) across the University and other disciplines or programs within the College of Arts and Letters.

### **Pre-Law Concentration**

In addition to the Interdisciplinary Studies degree requirements, the following also apply to this concentration area.

1. All coursework for the major should come from the list below.
2. Students may select a primary discipline in Communication and Multimedia Studies, Criminology and Criminal Justice, English, History, Music, Philosophy, Political Science, Public Administration, Sociology or Theatre and Dance.
3. Secondary disciplines must be chosen from the list below.
4. The required internship should be law related.

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### ***Communication and Multimedia Studies***

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Conflict and Communication	COM 3462	3
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Political Communication	COM 3500	3
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Mass Communication Law and Regulation	MMC 4200	3
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Classical Rhetoric	SPC 3233	3
Rhetorical Analysis of Democracy	SPC 4273	3
Argumentation and Debate	SPC 4513	3
Rhetorical Criticism	SPC 4680	3
<i><b>Criminology and Criminal Justice</b></i>		
Law, Crime and the Criminal Justice System	CCJ 2002	3
The Criminal Justice System	CCJ 3024	3
Ethics and the Justice System	CCJ 4054	3
Restorative Community Justice	CCJ 4141	3
Drug Courts	CCJ 4293	3
RI: Drug Courts	CCJ 4293	3
Death Penalty	CCJ 4361	3
Elders and the Criminal Justice System	CCJ 4632	3
White Collar Crime	CCJ 4644	3
Race, Ethnicity and Criminal Justice	CCJ 4662	3
Human Trafficking: A Global Social Justice Issue	CCJ 4694	3

Issues in Criminal Law	CCJ 4931	3
Corrections	CJC 4310	3
International Criminal Justices Systems	CJE 4174	3
Policing in America	CJE 4352	3
Fundamentals of Criminal Investigations	CJE 4610	3
Juvenile Justice Administration	CJJ 4010	3
Criminal Law and the Constitution	CJL 4064	3
Judicial Administration and the Criminal Courts	CJL 4510	3
<i>English</i>		
Writing for the Technical Professions	ENC 2248	3
Professional Writing	ENC 3213	3
Advanced Exposition	ENC 3310	3
Principles of Research Writing	ENC 4138	3
Writing for Nonprofits	ENC 4354	3
Studies in Writing and Rhetoric	ENG 4020	3
Literary Theory	LIT 3213	3

*History*

History of Florida	AMH 3420	3
History of American Immigration and Ethnicity	AMH 3530	3
American Environmental History	AMH 3630	3
The American Revolution	AMH 4133	3
Age of Jefferson and Jackson	AMH 4150	3
History of the Civil Rights Movement	AMH 4575	3
Medieval England	EUH 4500	3
Tudor-Stuart England	EUH 4511	3
History of Human Rights	HIS 3204	3
<i>Music</i>		
Introduction to Music Business	MUM 3301	3
Legal Issues for the Musician	MUM 3303	3
Music Publishing and Copyright	MUM 4304	3
Artist Management	MUM 4724	3
Music Marketing and Public Relations	MUM 4732	3

***Philosophy***

Critical Thinking	PHI 2100	3
Logic	PHI 2102	3
Moral Problems	PHI 3638	3
Ethical Theory	PHI 4661	3
Social and Political Philosophy	PHM 3200	3
Philosophy of Law	PHM 3400	3
Analytical Philosophy	PHP 4784	3

***Political Science***

International Law: Foundations and Institutions	INR 3403	3
International Law of Peace and Diplomacy	INR 3413	3
International Law of Armed Conflict	INR 3433	3
The Politics of Human Rights	INR 4075	3
The International System	INR 4081	3
Law and American Society	POS 3691	3
Constitutional Law: Government Powers and Limits	POS 4603	3

Constitutional Law: Civil Rights and Liberties	POS 4604	3
The Judicial Process	POS 4609	3
U.S. Environmental Law and Policy	POS 4697	3
Government and the Economy	PUP 4710	3
<b><i>Public Administration</i></b>		
Introduction to Public Safety Administration	PAD 3820	3
Public Safety Systems	PAD 3893	3
Managing People in the Public Sector	PAD 4414	3
Public Sector Labor Relations	PAD 4426	3
Administrative Process and Ethics	PAD 4604	3
State and Local Government Administration	PAD 4806	3
Stand Your Ground	PAD 4814	3
Diversity and Social Vulnerability in Public Safety Administration	PAD 4894	3
<b><i>Sociology</i></b>		
Race and Ethnic Relations	SYD 3700	3
Race, Class, Gender and Sexuality	SYD 3792	3

Gender and Society	SYD 3800	3
Class, Status and Power	SYO 3530	3
Poverty and Society	SYO 3534	3
Social Movements	SYP 3304	3
Drugs and Society	SYP 3550	3
Social Control and Deviance	SYP 3570	3
<i>Theatre and Dance</i>		
Acting 1	TPP 2110	3
Voice for the Actor 1	TPP 2710	3
Voice for the Actor 2	TPP 3711	3
Acting 2	TPP 4175	3

### **Social Science Concentration**

Students may choose from the following disciplines: Anthropology, Communication and Multimedia Studies, History, Political Science, Public Administration, Sociology and Women, Gender and Sexuality Studies. The program director may approve courses from any of these disciplines or programs as well as appropriate courses from other social science disciplines (Economics, Geography and Psychology) across the University and/or other disciplines or programs within the College of Arts and Letters.

### **Women, Gender and Sexuality Concentration**

In addition to the Interdisciplinary Studies degree requirements, the following also apply to this area of

concentration:

1. Courses counted toward this major cannot also be counted toward the undergraduate certificate in Women, Gender and Sexuality Studies.
2. Students must take two core courses (WST 2010, WST 2608, WST 3930).
3. Students must take three additional courses in Women, Gender and Sexuality Studies, which may include other core courses.

## JEWISH STUDIES

### Faculty:

Lindbeck, K., Director; Berger, A., Raddock Eminent Scholar for Holocaust Studies; Sanua, M.

[Link to Jewish Studies Minor](#)

## JEWISH STUDIES

### BACHELOR OF ARTS (B.A.)

*(Minimum of 120 credits required)*

The Bachelor of Arts in Jewish Studies at Florida Atlantic University is open to all students wishing to study various forms of Jewish culture throughout the centuries. It may be especially useful for:

1. Those thinking about vocational opportunities in Jewish communal and educational organizations (community centers, family service bureaus, federations, camp administration; teaching in Hebrew or day schools).
2. Students contemplating careers as rabbis or cantors.
3. Students considering academic careers in Judaic Studies.
4. Those wishing to pursue graduate study in any aspect of Western civilization and/or culture.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate

degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Requirements

In addition to requirements of the Dorothy F. Schmidt College of Arts and Letters and the University, the student pursuing a Bachelor of Arts in Jewish Studies must take 14 credits in required core courses. The student must also take 21 credits of upper-division content courses. The total required credits for the major is 35.

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### Core Courses (14 credits)

*Select two courses from the following (8 credits)*

Intermediate Hebrew Language and Culture 1	HBR 2220	4
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Readings in Intermediate Hebrew	HBR 2240	4
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Directed Independent Study	HBR 4905	4
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Special Topics	HBR 4930	4
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*Take the following two courses (6 credits)*

Classical Jewish Civilization	JST 3403	3
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Modern Jewish Civilization	JST 3404	3
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### Content Courses (21 credits)

The content courses are chosen from at least two of the following four categories: history, the arts and

culture, politics and social issues, and religion.

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## **Content Course Categories**

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### *History*

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American-Jewish History, 1492-1990	JST 4415	3
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Ancient Israel	JST 4424	3
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History of American Immigration and Ethnicity	AMH 3530	3
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History of Zionism and the State of Israel, 1880-1990	JST 4425	3
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Hitler and Nazi Germany	EUH 4465	3
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The Holocaust	JST 4701	3
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The Jews of Spain and the Middle East	JST 4417	3
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### *The Arts and Culture*

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Jewish Literature Through the Centuries	JST 3102	3
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Jewish-American Literature	AML 4663	3
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### *Politics and Social Issues*

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Religions and World Politics	CPO 3761	3
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Comparative Politics: Middle East	CPO 4403	3
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Women and Judaism	JST 4510	3
The Modern Middle East	ASH 3223	3
<i>Religion</i>		
Image of Woman in the Bible	REL 4218	3
New Testament	LIT 3374	3
Jewish Wisdom: An Introduction to Classical Jewish Thought	JST 3513	3
Religion in America	AMH 4620	3
Old Testament	REL 3213	3
Special Topics	JST 4930	3

## JEWISH STUDIES UNDERGRADUATE MINOR

*(Minimum of 18 credits required)*

Open to undergraduate students who wish to study the various forms of Jewish culture throughout the centuries, this minor focuses on the Jewish historical experience. Students are trained in critical thinking in response to the study of history, texts and culture. Those enrolled in the program come to understand that various Judaisms emerged over the course of time and in response to changing conditions.

The minor requires 18 credits, at least 75 percent of which must be completed at FAU. Two core courses are required and the remaining courses are selected from 2000-level or above, HBR-prefixed courses and courses in the table below.

**Core Courses (6 credits)**

Classical Jewish Civilization	JST 3403	3
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Modern Jewish Civilization	JST 3404	3
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**Content Courses (12 credits)**

The content courses are chosen from at least two of the following four categories: history, the arts and culture, politics and social issues, and religion. Content courses may also be chosen from among HBR-prefixed, 2000-level or above courses. Close work with faculty and individual research are encouraged.

**Content Course Categories*****History***

American-Jewish History, 1492-1990	JST 4415	3
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Ancient Israel	JST 4424	3
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History of American Immigration and Ethnicity	AMH 3530	3
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History of Zionism and the State of Israel, 1880-1990	JST 4425	3
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Hitler and Nazi Germany	EUH 4465	3
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The Holocaust	JST 4701	3
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The Jews of Spain and the Middle East	JST 4417	3
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***The Arts and Culture***

Jewish-American Literature	AML 4663	3
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<i>Politics and Social Issues</i>		
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Religions and World Politics	CPO 3761	3
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<i>Religion</i>		
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Religion in America	AMH 4620	3
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Jewish Wisdom: An Introduction to Classical Jewish Thought	JST 3513	3
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Special Topics	JST 4930	3
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Old Testament	REL 3213	3
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Image of Woman in the Bible	REL 4218	3

## LANGUAGES, LINGUISTICS AND COMPARATIVE LITERATURE

### Faculty:

Munson, M., Chair.; Augustyn, P.; Blattner, G.; Calargé, C.; Conrod, F.; Cooke, R.; Gamboa, Y.; Godon-Martinez, N.; Gosser-Esquilín, M. A.; Hamilton, M.; Horswell, M. J.; Kharlamov, V.; Lindbeck, K.; Mendoza, M.; Poulson, N.; Ruthenberg, M.; Serra, I.; Tille-Victorica, N.; White, J.

### Instructors:

Almonte, M.; Arboleda, L.; Henao, L.; Mansilla-Bjalme, J.; Pettener, E.; Rahill, R.; Rendón, R.; Trotter, E.; Uo, S.

The Department of Languages, Linguistics and Comparative Literature (LLCL) provides a broad liberal arts background with a bachelor's degree in Languages, Linguistics and Comparative Literature with

concentrations in French, Italian, Linguistics, and Spanish. A master's degree is offered in Languages, Linguistics and Comparative Literature with concentrations in French, Teaching of French, Spanish, Teaching of Spanish, Linguistics and Comparative Literature. The study of foreign languages, cultures, and literatures and the development of skills in language use and linguistic analysis prepares students for professional careers in such fields as international law and business, foreign service and other transnational government agencies, teaching and a wide variety of positions in a multicultural, technological, global world. The department also offers an [Honors Program](#) and minors in Arabic, French, German, Italian, Japanese, Spanish, Linguistics and Comparative Literature. Other languages taught include Chinese, Classical Greek, Modern Greek, Hebrew, Japanese and Latin.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Double Majors**

Students interested in information about a double major in Languages, Linguistics and Comparative Literature should consult the department advisor.

[Link to Academic Minors](#)

[Link to Combined Program](#)

[Link to Master's Programs](#)

## **LANGUAGES, LINGUISTICS AND COMPARATIVE LITERATURE BACHELOR OF ARTS (B.A.)**

### **French Concentration**

**Italian Concentration****Linguistics Concentration****Spanish Concentration**

*(Minimum of 120 credits required)*

In addition to other College and University requirements, students will normally complete at least 36-37 upper-division credits in Languages, Linguistics and Comparative Literature in one of the department's concentrations (French, Italian, Linguistics, or Spanish). Grades below "C" in a required departmental course will not count toward the requirements of the major. Credits are generally distributed as follows. Native and heritage learners of the language should follow the heritage learners track and consult with the LLCL advisor or department chair concerning substitutions.

**Note:** The department enforces a non-audit policy in its language courses.

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**Lower-Division Prerequisites for Languages, Linguistics and Comparative Literature majors**


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Beginning and Intermediate Language and Culture FRE/ITA/SPN 1120/1121/2220/2221*	4-16
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\* Students who CLEP for 8 credits in Spanish or French or who have taken three years of high school in French, Italian or Spanish may start with FRE/ITA/SPN 2220 (see departmental advisor for placement information). Heritage learners of Spanish may take the SPN 1340 and 2341 sequence or be placed directly into the major requirements (see departmental advisor for placement information).

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**Major Program Requirements**


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*All Programs (French, Italian, Linguistics, Spanish concentrations)*


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Research and Bibliographic Methods	FOL 3880	3
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Introduction to Linguistics	LIN 3010	3
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**Required Courses****LANGUAGES, LINGUISTICS AND COMPARATIVE LITERATURE:  
FRENCH CONCENTRATION*****Language and Culture*** 6-7*(two courses, including one advanced language and one culture course)*Advanced French Language and Culture 1      FRE 3400 **or**

Français de Perfectionnement: French for Bilinguals      FRE 3340

Advanced French Language and Culture 2      FRE 3401

Culture et Société: Cinéma      FRE 3393

***Literature and Civilization*** 9

Introduction to the Study of French - Language Literature      FRW 3001

French Civilization and Literature: Middle Ages to  
Revolution      FRW 3102

French Civilization and Literature: 19th and 20th Centuries      FRW 3122

***Linguistics*** 3Prononciation et Phonétique      FRE 3780 **or**

Structure of Modern French      FRE 4850

Senior Seminar      FRW 4933

*(should be taken in last year of the program)*

***Other Required Courses***

9

*(three courses, two of which must be in lingua, to be pre-approved by LLCL advisor; optional courses from the required list can be taken as "other required courses" if not taken as requirement courses)*

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Commercial French	FRE 3440
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Advanced Commercial French	FRE 3442
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Special Topics in French Language Studies	FRE 4930
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Literature in Translation: The French Tradition	FRT 3140
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Special Topics in French Literature	FRW 4930
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French Culture Study Abroad	FRE 3952
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French Culture Study Abroad (in Translation)	FRT 3956
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French Literature Study Abroad	FRW 4957
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**LANGUAGES, LINGUISTICS AND COMPARATIVE LITERATURE:  
ITALIAN CONCENTRATION**

***Language and Culture***

6-7

*(two courses, including at least one advanced language and one culture course)*

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Advanced Italian 1	ITA 3420
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Advanced Italian 2	ITA 3421
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Italian Writing Workshop	ITA 3300
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Reading the Italian Press	ITA 3412	
Special Topics (approved by advisor)	ITA 4930	
<b><i>Literature and Civilization</i></b>		12
Italian Literature and Civilization: Middle Ages and Renaissance (required)	ITW 3100	
Italian Literature and Civilization: Baroque to Present (required)	ITW 3101	
<b><i>Two courses from the following:</i></b>		
Italian Literature in Translation	ITT 3110	
Love and Lovers in Italian Literature	ITT 3111	
Italian Cinema: from Text to Screen	ITT 3520	
Italian-American Cinema	ITT 3522	
Italy in Lyrics	ITT 3600	
Dante: The Commedia in Translation	ITT 4440	
Special Topics	ITA 4930	
<b><i>Linguistics</i></b>		3-4
Tessere La Lingua	ITA 4730	

***Other Required Courses*** 9*(three courses, two of which must be in lingua, to be approved by LLCL advisor)*

Italian Culture and Society ITT 2502

Italian Culture Study Abroad ITA 3952

Italian Language and Culture Study Abroad ITA 4957

Italian Culture Study Abroad (in Translation) ITT 3956

Italian Literature Study Abroad ITW 4957

**LANGUAGES, LINGUISTICS AND COMPARATIVE LITERATURE:  
LINGUISTICS CONCENTRATION*****General Core*** 9

Phonetics and Phonology LIN 4326

Morphology and Syntax LIN 4430

Semantics and Pragmatics LIN 4802

***Language-Specific Concentration*** 12-13*(four courses from the language major offerings; if in English, seek LLCL advisor approval)*

Language-specific Linguistics courses (two courses)

Upper-division Language and Culture course (one course)

## Literature and Civilization course (one course)

***Other Required Courses***

9

*(to be approved by advisor)*

Global Perspectives on Language

LIN 2607

Patterns of Language

LIN 3133

Sociolinguistics

LIN 4600

Bilingualism

LIN 4620

Structure of Modern English

LIN 4680

Psycholinguistics

LIN 4701

Normal Processes of Speech and Language Development

LIN 4710

Introduction to Semiotics

LIN 4810

Special Topics (i.e., Teaching Languages, Forensic Linguistics, Discourse Analysis)

LIN 4930

Childhood Bilingualism

DEP 3134

Language Acquisition

DEP 4130

Cognition

EXP 3505

Psychology of Language

EXP 4640

Introduction to Theories and Practices of TESOL

TSL 4080

0591

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Applied Linguistics and TESOL	TSL 4251
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ESOL Strategies for Content Area Teachers	TSL 4324
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Methods of TESOL and Bilingual Education	TSL 5345
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A linguistics class in lingua

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A literature class or culture class in lingua

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A literature class in translation

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**LANGUAGES, LINGUISTICS AND COMPARATIVE LITERATURE:  
SPANISH CONCENTRATION**

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<i>Language and Culture</i> (two courses including one advanced language and one culture course)	7
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Advanced Spanish: Conversation	SPN 3400 <b>or</b>
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Advanced Spanish for Heritage Learners	SPN 3343
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Spanish Peninsular Culture Learners and Civilization	SPN 3500 <b>or</b>
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Latin American Culture and Civilization	SPN 3501
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<i>Literature and Civilization</i> (select 12 credits from the following two options)	12
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**Option 1**

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 Introduction to Hispanic Literature

SPW 3030

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 Three literature courses (9 credits) at the 4000 level
 

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**Option 2**


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 Introduction to Peninsular Spanish Literature (Required)

SPW 3012

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 Introduction to Spanish American Literature (Required)

SPW 3021

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***Two Special Topics courses as noted below:***


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 Special Topics in Spanish or Latin American Literature

SPW 4930

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***Linguistics***

3

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 Structure of Modern Spanish
SPN 4850 **or**


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 Spanish Phonetics and Phonology
SPN 4790 **or**


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 Spanish Sociolinguistics

SPN 4740

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***Other Required Courses***

9

*(three courses, two of which must be in lingua, to be approved by LLCL advisor; optional courses from the required list may be taken as "other required courses" unless taken as requirement courses)*

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 Commercial Spanish 1

SPN 3440

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 Commercial Spanish 2

SPN 3441

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 Advanced Spanish: Conversation

SPN 3410

Special Topics in Spanish Language Studies	SPN 4930
Latin American Literature in Translation	SPT 4130
Spanish Literature and Film	SPT 4720
Spanish Translation	SPT 4800
Introduction to Latin American Studies	LAS 2000
Spanish Language and Culture Study Abroad	SPN 2952
Spanish Culture Study Abroad	SPN 3952
Spanish Language and Culture Study Abroad	SPN 4957
Spanish Culture Study Abroad (in Translation)	SPT 3956
Spanish Language and Culture Study Abroad	SPT 4957
Spanish Literature Study Abroad	SPW 4957

College and University courses may be substituted for program-compatible departmental electives with approval of advisor and confirmation by the chair. The department encourages participation in any of its Study Abroad Programs. Approved courses taken in Study Abroad Programs may substitute for some requirements and electives.

## HONORS PROGRAM IN LANGUAGES, LINGUISTICS AND COMPARATIVE LITERATURE

### Entry Requirements

Majors in Languages, Linguistics and Comparative Literature who meet the following criteria will be eligible to pursue honors in French, Italian, Linguistics, or Spanish :

1. Student has already completed at least 9 upper-division credits in the major, including FOL 3880, but fewer than 100 credits toward the degree;
2. Student has earned a minimum overall GPA of 3.2;
3. Student has earned a minimum overall GPA of 3.5 in the major.

To be considered for admission to the Honors Program in Languages, Linguistics and Comparative Literature, students meeting all of the above criteria may submit:

- a. A one-page abstract (250 words) outlining the proposed thesis topic;
- b. An annotated bibliography of the five most relevant sources related to the topic;
- c. A one-page statement detailing why the student seeks honors in the major;
- d. The revised final paper of FOL 3880;
- e. A letter of support from at least one member of the department faculty with a terminal degree who will serve as a mentor;
- f. A completed application form.

These documents must be submitted to the department chair, preferably no later than three semesters before the student expects to graduate.

### **Admission to the Program**

1. A committee will review the application and make a recommendation to admit and determine a Plan of Study.
2. The student will receive confirmation in writing from the department chair.
3. Admission to the Honors Program is limited to 20 percent of students in the particular major.

### **Standards for Maintaining Active Status**

1. Student must maintain an overall 3.2 GPA and a 3.5 GPA in the major.
2. Student must complete all the field distribution requirements of the respective major.
3. Student must abide by the Code of Academic Integrity.
4. Student may be placed on probation in the Honors Program for one semester if overall GPA and/or major GPA is not maintained; if required minimum GPA and/or major GPA is not re-established after the probationary semester, the student will be dismissed from the program.

### **Honors-Level Enrichment**

Honors-level enrichment is achieved through successful completion of any **two** of the following:

1. Completion of an upper-division course enhanced by Academic Service-Learning, linked to a community organization dealing, whenever possible, with the student's research interest.

2. Participation in a study abroad program in which the student is enrolled full-time and for the full duration of the academic term. A follow-up public presentation of the experience is also required.
3. Service to the faculty leader of FAU's Global Connections Living Learning Community for three common-hour activities.
4. Service as an active officer in one of the Honor Societies.
5. Service as a tutor in the Supplemental Instruction program (in one of the disciplines represented in the Languages, Linguistics and Comparative Literature Department.)
6. Participation in Florida Atlantic University's Undergraduate Research Journal (e.g., service on the board; paper submission.)

### **Capstone Requirements**

In addition to honors-level enrichment activities, successful completion of the following capstone elements is also required:

1. Complete with a grade of B+ or higher an advanced seminar in the area of research interest of the student. This course will fulfill one of the three electives required of the major.
2. Complete an honors thesis, supervised by the mentor and reviewed by a second reader (3 credits above the major's requirements).
3. Submit research findings to the Undergraduate Research Symposium.

### **Secondary Education Program**

A program leading to temporary teacher certification in foreign languages (French and Spanish) is available in cooperation with the Department of [Curriculum and Instruction](#) in the College of Education. French K-12 and Spanish K-12 are not accredited and do not meet the standards for permanent state certification as an educator, but graduates from the French and Spanish concentrations may qualify for a temporary teaching certificate in the State of Florida. To qualify for Florida state certification approval, additional education requirements must be met. For information about these additional requirements, students should see their academic advisor.

## **ACADEMIC MINORS**

Three types of minors are offered through the Department of Languages, Linguistics and Comparative Literature (LLCL):

1. Minor in a foreign language (Arabic, French, German, Italian, Japanese, Spanish)
2. Minor in Linguistics
3. Minor in Comparative Literature

All students seeking one of the minors offered by the department, whether in a foreign language, linguistics or comparative literature, should declare the minor and seek individual advising through the department as soon as possible, but ideally before beginning the last 8 credits of study.

Students who have earned 8 CLEP credits in Spanish or French, or who have taken three years of high school Italian or German, may start with FRE/ITA/SPN/GER 2220 (see the LLCL advisor for specific placement information). Heritage learners of Spanish may take the SPN 1340 and 2341 sequence or be placed directly into upper-division Spanish courses (see the departmental advisor for individual advising and information on language placement).

Students who plan to study abroad are encouraged to have all courses approved through the LLCL advisor before beginning the program.

Students must earn a grade of “C” or better in all courses to be counted toward the minor.

## LINGUISTICS UNDERGRADUATE MINOR

*(Minimum of 15 credits required)*

To complete a minor in Linguistics, students are required to pass (with a grade of “C” or better): Introduction to Linguistics (LIN 3010), two courses in theoretical linguistics (LIN 4326, LIN 4802 or LIN 4430) and two elective courses in linguistics (other LIN courses, in-lingua linguistics courses, TSL 4080, TSL 4251; only one elective can be lower division).

## COMPARATIVE LITERATURE UNDERGRADUATE MINOR

*(Minimum of 16 credits required)*

To complete a minor in Comparative Literature, with a focus on two or more national literatures or literary traditions, students are required to pass (with a grade of “C” or better): one introductory course, either Introduction to Comparative Literature (LIT 3060) or Introduction to World Literature (LIT 2100); one intermediate- or advanced-level language course (FRE/GER/ITA/SPN 2220 or higher, depending on proficiency); and three upper-division (3/4000-level) literature courses, either in lingua or in translation. (Students are always encouraged to do in-lingua coursework whenever possible, but this is by no means a requirement.) Regardless of the type of upper-division literature courses taken (in

lingua or in translation), the coursework must represent, at a minimum, two different national traditions/cultures. Literature courses taught in other departments may count toward the minor with permission of the advisor. At least 75 percent of all minor credits earned must be from FAU.

Students who plan to study abroad are encouraged to have all courses approved through the LLCL advisor before beginning the program.

## FOREIGN LANGUAGE MINORS (15-19 CREDITS)

Students may complete a foreign language minor in Arabic, French, German, Italian, Japanese or Spanish as described below. At least 75 percent of all minor credits earned must be from FAU. Courses taken on study abroad programs may be counted toward the minor, but all such courses should be approved by the LLCL advisor before the student begins the study abroad program.

### ARABIC UNDERGRADUATE MINOR

To complete a minor in Arabic, students are required to pass (with a grade of “C” or better) two beginning-level language courses (ARA 1120 and ARA 1121), two intermediate-level language courses (ARA 2220 and ARA 2221) and one upper-division (3/4000-level) course, chosen in consultation with the LLCL advisor, on a topic relating to the culture, literature, history and/or politics of the Arab World.

Students with advanced knowledge of spoken and/or written Arabic (beyond the intermediate level) must contact the LLCL advisor to establish a list of five courses for completing the minor.

Students who plan to study abroad are strongly encouraged to have all courses approved by the LLCL advisor before beginning the program.

### FRENCH UNDERGRADUATE MINOR

To complete a minor in French, students are required to pass (with a grade of “C” or better) five in lingua (FRE and FRW) prefixed courses at the intermediate level or higher.

Courses must be chosen in consultation with an LLCL advisor. A maximum of two courses can be at the intermediate level (FRE 2220/2221). Students with advanced knowledge of spoken and/or written

French (including heritage learners) must contact the LLCL advisor to establish a list of five courses to complete the minor.

Students must take at least one course from each of the following three categories: (1) at least one upper-division language or linguistics course (such as FRE 3440, FRE 3401, FRE 3340, FRE 3780 or FRE 4930); (2) at least one upper-division culture and civilization course (such as FRE 3393, FRE 3442 or FRE 4930); and (3) at least one upper-division literature course (such as FRW 3001, FRW 3102, FRW 3122, or FRW 4930).

Students who plan to study abroad are strongly encouraged to have all courses approved by the LLCL advisor before beginning the program.

The French minor is also available online.

## GERMAN UNDERGRADUATE MINOR

To complete a minor in German, students are required to pass (with a grade of “C” or better) two beginning-level language courses (GER 1120 and GER 1121), and three intermediate-level language courses (GER 2220, GER 2221 and GER 2225).

Students with advanced knowledge of spoken and/or written German (including heritage learners) must contact the LLCL advisor to establish a list of five courses for completing the minor.

Students who plan to study abroad are strongly encouraged to have all courses approved through the LLCL advisor before beginning the program.

The German minor is also available online.

## ITALIAN UNDERGRADUATE MINOR

To complete a minor in Italian, students are required to pass (with a grade of “C” or better) one beginning-level language course (ITA 1121), two intermediate-level language courses (ITA 2220 and ITA 2221) or equivalent, one advanced-level language course (ITA 3420 or ITA 3421) or equivalent and one upper-division (3/4000-level) courses in lingua, to be chosen in consultation with the LLCL advisor.

Students with advanced knowledge of spoken and/or written Italian (including heritage learners) must contact the LLCL advisor to establish a list of five courses for completing the minor.

Students who plan to study abroad are strongly encouraged to have all courses approved by the LLCL advisor before beginning the program.

## **JAPANESE** **UNDERGRADUATE MINOR**

To complete a minor in Japanese, students are required to pass (with a grade of “C” or better) two beginning-level language courses (JPN 1120 and JPN 1121), two intermediate-level language courses (JPN 2220 and JPN 2221) and one upper-division (3/4000-level) course, approved by the LLCL advisor, on a topic related to the culture, literature, history or politics of the Japanese world.

Students with advanced knowledge of spoken and/or written Japanese (including heritage learners) must contact the LLCL advisor to establish a list of five courses for completing the minor.

Students who plan to study abroad are strongly encouraged to have all courses approved by the LLCL advisor before beginning the program.

## **SPANISH** **UNDERGRADUATE MINOR FOR NON-HERITAGE/NON-NATIVE LEARNERS**

To complete a minor in Spanish for non-heritage learners, students are required to pass (with a grade of “C” or better) five in lingua (SPN and SPW) prefixed courses at the intermediate level or higher. These five courses should be chosen in consultation with an LLCL advisor.

A maximum of two courses can be at the intermediate level (SPN 2220 and SPN 2221). Students with advanced knowledge of Spanish (beyond the intermediate level) will not take any intermediate-level courses, and must meet with an LLCL advisor to determine which five upper-division courses to include in the minor.

Students must take at least one course in each of the following categories: (1) at least one advanced-level language course (SPN 3400); (2) at least one in lingua upper-division culture and civilization course (SPN 3500 or SPN 3501); and (3) at least one in lingua upper-division literature and civilization course (SPW 3030 is strongly recommended; other possibilities include SPW 3012, SPW 3021 or SPW 4930).

Students who plan to study abroad are strongly encouraged to have all courses approved by the LLCL advisor before beginning the program.

The Spanish Minor for Non-Heritage/Non-Native Learners is also available online.

## **SPANISH**

### **UNDERGRADUATE MINOR FOR HERITAGE/NATIVE LEARNERS**

To complete a minor in Spanish for heritage/native learners, students are required to pass (with a grade of “C” or better) one intermediate-level language course (SPN 2341), one advanced-level language course (SPN 3343), one culture course (SPN 3500 or SPN 3501), one course providing an introduction to Spanish literature (SPW 3012 or SPW 3021) and one upper-division (3/4000-level) course in lingua.

Students who plan to study abroad are strongly encouraged to have all courses approved by the LLCL advisor before beginning the program.

## **COMBINED PROGRAM**

### **LANGUAGES, LINGUISTICS AND COMPARATIVE LITERATURE**

#### **BACHELOR OF ARTS (B.A.) TO MASTER OF ARTS (M.A.)**

#### **COMBINED PROGRAM**

#### **Linguistics Concentration**

*(Minimum of 156 credits required)*

The B.A./M.A. in Languages, Linguistics and Comparative Literature (LLCL) with Linguistics Concentration is a combined degree program that enables outstanding students to graduate with both a Bachelor of Arts (B.A.) and a Master of Arts (M.A.) in LLCL: Linguistics Concentration. The program is 156 credits. Students complete 120 credits for the undergraduate degree and 36 credits for the non-thesis track of the graduate degree. Students complete the undergraduate degree first, taking no more than 12 credits of graduate

coursework in their senior year, which are then used to satisfy requirements for both degrees.

Prospective students must formally apply to this program and meet all admission requirements.

#### **Admission Requirements**

1. Each applicant must be a declared major in LLCL: Linguistics Concentration at Florida Atlantic University, with 60-90 credits earned toward the B.A. degree, including completion of (i) LIN 3010 introduction to Linguistics and (ii) two upper-division linguistics courses taught in English or in lingua. Applicants may apply in the semester in which they expect to complete the required coursework.
2. Applicants must have a minimum 3.00 GPA for the last 60 undergraduate credits attempted and a minimum grade of 'B' in the linguistics courses taken at the undergraduate level (taught in English or in lingua).
3. Applicants must submit two letters of recommendation, written by LLCL faculty.
4. Applicants must provide a writing sample (term paper or essay) as part of their application, preferably from a class taught by LLCL faculty.
5. Applicants must provide a two-page typed, double-spaced autobiographical statement indicating the nature of their preparation for graduate work and the reasons for seeking the combined B.A./M.A. degree in LLCL: Linguistics Concentration.
6. Prior to applying, prospective applicants for the combined B.A./M.A. degree are encouraged to schedule a meeting with the department's Director of Graduate Studies and the coordinator of the Linguistics Program.
7. The application deadline is October 1 for Spring admission, and April 1 for Fall admission.

### **Undergraduate Course Replacements**

In their senior year, students admitted to the combined degree program may take up to 12 credits of graduate coursework, which are then used to satisfy requirements for both degrees. This will be accomplished by substituting 12 credits of upper division non-core elective courses (3000 or 4000 level) with 12 credits of graduate coursework (5000 or 6000 level) with the course prefixes LIN and FOL or language-specific graduate linguistics courses taught in English or in lingua or TSL 6253 Applied Linguistics & TESOL.

### **Degree Requirements**

To be eligible for the combined B.A./M.A. degree, students must complete all requirements for the B.A. in LLCL: Linguistics Concentration and the M.A. in LLCL: Linguistics Concentration (the non-thesis track).

## **MASTER'S PROGRAM**

### **LANGUAGES, LINGUISTICS AND COMPARATIVE LITERATURE MASTER OF ARTS (M.A.)**

## **Concentrations:**

### **Comparative Literature**

### **French**

### **Teaching of French**

### **Linguistics**

### **Spanish**

### **Teaching of Spanish**

*(Minimum of 30 or 36 credits required)*

The department offers an M.A. in Languages, Linguistics and Comparative Literature with six areas of concentration: Comparative Literature, French, Teaching of French, Linguistics, Spanish and Teaching of Spanish.

## **Admission Requirements**

The Master of Arts degree in Languages, Linguistics and Comparative Literature is designed to prepare students for doctoral study in French, Spanish, Comparative Literature or Linguistics, and/or for employment in a variety of foreign-language applications in diverse fields, including business and government, as well as for qualification as teachers of the major language through its literature, culture and/or linguistics. All students should:

1. Hold a bachelor's degree from an accredited institution. Additional coursework may be required of applicants whose undergraduate major was not the same as the graduate specialization.
2. Have a minimum 3.0 grade point average in the last 60 undergraduate credits.
3. Submit with the application a two-to-four-page typed and double-spaced statement of purpose, written in English, outlining the student's qualifications for graduate study in the given field and reasons for pursuing the M.A. degree. Two academic letters of recommendation are also required, to be sent to the departmental director of Graduate Studies at time of application.
4. Submit a writing sample of the applicant's academic work, i.e., an essay written for a class in the proposed field of study. The language of the writing sample will vary depending on the primary concentration for which the application is being made and whether or not the applicant wishes to be considered for a teaching assistantship in a language program.
5. Submit a two-minute video clip responding to specific questions about the applicant's background and interest in the program to which the student is applying.
6. For international applicants, a TOEFL (paper-based) score of 500 or IBT score of 80, or an IELTS score of 6.0.

## **Graduate Teaching Assistantships**

A limited number of Graduate Assistantships are available each year. The deadline for application is normally February 1. Prospective students interested in applying for an Assistantship should be sure to submit their applications for admission to the graduate program as early as possible.

## **Degree Concentrations with a Thesis**

**For an M.A. degree in LLCL with a concentration in either French or Spanish (Latin American and Peninsular Literature),** the department requires a minimum of 30 credits: 24 credits of coursework and 6 credits of thesis work. The student's program will include a minimum of six courses (18 credits) in 6000-level or higher seminars in the literature of concentration. Students must pass a comprehensive, oral examination prior to submitting the thesis prospectus.

**The M.A. in LLCL degree with a concentration in Comparative Literature** is available with primary fields of study in British, French, Italian, Peninsular Spanish, Latin American or American literatures. Comparative literature broadens the context of single works of literature, provides a method of looking beyond the national frontiers of languages and cultures, and studies major authors, periods, genres, trends and movements in international contexts. Comparative literature is also, by tradition, the study of literature beyond the geo-cultural boundaries of one particular country or hemispheric region. In addition, it pays special attention to the study of relationships between literature and other areas of knowledge and intellectual inquiry. This includes areas such as linguistics, art history, film studies, philosophy, history, political science, anthropology, sociology, as well as other fields. Comparative literature is the comparison of the literary with other spheres of human epistemology, expression and intellectual investigation.

A cardinal feature of the graduate curriculum is the small core requirement in terms of specific courses and the correspondingly large number of electives taken in different fields. Each student develops his or her own program in consultation with the director of Graduate Studies and pursues individually supervised research interests, culminating in a comparative thesis.

### ***Admission to Comparative Literature Study***

Students who do not hold the bachelor's degree (or equivalent) in one of the proposed literatures or other areas of concentration may be asked to do a certain amount of preliminary coursework without credit toward the degree. These courses may be taken after admission to the master's program.

### ***Program Requirements***

The M.A. degree in LLCL with a concentration in Comparative Literature requires the student to pursue one of the two following programs: the study of two literatures in their original languages, one

of which may be British or American literature; or the study of one literature as the primary concentration and a non-literary field as the secondary concentration.

The literature studied may be chosen from among the following: American (i.e., United States, Canadian, Anglo/Caribbean), British, French, Francophone, Italian, Spanish Peninsular, Latin American. There is no additional language requirement beyond the Dorothy F. Schmidt College of Arts and Letters requirement for the master of arts degrees.

Coursework will consist of at least 30 graduate credits for the thesis option (all in courses with readings in the original languages).-

**The M.A. degree in LLCL with a concentration in Linguistics** requires specialization in English or one of the department's major languages (French or Spanish). A minimum of 24 credits of coursework and 6 credits of thesis are required. Nine credits are earned by taking linguistics seminars such as Morphology and Syntax, Second Language Acquisition and Sociolinguistics.

Prerequisites include an advanced level of the language of specialization, or, for students specializing in English, intermediate reading proficiency in a foreign language.

The non-thesis option is the standard option. Students interested in applying for the thesis option should submit the required application materials to the Director of Graduate Studies by the end of the second semester of full-time study, or after completing 15 credits of part-time study.

### **Other Degree Concentrations without a Thesis**

The department also offers the M.A. degree in LLCL with concentrations in Comparative Literature, French, the Teaching of French, Linguistics, Spanish and the Teaching of Spanish without a thesis. These programs require 36 credits of coursework and the successful completion of a written comprehensive examination during the last semester of graduate study. In all cases, the non-thesis option is the standard option for the M.A. degree in LLCL, regardless of the specific area of concentration.

The M.A. in LLCL with a concentration in the Teaching of French or the Teaching of Spanish (focus in Latin American or Spanish Literature) is for students who have the intention of becoming teachers at the secondary\* or postsecondary lower-division level. The program requires 36 credits in literature and linguistics.-

The program may be modified in accordance with the student's undergraduate preparation and professional teaching experience. Grades below "B" will not be counted as fulfilling the requirements of the degree.

\* Certification is required for secondary teaching in Florida public schools.

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## Comparative Literature Concentration

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### Core - 6 credits

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Foundations of Languages, Linguistics and Comparative Literature	FOL 6731C	3
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Advanced Research Methods in Languages, Linguistics and Comparative Literature	FOL 6885	3
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### Non-Thesis Option - 36 credits

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#### *Primary Literature of Specialization - 15 credits*

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*Select five courses at the 5000 or 6000 level from within the Department of Languages, Linguistics and Comparative Literature*

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#### *Secondary Area of Specialization - 9 credits*

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*Select three courses at the 5000 or 6000 level from within the Department of Languages, Linguistics and Comparative Literature or outside the Department.*

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#### *Electives - 6 credits*

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*Select two courses at the 5000 or 6000 level from within the Department of Languages, Linguistics and Comparative Literature or outside the Department.*

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### Thesis Option - 30 credits

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***Primary Literature of Specialization - 12 credits***

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*Select four courses at the 5000 or 6000 level from within the Department of Languages, Linguistics and Comparative Literature*

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***Secondary Area of Specialization - 6 credits***

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*Select two courses at the 5000 or 6000 level from within the Department of Languages, Linguistics and Comparative Literature or outside the Department.*

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***Thesis - 6 credits***

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Master's Thesis <i>(may be taken over multiple terms)</i>	FRE, FRW, GER, ITW, LIN, LIT, SPN, SPW 6971	6
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**French Concentration**

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**Core - 6 credits**

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Foundations of Languages, Linguistics and Comparative Literature	FOL 6731C	3
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Advanced Research Methods in Languages, Linguistics and Comparative Literature	FOL 6885	3
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**Non-Thesis Option - 36 credits**

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***Field of Specialization - 21 credits***

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Histoire Litteraire	FRW 6105	3
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*Select six courses at the 5000 or 6000 level from the following prefixes: FRE, FRT, FRW or FOT*

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***Electives - 9 credits***

Research in Foreign Language Learning Theories	FLE 6892	3
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Historical Linguistics	LIN 6128	3
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*Select one additional 3-credit course at the 5000 or 6000 level from the following prefixes: FOL, FOT, FRE, FRT, FRW, LIN, LIT or TSL*

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**Thesis Option - 30 credits**

***Core - 6 credits***

Foundations of Languages, Linguistics and Comparative Literature	FOL 6731C	3
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Advanced Research Methods in Languages, Linguistics and Comparative Literature	FOL 6885	3
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***Field of of Specialization - 18 credits***

Histoire Litteraire	FRW 6105	3
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*Select five 3-credit courses at the 5000 or 6000 level from the following prefixes: FRE, FRT, FRW, FOL or FOT*

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***Thesis - 6 credits***

Master's Thesis	FRW 6971	6
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*(may be taken over multiple terms)*

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**Teaching of French Concentration**

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**Core - 6 credits**

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Foundations of Languages, Linguistics and Comparative Literature	FOL 6731C	3
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Advanced Research Methods in Languages, Linguistics and Comparative Literature	FOL 6885	3
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***Linguistics and Pedagogy Electives - 9 - 12 credits***

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Research in Foreign Language Learning Theories	FLE 6892	3
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*Select six courses at the 5000 or 6000 level from the following prefixes: FRE, FRT, FRW or FOT*

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***Electives - 9 credits***

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Research in Foreign Language Learning Theories	FLE 6892	3
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Structure of Modern French	FRE 6855	3
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Historical Linguistics	LIN 6128	3
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Sociolinguistics	LIN 6601	3 or
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Bilingualism	LIN 6622	3
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Second Language Acquisition	LIN 6720	3
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*Students may select 3-credit courses at the 5000 or 6000 level from the following prefixes: FLE, FOL, FOT, FRE, FRT, FRW, LIN, LIT or TSL*

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***Field of of Specialization - 18 - 21 credits***

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Histoire Litteraire	FRW 6105	3
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*Select 15 to 18 credits at the 5000 or 6000 level from the following prefixes: FLE, FRE, FRT, FRW, FOL or FOT*

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**Spanish Concentration**

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**Core - 6 credits**

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Foundations of Languages, Linguistics and Comparative Literature	FOL 6731C	3
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Advanced Research Methods in Languages, Linguistics and Comparative Literature	FOL 6885	3
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**Non-Thesis Option - 36 credits**

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***Field of Specialization - 21 credits***

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Introduction of Literary Theory and the Hispanic Tradition	SPW 6826	3
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History and Dialectology of Spanish	SPN 6835	3
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*Select an additional five courses at the 5000 or 6000 level from the following prefixes: SPN, SPT, SPW, FOL or FOT*

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***Secondary Field - 9 credits***

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Research in Foreign Language Learning Theories	FLE 6892	3
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*Select two courses at the 5000 or 6000 level from the following prefixes: AML, FOL, FOT, LIN, LIT, SPN, SPT, SPW or TSL*

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**Thesis Option - 30 credits****Core - 6 credits**

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Foundations of Languages, Linguistics and Comparative Literature	FOL 6731C	3
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Advanced Research Methods in Languages, Linguistics and Comparative Literature	FOL 6885	3
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***Field of of Specialization - 18 credits***

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Introduction of Literary Theory and the Hispanic Tradition	SPW 6826	3
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History and Dialectology of Spanish	SPN 6835	3
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*Select an additional four courses at the 5000 or 6000 level from the following prefixes: SPN, SPT, SPW, FOL or FOT*

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***Thesis - 6 credits***

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Master's Thesis ( <i>may be taken over multiple terms</i> )	SPW 6971	6
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**Teaching of Spanish Concentration**

**Core - 6 credits**

Foundations of Languages, Linguistics and Comparative Literature	FOL 6731C	3
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Advanced Research Methods in Languages, Linguistics and Comparative Literature	FOL 6885	3
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***Linguistics and Pedagogy Electives - 9 - 12 credits***

Research in Foreign Language Learning Theories	FLE 6892	3
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*Select six courses at the 5000 or 6000 level from the following prefixes: FRE, FRT, FRW or FOT*

***Electives - 9 credits***

Research in Foreign Language Learning Theories	FLE 6892	3
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Sociolinguistics	LIN 6601	3 or
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Bilingualism	LIN 6622	3
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Second Language Acquisition	LIN 6720	3
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Structure of Modern Spanish	SPN 6655	3
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Spanish Phonetics and Phonology	SPN 6795	3
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History and Dialectology of Spanish	SPN 6835	3
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*Students may select 3-credit courses at the 5000 or 6000 level from the following prefixes: FLE,*

*FOL, FOT, FRE, FRT, FRW, LIN, LIT or TSL*

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***Field of of Specialization - 18 - 21 credits***

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Introduction of Literary Theory and the Hispanic Tradition	SPW 6826	3
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*Select 15 to 18 credits at the 5000 or 6000 level from the following prefixes: AML, FOL, FOT, LIN, LIT, SPN, SPT, SPW or TSL*

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**Linguistics Concentration**

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**Core - 6 credits**

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Foundations of Languages, Linguistics and Comparative Literature	FOL 6731C	3
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Advanced Research Methods in Languages, Linguistics and Comparative Literature	FOL 6885	3
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**Non-Thesis Option - 36 credits**

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***Graduate Seminars - 21 credits***

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Structure of Modern French	FRE 6855	3
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History of the English Language	LIN 6107	3
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Historical Linguistics	LIN 6128 or	3
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History and Dialectology of Spanish	SPN 6835	3
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Principles of Linguistic Analysis	LIN 6135	3
Sociolinguistics	LIN 6601	3
Bilingualism	LIN 6622	3
Psycholinguistics	LIN 6707	3
Second Language Acquisition	LIN 6720	3
Seminar in Linguistics (topics vary, may be taken more than once)	LIN 6938	2-4

*May also select any 5000 or 6000 level course from the following prefixes: FOL, FOT, FRE, GER, ITA, LIN or SPN,*

### ***Linguistics Electives - 12 credits***

*Select four courses from the following*

Research in Foreign Language Learning Theories	FLE 6892	3
Structure of Modern French	FRE 6855	3
Structure of Modern Spanish	SPN 6655	3
Spanish Phonetics and Phonology	SPN 6795	3
Educational Statistics	STA 6113	3
Methods of TESOL and Bilingual Education	TSL 5345	3

*May select any 5000 or 6000 level course from the following prefixes: DEP, ENG, EXP, FOL, FOT,*

*FRE, FRT, FRW, GER, GET, GEW, ITA, ITT, ITW, LIN, LIT, PPE, PSB, SPC, SPN, SPT or SPW.*

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**Thesis Option - 30 credits**

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**Core - 6 credits**

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Foundations of Languages, Linguistics and Comparative Literature	FOL 6731C	3
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Advanced Research Methods in Languages, Linguistics and Comparative Literature	FOL 6885	3
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***Graduate Seminars - 15 credits***

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Structure of Modern French	FRE 6855	3
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History of the English Language	LIN 6107	3
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Historical Linguistics	LIN 6128	3 or
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History and Dialectology of Spanish	SPN 6835	3
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Principles of Linguistic Analysis	LIN 6135	3
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Sociolinguistics	LIN 6601	3
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Bilingualism	LIN 6622	3
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Psycholinguistics	LIN 6707	3
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Second Language Acquisition	LIN 6720	3
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Seminar in Linguistics (topics vary, may be taken more than once) LIN 6938 2-4

*May also select any 5000 or 6000 level course from the following prefixes: ENG, FOL, FRE, GER, ITA, LIN, LIT or SPN,*

### ***Linguistics Electives - 12 credits***

Select four courses from the following

Research in Foreign Language Learning Theories	FLE 6892	3
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Spanish Phonetics and Phonology	SPN 6795	3
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Educational Statistics	STA 6113	
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Methods of TESOL and Bilingual Education	TSL 5345	3
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*May also select any 5000 or 6000 level course from the following prefixes: DEP, ENG, EXP, FOL, FOT, FRE, FRT, FRW, GER, GET, GEW, ITA, ITT, ITW, LIN, LIT, PPE, PSB, SPC, SPN, SPT or SPW .*

## MUSIC

(**Music** programs are listed following **Women, Gender and Sexuality Studies**, under **School of the Arts, Music.**)

## PHILOSOPHY

### **Faculty:**

Baima, N., Interm Chair; Banchetti, M. P.; Headley, C. R.; Mindt, G.; Schneider, S., Distinguished Professor; Shusterman, R., Eminent Scholar.

The Philosophy Department offers a bachelor of arts degree program with an emphasis in the liberal arts and at the same time prepares the student for various career opportunities. The intellectual training provided is an excellent preparation for the study of law, the ministry and public service professions, as well as graduate study in philosophy and related disciplines.

In addition to offering the more traditional Philosophy major, the department also offers a traditional [minor in Philosophy](#). Students seeking honors designation in philosophy may pursue the department's [Honors in Philosophy program](#). The programs mentioned in this paragraph are described below after the description of the general Philosophy major.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## PHILOSOPHY BACHELOR OF ARTS (B.A.)

*(Minimum of 120 credits required)*

In addition to the University and College requirements for admission and graduation, students majoring in philosophy are required to earn 32 credits in philosophy courses as follow:

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### Required Core Courses - 21 credits

Ancient Philosophy	PHH 3100	3
Early Modern Philosophy	PHH 3420	3

Logic	PHI 2102	3
Knowledge and Reality	PHI 4380	3
Ethical Theory	PHI 4661	3
Senior Seminar in Philosophy	PHI 4938	3
Social and Political Philosophy	PHM 3200	3
<b>Electives - 12 credits</b>		
Medieval and Renaissance Philosophy	PHH 3280	3
Philosophy of Mind	PHH 3320	3
Pragmatism	PHH 3700	3
Late Modern Philosophy	PHH 4440	3
Introduction to Philosophy	PHI 2020	3
Critical Thinking	PHI 2100	3
Artificial Intelligence and Ethics	PHI 2680	3
Philosophy of Psychiatry	PHI 3453	3
Philosophy of Medicine	PHI 3456	3

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Moral Problems	PHI 3638	3
Environmental Ethics	PHI 3640	3
Asian Ethics and Art Theories	PHI 3870	3
Philosophy of Literature	PHI 3882	3
Philosophy of Performing Arts	PHI 3885	3
Symbolic Logic	PHI 4134	3
Philosophy of Science	PHI 4400	3
Philosophy of the Human and Social Sciences	PHI 4420	3
Biomedical Ethics	PHI 4633	3
Philosophy of Religion	PHI 4700	3
Aesthetics and Art Theory	PHI 4800	3
Directed Independent Study	PHI 4905	3
Special Topics	PHI 4930	3
Philosophy of Sexuality	PHM 3020	3

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Feminist Philosophy	PHM 3123	3
Philosophy of Law	PHM 3400	3
Philosophy of Technology	PHM 4223	3
Africana Philosophy	PHP 3781	3
Phenomenology	PHP 4782	3
Analytical Philosophy	PHP 4784	3
Existentialism	PHP 4786	3

No grade below a "C" in the courses above will count toward the degree.

## HONORS PROGRAM IN PHILOSOPHY

### Requirements for Eligibility

To be eligible for the Honors in Philosophy program, students must:

1. Have completed 60-90 credits;
2. Have officially declared the major in Philosophy;
3. Complete all core Philosophy courses in a timely manner;
4. Avoid any academic irregularities (cheating, plagiarism);
5. Have an overall GPA of 3.5;
6. Have a GPA in Philosophy courses of 3.5;
7. Complete PHI 4938 (Senior Seminar) with a minimum grade of "B."

### Requirements for Admission

Students must:

1. Meet all of the eligibility requirements listed above;
2. **Officially** apply for the Honors in Philosophy program **no later than** the beginning of the fall semester of their graduating year;
3. Submit a sample philosophical essay that meets with the approval of the faculty of the philosophy department.

### **Requirements for the Honors in Philosophy Designation**

Students must:

1. Register for PHI 4972 (Honors Thesis in Philosophy);
2. Write a thesis proposal, accompanied by a tentative bibliography, to be used in researching the thesis;
3. Request a specific Philosophy faculty member to serve as faculty mentor;
4. Produce and defend a satisfactory honors thesis (see Honors Capstone Requirement below for more details).

### **Honors Capstone Requirement**

Students seeking an Honors in Philosophy designation are required to complete a writing project informed by the intent of the student to draw together his/her entire honors experience. The final requirement that a student must satisfy in order to receive honors in philosophy is as follows:

1. Take PHI 4972 (Honors Thesis in Philosophy);
2. Produce a senior thesis of significant originality and scholarship that focuses on a subject area of philosophy or a particular philosopher;
3. Appoint a thesis committee of **at least** two faculty members, including the thesis mentor;

The thesis committee will review the thesis prior to the oral defense. Students must defend the thesis in front of the thesis committee, a month prior to the graduation date. If revisions are required, these must be completed and turned in to the committee prior to the graduation date.

**Note:** The Honors Thesis is distinct from the senior seminar paper.

### **Notes to Consider:**

1. PHI 4972 is not required for the B.A. in Philosophy. It is a requirement that must be fulfilled only if students wish to receive an Honors in Philosophy designation on their transcripts.
2. Students who do not pass the thesis and who receive a grade of “unsatisfactory” in PHI 4972 will not receive credit for the course and will, therefore, not receive the Honors in Philosophy designation.

Since PHI 4972 is graded on a “satisfactory/unsatisfactory” basis, receiving a grade of “unsatisfactory” on PHI 4972 will not harm a student’s GPA, and the student will still be able to graduate with a B.A. in Philosophy, if that student has met all of the departmental, college, and University requirements for the B.A.

## PHILOSOPHY UNDERGRADUATE MINOR

*(Minimum of 15 credits required)*

The minor in Philosophy requires a minimum of 15 credits, a minimum of 12 of which should be earned at FAU. The courses must be taken according to the list below, and a grade of "C" or above must be earned in each course.

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### Select one course in logic/critical thinking

Critical Thinking	PHI 2100	3
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Logic	PHI 2102	3
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### Select any four courses from this list

Ancient Philosophy	PHH 3100	3
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Medieval and Renaissance Philosophy	PHH 3280	3
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Philosophy of Mind	PHH 3320	3
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Early Modern Philosophy	PHH 3420	3
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Pragmatism	PHH 3700	3
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Late Modern Philosophy	PHH 4440	3
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Introducton to Philosophy	PHI 2020	3
Artificial Intelligence and Ethics	PHI 2680	3
Philosophy of Psychiatry	PHI 3453	3
Philosophy of Medicine	PHI 3456	3
Moral Problems	PHI 3638	3
Environmental Ethics	PHI 3640	3
Asian Aesthetics and Art Theories	PHI 3870	3
Philosophy of Literature	PHI 3882	3
Philosophy of Performing Arts	PHI 3885	3
Symbolic Logic	PHI 4134	3
Knowledge and Reality	PHI 4380	3
Philosophy of Science	PHI 4400	3
Philosophy of the Human and Social Sciences	PHI 4420	3
Biomedical Ethics or RI: Biomedical Ethics	PHI 4633	3
Ethical Theory	PHI 4661	3
Philosophy of Religion	PHI 4700	3

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Aesthetics and Art Theory	PHI 4800	4
Directed Independent Study	PHI 4905	3
Special Topics	PHI 4930	3
Philosophy of Sexuality	PHM 3020	3
Feminist Philosophy	PHM 3123	3
Spcial and Political Philosophy	PHM 3200	3
Philosophy of Law	PHM 3400	3
Philosophy of Technology	PHM 4223	3
Africana Philosophy	PHP 3781	3
Phenomenology	PHP 4782	3
Analytical Philosophy	PHP 4784	3
Existentialism	PHP 4786	3

### Graduate Courses in Philosophy

The Department of Philosophy is building a list of graduate-level courses intended to serve a diverse constituency of students in the College of Arts and Letters. These include students in the Ph.D. in Comparative Studies and various other master's programs in the College. Refer to the Arts and Letters Course Description section for a list of graduate Philosophy courses.

# POLITICAL SCIENCE

## Faculty:

Gurses, M.; Chair; Atkins, B.; Christley, O. R.; Garcia, L.; Kim, D.; Kirshner, O.; LaRocco, A.; LeMoine, R.; Morton, J.; Nichols, A. D.; Prier, E.; Rabil, R.; Roper, S.; Schwerin, E.; Shaykhutdinov, R.; Shockley, K.; Turbino Torres, L.; Wagner, K.

The B.A. program is designed to provide a broad overview of the discipline of political science. It offers a firm grounding in all aspects of the discipline while ensuring flexibility for students to design programs of study to fit their particular needs through the selection of electives. An [Honors Program](#) gives students the opportunity to gain research skills, improve their critical thinking and writing skills, increase interaction with faculty members and complete their degree with an honors distinction.

## Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

[Link to B.S. with Major in Data Science and Analytics](#)

[Link to Minors](#)

[Link to Master's Programs](#)

## POLITICAL SCIENCE BACHELOR OF ARTS (B.A.)

### Global Governance Concentration

## Pre-Law Concentration

*(Minimum of 120 credits required)*

### Degree Requirements

The Bachelor of Arts Degree in Political Science requires meeting the following requirements:

1. All bachelor's degree requirements (stipulated in the University Catalog, including foreign language).
2. A minimum of 36 political science credits with no grade less than "C."

3. The following two courses:

Government of the U.S.*	POS 2041	3
Exploring Political Science	POS 3330	3

\* POS 2041 fulfills the State of Florida's Civic Literacy Requirement.

4. Two of the following courses:

Comparative Politics	CPO 3003	3
Introduction to World Politics	INR 2002	3
RI: Research Methods in Political Science	POS 3703	3
Global Political Theory	POT 2000	3

5. A minimum of 24 upper-division credits, with at least one 3-credit course taken in three of the following five categories:

**American Politics:** Any 3000/4000 level course with a POS prefix (POS 4931 may be repeated for credit with a different topic).

**Comparative Politics:** Any 3000/4000 level course with a CPO prefix (CPO 4932 may be repeated for credit with a different topic).

**International Relations:** Any 3000/4000 level course with an INR prefix (INR 4932 may be repeated for credit with a different topic).

**Political Theory:** Any 3000/4000 level course with a POT prefix (POT 4932 may be repeated for credit with a different topic).

**Public Policy:** Any 3000/4000 level course with a PUP prefix.

### Global Governance Concentration

The primary purpose of the Department of Political Science's Global Governance concentration is to enable students to study and increase their understanding of the causes and consequences of globalization as well as the political, economic and ecological dimensions of globalization. The program is organized around various themes of "global significance," such as global governance and human rights, including issues of peace and conflict among peoples and states; global terrorism; and the interrelationships of global justice, rights and responsibilities with new models of international organization, administration and development.

In addition to the University and College requirements for admission and graduation and the Political Science requirements, students enrolled in the Political Science Global Governance concentration are required to complete five of the core courses below.

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#### Core Courses (select five courses from below)

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Political Science Study Abroad	CPO 4957	1-6
American Foreign Policy	INR 3102	3
International Law: Foundations and Institutions	INR 3403	3
International Organization	INR 3502	3
International Political Economy	INR 3702	3

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War and Peace	INR 4006	3
The International System	INR 4081	3
Advanced Diplomacy	INR 4503	3

### **Pre-Law Concentration**

The Department of Political Science's Pre-Law Concentration prepares students for legal careers by developing knowledge and skills necessary to succeed in law school. The concentration includes courses from subfields in political science focusing on American constitutional law, judicial process and international law. Students in this program take courses that include topics and issues in law school coursework and develop the abilities to read for a clear understanding of content, think critically, solve problems and communicate with greater precision and clarity.

The concentration does not require additional credits in the Political Science major. In addition to the University and College requirements for admission and graduation and the Political Science requirements, students enrolled in the Pre-Law Concentration are required to complete four of the courses below as part of the B.A. in Political Science.

### **Required Courses (select four courses from below)**

International Law: Foundations and Institutions	INR 3403	3
International Law of Peace and Diplomacy	INR 3413	3
International Law of Armed Conflict	INR 3433	3
Law and American Society	POS 3691	3
Constitutional Law: Government Powers and Limits	POS 4603	3

Constitutional Law: Civil Rights and Liberties	POS 4604	3
The U.S. Supreme Court	POS 4606	3
The Judicial Process	POS 4609	3
U.S. Environmental Law and Policy	POS 4697	3
Special Topics (with departmental approval)	POS 4931	3
Government and the Economy	PUP 4710	3

## DATA SCIENCE AND ANALYTICS BACHELOR OF SCIENCE (B.S.)

### Data Science in the Natural Sciences Concentration

### Data Science and Engineering Concentration

### Data Science in Business Concentration

*(Minimum of 120 credits required)*

The Bachelor of Science with Major in Data Science and Analytics (BSDSA) program is a multi-college, interdisciplinary program administered jointly by the Department of Mathematics and Statistics in the Charles E. Schmidt College of Science, the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science, the Department of Information Technology and Operations Management (ITOM) in the College of Business, the Department of Political Science in the Dorothy F. Schmidt College of Arts and Letters and the School of Criminology and Criminal Justice in the College of Social Work and Criminal Justice. For details about this program, see the [Interdisciplinary Programs](#) section of this catalog.

## HONORS PROGRAM IN POLITICAL SCIENCE

The Honors Program in Political Science encourages the highest achieving students to engage in the

subject more intensely and participate in significant original research while undergraduates. Honors Program participants learn how to identify a research puzzle and ask questions, gain the ability to critically analyze political science literature and write a literature review, use new skills to make objective theoretical arguments within their chosen subfield and select and apply an appropriate hypothesis, which may include collecting and analyzing empirical data. Throughout their research-intensive coursework, Honors Program students have a firsthand experience in the research process—working collaboratively with fellow students and faculty, writing and revising a journal article-length paper and presenting findings in a professional setting.

## Admission Requirements

1. Students may apply after completing a minimum of 9 credit hours in political science.
2. Minimum criteria for admission include 3.2 cumulative GPA; 3.6 GPA in political science courses; and students should have at least two academic semesters left in which to complete program requirements.
3. Students should complete an application provided by the department, including a personal statement addressed to the chair of the department explaining why they seek honors in the field. Students should also solicit a letter from one Political Science Department faculty member supporting their application. Completed applications will be reviewed by faculty. Admission to the Honors Program is contingent on approval by the department faculty.
4. Applications for admission should be submitted to [Dr. D. Kim](#) or [Dr. A. Nichols](#).

## Standards for Maintaining Active Status

1. Once accepted, students must maintain a GPA of 3.2 throughout the program to make progress. If less than a “B” is earned in any political science course or the student’s cumulative GPA falls below 3.2, the student will be reviewed for dismissal from the Honors Program.
2. Continued enrollment in the program is contingent upon strict adherence to the Code of Academic Integrity. Any violation of the Code will be grounds for dismissal from the Honors Program.
3. The minimum amount of time necessary to complete the Honors Program is one year.

## Criteria for Successful Completion

In addition to maintaining program standards, students must:

1. Complete the following course requirements.
  - a. An undergraduate methods course with an honors compact or a graduate-level methods course (must have already taken an undergraduate methods course to choose this option).
  - b. An upper-level undergraduate course or graduate-level course relevant to thesis project.

## 2. Complete the capstone project.

- a. Project will take the form of a senior thesis, i.e., an article-length (25 pages, double-spaced) investigation of a significant research question.
- b. Project must be overseen by a faculty member in the Political Science Department through Directed Independent Study (DIS) classes. Students should enroll in a minimum of 3 DIS credits and a maximum of 9 DIS credits.
- c. Students must present their project at a department workshop, the University's undergraduate research symposium or a major political science conference, such as the annual meeting of the Florida Political Science Association.
- d. Students must submit their project for review and approval by the Honors Program Committee. The thesis should be submitted at least one month prior to the desired graduation date.
- e. If a student does not maintain the necessary standards, credits earned during the Honors Program may be applied for credit in the major.

## MINORS

### POLITICAL COMMUNICATION UNDERGRADUATE MINOR

*(Minimum of 12 credits required)*

The undergraduate minor in Political Communication gives students in any major the opportunity to bring together courses from Communication and Multimedia Studies and Political Science into a multidisciplinary curriculum. Students are offered scholarly study of political networks as well as hands-on courses in political advocacy and campaigning.

This minor is open to all degree-seeking students and will be awarded upon completion of a bachelor's degree. A student who already holds a baccalaureate degree may pursue the minor in conjunction with a second bachelor's degree. All courses taken in the program may be counted toward other general and specific graduation requirements, and courses taken to fulfill other requirements may be applied to this minor.

Requirements for the minor include completion of four courses (12 credits) with a minimum grade of "C" and a 2.5 GPA. Students are required to choose two courses from the Communication and Multimedia Studies list and two courses from the Political Science list. At least 75 percent of all credits for the minor must be earned from FAU. In addition to the regular curriculum, other courses with

significant attention to political communication may be approved by the program director.

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### **Communication and Multimedia Studies**

*(Select two courses from the list below)*

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Political Communication	COM 3500	3
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New Media and Civic Discourse	COM 4603	3
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Public and Community Relations	PUR 4411	3
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American Multicultural Discourse	SPC 3704	3
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Argumentation and Debate	SPC 4513	3
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Propaganda	SPC 4540	3
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### **Political Science**

*(Select two courses from the list below)*

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Advanced Diplomacy	INR 4503	3
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Political Podcasting	MMC 4127C	3
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Community Activism in Practice	POS 3950	3
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Public Opinion and American Politics	POS 4204	3
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Media in Politics	POS 4235	3
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Advanced Campaigning	POS 4271	3
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Campaigns/Elections	POS 4275	3
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## POLITICAL SCIENCE UNDERGRADUATE MINOR

*(Minimum of 15 credits required)*

A minor in Political Science requires a minimum of 15 credits (12 of which must be taken at FAU) in political science courses, including:

1. The following two courses:

Government of the U.S.*	POS 2041	3
Exploring Political Science	POS 3330	3

\* POS 2041 fulfills the State of Florida's Civic Literacy Requirement.

2. One of the following four courses:

Comparative Politics	CPO 3003	3
Introduction to World Politics	INR 2002	3
RI: Research Methods in Political Science	POS 3703	3
Global Political Theory	POT 2000	3

Two upper-division Political Science courses (6 credits) with a minimum grade of "C."

## MASTER'S PROGRAMS

### POLITICAL SCIENCE MASTER OF ARTS (M.A.)

*(Minimum of 30 credits required)*

The Department of Political Science offers the Master of Arts degree, which requires 30 graduate credits. Students may choose from a non-thesis or thesis option to meet the requirements of the degree. The non-thesis option is designed for students who wish to specialize in an area of study by completing two seminars instead of a thesis. Those who prefer the thesis option may do so with the permission of the Director of Graduate Studies. The thesis option is designed to prepare graduates for doctoral or professional programs. All students are admitted as non-thesis students. After the completion of at least 9 but not more than 15 graduate credits, a student may apply for admission to the thesis option. The application is submitted to the graduate director. If the Graduate Committee grants thesis-option status, the student must work with the graduate director to create a thesis committee.

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### Core - 9 credits

Research Design in Political Science*	POS 6736	3
Seminar in American National Government	POS 6045	3
Seminar in Comparative Political Processes	CPO 6007	3

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### Non-Thesis Option - 21 credits\*\*

*Seminars - 21 credits*

Select seven courses at the 6000 level from the Department of Political Science

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### Thesis Option - 21 credits\*\*

*Seminars - 15 credits*

Select five courses at the 6000 level from the Department of Political Science

*Thesis - 6 credits*

Master's Thesis	POS 6971	6
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\* POS 6736 must be completed the first semester of enrollment or the first semester the course is offered after admission to the graduate program.

\*\* With the approval of the graduate director, a student may take a maximum of 6 credits outside the Department of Political Science.

## **DATA SCIENCE AND ANALYTICS MASTER OF SCIENCE (M.S.)**

**Data Science via Scientific Inquiry Concentration**

**Data Science and Engineering Concentration**

**Data Science in Business Concentration**

**Data Science in Society Concentration**

The [Master of Science with Major in Data Science and Analytics](#) (MSDSA) is a multi-college interdisciplinary program jointly administered by the Department of Mathematics and Statistics in the Charles E. Schmidt College of Science, the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science, the Department of Information Technology and Operations Management (ITOM) in the College of Business and the Department of Political Science in the Dorothy F. Schmidt College of Arts and Letters. The program aims to prepare students with essential skill sets needed to analyze small, fast, big, massive and complex data. To allow for maximum flexibility in career aspirations, students may select from four concentrations:

- Data Science via Scientific Inquiry Concentration, Department of Mathematics and Statistics.
- Data Science and Engineering Concentration, Department of Electrical Engineering and Computer Science.
- Data Science in Business Concentration, Department of Information Technology and Operations Management.
- Data Science in Society Concentration, Department of Political Science.

For more information about the Master of Science with Major in Data Science and Analytics degree program, see the [Interdisciplinary Program](#) section of this catalog.

## **SCHOOL OF PUBLIC ADMINISTRATION**

**Faculty:**

Sapat, A., Director; Ben-Zadok, E.; Bourassa, S.; Farazmand, A.; Leip, L.; Liu, G.; McCue, C.; Miller, H.; Nyhan, R.; Patterson, P.; Prysmakova, P.; Sementelli, A.

The School of Public Administration offers a Bachelor of Public Management degree program, a Bachelor of Public Safety Administration and minors in Disaster Management, Nonprofit Management and Public Management.

For graduate students, the School offers a Doctor of Philosophy degree in Public Administration, a Master of Nonprofit Management and a Master of Public Administration.

[Link to Bachelor of Public Safety Administration](#)

[Link to Minors](#)

[Link to Combined Programs](#)

[Link to Master's Programs](#)

[Link to Nonprofit Executive Leadership Certificate](#)

[Link to Public Ethics and Leadership Certificate](#)

[Link to Public Policy Certificate](#)

[Link to Doctoral Program](#)

## **PUBLIC MANAGEMENT**

### **BACHELOR OF PUBLIC MANAGEMENT (B.P.M.)**

*(Minimum of 120 credits required)*

The Bachelor of Public Management (B.P.M.) degree is designed to provide a broad understanding of the administrative structures and functions found in public sector organizations. In addition to equipping students with foundation skills relevant to work in public sector organizations, the B.P.M. encourages study in related areas such as architecture, business, criminal justice, political science, psychology, social work, sociology and urban and regional planning. In this way, students have an

opportunity to adapt their programs of study to fit their own academic and career interests.

### Admission Requirements

For admission to this program, students must meet the general admission requirements of the University as described in the [Admissions section](#) of this catalog. In addition, the following courses or their equivalents must have been completed at the lower-division level:

Government of the U.S.	POS 1041	3
Macroeconomic Principles	ECO 2013	3
Information Systems Fundamentals	ISM 2000	3
Introductory Statistics	STA 2023	3

Students admitted without having completed the above prerequisites must complete them early in their junior years with a "C-" or better.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or state college or through equivalent coursework at another regionally accredited institution.

Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#). All prerequisite courses must be completed by the School's designated date or within the first year after transferring to FAU and before reaching senior status (90 total credits).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### Degree Requirements

To earn the B.P.M. degree, students must complete all of the requirements of the University described

in the [Degree Requirements section](#) of this catalog.

### Transfer Credit

Transfer of 3000-4000-level PAD coursework is not allowed unless by exception. Exceptions are to be made via the petition process at the time of admission, and requested transfer credits are limited to 9 credits in which the student earned a minimum grade of "C." Under no circumstances will students be able transfer courses to replace Public Management and Administration (PAD 3003). Credits older than seven years may not be transferred to the graduate program.

A minimum grade of "C" is required for core courses and the 12 credits of public administration electives as outlined below:

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#### Required Core Courses - 21 credits

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Public Management and Administration	PAD 3003	3
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Organizational Behavior and Administrative Communication	PAD 3104	3
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Public Budgeting and Finance	PAD 4223	3
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Managing People in the Public Sector	PAD 4414	3
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Administrative Process and Ethics	PAD 4604	3
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Quantitative Inquiry for Public Managers	PAD 4702*	3
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Research Methods for Public Management	PAD 4704	3
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\* Requires STA 2023 as prerequisites.

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#### Public Administration Electives - 12 credits

*(Select four courses from those listed below.)*

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Communication Skills for Public Managers	PAD 3438	3
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Information Technology in Public Administration	PAD 3712	3
Introduction to Nonprofit Sector	PAD 4144	3
Funding for Nonprofit Organizations	PAD 4202	3
Financial Management of Nonprofit Organizations	PAD 4203	3
Public Budgeting Techniques and Processes	PAD 4228	3
Program Evaluation in Public Management	PAD 4320	3
Managing for Excellence in the Public and Nonprofit Sectors	PAD 4332	3
Public Sector Labor Relations	PAD 4426	3
State and Local Government Administration	PAD 4806	3
Directed Independent Study	PAD 4905*	3
Special Topics	PAD 4931	3
Government Internship	PAD 4941	3
Nonprofit Internship	PAD 4942	3

\* With approval of instructor and Director of the School.

### **Approved Electives, Upper-Division (21 credits)**

Electives are selected and approved in consultation with the student's academic advisor in the Dorothy F. Schmidt College of Arts and Letters. Credits from this area may be used to satisfy deficiencies in

General Education requirements within limits imposed by College or University policies.

## **Free Electives (6 credits)**

## **PUBLIC SAFETY ADMINISTRATION**

### **BACHELOR OF PUBLIC SAFETY ADMINISTRATION (B.P.S.A.)**

#### **Disaster Management Concentration**

#### **Law Enforcement and Corrections Concentration**

*(Minimum of 120 credits required)*

The Bachelor of Public Safety Administration (B.P.S.A.) is an undergraduate degree program for South Florida professionals and preprofessionals interested in police and disaster response practice and administration. Its overall purpose is to provide: 1) a professional/preprofessional degree program for students entering the fields of law enforcement, homeland security and disaster response; 2) interested students a foundation for continuing in a professionally focused graduate program and 3) an “umbrella degree” that allows students to combine key areas from several disciplines to graduate with a preprofessional degree. Students graduating from the program will have improved opportunities in the police, homeland security (airports, seaports, etc.) and disaster management fields throughout South Florida and the United States.

#### **Admission Requirements**

For admission to this program, students must meet the general admission requirements of the University as described in the [Admissions section](#) of the catalog.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or state college or through equivalent coursework at another regionally accredited institution.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Degree Requirements

The Bachelor of Public Safety Administration requires 60 credits, including 18 credits in core requirements, 12 credits in one of two concentrations and 30 credits in electives as follows:

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### Required Core Courses - 18 credits

*(The six courses below must be completed with a "C" or better.)*

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Introduction to Public Safety Administration	PAD 3820	3
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Public Safety Systems	PAD 3893	3
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Organizational Behavior and Administrative Communication	PAD 3104	3
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Administrative Process and Ethics	PAD 4604	3
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Diversity and Social Vulnerability in Public Safety Administration	PAD 4894	3
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Capstone in Public Safety Administration	PAD 4892*	3
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\* Prerequisites for Capstone: Enrollment is restricted to B.P.S.A. majors who are in the final two semesters of their degree program and who have taken four of the following five courses: PAD 3104, PAD 3820, PAD 3893, PAD 4604 and PAD 4894.

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### Concentrations - 12 credits

*(Students select one of the two concentrations below.)*

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#### ***Law Enforcement and Corrections Concentration***

*(Select four courses from the list below. The courses must be completed with a "C" or better.)*

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Corrections	CJC 4310	3
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Crime in the School	CCJ 3660	3
Organized Crime and the Business of Drugs	CCJ 4642	3
White Collar Crime	CCJ 4644	3
Policing in America	CJE 4352	3
Crime Analysis	CJE 4663	3
Criminal Justice Management	CCJ 4450	3
Fundamentals of Criminal Investigation	CJE 4610	3
Juvenile Justice Administration	CJJ 4010	3
Criminal Justice Field Experience 1	CCJ 4940	3
Terrorism	DSC 4012	3
Crime Prevention	CJE 4444	3
Studying Violence	CCJ 4623	3
Stand Your Ground	PAD 4814	3
<b><i>Disaster Management Concentration</i></b>		
<i>(Select four courses from the list below. The courses must be completed with a "C" or better.)</i>		
Planning for Hazards/Disasters	URP 4430	3
Introduction to Volunteer Management	PAD 4148	3

Multiagency Incident Command	FES 3803	3
Introduction to Visual Planning Technology	URP 4254	3
Government Internship	PAD 4941	3
Disaster and Emergency Management	PAD 4393	3
Sustainable Cities	URP 4403	3

### Free Electives - 30 credits

The remaining 30 required credits (or 10 courses) are free electives available for students to customize their educational experience. Students are strongly encouraged to select electives that will enhance their General Education coursework and that will support their intended baccalaureate degree program. Of the 30 elective credits, at least 15 credits must be upper-division courses (3000 or higher). The choice of free electives is a personal decision. However, the College of Arts and Letters encourages consultation with the student's academic advisor to ensure the process runs smoothly. Credits from this area may be used to satisfy deficiencies in General Education requirements within limits imposed by College or University policies.

For more information about the B.P.S.A. program, including program admission, scheduling and other general questions, visit its [website](#).

## MINORS

### DISASTER MANAGEMENT UNDERGRADUATE MINOR

*(Minimum of 12 credits required)*

The Disaster Management minor, available to students from all undergraduate majors at FAU, expands knowledge and skills about the concepts, issues and technologies involved in preparing for and managing the aftermath of a major disaster. Educational outcomes for the minor will integrate material from the unique perspectives of the departments involved into skills such as communication, use of

resources, visual planning technologies, cultural competence and preparedness as professionals and as individual, family and community members.

Students must complete 12 credits from the courses listed below. Of the 12 credits, at least 9 credits must be earned at FAU. All courses must be completed with a minimum grade of "C" or better.

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### Required Courses (12 credits from below)

Introduction to Volunteer Management	PAD 4148	3
Planning for Hazards/Disasters	URP 4430	3
Introduction to Public Safety Administration	PAD 3820	3
Emergency and Disaster Management	PAD 4393	3
Multiagency Incident Command	FES 3803	3
Social Work and Emergency Relief	SOW 4679	3

## NONPROFIT MANAGEMENT UNDERGRADUATE MINOR

*(Minimum of 15 credits required)*

A minor in Nonprofit Management consists of 15 credits of upper-division coursework. Of the 15 credits, at least 12 must be earned from FAU. The minor is designed for nonprofit professionals and others who wish to take these undergraduate courses to enhance their skills. *A minimum grade of "C" is required for each course. Grades of "C-" and below are not acceptable.*

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### Minor Requirements

Introduction to Nonprofit Sector	PAD 4144	3
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Funding for Nonprofit Organizations	PAD 4202	3
Financial Management of Nonprofit Organizations	PAD 4203	3
Managing for Excellence in the Public and Nonprofit Sectors	PAD 4332 or	3
Special Topics (Legislative Advocacy)	SOW 4930	
Nonprofit Internship	PAD 4942	3

The internship (PAD 4942) is waived for students with demonstrated experience in the nonprofit sector or for students enrolled in SOW 4510.

## **PUBLIC MANAGEMENT UNDERGRADUATE MINOR**

*(Minimum of 15 credits required)*

A minor in Public Management consists of 15 credits of upper-division coursework. Of the 15 credits, at least 12 must be earned from FAU. The minor provides the student with a base of knowledge about management issues in government, the application of management principles, administrative and regulatory procedures, due process and administrative ethics. Additionally, the minor exposes the student to specific areas of public management, including public personnel, budgeting and finance and organizational behavior. A minimum grade of "C" is required for each PAD-prefixed course. Grades of "C-" and below cannot be applied to the minor.

### **Minor Requirements**

*Complete the following 12 credits:*

Public Management and Administration	PAD 3003	3
Organizational Behavior and Administrative	PAD 3104	3

## Communication

Public Budgeting and Finance	PAD 4223	3
Managing People in the Public Sector	PAD 4414	3
<i>Complete 3 credits from the following:</i>		
Public Budgeting Techniques and Processes	PAD 4228	3
Program Evaluation in Public Management	PAD 4320	3
Managing for Excellence in the Public and Nonprofit Sectors	PAD 4332	3
Public Sector Labor Relations	PAD 4426	3
Administrative Process and Ethics	PAD 4604	3
State and Local Government Administration	PAD 4806	3
Special Topics	PAD 4931	3

## COMBINED PROGRAMS

**PUBLIC MANAGEMENT TO NONPROFIT MANAGEMENT****BACHELOR OF PUBLIC MANAGEMENT (B.P.M.) TO MASTER OF NONPROFIT MANAGEMENT (M.N.M.)  
COMBINED PROGRAM***(Minimum of 153 credits required)*

The B.P.M./M.N.M. combined degree program enables outstanding students to graduate with both a

Bachelor of Public Management and a Master of Nonprofit Management in as little as five years. The program is 153 credits. Students complete 120 credits for the undergraduate degree and 33 credits for the graduate degree. Students complete the undergraduate degree first, taking no more than 12 credits of graduate coursework during their senior year, which are then used to satisfy requirements for both degrees. Prospective students must formally apply to this program and meet all admission requirements, including the minimum GPA of 3.25 on a 4.0 scale.

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### Required Core Courses - 21 credits

Public Management and Administration	PAD 3003	3
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Organizational Behavior and Administrative Communication	PAD 3104	3
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Public Budgeting and Finance	PAD 4223	3
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Managing People in the Public Sector	PAD 4414	3
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Administrative Process and Ethics	PAD 4604	3
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Quantitative Inquiry for Public Managers	PAD 4702	3
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Research Methods for Public Management	PAD 4704	3
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### Approved Electives - Upper Division, 21 credits

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#### Free Electives - 6 credits

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#### Public Administration Electives - Choose up to 12 credits from the M.N.M. Program

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#### Senior Year (Fall)

PAD 6142, Introduction to Nonprofit Management

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**Senior Year (Spring)**

Options for 3 or 6 credits include:  
PAD 6166, Human Resource Management for Nonprofits;  
PAD 6206, Fundraising for Nonprofit Organizations;  
PAD 6233, Grant Writing and Project Management;  
PAD 6260, Financial Management for Nonprofit Managers; or  
other 5000- or 6000-level electives

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**Summer**

Options for 3 or 6 credits include:  
PAD 6143, Public Policy and Nonprofit Organizations;  
PAD 6165, Legal and Ethical Issues in Nonprofit Organizations; or  
other 5000- or 6000-level electives

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**M.N.M. (Fall)**

Choose up to 9 credits from Core or Elective courses

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**M.N.M. (Spring)**

Choose up to 6 credits from Core or Elective courses;  
PAD 6943, Internship - Nonprofit Organizations

**PUBLIC MANAGEMENT TO PUBLIC ADMINISTRATION**  
**BACHELOR OF PUBLIC MANAGEMENT (B.P.M.) TO MASTER OF PUBLIC**  
**ADMINISTRATION (M.P.A.)**  
**COMBINED PROGRAM**

*(Minimum of 156 credits required)*

The B.P.M./M.P.A. combined degree program enables outstanding students to graduate with both a Bachelor of Public Management and a Master of Public Administration in as little as five years. The program is 156 credits. Students complete 120 credits for the undergraduate degree and 36 credits for the graduate degree. Students complete the undergraduate degree first, taking no more than 12 credits of graduate coursework during their senior year, which are then used to satisfy requirements for both degrees. Prospective students must formally apply to this program and meet all admission requirements, including the minimum GPA of 3.25 on a 4.0 scale.

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**Required Core Courses - 21 credits**

Public Management and Administration	PAD 3003	3
Organizational Behavior and Administrative Communication	PAD 3104	3
Public Budgeting and Finance	PAD 4223	3
Managing People in the Public Sector	PAD 4414	3
Administrative Process and Ethics	PAD 4604	3
Quantitative Inquiry for Public Managers	PAD 4702	3
Research Methods for Public Management	PAD 4704	3

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**Approved Electives, Upper Division - 21 credits**

**Free Electives - 6 credits**

**PUBLIC SAFETY ADMINISTRATION TO NONPROFIT MANAGEMENT**  
**BACHELOR OF PUBLIC SAFETY ADMINISTRATION (B.P.S.A.) TO MASTER OF**  
**NONPROFIT MANAGEMENT (M.N.M.)**

## COMBINED PROGRAM

*(Minimum of 153 credits required)*

The B.P.S.A./M.N.M. combined degree program enables outstanding students to graduate with both a Bachelor of Public Safety Administration and a Master of Nonprofit Management in as little as five years. The program is 153 credits. Students complete 120 credits for the undergraduate degree and 33 credits for the graduate degree. Students complete the undergraduate degree first, taking no more than 12 credits of graduate coursework during their senior year, which are then used to satisfy requirements for both degrees. Prospective students must formally apply to this program and meet all admission requirements, including the minimum GPA of 3.25 on a 4.0 scale.

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### Required Core Courses - 18 credits

Organizational Behavior and Administrative Communication	PAD 3104	3
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Introduction to Public Safety Administration	PAD 3820	3
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Public Safety Systems	PAD 3893	3
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Administrative Process and Ethics	PAD 4604	3
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Capstone in Public Safety Administration	PAD 4892	3
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Diversity and Social Vulnerability in Public Safety Administration	PAD 4894	3
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### Concentration Courses - 12 credits

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### Free Electives - 30 credits - Choose up to 12 credits from the M.N.M. Program

<b>Senior Year (Fall)</b>	PAD 6142, Introduction to Nonprofit Management
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## **Senior Year (Spring)**

Options for 3 or 6 credits include:  
PAD 6166, Human Resource Management for Nonprofits;  
PAD 6206, Fundraising for Nonprofit Organizations;  
PAD 6233, Grant Writing and Project Management;  
PAD 6260, Financial Management for Nonprofit Managers; or  
other 5000- or 6000-level electives

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## **Summer**

Options for 3 or 6 credits include:  
PAD 6143, Public Policy and Nonprofit Organizations;  
PAD 6165, Legal and Ethical Issues in Nonprofit Organizations; or  
other 5000- or 6000-level electives

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## **M.N.M. (Fall)**

Choose up to 9 credits from Core or Elective courses

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## **M.N.M. (Spring)**

Choose up to 6 credits from Core or Elective courses;  
PAD 6943, Internship - Nonprofit Organizations

## PUBLIC SAFETY ADMINISTRATION TO PUBLIC ADMINISTRATION BACHELOR OF PUBLIC SAFETY ADMINISTRATION (B.P.S.A.) TO MASTER OF PUBLIC ADMINISTRATION (M.P.A.) COMBINED PROGRAM

*(Minimum of 156 credits required)*

The B.P.S.A./M.P.A. combined degree program enables outstanding students to graduate with both a Bachelor of Public Safety Administration and a Master of Public Administration in as little as five years. The program is 156 credits. Students complete 120 credits for the undergraduate degree and 36 credits for the graduate degree. Students complete the undergraduate degree first, taking no more than 12 credits of graduate coursework during their senior year, which are then used to satisfy requirements for both degrees. Prospective students must formally apply to this program and meet all admission requirements, including the minimum GPA of 3.25 on a 4.0 scale.

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### Required Core Courses - 18 credits

Organizational Behavior and Administrative Communication	PAD 3104	3
Introduction to Public Safety Administration	PAD 3820	3
Public Safety Systems	PAD 3893	3
Administrative Process and Ethics	PAD 4604	3
Capstone in Public Safety Administration	PAD 4892	3
Diversity and Social Vulnerability in Public Safety Administration	PAD 4894	3

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### Concentration Courses - 12 credits

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### Free Electives\* - 30 credits. Choose up to 12 credits from the M.P.A. Program

\* **Note.** STA 2023 is a prerequisite for admission to the M.P.A. program, so this course must be taken either as part of a student's B.P.S.A. elective courses or prior to full admission into the M.P.A. program.

## MASTER'S PROGRAMS

The School of Public Administration offers two master's degree programs: Master of Nonprofit Management (M.N.M.) and Master of Public Administration (M.P.A.). Three graduate certificates are also available: [Nonprofit Executive Leadership](#), [Public Ethics and Leadership](#), and [Public Policy](#).

[Link to Master of Public Administration](#)

[Link to Doctoral Program](#)

## **NONPROFIT MANAGEMENT**

### **MASTER OF NONPROFIT MANAGEMENT (M.N.M.)**

*(Minimum of 33 credits required)*

#### **Degree Goals**

The Master of Nonprofit Management (M.N.M.) degree program was designed as a professional degree to meet the unique needs of the nonprofit sector. It is open to preservice students as well as managers and leaders in human services, fine and performing arts, and cultural, educational, community development, religious, environmental and other nonprofit organizations. The curriculum recognizes the special concerns of nonprofit organizations in such areas as: management of volunteers and professionals; resource development and fundraising; governance by volunteer boards of trustees and directors; management of multiple sources and types of funding; unique legal and regulatory issues; special values of service, community and charity; and the unique demands of nonprofit leadership.

#### **Admission Requirements**

Applicants to the M.N.M. program must have a bachelor's degree from a regionally accredited institution and an overall grade point average (GPA) of 3.0 or higher in their undergraduate program. Applicants must utilize the online application system and follow all directions to submit:

1. A current professional résumé.
2. A 750- to 1000-word essay about their personal background, career aspirations in the nonprofit sector and the reason(s) for pursuing graduate study in nonprofit management. The essay, written by the applicant, should demonstrate graduate-level writing competency.
3. Two letters of recommendation, one of which should be from a professor at the college/university the student attended. The recommenders must address the applicant's ability to succeed at graduate-level academic coursework in nonprofit management. (Personal recommendations are not accepted.)
4. It is recommended that applicants who do not meet the 3.0 GPA requirement submit Graduate

Record Examination (GRE) scores that are no more than five years old directly to the FAU Graduate College. Unofficial records are not acceptable.

5. Applicants whose native language is not English must complete the Test of English as a Foreign Language (TOEFL) and earn a score of at least 550. Official scores must be sent directly to the FAU Graduate College.

Admission is competitive. Applicants meeting the minimum University and/or program application requirements are not guaranteed admission to the program. All requested materials must be submitted by the established deadline date (February 15 for summer admission, May 15 for fall admission and October 15 for spring admission). Materials received after the established deadline will not be considered.

### **Duplication and Recency of Credits**

No credit counted as part of another degree may be counted toward the M.N.M. All work toward the M.N.M. must be completed within seven years after initial registration in the program.

### **Transfer Credit**

Acceptance of transfer credits from approved institutions depends on the relevance of the work to the M.N.M. program. Request for transfer credits should be made at the time of admission and is limited to 6 credits in which the student earned a minimum grade of "B." Students may use the petition process to transfer more than 6 credits. Credits older than seven years may not be transferred to the graduate program.

### **Non-Degree Credit**

A maximum of 12 credits earned in non-degree status will be accepted toward the M.N.M. degree requirements, provided the grades earned are "B" or better.

### **Admission Requirements for International Students**

A graduate of a college or university outside of the United States who has completed an academic program equivalent to an American bachelor's degree may apply for admission to the M.N.M. program. All international applicants whose transcripts are from non-U.S. institutions must have their credentials evaluated course by course, including the GPA, by a professional evaluation service. A service may be found at [www.NACES.org](http://www.NACES.org).

An international applicant for whom English is a second language is required to submit a score of 550 or higher (IBT of 61 or higher) on the Test of English as a Foreign Language (TOEFL) before enrolling for courses. Applicants must write to Test of English as a Foreign Language, Educational Testing Service, Princeton, New Jersey, U.S.A., 08540, or visit [www.ets.org/toefl](http://www.ets.org/toefl) for assistance.

## Academic Standing

Continuation in the M.N.M. program requires satisfactory progress toward degree completion. Evidence of such progress includes maintenance of a "B" average each semester. No grade below "C" (including "C-") will be counted toward the degree. Students who fall below a "B" average will be placed on academic probation and will require an academic progression plan. Failure to regain an overall cumulative "B" average within two successive semesters following the one in which the deficiency first occurred will result in dismissal.

## Degree Requirements

The faculty of the College will recommend awarding the Master of Nonprofit Management degree when the following requirements have been met:

1. Completion of 33 credits of approved coursework with no grade below "C," (including "C-") with a minimum average grade of "B" (3.0 on a 4.0 scale).
2. Completion of the core courses below (24 credits). The required internship (PAD 6943) may be waived and replaced by an elective for students who have nonprofit work experience.\*
3. Completion of three elective courses (9 credits).

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### Core Courses - 21 credits

Introduction to Nonprofit Management	PAD 6142	3
Public Policy and Nonprofit Organizations	PAD 6143	3
Legal and Ethical Issues in Nonprofits	PAD 6165	3
Human Resource Management for Nonprofits	PAD 6166	3
Fundraising for Nonprofit Organizations	PAD 6206	3
Grantwriting and Project Management	PAD 6233	3
Financial Management for Nonprofit Managers	PAD 6260	3

**Other Requirements - 3 credits**

Internship: Nonprofit Organizations	PAD 6943	3
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**Electives - 9 credits**

Select 9 credits of electives in consultation with advisor.		9
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<b>Total</b>		<b>33</b>
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**PUBLIC ADMINISTRATION****MASTER OF PUBLIC ADMINISTRATION (M.P.A.)***(Minimum of 36 credits required)*

The Master of Public Administration (M.P.A.) program is fully accredited by the Network of Schools of Public Policy, Affairs and Administration (NASPAA). The mission of the M.P.A. program is to prepare pre-service and in-service students in southeast Florida to be leaders, managers and analysts for all levels of government by providing intellectual, analytical, technical and practical education via a curriculum that students can customize to meet their professional goals. We value the diversity of our students, faculty, staff, alumni and community, and we foster inclusiveness, participation and cultural competence in our M.P.A. courses and other educational activities. We strive to create inclusive environments in which M.P.A. students are respected and supported, while they improve their professional and ethical competence and become accountable public leaders, managers and analysts. We advance the state of knowledge in public administration through research activities and collaborations with internal and external partners who examine and address local, regional, state, national and international matters of public concern. We enhance ethical public service by encouraging ethical deliberation and decision making in our M.P.A. courses and through other educational activities.

**Admission Requirements**

Applicants to the Master of Public Administration program must have a bachelor's degree from an accredited institution with an overall grade point average (GPA) of 3.0 on a 4.0 scale. It is recommended that applicants who do not meet the 3.0 GPA requirement submit Graduate Record Examination (GRE) scores that are no more than five years old.

International applicants for whom English is a second language must score 550 (IBT 79-80) or higher on the Test of English as a Foreign Language (TOEFL). A graduate of a college or university outside of the United States who has completed an academic program equivalent to an American bachelor's degree may apply for admission to the M.P.A. program. All international applicants whose transcripts are from non-U.S. institutions must have their credentials evaluated course by course, including the GPA, by a professional evaluation service. A service may be found at [www.NACES.org](http://www.NACES.org).

Applicants must have successfully completed ("C" or better) an undergraduate statistics course before applying for the M.P.A. program.

Applicants must have three letters of recommendation submitted on their behalf and each recommendation must be submitted via the M.P.A. online application system. Letters from professors from the colleges/universities attended are preferred; where that is not feasible, letters from current or past work supervisors are accepted. The recommender must address the applicant's ability to succeed at graduate-level academic work in public administration. (Personal recommendations are not accepted.)

Applicants must submit an essay about their personal background, career aspirations in public service (including future career goals), and the reason(s) for pursuing graduate study in public administration. The essay should demonstrate graduate-level writing competency and should be written by the applicant. It should be at least three pages in length.

Admission is competitive. Applicants meeting the minimum university and/or program application requirements are not guaranteed admission to the program. All requested material must be submitted by the established deadline date (February 1 for summer admission, May 1 for fall admission and October 1 for spring admission). Materials received after the established deadline will not be considered; therefore, make sure that all application materials are in order before applying to the M.P.A. program.

### **Duplication, Transfer and Recency of Credits**

No credit counted as part of another degree may be counted toward the M.P.A. All work toward the M.P.A. must be completed within 10 years after initial registration in the program. Students with graduate-level credits from another institution must obtain a copy of the course syllabus and submit a petition to request the transfer of credits to FAU. Requests for transferring credits should be made at the time of admission and is limited to 6 credits, in which the student earned a minimum grade of "B." Decisions regarding credit transfers are made by the M.P.A. coordinator.

### **Academic Standing**

Continuation in the M.P.A. program requires maintenance of a "B" average each semester. Students who fall below the "B" average will be placed on academic probation with an academic progression plan. Failure to regain an overall cumulative GPA of 3.0 within two successive semesters following the one in which the deficiency first occurred will result in dismissal.

### **Degree Requirements**

All M.P.A. degree students must complete 36 credits of approved coursework earning no grade below "C" ("C-" is not acceptable) with a minimum GPA of 3.0. This work must include the following 27-credit core and 9 additional credits of approved study as detailed below the table.

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#### **Core Courses - 27 credits**

Public Administration and Public Policy	PAD 6036	3
Introduction to Public Service and Administration	PAD 6053*	3
Public Leadership	PAD 6063	3
Organization and Administrative Behavior	PAD 6106	3
Public Service Capstone	PAD 6139**	3
Public Budgeting and Finance	PAD 6227	3
Human Resource Management in the Public Sector	PAD 6417	3
Ethical and Legal Foundations in the Public Sector	PAD 6436	3
Statistical Analysis for Effective Decision Making	PAD 6701***	3

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#### **Other Requirements - 3 credits**

Government Internship	PAD 6941	3
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## Electives - 6 or 9 credits

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Select 6 credits (9 credits if PAD 6941 is waived) of electives in consultation with advisor.

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<b>Total</b>	<b>36</b>
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\* This course must be taken within the first 12 credits of the student's program.

\*\* The capstone course must be taken in the last semester of the student's program.

\*\*\* Undergraduate statistics is a prerequisite for Statistical Analysis for Effective Decision Making.

The remaining 9 credits are electives. Students are advised to take their core classes before taking electives. As part of the 9 credits, students who do not have any public sector experience must complete a one-semester, 20-hour-per-week internship in a government or nonprofit organization, while registered for the accompanying Government Internship course, PAD 6941.

In order to be waived from PAD 6941, students must submit their résumé in which their public sector work experience is specified. The M.P.A. program coordinator will review these documents and determine whether or not the student has sufficient public sector experience.

## DOCTORAL PROGRAM

### **PUBLIC ADMINISTRATION** **DOCTOR OF PHILOSOPHY (PH.D.)**

*(Minimum of 63 credits required)*

The School of Public Administration at Florida Atlantic University offers a Doctor of Philosophy (Ph.D.) in Public Administration with paths of study in Administrative Theory and Inquiry, Public Policy Studies, Organizational Studies, Public Budgeting and Financial Administration, and Urban and Regional Planning. Also, students are allowed to assemble paths of study of their own devising. This doctoral program, while primarily designed to qualify students in research, university teaching and consultation, can accommodate a broad array of career goals and options.

### **Admission Requirements**

Admission into the Ph.D. program will be granted to students of superior ability who have demonstrated a record of previous academic success, good potential for continued success in doctoral studies and a desire to prepare for a career in which scholarship and research are major elements.

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### Core Courses - 24 credits

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Scope and Theory of Public Administration	PAD 7050	3
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Seminar in Organization Theory	PAD 7107	3
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Norms of Inquiry in Public Administration and Public Policy	PAD 7138	3
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Public Expenditure Analysis	PAD 7240	3
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Advanced Quantitative Analysis	PAD 7703	3
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Advanced Research Seminar in Public Affairs	PAD 7707	3
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Advanced Public Policy	PAD 7932	3
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Qualitative Methods in Public Affairs Research	PAF 7820	3
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### Electives - 21 credits

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Organizational Behavior and Development	PAD 7155	3
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Advanced Public Budgeting and Fiscal Management Techniques	PAD 7229	3
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Quantitative Methods in Public Affairs Research	PAF 7800	3
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Students may also select 6000- or 7000-level courses from these course prefixes:	12
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CCJ, CJC, CJE, CJJ, HSA, PAD, PAF, URP

**Dissertation - 18 credits**

Dissertation ( <i>taken over multiple semesters</i> )	PAD 7980	1-15
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<b>Total</b>		<b>63</b>
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**Other (may be used to substitute an elective)**

Advanced Research and Study	PAD 7910	3-9
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Normally an applicant must have earned a master's degree and must also take the following courses if they have not already taken the equivalents elsewhere:

Introduction to Public Service and Administration	PAD 6053	3
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Public Administration and Public Policy	PAD 6036	3
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Organization and Administrative Behavior	PAD 6106	3
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Seminar in Public Financial Administration	PAD 6207	3 <b>or</b>
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Public Budgeting and Finance	PAD 6227	3
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In special situations, students with a bachelor's degree may be admitted into the doctoral program. In such cases, the applicant must complete the above four courses plus quantitative methods at the graduate level.

Applicants should have a minimum graduate grade point average (GPA) of 3.5 or higher and provide both percentile and numeric scores for the verbal, quantitative and analytical writing sections of the Graduate Record Examination (GRE). Official GRE scores must be submitted and an online application must be completed. Official transcripts and GRE scores should be sent directly to the FAU Graduate College.

In addition to transcripts and GRE scores, the Ph.D. Admissions Committee will need:

1. Three letters of recommendation (especially from academic sources);
2. Résumé;
3. Two samples of academic writing;
4. Statement of intent and interests.

These materials should be uploaded online with the electronic application. An incomplete application will not be reviewed. Meeting minimal requirements does not guarantee admissions.

### **Admission Requirements for International Students**

A graduate of a college or university outside of the United States who has completed academic programs equivalent to an American bachelor's degree and master's degree may apply for admission to the Ph.D. program. The application deadline for international students interested in the fall semester is February 15; for international students interested in the spring semester, the deadline is August 15. All international applicants whose transcripts are from non-U.S. institutions must have their credentials evaluated course by course, including the GPA, by a professional evaluation service. A service may be found at [www.NACES.org](http://www.NACES.org).

An international applicant for whom English is a second language is required to submit a minimum score of 580 (IBT of 92-93) on the Test of English as a Foreign Language (TOEFL) before enrolling for courses. Applicants must write to Test of English as a Foreign Language, Educational Testing Service, Princeton, New Jersey, U.S.A., 08540, or visit [www.ets.org/toefl](http://www.ets.org/toefl) for assistance.

### **Program Information**

1. Competitive stipends and tuition benefits are provided to qualified students with graduate assistantships upon admission.
2. Application deadlines are February 15th for the fall semester and August 15th for the spring semester.
3. Excellent placement record in faculty, research and executive positions upon graduation.
4. The program includes 45 instructional credits and 18 dissertation research credits.
5. Candidates must pass comprehensive exams in four of the five paths of study, including a mandatory exam in Epistemology and Methodology.
6. Candidates are expected to participate in professional practica and colloquia, attend dissertation defenses and conferences and participate in collegial activities.

### **Helpful links:**

## [Graduate School Application](#)

## [Course Descriptions](#)

## [Ph.D. Manual](#)

## [Policy on Appeal of Dismissal](#)

### **Transfer Credits**

Acceptance of transfer credits from approved institutions is dependent upon the pertinence of the work to the Ph.D. program. Transfer of credits must occur at the time of admission and is limited to 6 credits subject to the following restrictions:

1. Grades on all transfer credits must be a minimum of "B" (3.0 in a 4.0 grading system).
2. No graduate credit will be allowed for correspondence, extension work or life experience.

### **Credit Duplication**

No credit used for another degree or as a prerequisite may be counted toward the 63 credits in the Ph.D. program.

### **Time Limitations**

Candidates for the Ph.D. degree must complete all work within a seven-consecutive-year period after initial registration in the graduate program.

### **Dismissal**

Please refer to the Provost's memo on the [Academic Dismissal of Students from a Graduate Degree Program](#) for current dismissal policies and procedures.

### **Academic Standing**

Continuation in the graduate program requires satisfactory progress toward the graduate degree. Evidence of such progress includes maintenance of a 3.25 cumulative average throughout the course of academic study. In addition, only grades of "A," "A-," "B+" and "B" are acceptable in fulfilling graduate school requirements in the Ph.D. plan of study.

Students who do not maintain the required 3.25 cumulative GPA will be placed on academic probation in the semester immediately following the semester in which the cumulative GPA drops below 3.25.

Failure to regain a 3.25 cumulative average within two successive semesters following the semester in which the deficiency first occurred can result in dismissal. The faculty of the School of Public Administration reserves the right to dismiss any student at any time when in its judgment the student is not making satisfactory progress toward completion of the degree. The School of Public

Administration [Ph.D. Manual](#) describes this and other Ph.D. program policies in full.

## Financial Assistance

A number of assistantships and fee waivers are available for full-time students. Contact the Ph.D. coordinator for information on financial assistance as well as admissions, degree requirements and financial aid.

## SOCIAL SCIENCE

([Social Science](#) is listed under **Interdisciplinary Studies**.)

## SOCIOLOGY

### Faculty:

Branaman, A., Chair; Auguste, D.; Araghi, F.; Backstrom, L.; Harvey, M.; Hough, P.; Koppelman, C.; Lewin, P.; McConnell, W.; Ortiz, S.; Seeley, J. L.; Widener, P.

FAU's Sociology major is distinctive as a [flexible "skills based" major](#). The major lets students choose a plan of study that suits their career interests, focuses on topics that intrigue and challenge them, and helps them to build their own "sociological tool chest" for addressing personal and social problems. Every course includes coverage of core skills and basic knowledge of the discipline in addition to material that is distinctive to the topics. Because of how the major is designed, students who major in Sociology will have many opportunities to develop the skills necessary to ask and answer questions about social behavior, social structure and change, and social trends as well as to read skillfully, write and speak clearly and conduct effective presentations.

Sociology is growing in popularity as a major in the U.S. and across the world. This 21st century major gives students a firm foundation for a broad range of careers and, as importantly, for shaping a life in the face of the challenges and chaos of the current era. Sociology gives students the insights, knowledge and analytic tools to create an individual path and to contribute to shaping the direction of social and political change.

[Link to Master's Program](#)

## SOCIOLOGY

## BACHELOR OF ARTS (B.A.)

*(Minimum of 120 credits required)*

The program in Sociology leads to a B.A. degree. To earn a B.A. degree in Sociology, students must complete the following coursework with a minimum grade of "C" (33 total credits in the major):\*

1. SYG 1000 (Sociological Perspectives) or SYD 3792 (Race, Class, Gender and Sexuality), 3 credits;
2. SYA (Sociological Theory), 3 credits;
3. SYA (Sociological Analysis: Survey of Methods), 3 credits;
4. Six 3000-level electives in Sociology, 18 credits;\*\*
5. Two 4000-level electives in Sociology, 6 credits;
6. A minimum of 120 credits, 60 of which must be from a senior institution.

\* While the total number of credits for the major is 33 (including SYG 1000), the major will be granted with only 30 credits in Sociology if students opt to take SYD 3792 as a substitute for SYG 1000.

\*\* Students may substitute 4000-level courses for 3000-level courses.

Sociology majors are strongly encouraged to take more than 33 credits in Sociology and/or to pursue a second major, minor or certificate program in another field. As long as all University and College requirements are met, the Sociology major allows students to reach their required number of credits in any way they choose. Students often combine the study of Sociology with other liberal arts or professional fields to acquire double majors. The Sociology department also offers [Honors in the major](#), a distinction for high-performing students.

Students entering FAU as freshmen must meet the University's General Education/four-year degree program requirements as listed in the [Degree Requirements](#) section of this catalog and the College's requirements as set forth under [Undergraduate Programs](#) in the Dorothy F. Schmidt College of Arts and Letters.

FAU has a foreign language requirement that all students pursuing majors within the Dorothy F. Schmidt College of Arts and Letters must fulfill for the B.A. degree. Students have met this requirement if they have passed or received credit for two semesters of one foreign language at one of Florida's state colleges or at another college or university. Students who have not completed two semesters of foreign language at a college or university must use 8 of their out-of-discipline credits to meet FAU's foreign language requirement, or pass the CLEP exam prior to graduation. For additional

information, refer to the [foreign language requirement policy](#).

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### Degree Requirements

The following course sequence will lead to a Bachelor of Arts Degree with a Major in Sociology.

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#### I. Introductory Sociology, 3 credits

Sociological Perspectives	SYG 1000	3
Race, Class, Gender and Sexuality	SYD 3792	3

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#### II. Theory and Research Methods, 6 credits

Sociological Theory	SYA 3010	3
Sociological Analysis: A Survey of Methods	SYA 3300	3

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#### III. 3000-Level Electives, 18 credits

Contemporary Social Theory	SYA 3120	3
Social Conflict	SYA 3150	3

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Special Topics	SYA 3930	3
Environmental Sociology	SYD 3510	3
Cities and Society	SYD 3602	3
Race in Global Context	SYD 4702	3
Sociology of the Body	SYD 3804	3
Sociology of Food	SYG 3244	3
Sociology of Religion	SYO 3200	3
Sociology of Education	SYO 3250	3
Class, Status and Power	SYO 3530	3
Poverty and Society	SYO 3534	3
Gender and Work	SYO 3370	3
Labor and Globalization	SYO 3377	3
Sociology of Mental Health	SYO 3410	3
Animals and Society	SYO 3448	3
Sociology of Happiness	SYP 3014	3
Sociology of Everyday Life	SYP 3112	3

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Social Movements	SYP 3304	3
Social Change	SYP 3400	
Sociology of Consumption	SYP 3420	3
Globalization and Social Movements	SYP 3454	3
Adolescence and Delinquency	SYP 3530	3
Drugs and Society	SYP 3550	3
Human Sexuality and Social Change	SYP 3060	3
Self and Society	SYP 3110	3
Social Control and Deviance	SYP 3570	3
The Sociology of Sport	SYP 3650	3
Sociology of Youth	SYP 3714	3
Sociology of Aging and Dying	SYP 3740	3
Youth Subcultures	SYP 3774	3
<b>IV. 4000-Level Electives, 6 credits*</b>		
Qualitative Research Methods	SYA 4310	3
Sociological Analysis: Quantitative Methods	SYA 4400	3

Directed Independent Study	SYA 4905	1-3
Special Topics	SYA 4930	1-3
Gender, Power and Relationships	SYD 4814	3
Sociology Study Abroad	SYG 4957	1-6
Economy and Society	SYO 3353	3
Organizational Sociology	SYO 3570	3
Constructing Sexuality	SYP 4063	3
Technology and Society	SYP 4421	3
Globalization and Inequality	SYP 4453	3
Sociology of Climate and Disaster	SYP 4464	3
Sociology of Culture	SYP 4610	3
Sociology of Popular Culture	SYP 3630	3

\*The prerequisite for entrance into 4000-level courses in Sociology is the completion of SYA 3010 and SYA 3300.

## HONORS PROGRAM IN SOCIOLOGY

The mission of the Sociology Honors Program is to provide a highly performing group of sociology majors the opportunity to enhance their academic writing abilities and acquire research skills under the guidance of sociology faculty. Through writing and research intensive coursework and participation in an original research project, Sociology Honors students will have firsthand experience with all aspects

of the research process including working collaboratively with fellow students and faculty, writing and revising a journal article length piece and presenting findings in a professional setting.

### **Entry Requirements**

Students apply after completing a minimum of 12 credit hours in sociology. After grades are processed, applications are reviewed. Qualified students are invited for an informational interview with the Honors Program Director and a representative from the Research Team faculty.

### **Application Requirements**

1. Minimum overall GPA of 3.5 and a GPA of 3.7 or above in sociology courses (minimum of 12 credits completed);
2. No more than 10% of sociology majors are admitted to the Honors program.

### **Program Standards**

1. Students must maintain a cumulative 3.5 GPA throughout the program to progress.
2. If less than a B is earned in any sociology course or the student's cumulative GPA falls below 3.5, the student will be dismissed from the Honors in Sociology program.
3. Students admitted to the Honors Program must maintain high academic and ethical standards.

### **Honors Level Enrichment**

Students must complete at least three of the following 3-credit courses:

1. A graduate-level methods course (Research Methods, Qualitative Methods, or Quantitative Methods) or an undergraduate methods course with an Honors compact;
2. A graduate-level substantive course;
3. A Research-Intensive 4000-level sociology course; or
4. A 3-credit Directed Independent Study (DIS) or Directed Independent Research (DIR) with a faculty member.

### **Capstone Experience (students must complete one of the following)**

*Thesis Requirement:*

1. A senior-level thesis must be produced by honors students;
2. Length of senior thesis must be at least 30 double-spaced pages;
3. The capstone experience is overseen by two qualified research faculty members; and, Students present their thesis at a department workshop.

*Research Team:*

1. Honors students work on a research team directed by two or more qualified research faculty members;
2. The research team collectively gathers data, writes a literature review and analyzes results; and
3. Students will present their findings at a department workshop.

## **Graduation Eligibility**

1. Students maintain an overall GPA of 3.5 or higher;
2. Students maintain a GPA of 3.7 or higher in sociology courses;
3. Students have completed three of the following: a graduate-level methods courses (Research Methods, Qualitative Methods, or Quantitative Methods) or an undergraduate methods course with an Honors compact, a graduate-level substantive course, a Research-Intensive 4000-level sociology course, a 3-credit Directed Independent Study (DIS) or Directed Independent Research (DIR) with a faculty member; and
4. Students have completed the capstone project.

Benefits to students include gaining research skills required for graduate school and careers; improving writing skills; increasing interaction with faculty members in the sociology department, and completing the undergraduate degree with honors distinction. Students with honors distinction receive honors cords at commencement.

## **SOCIOLOGY UNDERGRADUATE MINOR**

*(Minimum of 12 credits required)*

Students seeking a minor in Sociology are required to take a minimum of four courses (12 credits) of upper-division (3000- and 4000-level) courses in sociology. Of the 12 credits, at least 9 must be earned from FAU. Students are required to earn a grade of "C" or better in each sociology course for it to count toward the minor.

## **MASTER'S PROGRAM**

### **SOCIOLOGY MASTER OF ARTS (M.A.)**

*(Minimum of 36 credits required)*

The Master of Arts degree in Sociology is designed to prepare students for doctoral study in sociology and related programs. The program also can prepare students for professional careers and teaching. There are two paths of study in the program, the generalist option and the specialist option. The generalist option offers students a broad graduate education in sociology that can serve as the basis for a wide array of professional careers in the public and private sector. The specialist option is designed for students who would pursue a doctoral degree in Sociology. This option offers students the opportunity to design and carry out a research project in a particular area of sociological research under the direct mentorship of a faculty member. Students may apply to be admitted to the specialist option after completing 9 credits in the program.

### **Admission Requirements**

1. Students must complete a bachelor's degree, preferably with a major in Sociology. Students without an undergraduate Sociology major may be admitted under the condition that they take additional coursework in sociology.
2. Students must have a minimum 3.0 grade point average for the last 60 credits of undergraduate work leading to the bachelor's degree.
3. Students must submit directly to the Department of Sociology a Statement of Purpose (500 to 1000 words in length, outlining their goals and interests in subject areas within sociology) and a sample of their writing (e.g., a paper from an undergraduate course).
4. Sociology majors at FAU should submit the names of two sociology faculty members as their referees. All other students must obtain two letters of recommendation and have them sent by the recommenders directly to the Department of Sociology.
5. Applicants who apply after March 1 may be admitted to the graduate program but may be too late to be considered for an assistantship award.

### **Options in the M.A. Program in Sociology**

The Department of Sociology offers two paths of study for the M.A. in Sociology, both of which require 36 credits of graduate coursework. Students in either the Generalist or Specialist option may select up to 6 credits of graduate coursework at the 5000, 6000 or 7000 level outside the Department of Sociology with permission from their academic advisor.

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#### **Generalist Option**

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*Theory - 3 credits - Select one of the following courses*

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Seminar: Critical Perspectives in Social Theory	SYA 6117	3
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Seminar in Contemporary Social Theory	SYA 6126	3
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Special Topics	SYD 6934	1-3
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*Methods - 3 credits - Select one of the following courses*

Seminar in Advanced Research Methods	SYA 6305	3
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Seminar in Advanced Qualitative Methods	SYA 6315	3
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Special Topics	SYD 6934	1-3
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*Electives - 30 credits - Students may select ten courses at the 6000 level from the Department of Sociology. Additional theory and methods courses beyond the minimum required will count as electives.*

<b>Total</b>		<b>36</b>
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### Specialist Option

*Theory - 3 credits - Select one of the following courses*

Seminar: Critical Perspectives in Social Theory	SYA 6117	3
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Seminar in Contemporary Social Theory	SYA 6126	3
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Special Topics	SYD 6934	1-3
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*Methods - 3 credits - Select one of the following courses*

Seminar in Advanced Research Methods	SYA 6305	3
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Seminar in Advanced Qualitative Methods	SYA 6315	3
Special Topics	SYD 6934	1-3
<i>Thesis - 6 credits (minimum; 12 credits maximum)</i>		
Master's Thesis (may be completed over multiple terms)	SYA 6971	1-6
<i>Electives - 24 credits (may be fewer depending on number of thesis credits - Students may select any eight courses at the 6000 level from the Department of Sociology. Additional theory and methods courses beyond the minimum required will count as electives.</i>		
<b>Total</b>		<b>36</b>

## THEATRE AND DANCE

([Theatre and Dance](#) programs are listed following **Women, Gender and Sexuality Studies**, under **School of the Arts, Theatre and Dance**.)

## WOMEN, GENDER AND SEXUALITY STUDIES

### Faculty:

Morse, N., Director; Beoku-Betts, J.; Caputi, J.

The faculty represents a variety of departments in several colleges at the University. A list of [current faculty](#) may be obtained from the Center for Women, Gender and Sexuality Studies.

[Link to Master's Program](#)

## WOMEN, GENDER AND SEXUALITY STUDIES UNDERGRADUATE MINOR

*(Minimum of 15 credits required)*

The undergraduate minor in Women, Gender and Sexuality Studies (WGSS) is open to all undergraduate degree-seeking students in good standing. The WGSS minor is an interdisciplinary approach to gender-related issues. Students receive credit for specific courses in a variety of fields, including anthropology, criminal justice, communication, English, history, languages and linguistics, literature, nursing, political science, sociology and, of course, women's studies. The underlying goal of the WGSS minor is to understand the broad range of experiences that reflect, class, race, ethnicity, disability, sexual orientation and age and the interconnections that shape these experiences. The WGSS minor prepares students to think critically about the political, social, economic and historical forces that shape women's and men's lives, along with the responses through activism and advocacy.

1. The minor requires of five courses for 15 credits: One required course (more may be taken);
2. Four core courses focusing on issues related to WGSS from a selected list or by special approval from the director.

Other than the required course, the list of acceptable courses for the minor varies each semester according to the University's schedule of courses. Check with the [Center for Women, Gender and Sexuality Studies](#) for the semester's offerings.

Students must earn a minimum grade of "C" in all courses. Courses for the minor may count toward other general and specific graduation requirements. However, **no more than two courses from a student's major department may be included in the minor program coursework.**

For more information, contact the [Center for Women, Gender and Sexuality Studies](#).

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### Required Course (choose 1)

Introduction to Women's Studies	WST 2010	3 or
Introduction to Sexuality and Gender	WST 2608	3 or
Introduction to Lesbian, Gay, Bisexual, Transgender and Queer Studies	WST 2643	3

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### Core Courses (choose 4)

Students need to complete a minimum of four core courses. While the list of applicable courses may vary each semester and students may request approval for other courses toward the minor, the following are examples of core courses:

History of U.S. Women	AMH 3560	3
Florida Women Writers	AML 3264	3
Gender and Culture	ANT 4302	3
Anthropology of Sex and Gender	ANT 4413	3
Culture, Gender and Health	ANT 4469	3
Women and Criminal Justice	CCJ 4670	3
Communication, Gender and Language	COM 3014	3
Media and Sexual Identities	COM 4094	3
Women in European History	EUH 3619	3
History of European Sexuality	EUH 4684	3
Women and Film	FIL 4056	3
Love and Lovers in Italian Literature	ITT 3111	3
Women and Judaism	JST 4510	3
Women and Literature	LIT 4383	3

LGBTQ+ Literature	LIT 4523	3
Caring for Self	NUR 4175	3
Women, Witches and Healing	NUR 4176	3
Feminist Philosophy	PHM 3123	3
Women and Politics	PUP 3323	3
Gender and Television	RTV 4412	3
Psychology of Women	SOP 3742	3
Issues in Counseling Women	SOW 4357	3
Gender, Race and Communication	SPC 4712	3
Race, Class, Gender, and Sexuality	SYD 3792	3
Gender and Society	SYD 3800	3
Gender, Power and Relationships	SYD 4814	3
Family and Society	SYO 3100	3
Gender and Work	SYO 3370	3
Human Sexuality and Social Change	SYP 3060	3
Women, Gender and Power in the Global South	WST 2101	3

Sex, Myth, Power and Popular Culture	WST 3305	3
Gender-Based Violence and Social Movements	WST 3325	3
Special Topics	WST 3930	1-3
Sex, Violence and Hollywood	WST 4337	3
Green Consciousness	WST 4349	3
Intersectional Feminist Politics in the U.S.	WST 4404	3
Directed Independent Study	WST 4905	1-3
Special Topics	WST 4930	1-3

## **WOMEN, GENDER AND SEXUALITY STUDIES MASTER OF ARTS (M.A.)**

*(Minimum of 30-36 credits required, depending on track)*

The Master of Arts degree in Women, Gender and Sexuality Studies (WGSS) offers students the opportunity to gain cross-disciplinary, advanced knowledge of the impact of gender in diverse areas of life. The degree helps prepare students to enter a variety of professions for which a sophisticated knowledge of gender issues is considered a desirable employment qualification.

Students who receive the Master of Arts in Women, Gender and Sexuality Studies are prepared for doctoral work in Women's Studies and related programs, such as the Florida Atlantic University doctorate in Comparative Studies.

### **Admission Requirements**

1. The student must have a baccalaureate degree from an accredited institution, preferably with a concentration (major, minor or certificate) in Women's Studies. Applicants without appropriate work in Women's Studies may be admitted on the condition that additional coursework in

Women's Studies is completed in addition to the requirements for the M.A. degree.

2. Applicants must have a minimum 3.0 GPA for the last 60 undergraduate credits attempted and competitive Graduate Record Exam (GRE) scores. Applications are accepted for the fall and spring terms only.
3. In addition to the University application, students must complete the application specific to Women, Gender and Sexuality Studies. This application includes the following requirements:
  - a. An essay addressing the student's interest in Women, Gender and Sexuality Studies graduate work, talent or experience that will contribute to this academic program and educational and professional goals;
  - b. Three letters of recommendation using the form that accompanies the application (at least two letters from professors);
  - c. A writing sample of 12-20 pages of researched writing representing the student's best academic work and critical thinking;
  - d. If interested, the application for a graduate assistantship.

### **Admission Requirements for Candidacy**

1. A student seeking the M.A. in Women, Gender and Sexuality Studies must file an application for candidacy with the director of the program after completion of 18 credits of graduate coursework.
2. Along with the candidacy application, a student in the thesis or internship option should submit a thesis or internship proposal.
3. The student should have an advisory committee of three faculty. A maximum of two faculty associates may be on the committee. The advisory committee will serve as the thesis committee.

### **Degree Options and Requirements**

**Requirements:** Students must receive a grade of "B" or better in all courses.

As the M.A. in Women, Gender and Sexuality Studies is an interdisciplinary degree, accepted courses for the M.A. will be posted prior to registration. All 6000-level courses with a WST prefix are acceptable, along with many other courses from other departments. Please check with the program office before registering to learn if a course has been approved. Refer to the [Center for Women, Gender and Sexuality Studies website](#).

**Options:** Four options are available for students interested in this M.A. program.

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**Core - 6 credits - Required for all three options**

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Feminist Theory and Praxis

WST 6564

3

Seminar in Global Perspectives on Gender	WST 6936	3
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**Option 1: Thesis - 24 credits**

*Thesis - 6 credits*

Master's Thesis (may be taken over multiple terms)	WST 6971	1-6
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*Electives - 18 credits - Select 15 credits from any 5000- or 6000-level courses within the College of Arts and Letters. Select 3 credits from any 5000- or 6000-level courses outside the College.*

<b>Total</b>		<b>30</b>
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**Option 2: Comprehensive Exams - 24 credits**

*Reading/Writing Exams - 3 credits*

Directed Independent Study	WST 6909	1-3
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*Electives - 21 credits - Select 18 credits from any 5000- or 6000-level courses within the College of Arts and Letters. Select 3 credits from any 5000- or 6000-level courses outside the College.*

<b>Total</b>		<b>30</b>
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**Option 3: Internship - 24 credits**

*Internship - 6 credits*

Graduate Internship in Women, Gender and Sexuality Studies (may be taken twice for a total of 6 credits)	WST 6941	1-6
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*Electives - 18 credits - Select 15 credits from any 5000- or 6000-level courses within the College of Arts and Letters. Select 3 credits from any 5000- or 6000-level courses outside the College.*

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<b>Total</b>	<b>30</b>
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#### **Option 4: Coursework - 36 credits**

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*Electives - 27 credits - Select 15 credits from any 5000- or 6000-level courses within the College of Arts and Letters. Select 3 credits from any 5000- or 6000-level courses outside the College.*

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<b>Total</b>	<b>36</b>
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## SCHOOL OF THE ARTS

The School of the Arts unites Florida Atlantic University's Departments of Music, Theatre and Dance, and Visual Arts and Art History, and the University Galleries. It offers an enhanced disciplinary education to undergraduate and graduate students and provides a variety of collaborative events enriching the South Florida community with FAU's artistic offerings. Building on the existing departments and their faculty, the School of the Arts reinforces the Dorothy F. Schmidt College of Arts and Letters' commitment to the arts.

## MUSIC

### **Faculty:**

Wilt, K., Chair; Zager, M., Eminent Scholar; Baltrucki, M.; Chapman, D.; Cunningham, J.; Decker, M.; Dorchin, S.; Fleitas, P.; Hutchings, M.; Joella, L.; Jones, C.; Kofman, I.; Lautar, R.; Nichols, M.; Prescott, K.; Rossow, D.; Rossow, S.; Sánchez-Samper, A.

The mission of the Florida Atlantic University Department of Music is to inspire achievement in music through student engagement in scholarship, diverse modes of creative activity and community outreach.

Florida Atlantic University is an accredited institutional member of NASM (National Association of

Schools of Music). The Department of Music offers the following degrees: Bachelor of Music (B.M.) Commercial Music or Performance concentration; a Bachelor of Arts (B.A. in Music); a Bachelor of Music Education (B.M.E.); an Honors Program in Music and a minor in Commercial Music.

Three [combined degree programs](#) leading to the Master of Nonprofit Management (M.N.M.) offer pathways toward employment in nonprofit performing arts organizations: Bachelor of Arts with the M.N.M., Bachelor of Music in Commercial Music: Music Business Concentration with the M.N.M. and Bachelor of Music in Performance with the M.N.M.

At the graduate level, the department offers a [Master of Music degree](#), including concentrations in Choral Conducting, Commercial Music, Composition, Instrumental Performance, Piano Performance, Vocal Performance and Wind Conducting.

The Department of Music provides extensive performance and teacher education experiences through its comprehensive classroom curriculum in music theory, history and literature; culturally diverse perspectives provided by courses in American popular music, jazz and world music; applied studio instruction in piano, brass, woodwind, percussion, string and vocal areas; and collaborative performance experience in a wide variety of large and small ensemble settings. Furthermore, the department's Commercial Music Program offers practical music industry training through its Creative, Music Technology and Music Business concentrations. The program's affiliated Hoot/Wisdom Records L.L.C. label affords students hands-on experience in its state-of-the-art studios.

Scholarships are awarded annually by the Department of Music. These performance/academic awards vary in amounts and carry their own requirements, which must be satisfactorily completed prior to graduation. Audition details are available through the Department of Music office.

### **Performance Audition and Advising**

All students seeking admission to the department as Music majors must complete a performance audition prior to the first semester of study. Due to the complex nature of the music program, prospective students must contact the Department of Music at 561-297-3820 to arrange for academic advising prior to class registration.

### **Selective Program**

For reasons of accreditation standards, space or fiscal limitations, the undergraduate programs in music are designated selective admissions programs. Admission to FAU does not guarantee admission to a selective program. For specific information on these programs, applicants should review the

Department of Music requirements above and below.

[Link to Combined Programs](#)

[Link to Master's Program](#)

### Music Ensembles

FAU music ensembles are open to all FAU students by audition and are not limited to Music majors. Contact the department for audition information.

Brazilian Percussion Ensemble	MUN 2820	1
Commercial Music Ensemble	MUN 4015	1
University Marching Band	MUN 4113	1-3
University Symphony Band	MUN 4133	1
University Symphony Orchestra	MUN 4213	1
University Chorus	MUN 4313	1
Vocalis	MUN 4323	1
Chamber Singers	MUN 4343	1
University Wind Ensemble	MUN 4423	1
Jazz Orchestra	MUN 4713	1
Chamber Jazz	MUN 4174	1
Instrumental Chamber Music	MUN 4463	1

Chamber Winds	MUN 4144	1
Concert Percussion Ensemble	MUN 4443	1

### **Bachelor's Degree General Requirements**

Candidates for a bachelor's degree in Music must complete all University and College requirements for the specific degree. Each Music major will be assigned to an area advisor who will meet with the student every semester to determine the student's curriculum. In addition to departmental course requirements, all Music majors must complete the following to graduate:

***Piano Proficiency:*** All students must complete the department piano proficiency required in their degree by enrolling in class piano and earning a letter grade of "C" or higher. Transfer students must take a placement exam to demonstrate proficiency if they have not already completed the required level of class piano with a grade of "C" or higher at their previous institution. Students who study piano as their applied major instrument are exempt from class piano, except for Commercial Music Composition students, who must enroll in MVK 3173, Commercial Class Piano. Piano majors will be advised of suitable substitutions regarding the credit requirements in degree programs where they are exempt from class piano.

Music majors must complete the piano proficiency according to their degree requirement deadlines as follows:

Commercial Music: Prior to enrollment in MUS 4911, RI: Commercial Music Topic Research.

Music Education: Prior to enrollment in ESE 3940, Secondary School Effective Instruction.

Music: Performance concentration: Prior to MVO 3330, Junior Performance Recital pre-hearing.

***Mid-Degree Evaluation:*** Students will be assessed in performance, music theory and sight singing at the end of the sophomore year (or four semesters of study). Students who do not receive a satisfactory score on the evaluation will not be permitted to register for upper-division courses.

***Concert Attendance:*** Music majors must enroll in MUS 1011, Concert Attendance, every semester in residence until a satisfactory grade has been received for a total of six semesters. Transfer students must consult the Music Department to determine minimum requirements.

***Ensemble Performance:*** All Music majors are required to perform in the assigned ensemble every semester in residence according to the degree requirements. Commercial Music majors are required to

complete one semester of Commercial Music Ensemble.

***Applied Music Instruction:*** Music majors are required to study the same applied instrument during their tenure at FAU. Students presenting junior or senior recitals are required to register for applied music for the semester during which the recital is presented. All applied music lessons require permission of instructor.

***Jury Examinations*** in applied music are given at the end of the semester. Successful completion of the jury is required to receive a grade in applied music.

***Recital Performance:*** All candidates for the Music major: Performance concentration and major in Music Education perform a senior recital. Students in the Music major: Performance concentration also perform a junior recital.

***All music courses and their prerequisite courses must be completed with a grade of "C" or higher.***

These and other departmental policies are explained in detail in the Music Student Handbook, which is updated annually and available in the Department of Music.

Bachelor of Music Education and Bachelor of Music students are not required to complete the University's Foreign Language Graduation Requirement.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

Please note that transfer students who have not completed A.A. degrees in music will be required to complete all lower-division music requirements, which may add time to the degree.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Requirements for All Undergraduate Music Majors

All Music majors must complete the following core courses and the requirements of the following specific degrees.

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### Core Course Requirements

Music Theory 1	MUT 1111	3
Sight Singing and Ear Training 1	MUT 1241	1
Music Theory 2	MUT 1112	3
Sight Singing and Ear Training 2	MUT 1242	1
Music Theory 3	MUT 2116	3
Sight Singing and Ear Training 3	MUT 2246	1
Music Theory 4	MUT 2117	3
Music Theory: Orchestration <i>(not required for B.A. students)</i>	MUT 4311	2
Sight Singing and Ear Training 4	MUT 2247	1
Musicology 1	MUH 4211	3
Musicology 2	MUH 4212	3
Musicology 3	MUH 4213	2
Ethnomusicology	MUH 3514	3

Concert Attendance (six semesters)	MUS 1011	0
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[Link to Bachelor of Music Education Program](#)

[Link to Bachelor of Music Programs](#)

[Link to Honors Program](#)

## MUSIC

### BACHELOR OF ARTS (B.A.)

*(Minimum of 120 credits required)*

The Bachelor of Arts in Music is a degree that balances a general study of music with elective coursework in the liberal arts and humanities, providing a well-rounded liberal-arts-based educational experience for students wishing to pursue a variety of academic interests.

Students must complete the Dorothy F. Schmidt College of Arts and Letters B.A. language requirement. Students in the B.A. with major in Music are not eligible to enroll in the Commercial Music minor or to double major in degree programs from the College of Education.

Upper Division Music Electives		3
Six semesters of 1-credit applied music instruction	MV	6
Eight semesters of assigned ensembles <i>(4 credits at the upper division)</i>	MUN	8
Class Piano 1	MVK 1111	1
Class Piano 2	MVK 1112	1
Class Piano 3	MVK 2121	1

37 credits of electives, with at least 9 required in the Dorothy F. Schmidt College of Arts and Letters; 23 of the elective credits must be upper division.

## MUSIC EDUCATION

### BACHELOR OF MUSIC EDUCATION (B.M.E.)

*(Minimum of 134 credits required)*

The purpose of the Music Education program at Florida Atlantic University is to provide every student learner within the degree program the best possible instruction. Students follow a plan of instruction based on current music research, societal trends, and the modern American educational landscape. The goal of the degree is to prepare music teachers to enter the workplace prepared to teach learners of different cultures, ages and ability levels. FAU Music Education majors will be able to structure and manage a positive musical environment that encourages these varied populations to experience, achieve, and thus, come to value music-making as a life-time endeavor. Degree completion includes professional certification to teach music in Florida public schools, levels kindergarten through 12th grade.

Students will be assigned by area advisors to either vocal or instrumental programs of study. This program leads to teacher certification in music in conjunction with the Department of [Curriculum and Instruction](#) in the College of Education.

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#### Choral Option

Choral Conducting 1	MUG 3201	1
Choral Conducting 2	MUG 4202	2
Advanced Choral Conducting	MUG 4203C	2
Choral Methods	MUE 4140	3
Choral Literature and Techniques	MUL 4644	3

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Diction for Singers 1: An Introduction	MUS 2201	1
Vocal Pedagogy for the Music Classroom	MUE 2430	1
Elementary Music Methods 2	MUE 4313	2
Music Pedagogy and Methods Lab	MUE 2446L	1-2
Brass Pedagogy and Methods	MUE 2460	1 or
Woodwind Pedagogy and Methods	MUE 2450	1
Class Piano 4	MVK 2122	1
Music Electives		6
<b>Instrumental Option*</b>		
Instrumental Conducting 1	MUG 3301	1
Instrumental Conducting 2	MUG 4304	2
Instrumental Conducting 3	MUG 4311	2
Marching Band Pedagogy and Methods	MUE 4480	1
Jazz Ensemble Pedagogy and Methods	MUE 4481	1
Secondary Instrumental Methods	MUE 4330	3
Vocal Pedagogy for the Music Classroom	MUE 2430	1

Music Pedagogy and Methods Lab**	MUE 2446L	1-2
Brass Pedagogy and Methods	MUE 2460	1
Woodwind Pedagogy and Methods	MUE 2450	1
Music Electives		9
<b>Both choral and instrumental students take the following courses:</b>		
Introduction to Music Education	MUE 2040	3
Elementary Music Methods 1	MUE 4311	2
Percussion Pedagogy and Methods	MUE 2470	1
String Pedagogy and Methods	MUE 4441	1
Class Piano 1	MVK 1111	1
Class Piano 2	MVK 1112	1
Class Piano 3	MVK 2121	1
Applied Learning Theory	EDF 3210	3
Educational Measurement and Evaluation	EDF 3430	3
ESOL Strategies for Content Area Teachers	TSL 4324	3
Content Reading: Middle and Secondary Schools	RED 4335	3

Secondary School Effective Instruction***	ESE 3940	3
Senior Music Education Recital	MVO 4342	0
Student Teaching: Music, K-12****	MUE 4940	6
Seven semesters of 1-credit applied lessons	MV*	7
Seven semesters assigned ensembles	MUN	7

\* Students whose major instrument is either piano or guitar are not eligible for the Bachelor of Music Education degree.

\*\* Must be taken twice for credit (instrumental option only).

\*\*\* Requires 90-hour field component.

\*\*\*\* Student Teaching requires a separate application. The student must complete all courses (education and music), piano proficiency, recital, recital attendance and the FTCE before applying to student teaching.

[Link to Commercial Music Minor](#)

[Link to Combined Programs](#)

## COMMERCIAL MUSIC BACHELOR OF MUSIC (B.M.)

**Commercial Music Composition Concentration**

**Music Business Concentration**

**Music Technology Concentration**

*(Minimum of 121 or 122 credits required)*

The Commercial Music program offers a comprehensive undergraduate curriculum to help students develop specific skills for a professional career in the music industry. Hoot/Wisdom Records L.L.C. is

Florida Atlantic University's official record label. Administered by the Commercial Music program, the label provides students with practical experience in the production, marketing, and distribution of sound recordings.

Three concentrations comprise the Commercial Music degree program. The Commercial Music Composition and Music Technology concentrations share a common core with separate concentration requirements while the Music Business concentration presents a focus in the business aspects of the music industry.

### **Commercial Music Composition Concentration**

### **Music Technology Concentration**

*(Commercial Music Composition Concentration: Minimum of 122 credits required)*

*(Music Technology Concentration: Minimum of 121 credits required)*

The concentration in Commercial Music Composition provides majors with skills and experience in composing, arranging, producing and recording music for a variety of applications, including film, television and digital media. The concentration in Music Technology provides majors with skills and experience in audio recording, live sound reinforcement and music production.

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### **Commercial Music Core: Commercial Music Composition and Music Technology Concentrations**

American Popular Music and Culture	MUH 3521	3
Introduction to Music Business	MUM 3301	3
Legal Issues for the Musician	MUM 3303	3
Sound Recording 1	MUM 3663	3
Music Production	MUM 4723	3
Commercial Music Forum	MUS 1010	3

*(three semesters, 1 credit per semester)\**

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Computer Music Sequencing	MUS 4343	3
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RI: Commercial Music Research Project**	MUS 4913	3
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Class Piano 1	MVK 1111	1
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Class Piano 2	MVK 1112	1
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Class Piano 3	MVK 2121	1
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Applied music instruction – Eight semesters, 1 credit each

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Eight semesters assigned ensembles: One semester of Commercial Music Ensemble, MUN 4015, required

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\* Transfer students with 60 or more approved credits will need to satisfactorily complete three semesters of Commercial Music Forum.

\*\* Research projects must be approved by Commercial Music faculty. Students will be expected to meet regularly with their research advisor during the semester.

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### **Commercial Music Composition Concentration**

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Music Composition Class <i>(May be repeated for credit.)</i>	MUC 2211	2
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Composing/Arranging Music for TV/Radio Commercials	MUC 4600	3
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Music Composition for Film	MUC 4610	3
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Instrumental Conducting 1	MUG 3301	1
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Instrumental Conducting 2	MUG 4304	2
Introduction to Commercial Arranging	MUT 2341	2
RI: Commercial Music Topic Research	MUS 4911	1
Commercial Class Piano	MVK 3173	1

### **Music Technology Concentration**

Live Sound Reinforcement	MUM 4628	3
Sound Recording 2	MUM 4664	3
Sound Recording Lab 1	MUM 3663L	1
Sound Recording 3	MUM 4665	3
Audio Post-Production for Picture	MUM 4642	3

### **Music Business Concentration**

*(Minimum of 121 credits required)*

This degree is designed to provide majors with knowledge relating to the practical business and legal aspects of the music industry, including copyright, publishing, marketing, promotion, distribution and artist management.

### **Music Business Core**

Principles of Accounting	ACG 2021	3
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Principles of Advertising	MAR 3326	3
Entertainment Law	BUL 4622	3
International Business	MAN 3600	3
American Popular Music and Culture	MUH 3521	3
Jazz in American Society	MUH 3801	3
Introduction to Music Business	MUM 3301	3
Legal Issues for the Musician	MUM 3303	3
Music Publishing and Copyright	MUM 4304	2
Artist Management	MUM 4724	2
Music Marketing and Public Relations	MUM 4732	2
Commercial Music Forum <i>(three semesters, 1 credit per semester)*</i>	MUS 1010	3
RI: Commercial Music Topic Research	MUS 4911	1
RI: Commercial Music Research Project**	MUS 4913	3
Class Piano 1	MVK 1111	1
Class Piano 2	MVK 1112	1

Class Piano 3

MVK 2121

1

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Applied music instruction – Eight semesters, 1 credit each

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Eight semesters assigned ensembles (one semester of Commercial Music Ensemble, MUN 4015, required)

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\* Transfer students with 60 or more approved credits will need to satisfactorily complete three semesters of Commercial Music Forum.

\*\* Research projects must be approved by Commercial Music faculty. Students will be expected to meet regularly with their research advisor during the semester.

## MUSIC

### BACHELOR OF MUSIC (B.M.)

#### Performance Concentration

*(Minimum of 120 credits required)*

The Bachelor of Music Performance concentration is designed to prepare music majors for professional performance careers, private studio teaching and/or the pursuit of further academic study in the areas of Piano Performance (Pedagogy), String Performance, Vocal Performance and Wind Performance.

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#### Piano Performance (Pedagogy) Option

##### *Music Elective (upper division)*

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Choral Conducting 1	MUG 3201	1
Choral Conducting 2	MUG 4202	2 <b>or</b>
Instrumental Conducting 1	MUG 3301	1

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Instrumental Conducting 2	MUG 4304	2
Junior Performance Recital	MVO 3330	0
Senior Performance Recital	MVO 4340	0
<i>Eight semesters assigned ensembles</i>		8
<i>Eight semesters of 2-credit applied music instruction</i>		16
Piano Literature 1	MUL 4400	3
Piano Literature 2	MUL 4401	3
Chamber Music Literature 1	MUL 4561	3
Chamber Music Literature 2	MUL 4562	3
Piano Pedagogy 1	MVK 4631	3
Piano Pedagogy 2	MVK 4633C	3
Piano Pedagogy 3	MVK 4641C	3
Additional electives, which may include approved music coursework, are required to reach the program's 120 credits.		
<b>String Performance Option</b>		
Instrumental Conducting 1	MUG 3301	1
Instrumental Conducting 2	MUG 4304	2

Junior Performance Recital	MVO 3330	0
Senior Performance Recital	MVO 4340	0
Class Piano 1	MVK 1111	1
Class Piano 2	MVK 1112	1
Class Piano 3	MVK 2121	1
<i>Eight semesters assigned ensembles</i>		<b>8</b>
<i>Eight semesters of 2-credit applied music instruction</i>		<b>16</b>
<i>4 credits of chamber music ensembles from:</i>		
String Pedagogy and Methods	MUE 4441	1
Chamber Winds	MUN 4144	1
Instrumental Chamber Music	MUN 4463	1
Chamber Music Literature 2	MUL 4562	3
Solo String Literature	MUL 4433	2
Survey of Orchestra Literature	MUL 4500	3

Additional electives, which may include approved music coursework, are required to reach the program's 120 credits.

### **Vocal Performance Option**

Choral Conducting 1	MUG 3201	1
Choral Conducting 2	MUG 4202	2
Diction for Singers 1: An Introduction	MUS 2201	1
Diction for Singers 2: German	MUS 3232	1
Diction for Singers 3: French	MUS 3222	1
Introduction to Vocal Pedagogy	MVV 2601	1
Survey of Vocal Solo Literature	MUL 4602	3
Vocal Pedagogy	MVV 4640	2
Opera Workshop	MUO 4503	2
Survey of Choral Music Literature	MUL 4643	2
Junior Performance Recital	MVO 3330	0
Senior Performance Recital	MVO 4340	0
Class Piano 1	MVK 1111	1
Class Piano 2	MVK 1112	1
Class Piano 3	MVK 2121	1
<i><b>Eight semesters assigned ensembles</b></i>		<b>8</b>

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***Eight semesters of 2-credit applied music instruction*** ***16***

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Additional electives, which may include approved music coursework, are required to reach the program's 120 credits.

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**Wind Performance Option**

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Instrumental Conducting 1	MUG 3301	1
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Instrumental Conducting 2	MUG 4304	2
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Junior Performance Recital	MVO 3330	0
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Senior Performance Recital	MVO 4340	0
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Class Piano 1	MVK 1111	1
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Class Piano 2	MVK 1112	1
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Class Piano 3	MVK 2121	1
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***Eight semesters assigned ensembles*** ***8***

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***Eight semesters of 2-credit applied music instruction*** ***16***

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***4 credits of chamber music ensembles from:***

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Chamber Winds	MUN 4144	1
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Instrumental Chamber Music	MUN 4463	1
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Survey of Wind and Percussion Solo Literature	MUL 4450	2
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Survey of Wind and Percussion Chamber Literature	MUL 4451	2
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Wind Instrument Literature	MUL 4550	3
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*1 credit from the following applicable methods courses:*

Woodwind Pedagogy and Methods	MUE 2450	1
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Brass Pedagogy and Methods	MUE 2460	1
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Percussion Pedagogy and Methods	MUE 2470	1
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Additional electives, which may include approved music coursework, are required to reach the program's 120 credits.

## HONORS PROGRAM IN MUSIC

The program for Honors in Music is designed to recognize outstanding academic and/or performance achievement of exceptionally talented and motivated students. The requirements for Honors in Music exceed the normal requirements for a baccalaureate degree, not simply in the quantity of work, but also in the nature and quality of it. Academic honors will be extended to those students who demonstrate a level of critical activity and thorough scholarship in those courses that are taken for honors credit. Performance honors will be given to those students who substantially exceed normal performance standards for an undergraduate recital in both quality of repertoire and interpretation, and in the length and difficulty of the literature presented in public performance. Additional details are available through the Department of Music.

## COMMERCIAL MUSIC UNDERGRADUATE MINOR

*(Minimum of 15 credits required)*

The minor in Commercial Music is open to all FAU students. Students must contact the Commercial Music Department to apply to the minor. All credits toward the minor must be earned at FAU, and all courses must be completed with a "C" or better.

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### **Minor in Commercial Music (15 credits)**

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Classes may have prerequisites, corequisites and/or audition requirements. Applicants must be approved by the Commercial Music program director.

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Commercial Music Forum <i>(two semesters, 1 credit per semester)</i>	MUS 1010	2
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Introduction to Music Business	MUM 3301	3
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Legal Issues for the Musician	MUM 3303	3
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Music Publishing and Copyright	MUM 4304	2
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Artist Management	MUM 4724	2
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Music Marketing and Public Relations	MUM 4732	2
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### ***Music Ensemble or Workshop (1 credit - may require audition)***

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Brazilian Percussion Ensemble	MUN 2820	1
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Commercial Music Ensemble	MUN 4015	1
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University Marching Band	MUN 4113	1
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University Symphony Band	MUN 4133	1
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University Symphony Orchestra	MUN 4213	1
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Vocalis	MUN 4323	1
Chamber Singers	MUN 4343	1
University Wind Ensemble	MUN 4423	1
Jazz Orchestra	MUN 4713	1
RI: Beginning Didgeridoo Workshop	MVW 2920	1

## COMBINED PROGRAMS

### **MUSIC TO NONPROFIT MANAGEMENT**

### **BACHELOR OF ARTS (B.A.) TO MASTER OF NONPROFIT MANAGEMENT (M.N.M.)**

### **COMBINED PROGRAM**

*(Minimum of 153 credits required)*

The Dorothy F. Schmidt College of Arts and Letters offers a combined B.A. in Music to an M.N.M. degree program. The B.A. in Music is completed in the Department of Music. Students complete the M.N.M. in the School of Public Administration.

Students may count up to 9 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees as long as the combined program totals a minimum of 153 credits and:

1. The student has met the minimum 120 credits for the bachelor's degree;
2. The student has taken a minimum of 33 credits in 5000 level or higher courses for the master's program.

Students complete the undergraduate program first. The combined program can be completed in approximately five years.

### **Admission Requirements**

The GRE requirement is waived for the combined program. To be eligible for the combined program, baccalaureate students in the Department of Music should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of the junior year.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the M.N.M. portion of their program.

Students in the combined program must maintain continuous enrollment to remain in good standing. Students must also meet all the degree requirements of the graduate program they have chosen, including prerequisite courses.

## BACHELOR OF ARTS

### Degree Requirements

To be eligible for the combined B.A. in Music to M.N.M. degree program, students must fulfill the following requirements:

1. Completion of the requirements for the B.A. in Music and other requirements stipulated by the University and College.
2. Completion of all requirements for the M.N.M.

### Requirements for All Undergraduate Music Majors

All Music majors must complete the following core courses and the requirements of the following specific degree.

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#### Core Course Requirements

Music Theory 1	MUT 1111	3
Sight Singing and Ear Training 1	MUT 1241	1
Music Theory 2	MUT 1112	3
Sight Singing and Ear Training 2	MUT 1242	1
Music Theory 3	MUT 2116	3

Sight Singing and Ear Training 3	MUT 2246	1
Music Theory 4	MUT 2117	3
Music Theory: Orchestration <i>(not required for B.A. students)</i>	MUT 4311	2
Sight Singing and Ear Training 4	MUT 2247	1
Musicology 1	MUH 4211	3
Musicology 2	MUH 4212	3
Musicology 3	MUH 4213	2
Ethnomusicology	MUH 3514	3
Concert Attendance <i>(six semesters)</i>	MUS 1011	0

The Bachelor of Arts with Major in Music is a degree that balances a general study of music with elective coursework in the liberal arts and humanities, providing a well-rounded liberal-arts-based educational experience for students wishing to pursue a variety of academic interests.

Students must complete the Dorothy F. Schmidt College of Arts and Letters B.A. language requirement. Students in the B.A. with major in Music are not eligible to enroll in the Commercial Music minor or to double major in degree programs from the College of Education.

Upper Division Music Electives		3
Six semesters of 1-credit applied music instruction	MV	6
Eight semesters of assigned ensembles <i>(4 credits at the upper division)</i>	MUN	8

Class Piano 1	MVK 1111	1
Class Piano 2	MVK 1112	1
Class Piano 3	MVK 2121	1

37 credits of electives, with at least 9 required in the Dorothy F. Schmidt College of Arts and Letters; 23 of the elective credits must be upper division. Up to 9 credits of elective may be taken at the 5000 level or above as part of the combined B.A./M.N.M. program.

## MASTER OF NONPROFIT MANAGEMENT

### Degree Goals

The Master of Nonprofit Management (M.N.M.) degree program was designed as a professional degree to meet the unique needs of the nonprofit sector. It is open to preservice students as well as managers and leaders in human services, fine and performing arts, and cultural, educational, community development, religious, environmental and other nonprofit organizations. The curriculum recognizes the special concerns of nonprofit organizations in such areas as: management of volunteers and professionals; resource development and fundraising; governance by volunteer boards of trustees and directors; management of multiple sources and types of funding; unique legal and regulatory issues; special values of service, community and charity; and the unique demands of nonprofit leadership.

### Duplication and Recency of Credits

Except for students enrolled in the combined B.A./M.N.M. or the B.M./M.N.M. degree programs, no credit counted as part of another degree may be counted toward the M.N.M. All work toward the M.N.M. must be completed within seven years after initial registration in the program.

### Transfer Credit

Acceptance of transfer credits from approved institutions depends on the relevance of the work to the M.N.M. program. Request for transfer credits should be made at the time of admission and is limited to 6 credits in which the student earned a minimum grade of "B." Students may use the petition process to transfer more than 6 credits. Credits older than seven years may not be transferred to the graduate program.

## Degree Requirements

The faculty of the College will recommend awarding the Master of Nonprofit Management degree when the following requirements have been met:

1. Completion of 33 credits of approved coursework with no grade below "C," (including "C-") with a minimum average grade of "B" (3.0 on a 4.0 scale).
2. Completion of the core courses below (24 credits). The required internship (PAD 6943) may be waived and replaced by an elective for students who have nonprofit work experience.\*
3. Completion of three elective courses (9 credits).

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### Core Courses - 21 credits

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Introduction to Nonprofit Management	PAD 6142	3
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Public Policy and Nonprofit Organizations	PAD 6143	3
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Legal and Ethical Issues in Nonprofits	PAD 6165	3
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Human Resource Management for Nonprofits	PAD 6166	3
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Fundraising for Nonprofit Organizations	PAD 6206	3
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Grantwriting and Project Management	PAD 6233	3
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Financial Management for Nonprofit Managers	PAD 6260	3
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### Other Requirements - 3 credits

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Internship: Nonprofit Organizations	PAD 6943	3
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### Electives - 9 credits

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Select 9 credits of graduate-level music courses in consultation with an advisor.	9
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**COMMERCIAL MUSIC TO NONPROFIT MANAGEMENT**  
**BACHELOR OF MUSIC (B.M.) TO MASTER OF NONPROFIT MANAGEMENT**  
**(M.N.M.)**  
**COMBINED PROGRAM**

**Music Business Concentration (B.M.)**

*(Minimum of 154 credits required)*

The Dorothy F. Schmidt College of Arts and Letters offers a combined B.M. in Commercial Music: Music Business concentration to an M.N.M. degree program. The B.M. in Music is completed in the Department of Music. Students complete the M.N.M. in the School of Public Administration.

Students may count up to 9 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees as long as the combined program totals a minimum of 154 credits and:

1. The student has met the minimum 121 credits for the bachelor's degree;
2. The student has taken a minimum of 33 credits in 5000 level or higher courses for the master's program.

Students complete the undergraduate program first. The combined program can be completed in approximately five years.

**Admission Requirements**

The GRE requirement is waived for the combined program. To be eligible for the combined program, baccalaureate students in the Department of Music should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of the junior year.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the M.N.M. portion of their program.

Students in the combined program must maintain continuous enrollment to remain in good standing. Students must also meet all the degree requirements of the graduate program they have chosen, including prerequisite courses.

## BACHELOR OF MUSIC

### Degree Requirements

To be eligible for the combined B.M. in Commercial Music: Music Business concentration to M.N.M. degree program, students must fulfill the following requirements:

1. Completion of the requirements for the B.M. in Music and other requirements stipulated by the University and College.
2. Completion of all requirements for the M.N.M.

### Requirements for All Undergraduate Music Majors

All Music majors must complete the following core courses and the requirements of the following specific degree.

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#### Core Course Requirements

Music Theory 1	MUT 1111	3
Sight Singing and Ear Training 1	MUT 1241	1
Music Theory 2	MUT 1112	3
Sight Singing and Ear Training 2	MUT 1242	1
Music Theory 3	MUT 2116	3
Sight Singing and Ear Training 3	MUT 2246	1
Music Theory 4	MUT 2117	3
Music Theory: Orchestration <i>(not required for B.A. students)</i>	MUT 4311	2
Sight Singing and Ear Training 4	MUT 2247	1

Musicology 1	MUH 4211	3
Musicology 2	MUH 4212	3
Musicology 3	MUH 4213	2
Ethnomusicology	MUH 3514	3
Concert Attendance (six semesters)	MUS 1011	0

This degree is designed to provide majors with knowledge relating to the practical business and legal aspects of the music industry, including copyright, publishing, marketing, promotion, distribution and artist management.

### **Music Business Core**

Principles of Accounting	ACG 2021	3
Principles of Advertising	MAR 3326	3
Entertainment Law	BUL 4622	3
International Business	MAN 3600	3
American Popular Music and Culture	MUH 3521	3
Jazz in American Society	MUH 3801	3
Introduction to Music Business	MUM 3301	3
Legal Issues for the Musician	MUM 3303	3
Music Publishing and Copyright	MUM 4304	2

Artist Management	MUM 4724	2
Music Marketing and Public Relations	MUM 4732	2
Commercial Music Forum <i>(three semesters, 1 credit per semester)*</i>	MUS 1010	3
RI: Commercial Music Topic Research	MUS 4911	1
RI: Commercial Music Research Project**	MUS 4913	3
Class Piano 1	MVK 1111	1
Class Piano 2	MVK 1112	1
Class Piano 3	MVK 2121	1

Applied music instruction – Eight semesters, 1 credit each

Eight semesters assigned ensembles (one semester of Commercial Music Ensemble, MUN 4015, required)

\* Transfer students with 60 or more approved credits will need to satisfactorily complete three semesters of Commercial Music Forum.

\*\* Research projects must be approved by Commercial Music faculty. Students will be expected to meet regularly with their research advisor during the semester.

## MASTER OF NONPROFIT MANAGEMENT

Details in previous [section](#).

## **MUSIC TO NONPROFIT MANAGEMENT**

### **BACHELOR OF MUSIC (B.M.) TO MASTER OF NONPROFIT MANAGEMENT (M.N.M.)**

### **COMBINED PROGRAM**

#### **Performance Concentration (B.M.)**

*(Minimum of 153 credits required)*

The Dorothy F. Schmidt College of Arts and Letters offers a combined B.M. in Music: Performance concentration to an M.N.M. degree program. The B.M. in Music is completed in the Department of Music. Students complete the M.N.M. in the School of Public Administration.

Students may count up to 9 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees as long as the combined program totals a minimum of 153 credits and:

1. The student has met the minimum 120 credits for the bachelor's degree;
2. The student has taken a minimum of 33 credits in 5000 level or higher courses for the master's program.

Students complete the undergraduate program first. The combined program can be completed in approximately five years.

#### **Admission Requirements**

The GRE requirement is waived for the combined program. To be eligible for the combined program, baccalaureate students in the Department of Music should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of the junior year.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the M.N.M. portion of their program.

Students in the combined program must maintain continuous enrollment to remain in good standing. Students must also meet all the degree requirements of the graduate program they have chosen, including prerequisite courses.

## **BACHELOR OF MUSIC**

#### **Degree Requirements**

To be eligible for the combined B.M. in Music: Performance concentration to M.N.M. degree program, students must fulfill the following requirements:

1. Completion of the requirements for the B.M. in Music and other requirements stipulated by the University and College.
2. Completion of all requirements for the M.N.M.

### Requirements for All Undergraduate Music Majors

All Music majors must complete the following core courses and the requirements of the following specific degree.

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#### Core Course Requirements

Music Theory 1	MUT 1111	3
Sight Singing and Ear Training 1	MUT 1241	1
Music Theory 2	MUT 1112	3
Sight Singing and Ear Training 2	MUT 1242	1
Music Theory 3	MUT 2116	3
Sight Singing and Ear Training 3	MUT 2246	1
Music Theory 4	MUT 2117	3
Music Theory: Orchestration <i>(not required for B.A. students)</i>	MUT 4311	2
Sight Singing and Ear Training 4	MUT 2247	1
Musicology 1	MUH 4211	3

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Musicology 2	MUH 4212	3
Musicology 3	MUH 4213	2
Ethnomusicology	MUH 3514	3
Concert Attendance (six semesters)	MUS 1011	0

The Bachelor of Music with Major in Music: Performance concentration is designed to prepare music majors for professional performance careers, private studio teaching and/or the pursuit of further academic study.

### **Instrumental Option**

Instrumental Conducting 1	MUG 3301	1
Instrumental Conducting 2	MUG 4304	2
Junior Performance Recital	MVO 3330	0
Senior Performance Recital	MVO 4340	0
Class Piano 1	MVK 1111	1
Class Piano 2	MVK 1112	1
Class Piano 3	MVK 2121	1
Eight semesters assigned ensembles		8
Eight semesters of 2-credit applied music instruction		16

4 credits of chamber music ensembles from:

Chamber Winds	MUN 4144	1
Instrumental Chamber Music	MUN 4463	1
<i>1 credit from the following applicable methods courses:</i>		
Woodwind Pedagogy and Methods	MUE 2450	1
Brass Pedagogy and Methods	MUE 2460	1
Percussion Pedagogy and Methods	MUE 2470	1
String Pedagogy and Methods	MUE 4441	1
<i>7-8 credits from the appropriate ensemble literature courses below:</i>		
<i>For students with Wind Ensemble major emphasis:</i>		
Survey of Wind and Percussion Solo Literature	MUL 4450	2
Survey of Wind and Percussion Chamber Literature	MUL 4451	2
Wind Instrument Literature	MUL 4550	3
<i>For students with Orchestra major emphasis:</i>		
Chamber Music Literature 2	MUL 4562	3
Solo String Literature	MUL 4433	2
Survey of Orchestra Literature	MUL 4500	3

Additional electives, which may include approved music coursework, are required to reach the program's 120 credits. Courses at the 5000 level and above count for the Combined B.M./M.N.M. program.

### **Guitar Option**

Choral Conducting 1	MUG 3201	1
Choral Conducting 2	MUG 4202	2 <b>or</b>
Instrumental Conducting 1	MUG 3301	1
Instrumental Conducting 2	MUG 4304	2
Junior Performance Recital	MVO 3330	0
Senior Performance Recital	MVO 4340	0
Eight semesters assigned ensembles		8
Eight semesters of 2-credit applied music instruction		16
Classical Guitar Literature	MUL 3430	2
Classical Guitar Pedagogy	MVS 3606	2
Class Piano 1	MVK 1111	1
Class Piano 2	MVK 1112	1
Class Piano 3	MVK 2121	1

*4 credits of additional music electives from the courses below:*

Chamber Music Literature 1	MUL 4561	3
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Chamber Music Literature 2	MUL 4562	3
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Large ensemble		1
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Chamber ensemble		1
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Additional electives, which may include approved music coursework, are required to reach the program's 120 credits. Courses at the 5000 level and above count for the Combined B.M./M.N.M. program.

**Piano Performance and Pedagogy Option**

Music Elective (upper division)

Choral Conducting 1	MUG 3201	1
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Choral Conducting 2	MUG 4202	2 or
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Instrumental Conducting 1	MUG 3301	1
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Instrumental Conducting 2	MUG 4304	2
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Junior Performance Recital	MVO 3330	0
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Senior Performance Recital	MVO 4340	0
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Eight semesters assigned ensembles. Ensembles at the 5000 level and above count for the Combined B.M./M.N.M. program. 8

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Eight semesters of 2-credit applied music instruction. Courses at the 5000 level and above count for the Combined B.M./M.N.M. program. 16

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Piano Literature 1	MUL 4400	3
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Piano Literature 2	MUL 4401	3
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Chamber Music Literature 1	MUL 4561	3
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Chamber Music Literature 2	MUL 4562	3
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Piano Pedagogy 1	MVK 4631	3
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Piano Pedagogy 2	MVK 4633C	3
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Piano Pedagogy 3	MVK 4641C	3
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Additional electives, which may include approved music coursework, are required to reach the program's 120 credits. Electives at the 5000 level and above count for the Combined B.M./M.N.M. program.

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### **Vocal Option**

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Choral Conducting 1	MUG 3201	1
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Choral Conducting 2	MUG 4202	2
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Diction for Singers 1: An Introduction	MUS 2201	1
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Diction for Singers 2: German	MUS 3232	1
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Diction for Singers 3: French	MUS 3222	1
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Introduction to Vocal Pedagogy	MVV 2601	1
Survey of Vocal Solo Literature	MUL 4602	3
Vocal Pedagogy	MVV 4640	2
Opera Workshop	MUO 4503	2
Survey of Choral Music Literature	MUL 4643	2
Junior Performance Recital	MVO 3330	0
Senior Performance Recital	MVO 4340	0
Class Piano 1	MVK 1111	1
Class Piano 2	MVK 1112	1
Class Piano 3	MVK 2121	1
Eight semesters assigned ensembles		8
Eight semesters of 2-credit applied music instruction		16

Additional electives, which may include approved music coursework, are required to reach the program's 120 credits.

## MASTER OF NONPROFIT MANAGEMENT

Details in previous [section](#).

# MASTER'S PROGRAM

## MUSIC

### MASTER OF MUSIC (M.M.)

#### **Concentrations:**

**Choral Conducting**

**Commercial Music**

**Composition**

**Instrumental Performance**

**Piano Performance**

**Vocal Performance**

**Wind Conducting**

*(Minimum of 36 credits required)*

The Master of Music (M.M.) is designed to assist students in attaining an advanced level of competence and knowledge in choral or wind conducting, commercial music, composition, or instrumental, piano or vocal performance, as specified by their chosen concentration. The department offers performance and teacher training in standard class instruction, applied studio instruction (private lessons), performance ensembles and chamber music coaching. Florida Atlantic University is an accredited institutional member of the National Association of Schools of Music (NASM). The Music Department adheres to nationally accepted standards regarding the faculty's creative and scholarly research, including making music, studying music and its influences, advancing the pedagogy of music and facilitating music activities.

Seven concentrations are available for the Master of Music (M.M.) majors: Choral Conducting, Commercial Music, Composition, Instrumental Performance, Piano Performance, Vocal Performance and Wind Conducting.

February 20 is the priority application deadline for all Master of Music programs. Applications completed after the deadline will be considered for admission and/or funding based on remaining availability.

#### **Admission Requirements**

1. A baccalaureate degree in music with an overall GPA of 3.0 in undergraduate studies.
2. An initial interview with the departmental coordinator to discuss the program.

3. One of the following, depending upon desired degree concentration (audition requirement details available [here](#)):
- Concentrations in Choral Conducting, Instrumental Performance, Piano Performance, Vocal Performance and Wind Conducting: A satisfactory performance audition is required. In addition, Choral or Wind Conducting applicants must perform an audition segment consisting of conducting an appropriate ensemble for an extensive period and submitting conducting videos of live rehearsals and performances.
  - Concentrations in Commercial Music and Composition: Approved portfolio of composed or arranged musical works, as appropriate, with recordings of said works, if possible, is required.

**Note:** Students cannot register for any graduate courses in the Music program until they have successfully completed the entrance audition or provided the requested portfolio or writing sample.

**Note:** Students must take proficiency examinations in Music History and Music Theory. The Music History exam requires students to identify Western historical periods by date, place specific composers in their respective historical periods, identify them with major works and define important historical terms. The Music Theory exam requires harmonic analysis of tonal music, including modulation techniques, non-harmonic tones, borrowed chords and augmented sixth and Neapolitan sixth chords. Students who do not meet the required proficiencies will be required to enroll in review coursework that will not count toward the Master of Music degree.

### Comprehensive Examinations

In addition to the following coursework, the student must successfully complete comprehensive examinations. These are normally administered during the last semester of study.

### Degree Requirements

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#### Core Courses for all concentrations - 12 credits

Introduction to Graduate Research	MUS 6716	2
Music Seminar in Theoretical Styles	MUT 6935	3
Music History Seminar	MUH 6935	3
Graduate Project	MUS 6975	4 or

Graduate Recital	MUS 6976	4
<b>Total</b>		<b>12</b>

### Commercial Music Concentration (24 credits)

#### *Required Courses (14 credits)*

Music Composition	MUC 6251	2
Advanced Composing and Arranging for TV/Radio Commercials	MUC 6605	3
Advanced Music Composition for Film	MUC 6615	3
Advanced Music Production	MUM 6727	3
Advanced Commercial Music Internship	MUS 6940	1
Graduate Orchestration	MUT 6346	2

#### *Commercial Music Electives (10 credits)*

*(Select a total of 10 credits from the following courses.)*

Artist Management	GEB 6057	2
20th-Century Music	MUH 6375	3
World Music Seminar	MUH 6588	3
Any 6000-level course in Music: Ensembles	MUN 6***	1

*(In consultation with the student's advisor/mentor, these courses may be repeated for credit.)*

Advanced Music Publishing and Copyright	MUM 6306	2
Advanced Legal Issues for the Musician	MUM 6307	3
Advanced Audio Engineering for the Musician	MUM 6627	2
Advanced Music Marketing and Public Relations	MUM 6726	2
Special Topics (Music History or Literature)	MUS 6933	1-5
<b>Total</b>		<b>24</b>

### **Choral Conducting Concentration (24 credits)**

#### *Required Courses (20 credits)*

Graduate Choral Conducting	MUG 6205	2
Applied Graduate Choral Conducting	MUG 6206	6
Choral Ensembles: Graduate Level	MUN 6315	4
Advanced Studies in Choral Music: A Survey of Choral Literature	MUL 6648	3
Advanced Studies in Choral Literature: Mass and Motet	MUR 6108	3

Lyric Diction 1	MUS 6205	2
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<b><i>Performance Electives</i></b>		4
<i>(Select 4 additional credits from the list below.)</i>		

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<b>Total</b>		<b>24</b>
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### **Wind Conducting Concentration (24 credits)**

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#### ***Required Courses (18 credits)***

Graduate Instrumental Conducting	MUG 6305	2
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Applied Graduate Instrumental Conducting	MUG 6309	6
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Ensembles (one per semester)	MUN *****	4
<i>(In consultation with the student's advisor/mentor, these courses may be repeated for credit.)</i>		

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#### ***Select two of the following:***

Survey of Symphonic Wind Literature	MUL 6555	3
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Survey of Chamber Wind Literature	MUL 6567	3
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Survey of Orchestra Literature	MUL 6505	3
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<b><i>Wind Conducting Electives</i></b>		6
<i>(Select 6 additional credits from the list below.)</i>		

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<b>Total</b>		<b>24</b>
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### **Instrumental Performance Concentration (24 credits)**

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**Piano Performance Concentration (24 credits)****Vocal Performance Concentration (24 credits)*****Required Courses (11 credits)***

Graduate Applied Music	MV* 6***	6
<i>(In consultation with the student's advisor/mentor, these courses may be repeated for credit.)</i>		

Ensembles	MUN ****	5
<i>(In consultation with the student's advisor/mentor, these courses may be repeated for credit.)</i>		

<b><i>Instrumental, Piano, or Vocal Performance Electives</i></b>	<b>13</b>
<i>(Select 13 additional credits from the list below.)</i>	

<b>Total</b>	<b>24</b>
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**Composition Concentration (24 credits)*****Required Courses (18 or 19 credits)***

20th-Century Music	MUH 6375	3
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Advanced Music Composition for Film	MUC 6615	3
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Music Composition	MUC 6251	6
<i>(In consultation with the student's advisor/mentor, this course may be repeated for credit.)</i>		

Any 6000-level course in Music: Ensembles	MUN ****	1
<i>(In consultation with the student's advisor/mentor, these courses may be repeated for credit.)</i>		

*Select one from the following six options*

Music Education Seminar	MUE 6938	3 or
Any 6000-level course in Music History	MUH ****	3 or
Any 6000-level course in Music Literature	MUL ****	3 or
Any 6000-level course in Music Church	MUR ****	3 or
Any 6000-level course in Music Theory	MUT ****	3 or
Special Topics	MUS 6933	1-5

*Select one of the following two courses*

Graduate Orchestration	MUT 6346	2
Advanced Composing and Arranging for TV/Radio Commercials	MUC 6605	3

*Select a total of 5 or 6 credits from the list below depending upon selection made above to achieve a total of 24 credits for the Composition Option*

**Listing of Graduate Music Electives**

Seminar in Music Education	MUE 6938	3
20th-Century Music	MUH 6375	3
World Music Seminar	MUH 6588	3

Women Composers in the Western Tradition: An Historical Overview	MUH 6625	3
Graduate Piano Literature	MUL 6410	3
Graduate Classical Guitar Literature	MUL 6435	2
Survey of Orchestra Literature	MUL 6505	3
Graduate Survey of the Concerto	MUL 6528	3
Survey of Symphonic Wind Literature	MUL 6555	3
Survey of Chamber Music Literature	MUL 6565	3
Survey of Chamber Wind Literature	MUL 6567	3
Graduate Survey of Art Song	MUL 6606	3
Advanced Studies in Choral Music: A Survey of Choral Literature	MUL 6648	3
Survey of Opera Literature	MUL 6671	2
Opera Workshop 1	MUO 6505	1
Opera Workshop 2	MUO 6507	1
Advanced Studies in Choral Literature: Mass and Motet	MUR 6108	3
Lyric Diction 1	MUS 6205	2

Lyric Diction 2	MUS 6206	1
Special Topics (Music History or Literature) <i>(In consultation with the student's advisor/mentor, this course may be repeated for credit.)</i>	MUS 6933	1-5
Graduate Piano Pedagogy	MVK 6650	3
Graduate Piano Pedagogy 2	MVK 6651	3
Graduate Orchestral Repertoire	MVS 6550	3
Graduate String Pedagogy	MVS 6650	3
Graduate Classical Guitar Pedagogy	MVS 6652	2
Graduate Vocal Pedagogy	MVV 6652	2
Graduate Vocal Pedagogy 2	MVV 6662	1

## THEATRE AND DANCE

### Faculty:

Shorrock, T., Chair; Atkins, T.; Brooks, C.; deChatelet, E.; Gallant, D.; Johnston, K.; Lucatero, R.; McNutt, L.; Shamburger, D.; Soroko, K. A.; Soroko, L.

The Department of Theatre and Dance offers undergraduate programs leading to the Bachelor of Arts and Bachelor of Fine Arts degrees, a [minor in Theatre](#) and a [minor in Dance](#). Graduate programs lead to the Master of Fine Arts degree. Alumni of the department are currently working in professional theatre, television and motion pictures, as well as community and academic theatre.

### Mission

The mission of the Department of Theatre and Dance is to produce innovative artists and scholars through a pursuit of academic and creative excellence.

## Values

The Department of Theatre and Dance values:

1. Engaging in the highest quality of professional training;
2. Providing an experiential approach to the collaborative nature of theatre and dance;
3. Integrating production experience with a scholarly understanding of theatre and dance as artistic forms;
4. Encouraging innovative exploration through classic and contemporary methodologies in theatre and dance;
5. Developing excellence in research and creative expression in the classroom and production process;
6. Encouraging and celebrating diversity in our community;
7. Providing active leadership in the contribution to South Florida culture;
8. Engaging with our various campus and regional communities.

## Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Requirements

All students majoring in Theatre must fulfill the University and College requirements for admission and graduation. All courses in the Department of Theatre and Dance must be passed with a "C" or better; pass/fail grades are not allowed. Theatre majors must maintain a 3.0 average in courses in the major.

[Link to B.F.A. Program](#)

[Link to Master's Program](#)

## **THEATRE**

### **BACHELOR OF ARTS (B.A.)**

#### **Theatre Studies Concentration**

*(Minimum of 120 credits required)*

The Bachelor of Arts with Major in Theatre is designed to train students in the art, craft and literature of theatre while providing the opportunity to develop creative, cognitive and communication skills through a broad liberal arts education. Undergraduate students are taught by faculty members who are active professionals in their fields and also work closely with candidates of the graduate conservatory program. Upon completion of the degree, the successful student is prepared for work at the graduate or professional level.

#### **Theatre Studies Concentration**

The Theatre Studies concentration at Florida Atlantic University is open to all students wishing to better understand theatre and the artistic processes used in production and performance.

#### **Advising**

All students are required to meet with an advisor each semester to ensure timely graduation. Entering students should call the department of Theatre and Dance at 561-297-3810 to arrange an advising appointment prior to the start of your term.

All students are assigned to an advisor who will meet with the student every semester to determine the student's curriculum. In addition to departmental course requirements, all majors must complete the following to graduate:

#### **Degree Requirements**

1. In addition to requirements of the Dorothy F. Schmidt College of Arts and Letters and the University, the student pursuing a Bachelor of Arts in Theatre with concentration in Theatre Studies must take 15 credits in required core courses. The student must also take 21 credits of content courses. The total required credits for the major is 36.
2. Students who change degree programs and select this major must adopt the most current catalog.
3. All courses and their prerequisite courses must be completed with a grade of "C" (2.0) or higher.

Grades below a “C” (2.0) will not satisfy the major requirements or count towards theatre credits. These and other departmental policies are explained in detail in the Student Handbook, which is updated annually and available in the Department of Theatre and Dance.

- Students must consult with departmental advisor every semester before registration.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

#### Core Courses (15 credits)

*Choose three of the following courses in content creation (9 credits)*

Script Analysis	THE 2305	3
Visual Imagination	TPA 2000	3
Introduction to Production	TPA 2200	3
Acting 1	TPP 2110	3

*Choose two of the following history/literature courses (6 credits)*

Theatre History 1	THE 4110	3
Theatre History 2	THE 4111	3
Classical World Drama	THE 4213	3
Shakespeare on Stage and Screen	THE 4335	3
Drama on Stage and Screen	THE 4370	3
20th Century Drama	THE 4371	3

**Content Courses (21 credits)**

The content courses are chosen from at least two of the following four categories: Literature, Performance, Production and Dance.

***Literature***

History of Western Dress	THE 3262	3
Theatre History 1	THE 4110	3
Theatre History 2	THE 4111	3
Classical World Drama	THE 4213	3
History of Design Styles for Designers	THE 4282	3
Shakespeare on Stage and Screen	THE 4335	3
Drama on Stage and Screen	THE 4370	3
20th Century Drama	THE 4371	3

***Performance***

Voice for the Actor	TPP 2710	3
Speech for the Actor	TPP 2810	3
Movement for Actors	TPP 3510	3
Acting 2	TPP 4175	3
Acting 3	TPP 4176	3

***Production***

Scenery Design Topics	TPA 3092	3
Lighting Design Topics	TPA 3223C	3
Stage Costume Topics	TPA 3231	3
Stage Technology Topics	TPA 3311C	3

***Dance***

Modern Dance 1	DAA 2100	3
Ballet 1	DAA 2200	3
Tap Dance 1	DAA 2520	3
Jazz Dance	DAA 3508	3

## Theatre B.A.: General Education

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

Note that transfer students who have not completed A.A. degrees in Theatre and Dance will be required to complete all lower-division music requirements, which may add time to the degree.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment

### Degree Requirements

Students must meet all University and College requirements for graduation.

1. Students who change degree programs and select this major must adopt the most current catalog.
2. All courses and their prerequisite courses must be completed with a grade of "C" (2.0) or higher. Grades below a "C" (2.0) will not satisfy the major requirements or count towards theatre credits. These and other departmental policies are explained in detail in the Student Handbook, which is updated annually and available in the [Department of Theatre and Dance](#).
3. Students must consult with a departmental advisor each semester before registering.
4. All students must complete 2 credits of Production Capstone by their senior year demonstrating a proficiency in an area of theatre prior to graduation. Credits are earned by registering for THE 4954 and applying for a position of responsibility in the department. Visit the [department](#) for the

current production opportunities.

In addition to the University and College requirements for admission and graduation, candidates for a Bachelor of Arts Degree in Theatre—General Education must complete the following courses.

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### Literature, History, Theory and Criticism

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Script Analysis	THE 2305	3
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Theatre History 1	THE 4110	3
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Theatre History 2	THE 4111	3
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Classical World Drama	THE 4213	3
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20th Century World Drama	THE 4371	3
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### *Choose one of the following:*

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Shakespeare on Stage and Screen	THE 4335	3
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Drama on Stage and Screen	THE 4370	3
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<b>Subtotal</b>		<b>18</b>
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### Performance

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Acting 1	TPP 2110	3
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Acting 2	TPP 4175	3
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Acting 3	TPP 4176	3
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Voice for the Actor 1	TPP 2710	3
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Stage Management	TPA 4601	3
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*Choose one of the following:*

Movement for Actors	TPP 3510	3
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Movement for the Actor 2	TPP 4511	3
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*Choose one of the following:*

Modern Dance 1	DAA 2100	3
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Ballet 1	DAA 2200	3
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Tap Dance 1	DAA 2520	3
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Speech for the Actor 1	TPP 2810	3
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Stage Combat	TPP 3531	3
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Stage Combat 2	TPP 4532	3
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Musical Theatre Technique	TPP 3251	3
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Directing 1	TPP 4310	3
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<b>Subtotal</b>		<b>21</b>
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**Design and Technology**

Visual Imagination	TPA 2000	3
Introduction to Production	TPA 2200	3
<i>Choose two of the following:</i>		
Lighting Design 1	TPA 3022	3
Costume Design 1	TPA 3045	3
Scene Design 1	TPA 3064C	3
Sound Design	TPA 2260	3
<i>Choose one of the following:</i>		
Scenery Design Topics	TPA 3092	3
Lighting Design Topics	TPA 3223C	3
Stage Costume Topics	TPA 3231	3
Stage Technology Topics	TPA 3311C	3
<b>Subtotal</b>		<b>15</b>
<b>Practical Application</b>		
Production Hour (Course is 1-2 credits.)	THE 3952	5
Production Capstone	THE 4954	2

Summer Repertory Theatre Workshop	THE 4955	6
<b>Subtotal</b>		<b>13</b>
<b>Electives</b>		
<i>Choose 9 credits of any upper-division Theatre or Dance course</i>		9
<b>Total</b>		<b>76</b>

## **THEATRE**

### **BACHELOR OF FINE ARTS (B.F.A.)**

#### **Design and Technology Concentration**

#### **Music Theatre Concentration**

#### **Performance Concentration**

*(Minimum of 120 credits required)*

The Bachelor of Fine Arts with Major in Theatre is offered with a Design and Technology concentration, a Music Theatre concentration and a Performance concentration. This degree program provides in-depth training and fundamental knowledge necessary for the pursuit of a career as an actor or director through process-oriented instruction in performance skills. It is designed primarily for those students with an interest in a career in the professional theatre. In order to enter the program, students must audition with the performance faculty.

All B.F.A. students are expected to complete the following requirements.

#### **Bachelor of Fine Arts Core Courses**

##### *Literature, History, Theory and Criticism*

Script Analysis	THE 2305	3
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Theatre History	THE 4110	3
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Theatre History 2	THE 4111	3
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*Choose one of the following:*

Shakespeare on Stage and Screen	THE 4335	3
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Drama on Stage and Screen	THE 4370	3
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History and Literature of Muscial Theatre <i>(for Music Theatre concentration only)</i>	MUL 3015	3
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*Choose one of the following:*

Classical World Drama	THE 4213	3
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20th Century World Drama	THE 4371	3
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<b>Subtotal</b>		<b>15</b>
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### **Performance**

Acting 1	TPP 2110	3
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<b>Subtotal</b>		<b>3</b>
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### **Design and Technology**

Visual Imagination	TPA 2000	3
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Introduction to Production	TPA 2200	3
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Theatrical Makeup	TPA 2248	3
<b>Subtotal</b>		<b>9</b>
<b>Practical Application</b>		
Production Hour <i>(Course is 1-2 credits.)</i>	THE 3952	4
Production Capstone	THE 4954	2
Summer Repertory Theatre Workshop	THE 4955	6
<b>Subtotal</b>		<b>12</b>
<b>Core Total</b>		<b>39</b>

## Design and Technology Concentration

*(Minimum of 120 credits required)*

### Selective Programs

For reasons of accreditation standards, space or fiscal limitations, the B.F.A. programs in Theatre and Dance are designated selective admissions programs. Admission to FAU does not guarantee admission to a selective program. For specific information on these programs, applicants should review the [Department of Theatre and Dance](#) guidelines and review requirements above and below.

### Admission Requirements

All students seeking admission to the B.F.A. programs must complete a performance audition or portfolio presentation prior to the first semester of study. For more information on the audition process and dates, call the Department of Theatre and Dance at 561-297-3810.

Students may audition for entry to the BFA program until they have earned 72 credits toward their degree in theatre.

## Advising

All students are required to meet with an advisor each semester to ensure timely graduation. Entering students should call the Department of Theatre and Dance at 561-297-3810 to arrange an advising appointment prior to the start of their term.

All students are assigned to an advisor who will meet with the student every semester to determine the student's curriculum. In addition to departmental course requirements, all B.F.A. Performance majors must complete the following to graduate.

## Degree Requirements

1. Students must meet all University and College requirements for graduation.
2. Students who change degree programs and select this major must adopt the most current catalog.
3. All courses and their prerequisite courses must be completed with a grade of "C" (2.0) or higher. Grades below a "C" (2.0) will not satisfy the major requirements or count toward theatre credits. These and other departmental policies are explained in detail in the Student Handbook, which is updated annually and available in the [Department of Theatre and Dance](#).
4. Students are expected to participate and successfully pass semester juries. These and other departmental policies are explained in detail in the Student Handbook, which is updated annually and available in the Department of Theatre and Dance.
5. All B.F.A. students in the Design and Technology program are required to participate in academic year productions as assigned. These and other departmental policies are explained in detail in the Student Handbook, which is updated annually and available in the Department of Theatre and Dance.
6. Students must consult with departmental advisor every semester before registration.
7. All students must complete two credits of Production Capstone demonstrating a proficiency in an area of theatre prior to graduation. Credits are earned by registering for THE 4954 and applying for a position of responsibility in the department. See the [department](#) for current production opportunities.
8. Students must complete a senior project (THE 4950) demonstrating design and/or technology skills. This course should be carefully coordinated with the student's area faculty member prior to the senior year.

## Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida

public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

Note that transfer students who have not completed A.A. degrees in Theatre and Dance will be required to complete all lower-division music requirements, which may add time to the degree.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

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### **Literature, History, Theory and Criticism**

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Script Analysis	THE 2305	3
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History of Western Dress	THE 3262	3
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Theatre History 1	THE 4110	3
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Theatre History 2	THE 4111	3
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History of Design Styles for Theatrical Designers	THE 4282	3
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### ***Choose two of the following:***

Classical World Drama	THE 4313	3
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Shakespeare on Stage and Screen	THE 4335	3
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Drama on Stage and Screen	THE 4370	3
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20th Century World Drama	THE 4371	3
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<b>Subtotal</b>		<b>21</b>
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## Design and Technology

Theatrical Makeup	TPA 2248	3
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Drafting for the Theatre	TPA 3348C	3
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Visual Imagination	TPP 2000	3
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Introduction to Production	TPP 2200	3
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<b>Subtotal</b>		<b>12</b>
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## Technology and Technique

*Choose three of the following:*

Scenery Design Topics	TPA 3092	3
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Lighting Design Topics	TPA 3223C	3
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Stage Costume Topics	TPA 3231	3
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Stage Technology Topics	TPA 3311C	3
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<b>Subtotal</b>		<b>9</b>
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## Drawing

2D Art Foundations	ART 1201C	3
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Drawing Foundations	ART 1300C	3
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Drawing - Figure Drawing	ART 2330C	3
<b>Subtotal</b>		<b>9</b>
<b>Design</b>		
<i>Choose three of the following:</i>		
Lighting Design 1	TPA 3022	3
Costume Design 1	TPA 3045	3
Scene Design 1	TPA 3064C	3
Sound Design 1	TPA 3262	3
<b>Subtotal</b>		<b>9</b>
<b>Practical Application</b>		
Production Hour (Course is 1-2 credits.)	THE 3952	5
Senior Capstone	THE 4950	1
Production Capstone	THE 4954	2
Summer Repertory Theatre Workshop	THE 4955	6
<b>Subtotal</b>		<b>14</b>
<b>Performance</b>		

Acting 1	TPP 2110	6
<b>Subtotal</b>		<b>3</b>
<b>Electives</b>		
<i>Choose any two upper-division Theatre and Dance courses</i>		<i>6</i>
<b>Subtotal</b>		<b>6</b>
<b>Major Total</b>		<b>83</b>

## Music Theatre Concentration

*(Minimum of 120 credits required)*

### Selective Programs

For reasons of accreditation standards, space or fiscal limitations, the B.F.A. programs in Theatre and Dance are designated selective admissions programs. Admission to FAU does not guarantee admission to a selective program. For specific information on these programs, applicants should review the [Department of Theatre and Dance](#) guidelines and review requirements above and below.

### Admission Requirements

All students seeking admission to the BFA programs must complete a performance audition or portfolio presentation prior to the first semester of study. For more information on the audition process and dates, visit the [Department of Theatre and Dance](#) or call 561-297-3810.

Students may audition for entry to the BFA program until they have earned 30 credits toward their degree in theatre.

### Advising

All students are required to meet with an advisor each semester to ensure timely graduation. Entering students should call the Department of Theatre and Dance at 561-297-3810 to arrange an advising appointment prior to the start of your term.

All students are assigned to an advisor who will meet with the student every semester to determine the student's curriculum. In addition to departmental course requirements, all BFA Performance majors must complete the following to graduate.

## **Degree Requirements**

1. Students must meet all University and College requirements for graduation.
2. Students who change degree programs and select this major must adopt the most current catalog.
3. All courses and their prerequisite courses must be completed with a grade of "C" (2.0) or higher. Grades below a "C" (2.0) will not satisfy the major requirements or count toward theatre credits. These and other departmental policies are explained in detail in the Student Handbook, which is updated annually and available in the [Department of Theatre and Dance](#).
4. Students must consult with a departmental advisor each semester before registering.
5. All students must complete two credits of Production Capstone demonstrating a proficiency in an area of theatre prior to graduation. Credits are earned by registering for THE 4954 and applying for a position of responsibility in the department. See the [department](#) for current production opportunities. Students must fulfill 2.0 credits' worth of production capstone prior to graduation.
6. Jury reviews are given at the end of the semester. Successful completion of the jury is required to continue enrolling in course sequences.
7. Students are required to follow all audition requirements for their degree program.
8. Students may test out of MUT1111 and MVK 1111 through proficiency exam.
9. Students must enter this program in fall terms for proper course sequencing. A student cannot enter this major after 30 credits to ensure timely graduation.

## **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

Note that transfer students who have not completed A.A. degrees in Theatre and Dance will be required to complete all lower-division music requirements, which may add time to the degree.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog

course description and a copy of the syllabus for assessment.

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### Literature, History, Theory and Criticism

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History and Literature of Musical Theatre	MUL 3015	3
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*Choose one of the following:*

Theatre History 1	THE 4110	3
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Theatre History 2	THE 4111	3
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<b>Subtotal</b>		<b>6</b>
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### Performance Training

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Voice for the Actor 1	TPP 2710	3
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Acting 1	TPP 2110	3
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Acting 2	TPP 4175	3
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Acting 3	TPP 4176	3
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Acting 4	TPP 4140	3
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Music Theatre Craft	TPP 2740C	1-2
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Music Theatre Performance	TPP 4721C	1-2
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Music Theatre Applied / Studio Voice 1	TPP 2714C	1-2
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Music Theatre Applied / Studio Voice 2	TPP 2741C	1-2
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Music Theatre Applied / Studio Voice 3	TPP 3745C	1-2
Music Theatre Applied / Studio Voice 4	TPP 3747C	1-2
Music Theatre Applied / Studio Voice 5	TPP 4748C	1-2
Music Theatre Applied / Studio Voice 6	TPP 4749C	1-2
Music Theatre Scene Study	TPP 4252C	2
Music Theatre Technique	TPP 3251	3
Audition and Career Forum	TPP 4224	3
<i>Choose one of the following:</i>		
Movement for Actors	TPP 3510	3
Movement for the Actor 2	TPP 4511	3
<b>Subtotal</b>		<b>41</b>
<b>Music Training</b>		
Music Theory 1	MUT 1111	3
Sight Singing and Ear Training 1	MUT 1241	1
Sight Singing and Ear Training 2	MUT 1242	1
Class Piano 1	MVK 1111	1

<b>Subtotal</b>		<b>6</b>
<b>Dance</b>		
Ballet 1	DAA 2200	3
Ballet 2	DAA 3214	3
Jazz Dance	DAA 3508	3
Modern Dance 1	DAA 2100	3
Tap Dance 1	DAA 2520	3
<b>Subtotal</b>		<b>15</b>
<b>Design and Technology</b>		
Introduction to Production	TPA 2200	3
Theatrical Makeup	TPA 2248	3
<b>Subtotal</b>		<b>6</b>
<b>Practical Application</b>		
Production Hour <i>(Course is 1-2 credits.)</i>	THE 3952	2
Production Capstone	THE 4954	2
Summer Repertory Theatre Workshop	THE 4955	3

<b>Subtotal</b>	<b>7</b>
<b>Electives</b>	
One upper division DAA, MUN, MUO, THE, TPA or TPP course	3
<b>Subtotal</b>	<b>3</b>
<b>Major Total</b>	<b>84</b>

## Performance Concentration

*(Minimum of 120 credits required)*

### Selective Programs

For reasons of accreditation standards, space or fiscal limitations, the B.F.A. programs in Theatre and Dance are designated selective admissions programs. Admission to FAU does not guarantee admission to a selective program. For specific information on these programs, applicants should review the [Department of Theatre and Dance](#) guidelines and review requirements above and below.

### Admission Requirements

All students seeking admission to the B.F.A. programs must complete a performance audition or portfolio presentation prior to the first semester of study. For more information on the audition process and dates, contact the [Department of Theatre and Dance](#) at 561-297-3810.

Students may not audition for entry to the B.F.A. program until they have earned 72 credits toward their degree in theatre.

### Advising

All students are required to meet with an advisor each semester to ensure timely graduation. Entering students should call the [Department of Theatre and Dance](#) at 561-297-3810 to arrange an advising appointment prior to the start of their term.

All students are assigned to an advisor who will meet with the student every semester to determine the

student's curriculum. In addition to departmental course requirements, all B.F.A. Performance majors must complete the following to graduate.

## **Degree Requirements**

1. Students must meet all University and College requirements for graduation.
2. Students who change degree programs and select this major must adopt the most current catalog.
3. All courses and their prerequisite courses must be completed with a grade of "C" (2.0) or higher. Grades below a "C" (2.0) will not satisfy the major requirements or count toward theatre credits. These and other departmental policies are explained in detail in the Student Handbook, which is updated annually and available in the [Department of Theatre and Dance](#).
4. Students must consult with a departmental advisor each semester before registering.
5. All students must complete two credits of Production Capstone demonstrating a proficiency in an area of theatre prior to graduation. Credits are earned by registering for THE 4954 and applying for a position of responsibility in the department. See the department for current production opportunities.
6. Jury reviews are given at the end of the semester. Successful completion of the jury is required to continue enrolling in course sequences.
7. Students are required to follow all audition requirements for their degree program.

## **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

Note that transfer students who have not completed A.A. degrees in Theatre and Dance will be required to complete all lower-division music requirements, which may add time to the degree.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

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## **Literature, History, Theory and Criticism**

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Script Analysis	THE 2305	3
Theatre History 1	THE 4110	3
Theatre History 2	THE 4111	3
<i>Choose two of the following</i>		
Classical World Drama	THE 4213	3
Shakespeare on Stage and Screen	THE 4335	3
Drama on Stage and Screen	THE 4370	3
20th Century World Drama	THE 4371	3
<b>Subtotal</b>		<b>15</b>
<b>Design and Technology</b>		
Visual Imagination	TPA 2000	3
Introduction to Production	TPA 2200	3
Theatrical Makeup	TPA 2248	3
Stage Management	TPA 4601	3
<b>Subtotal</b>		<b>12</b>
<b>Performance</b>		

Acting 1	TPP 2110	3
Acting 2	TPP 4175	3
Acting 3	TPP 4176	3
Acting 4	TPP 4140	3
Acting 5	TPP 4265	3
Acting for the Camera 1	TPP 4268C	3
Acting for the Camera 2	TPP 4269	3
Audition and Career Forum	TPP 4224	3
<b>Subtotal</b>		<b>24</b>
<b>Voice and Movement</b>		
Voice for the Actor 1	TPP 2710	3
Voice for the Actor 2	TPP 3711	3
Speech for the Actor 1	TPP 2810	3
<i>Choose one of the following:</i>		
Movement for Actors	TPP 3510	3
Movement for the Actor	TPP 4511	3

***Choose one of the following:***

Stage Combat	TPP 3531	3
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Stage Combat 2	TPP 4532	3
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***Choose one of the following:***

Ballet 1	DAA 2200	3
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Modern Dance 1	DAA 2100	3
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Jazz Dance	DAA 3508	3
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Tap Dance 1	DAA 2520	3
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<b>Subtotal</b>		<b>18</b>
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**Practical Application**

Production Hour <i>(Course is 1-2 credits.)</i>	THE 3952	4
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Production Capstone	THE 4954	2
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Summer Repertory Theatre Workshop	THE 4955	6
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<b>Subtotal</b>		<b>12</b>
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<b>Total for Major</b>		<b>81</b>
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**THEATRE**

## UNDERGRADUATE MINOR

*(Minimum of 17 credits required)*

The Department of Theatre and Dance offers a Theatre minor available to all undergraduate students except Theatre majors. The minor requires a minimum of 17 theatre credits, 9 of which must be in upper-level classes (3000 level and above). At least 75 percent of all credits must be earned from FAU.

### Minor Requirements

1. All courses used to fulfill the Theatre minor must be completed with a grade of "C" (2.0) or better.
2. All minors are required to meet with the departmental advisor each semester prior to registering for classes.

### Required Courses

Introduction to Production	TPA 2200	3
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Acting 1	TPP 2110	3
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Production Hour	THE 3952	2
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*(Course is 1-2 credits.)*

### *Choose one of the following:*

Theatre History 1	THE 4110	3
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Theatre History 2	THE 4111	3
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20th Century World Drama	THE 4371	3
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Classical World Drama	THE 4213	3
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<b>Subtotal</b>		<b>11</b>
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**Elective Courses***Choose any two upper division courses offered by the department. Possibilities include:*

Movement for Actors	TPP 3510	3
Acting 2	TPP 4175	3
Acting 3	TPP 4176	3
Stage Combat	TPP 3531	3
Drama on Stage and Screen	THE 4370	3
Dramatic Writing for Stage and Screen 1	TPP 4600	3
Summer Repertory Theatre Workshop	THE 4955	3
History of Design Styles for Theatrical Designers	THE 4282	3
History of Western Dress	THE 3262	3
<b>Subtotal</b>		<b>6</b>
<b>Total</b>		<b>17</b>

**DANCE****UNDERGRADUATE MINOR***(Minimum of 18 credits required)*

The Department of Theatre and Dance offers a minor in Dance, available to all undergraduate students with an audition demonstrating requisite dance experience. Auditions are scheduled once per semester

and, if passed, allow students to declare the minor and register for classes the following semester. The Dance minor requires a minimum of 18 credits, 9 of which must be upper-division courses. At least 75 percent of all credits must be earned from FAU.

### Minor Requirements

1. All courses used to fulfill the Dance minor must be completed with a grade of "C" or better.
2. All minors are required to meet with the departmental advisor each semester prior to registering for classes.
3. Dance courses must be taken in sequence (for example, DAA 2100, Modern Dance 1, must be completed before DAA 3112, Modern Dance 2).

### Required Courses

Appreciation of Dance	DAN 2100	3
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Introduction to Production	TPA 2200	3
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### *Choose two of the following:*

Modern Dance 1	DAA 2100	3
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Ballet 1	DAA 2200	3
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Modern Dance 2	DAA 3112	3
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Ballet 2	DAA 3214	3
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Jazz Dance	DAA 3511	3
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<b>Subtotal</b>		<b>12</b>
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### Elective Courses

*Choose any two courses offered in Dance; one must be upper level. Possibilities include:*

Tap Dance 1	DAA 2520	3
Teaching Dance K-12	DAE 4300	3
Tap Dance 2	DAN 3525	3
Directed Independent Study	DAN 4905	3
Special Topics	DAN 4930	3
<b>Subtotal</b>		<b>6</b>
<b>Total</b>		<b>18</b>

## MASTER'S PROGRAM

### THEATRE

#### MASTER OF FINE ARTS (M.F.A.)

##### Design and Technology Concentration

##### Performance Concentration

*(Minimum of 60 credits required)*

The Master of Fine Arts degree is a terminal degree requiring a two-year residency on campus, a summer involvement in the professional Summer Festival Repertory Theatre and a one-semester internship.

The M.F.A. program is a professional training program designed to provide the candidate with the skills necessary to contribute to the World Theatre. Through text-centered research and exploration of varied approaches to the art, candidates will be empowered to develop their own comprehensive processes of creative practice. The M.F.A. is offered with concentrations in the following areas:

##### Design and Technology Concentration

This area of concentration will prepare the candidate for pursuit of a career as a professional designer or technologist for the theatre and its related fields. The program stresses artistic expression, excellence in personal work, the understanding and mastery of specialized skills, technology, organization and clear communication skills. Hands-on production work is conducted in the context of a laboratory atmosphere where students are encouraged to take part in the exploration of creative problem-solving and artistic expression. Classroom experience is reinforced by practical application as part of the Theatre and Dance Department's productions. The successful student will begin to develop a personal process of design and technology in the collaborative process of living theatre.

### **Performance Concentration**

This area of concentration prepares the candidate for pursuit of a career as a professional actor in theatre and related fields. The program is designed to help students discover and empower their own processes of creating characters through in-depth exploration and understanding of the dramatic text. In studio, in classes and in productions, the program addresses body, voice, intellect and imagination to help candidates surmount their personal obstacles to clear expression so that they may successfully collaborate in the creation of living theatre.

### **Admission Requirements**

1. Students must have completed a bachelor's degree, preferably with a major in Theatre and with extended coursework in a sub area of concentration such as performance, design or technology.
2. Applicants must pass an audition or portfolio review and interview. For dates and locations, contact the Theatre and Dance Department, 561-297-3810. **Admission to some paths of study may occur in alternating years; contact department for details.**
3. Applicants who do not meet the above criteria may be admitted on a conditional basis under special circumstances to be evaluated at the audition or interview for the program.

### **Admission to Supervised Internship Experience**

The internship provides the candidate with an experience that will enhance understanding of the professional world of the theatre and also provides a platform from which the candidate begins a process of professional networking. A graduate candidate must complete a 9-credit internship, which usually comprises all or part of the third year, before applying for graduation.

Special requirements for enrollment are:

1. Employment at a professional theatre, Lort Theatre or company under the Actors' Equity Association contract; university; or community college as a full-time employee under a contract, working in the student's area of degree specialization.

2. Approval of the student's advisor and department.
3. Coursework completed as required by the department.
4. Completion of an application for internship.

### **Admission Requirements for Degree Candidacy**

A student may be admitted to candidacy for the degree of Master of Fine Arts with Major in Theatre with a concentration in Design and Technology or Performance after having completed the following course and departmental requirements.

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#### **Design and Technology Concentration (60 credits)**

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##### *History, Literature, Theory (7 credits)*

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Graduate Script Analysis	THE 6309	3
Seminar in Dramatic Theory and Genre	THE 6507	3
Special Topics ( <i>such as Writing and Research Methods</i> )	THE 6930	1-3

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##### *Practical Application (18 credits)*

*Students may select from the following for a total of 18 credits*

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Summer Repertory Theatre Workshop ( <i>may be taken multiple times</i> )	THE 6955	1-14
Theatre Internship ( <i>may be taken multiple times</i> )	THE 6940	1-9

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##### *Graduate Production Project (5 credits)*

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Graduate Production Project	THE 6972	1-6
Directed Independent Study	THE 6909	1-4

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*(may be taken multiple times)****Coursework in Focus Area (30 credits)***

Special Topics in Dance <i>(may be taken multiple times)</i>	DAN 5930	1-3
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Special Topics <i>(may be taken multiple times)</i>	THE 5930	1-3
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Special Topics <i>(may be taken multiple times)</i>	THE 6930	1-3
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<b>Total</b>		<b>60</b>
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**Performance Concentration (60 credits)*****History, Literature, Theory (3 credits)***

Graduate Script Analysis	THE 6309	3
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***Practical Application (13 credits)***

Graduate Production Project	THE 6972	1-6
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Summer Repertory Theatre Workshop	THE 6955	12
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***Acting (18 credits)***

Graduate Acting Studio 1	TPP 5115	3
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Graduate Acting Studio 2	TPP 5116	3
Graduate Acting Studio 3	TPP 6146	3
Graduate Acting Studio 4: Special Challenges in Acting	TPP 6147	3
Acting for the Camera	TPP 5266	3
Graduate Acting for Film and Television	TPP 5267	3
<i><b>Voice and Speech (14 credits)</b></i>		
Voice for the Graduate Actor 1	TPP 6715	2
Voice for the Graduate Actor 2	TPP 6716	2
Voice and Speech for the Graduate Actor 3	TPP 6717	3
Voice and Speech for the Graduate Actor 4	TPP 6718	3
Speech for the Graduate Actor 1	TPP 6817	2
Speech for the Graduate Actor 2	TPP 6818	2
<i><b>Movement (8 credits)</b></i>		
Movement for the Graduate Actor 1	TPP 6515	2
Movement for the Graduate Actor 2	TPP 6535	2
Movement for the Graduate Actor 3	TPP 6517	2

Movement for the Graduate Actor 4	TPP 6518	2
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*Electives (3 credits)*

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*Select 4 credits from the following options*

Special Topics	THE 5930	1-3
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Special Topics	THE 6930	1-3
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Advanced Directing	TPP 6316	3
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<b>Total</b>		<b>60</b>
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## VISUAL ARTS AND ART HISTORY

### Faculty:

McConnell, B. E., Chair; Afandador Llach, C. M.; Baghbani, M. S.; Broderick, A.; Cunningham, S.; DiCosola, M. A.; Fenichel, E.; Graham, J.; Graham, L.; Hart, S. L.; Johnson, L.; Lamb, C.; Landes, E.; Leader, K.; Prusa, C., Emeritus; Russo, K., Emeritus; Sclafani, M.; Velasquez, J.

The Department of Visual Arts and Art History is dedicated to the advancement, practice and theoretical understanding of the visual arts. A central mission of the department is to enable students to understand art in the context of its rich historical heritage, incorporating continuing changes, innovations and accomplishments made by creative artists and art historians.

The department seeks to prepare both undergraduate and graduate students for professional careers in the creation and interpretation of the visual arts. Deeply related to this focus is a commitment to elevate and sustain the study of the arts as both a necessary mode of understanding and a dynamic expression of human experience as it relates to an increasingly complex global society. To accomplish this goal, students must develop technical skills related to a variety of artistic media as well as develop a comprehension of the creative impulse and the spirit that motivates it.

The faculty of the Department of Visual Arts and Art History, through its own significant research and

creative activities, fosters the preservation of artistic legacies with an interest in originality and innovation within artistic and research practice. These educational goals are enhanced by visiting lecturers, workshops, internships, conferences and exhibitions held at two University galleries, the Dorothy F. Schmidt Center Gallery and the Ritter Gallery in Boca Raton, and activities at the other campus locations, including the Metrolab Studio in the Reubin Askew Tower in downtown Fort Lauderdale.

Art students graduating from Florida Atlantic University have established careers as photographers, ceramicists, performance artists, printmakers, painters, sculptors, graphic designers and computer animators. They teach the fine arts and art history in colleges and universities, after advanced studies, as well as in grammar and secondary schools. They are involved in Art in State Building projects and work as museum directors, curators and gallery personnel. They handle digital imaging for corporate clients, and many are involved in advertising and corporate design.

The undergraduate curriculum in Visual Arts and Art History offers programs leading to a Bachelor of Arts with Major in Art and concentration in Art History or concentration in Studio Art. Bachelor of Fine Arts programs are available with Major in Art and concentration in Graphic Design or concentration in Studio Art. Several Art minors are also offered.

Transfer students with A.A. degrees must have taken Art History Survey 1 and 2, Design, Drawing 1, Figure Drawing, Introduction to Digital Art, possibly Three Dimensional Design and some studio experience prior to entering the program. If not, these lower-division requirements may be satisfied at Florida Atlantic University. See more information in the Prerequisite Coursework for Transfer Students paragraph below.

Undergraduate Visual Arts and Art History majors may not take an art course under the pass/fail option, nor will a grade below "C" in an art course be counted toward fulfilling the requirements of the major.

The Master of Fine Arts degree with Major in Studio/Fine Arts is offered with a concentration in Graphic Design (Davie campus) or concentration in Studio Art.

The Visual Arts and Art History Department reserves the right to select student work for its collection. Students should consult and familiarize themselves with course prerequisites. The department endorses and will enforce these prerequisites. Declared majors should have in-person academic advising at least once per academic year with a designated College and/or department advisor. Fall and spring course

schedules can be used to project graduation timetables. Summer course schedules help facilitate these projections only.

[Link to Combined Bachelor of Arts to Master of Nonprofit Management](#)

[Link to Master of Fine Arts with concentration in Studio Art](#)

[Link to Master of Fine Arts with concentration in Graphic Design](#)

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the College and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Portfolio Review**

All students pursuing the B.A., B.F.A. Studio Art concentration and B.F.A. Graphic Design concentration in the Department of Visual Arts and Art History are required to participate in a portfolio review process before entering their majors. This review will take place upon completion of foundation and 2000-level studio coursework but before students enter most 3000- and 4000-level studio coursework within their area of study. Upon completion of foundation and disciplinary 2000-level studio coursework, each student will submit a portfolio of work made in these courses for review by a panel of studio Visual Arts and Art History faculty. The portfolio review will occur twice per academic year and will be conducted by a committee of faculty members representing relevant studio areas.

Students whose portfolios demonstrate mastery of foundation studio concepts will be admitted to the B.F.A. program in their chosen studio option. Students whose portfolios do not demonstrate mastery of foundation concepts will be recommended to pursue the B.A. degree. These students may resubmit their portfolios for admittance to the B.F.A. program for a second time during a subsequent portfolio review.

Current portfolio review guidelines, including required portfolio components, portfolio evaluation criteria and relevant deadlines, are available [here](#) from the Department of Visual Arts and Art History.

[Link to Bachelor of Arts with concentration in Studio Art](#)

[Link to Bachelor of Fine Arts with concentration in Graphic Design](#)

[Link to Bachelor of Fine Arts with concentration in Studio Art](#)

[Link to Art Minors](#)

## **ART** **BACHELOR OF ARTS (B.A.)**

**Art History Concentration**

**Studio Art Concentration**

*(Minimum of 120 credits required)*

### **Art History Concentration**

The candidate must complete all University and Dorothy F. Schmidt College of Arts and Letters requirements for the B.A. program, including the University's Foreign Language Requirement (four-year students only). See the [Degree Requirements section](#) in this catalog for complete information. Transfer students from institutions with 3-credit art courses are likely to need more art credits than the minimum described below. Transfer coursework to be credited toward the major must be evaluated by the department chair. Students should also note that at least 75 percent of all upper-division courses for the B.A. must be taken in the Department of Visual Arts and Art History at FAU. Please consult the Academic Flight Plan in Art History with an academic advisor.

Candidates for the Bachelor of Arts Degree with concentration in Art History in the four-year program are required to complete 49 credits of major requirements, including:

<b>Core Requirements</b>		<b>12</b>
Art History Survey 1	ARH 2050	3

Art History Survey 2	ARH 2051	3
2D Art Foundations	ART 1201C	3
Drawing Foundations	ART 1300C	3
<b>Upper-Division Studio Course</b>	<b>ART</b>	<b>3</b>
<b>Upper-Division Art History</b> <i>(choose seven courses from the list below)</i>		<b>21</b>
History of Ceramics	ARH 4013	3
Greek Art and Archaeology	ARH 4130	3
Rome Across the Centuries	ARH 4152	3
The Impact of Pompeii: Pompeii, Herculaneum and the Origins of Art History	ARH 4153	3
Medieval Art and Archaeology	ARH 4200	3
Renaissance Art and Architecture	ARH 4305	3
Baroque Art and Architecture	ARH 4350	3
18th- and 19th-Century Art	ARH 4371	3
Modern Art: 1863-1945	ARH 4450	3
Contemporary Art	ARH 4470	3

Art of China	ARH 4557	3
American Painting and Sculpture	ARH 4610	3
History of Photography	ARH 4710	3
History of Graphic Design	ARH 4724	3
Museum Studies and Gallery Practices	ARH 4794	3-6
Selected Readings in Art History	ARH 4900	3
Topics – Art History	ARH 4930	3
<b>Art History Senior Seminar</b> <i>(offered fall and spring terms only)</i>	<b>ARH 4937</b>	<b>3</b>
<b>Required Electives</b>		<b>10</b>
Aesthetics and Art Theory	PHI 4800	4
Humanities elective		3
Humanities elective		3

### Studio Art Concentration

The B.A. with concentration in Studio Art is designed for a general education in the visual arts with coursework offered in Ceramics, Drawing, Graphic Design, Painting, Photography, Printmaking and Sculpture. Students are given rigorous training in the foundations of art as well as in ways to explore new and innovative questions, theories and ideas that drive art today. Students are encouraged to create individualized programs of study anchored by intermediate-level study in multiple studio areas. Majors are expected to explore the variety and breadth of contemporary art practice in order to develop their

own understanding of directions in visual art and their own artistic practice.

### Program Requirements and Curriculum

Students are required to take 18 credits in Core Program Prerequisites, submit to a portfolio review and take 36 credits in upper-division studio art and art history coursework for a total of 54 credits. Transfer coursework to be credited toward the degree must be evaluated by the department chair. Students should also note that at least 75 percent of all upper-division credits for the B.A. must be taken in the Department of Visual Arts and Art History at FAU. Please consult the Academic Flight Plan for the B.A. in Studio Art with an academic advisor.

The B.A. program also requires that students fulfill the University's Foreign Language Requirement. See the [Degree Requirements section](#) in this catalog for complete information.

<b>Core Program Prerequisites</b>		<b>18</b>
Art History Survey 1	ARH 2050	3
Art History Survey 2	ARH 2051	3
2D Art Foundations	ART 1201C	3
3D Art Foundations	ART 1203C	3
Drawing Foundations	ART 1300C	3
Digital Art Foundations	ART 2600C	3

*All students are required to submit a portfolio for review following completion of the Core Program Prerequisites.*

<b>Courses in 2D and 3D</b>	<b>6</b>
<i>(Choose one course from the 2D Area of Interest and one course from the 3D Area of Interest for a total of 6 credits)</i>	

<b>2000, 3000, 4000 Level Courses</b>	<b>15</b>
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*(Choose three courses (9 credits) from the integrated Areas of Interest below at the 2000 level and two courses (6 credits) from any Area of Interest at the 3000-4000 level for a total of 15 credits)*

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***2D Area of Interest***

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Drawing 2: Figure Drawing	ART 2330C	3
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Painting 1	ART 2500C	3
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Narrative Painting and Drawing	ART 3383C	3
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Topics in Intermediate Painting and Drawing	ART 3505C	3
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Abstract Painting and Drawing	ART 3522C	3
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RI: Advanced Drawing	ART 4311C	3
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Topics - Painting	ART 4506C	3
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Printmaking: Color Printing and Layering	ART 2400C	3
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Printmaking: Surface and Substrates	ART 2401C	3
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Printmaking: Print Installation	ART 3402C	3
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Digital Photography 1	PGY 2109C	3
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Digital Photography 2	PGY 3157C	3
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Black and White Photography	PGY 3406C	3
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Topics - Photography	PGY 4440C	3
Visual Design Lab 1	GRA 2190C	3
Typographic Design Lab 1	GRA 2208C	3
<b><i>3D Area of Interest</i></b>		
Ceramics - Wheel Throwing 1	ART 2751C	3
Ceramics - Handbuilding 1	ART 2754C	3
Ceramics - Handbuilding 2	ART 3761C	3
Ceramics - Wheel Throwing 2	ART 3763C	3
RI: Ceramics - Clay and Glazes	ART 4785C	3
Sculpture 1	ART 2701C	3
Alternative Media	ART 3161C	3
Sculpture 2	ART 3710C	3
Special Topics (Sculpture)	ART 4932C	3
<b>Studio Art Elective Course</b>	<b>6</b>	
<i>(Choose two courses in upper-level art or art history)</i>		
<b>Courses in Art History</b>	<b>6</b>	
<i>(Choose two upper-division art history courses; please see the list of 4000-level courses in art history listed above under the Art History major and the relevant course schedule for the semesters in student's</i>		

*Academic Flight Plan)*

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**RI: Senior Seminar for B.A. Studio Arts**

ART 4954

**3**

*(Offered in fall and spring terms only; students take this course in their last semester of degree coursework)*

**ART**  
**BACHELOR OF ARTS (B.A.) TO MASTER OF NONPROFIT MANAGEMENT (M.N.M.)**  
**COMBINED PROGRAM**

**Art History Concentration**

**Studio Art Concentration**

*(Minimum of 153 credits required)*

The Dorothy F. Schmidt College of Arts and Letters offers a combined B.A. with an Art History Concentration or a Studio Art Concentration to an M.N.M. degree program. The B.A. degree is completed in the Department of Visual Arts and Art History. Students complete the M.N.M. in the School of Public Administration.

Students may count up to 9 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees as long as the combined program totals a minimum of 153 credits and:

1. The student has met the minimum 120 credits for the bachelor's degree;
2. The student has taken a minimum of 33 credits in courses at the 5000 level or higher for the master's program.

Students complete the undergraduate program first. Students in the combined B.A. to M.N.M. degree program should consult with an advisor to ensure that program completion requirements are met for both the bachelor's degree and the master's degree.

**Admission Requirements**

The GRE requirement is waived for the combined program. To be eligible for the combined program, baccalaureate students in the Department of Visual Arts and Art History should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of the junior year.
2. Formally apply to the combined program, completing the admissions process at least one semester

prior to the beginning of the M.N.M. portion of their program.

Students in the combined program must maintain continuous enrollment to remain in good standing. Students must also meet all the degree requirements of the graduate program they have chosen, including prerequisite courses.

### Art History Concentration

The candidate must complete all University and Dorothy F. Schmidt College of Arts and Letters requirements for the B.A. program, including the University's Foreign Language Requirement (four-year students only). See the [Degree Requirements section](#) in this catalog for complete information. Transfer students from institutions with 3-credit art courses are likely to need more art credits than the minimum described below. Transfer coursework to be credited toward the major must be evaluated by the department chair. Students should also note that at least 75 percent of all upper-division courses for the B.A. must be taken in the Department of Visual Arts and Art History at FAU. Consult the Academic Flight Plan in Art History with an academic advisor.

Candidates for the Bachelor of Arts Degree with concentration in Art History in the four-year program are required to complete 49 credits of major requirements, including:

<b>Core Requirements</b>		<b>12</b>
Art History Survey 1	ARH 2050	3
Art History Survey 2	ARH 2051	3
2D Art Foundations	ART 1201C	3
Drawing Foundations	ART 1300C	3
<b>Upper-Division Studio Course</b>	<b>ART</b>	<b>3</b>
<b>Upper-Division Art History</b> <i>(choose seven courses from the list below)</i>		<b>21</b>
History of Ceramics	ARH 4013	3

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Greek Art and Archaeology	ARH 4130	3
Rome Across the Centuries	ARH 4152	3
The Impact of Pompeii: Pompeii, Herculaneum and the Origins of Art History	ARH 4153	3
Medieval Art and Archaeology	ARH 4200	3
Renaissance Art and Architecture	ARH 4305	3
Baroque Art and Architecture	ARH 4350	3
18th- and 19th-Century Art	ARH 4371	3
Modern Art: 1863-1945	ARH 4450	3
Contemporary Art	ARH 4470	3
Art of China	ARH 4557	3
American Painting and Sculpture	ARH 4610	3
History of Photography	ARH 4710	3
History of Graphic Design	ARH 4724	3
Museum Studies and Gallery Practices	ARH 4794	3-6
Selected Readings in Art History	ARH 4900	3

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Topics - Art History	ARH 4930	3
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<b>Art History Senior Seminar</b> <i>(offered fall and spring terms only)</i>	<b>ARH 4937</b>	<b>3</b>
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<b>Required Electives</b>		<b>10</b>
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Aesthetics and Art Theory	PHI 4800	3
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Up to 9 credits of elective coursework may be taken at the 5000 level or above as part of the B.A./M.N.M. combined degree program.

### Credits Counted Toward Both the Bachelor's and Master's Degrees

The following undergraduate course requirements may be substituted with graduate-level courses (up to 9 total credits). These graduate credits will count toward both the bachelor's degree and the master's degree.

#### Undergraduate Course Requirements

***Required Electives - 10***

#### Graduate Course Substitutions

***Choose up to three\* courses (9 total credits)***

Introduction to Nonprofit Management -  
PAD 6142

Public Policy and Nonprofit Organizations -  
PAD 6143

Legal and Ethical Issues in Nonprofits -  
PAD 6165

Human Resource Management for Nonprofits -  
PAD 6166

Fundraising for Nonprofit Organizations -  
PAD 6206

Financial Management for Nonprofit Managers

-

PAD 6260

***\*Substitutions may be approved in consultation with the M.N.M. program coordinator.***

## Studio Art Concentration

The B.A. with concentration in Studio Art is designed for a general education in the visual arts with coursework offered in Ceramics, Drawing, Graphic Design, Painting, Photography, Printmaking and Sculpture. Students are given rigorous training in the foundations of art as well as in ways to explore new and innovative questions, theories and ideas that drive art today. Students are encouraged to create individualized programs of study anchored by intermediate-level study in multiple studio areas. Majors are expected to explore the variety and breadth of contemporary art practice in order to develop their own understanding of directions in visual art and their own artistic practice.

## Program Requirements and Curriculum

Students are required to take 18 credits in Core Program Prerequisites, submit to a portfolio review and take 36 credits in upper-division studio art and art history coursework for a total of 54 credits. Transfer coursework to be credited toward the degree must be evaluated by the department chair. Students should also note that at least 75 percent of all upper-division credits for the B.A. must be taken in the Department of Visual Arts and Art History at FAU. Consult the Academic Flight Plan for the B.A. in Studio Art with an academic advisor.

The B.A. program also requires that students fulfill the University's Foreign Language Requirement. See the [Degree Requirements section](#) in this catalog for complete information.

<b>Core Program Prerequisites</b>		<b>18</b>
Art History Survey 1	ARH 2050	3
Art History Survey 2	ARH 2051	3
2D Art Foundations	ART 1201C	3

3D Art Foundations	ART 1203C	3
Drawing Foundations	ART 1300C	3
Digital Art Foundations	ART 2600C	3

*All students are required to submit a portfolio for review following completion of the Core Program Prerequisites.*

**Courses in 2D and 3D** **6**  
*(Choose one course from the 2D Area of Interest and one course from the 3D Area of Interest for a total of 6 credits)*

**2000, 3000, 4000 Level Courses** **15**  
*(Choose three courses (9 credits) from the integrated Areas of Interest below at the 2000 level and two courses (6 credits) from any Area of Interest at the 3000-4000 level for a total of 15 credits)*

***2D Area of Interest***

Drawing 2: Figure Drawing	ART 2330C	3
Painting 1	ART 2500C	3
Narrative Painting and Drawing	ART 3383C	3
Topics in Intermediate Painting and Drawing	ART 3505C	3
Abstract Painting and Drawing	ART 3522C	3
RI: Advanced Drawing	ART 4311C	3
Topics - Painting	ART 4506C	3

Printmaking: Color Printing and Layering	ART 2400C	3
Printmaking: Surface and Substrates	ART 2401C	3
Printmaking: Print Installation	ART 3402C	3
Digital Photography 1	PGY 2109C	3
Digital Photography 2	PGY 3157C	3
Black and White Photography	PGY 3406C	3
Topics - Photography	PGY 4440C	3
Visual Design Lab 1	GRA 2190C	3
Typographic Design Lab 1	GRA 2208C	3
<b><i>3D Area of Interest</i></b>		
Ceramics - Wheel Throwing 1	ART 2751C	3
Ceramics - Handbuilding 1	ART 2754C	3
Ceramics - Handbuilding 2	ART 3761C	3
Ceramics - Wheel Throwing 2	ART 3763C	3
RI: Ceramics - Clay and Glazes	ART 4785C	3
Sculpture 1	ART 2701C	3

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Alternative Media	ART 3161C	3
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Sculpture 2	ART 3710C	3
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Special Topics (Sculpture)	ART 4932C	3
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<b>Studio Art Elective Course</b>	<b>6</b>
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*(Choose two courses in upper-level art or art history)*

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These 6 credits (up to 9 credits) of elective coursework may be taken at the 5000 level or above as part of the B.A./M.N.M. combined degree program.

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<b>Courses in Art History</b>	<b>6</b>
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*(Choose two upper-division art history courses; please see the list of 4000-level courses in art history listed above under the Art History major and the relevant course schedule for the semesters in student's Academic Flight Plan)*

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<b>RI: Senior Seminar for B.A. Studio Arts</b>	ART 4954	<b>3</b>
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*(Offered in fall and spring terms only; students take this course in their last semester of degree coursework)*

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### **Credits Counted Toward Both the Bachelor's and Master's Degrees**

The following undergraduate course requirements may be substituted with graduate-level courses (up to 9 total credits). These graduate credits will count toward both the bachelor's degree and the master's degree.

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#### **Undergraduate Course Requirements**

*Studio Art Elective Course - 6 credits*

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#### **Graduate Course Substitutions**

*Choose up to three\* courses (9 total credits)*

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Introduction to Nonprofit Management -  
PAD 6142

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Public Policy and Nonprofit Organizations -  
PAD 6143

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Legal and Ethical Issues in Nonprofits -  
PAD 6165

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Human Resource Management for Nonprofits -  
PAD 6166

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Fundraising for Nonprofit Organizations -  
PAD 6206

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Financial Management for Nonprofit Managers -  
PAD 6260

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*\*Substitutions may be approved in consultation  
with the M.N.M. program coordinator.*

## **NONPROFIT MANAGEMENT**

### **MASTER OF NONPROFIT MANAGEMENT (M.N.M.)**

#### **Degree Goals**

The Master of Nonprofit Management (M.N.M.) degree program was designed as a professional degree to meet the unique needs of the nonprofit sector. It is open to preservice students as well as managers and leaders in human services, fine and performing arts, and cultural, educational, community development, religious, environmental and other nonprofit organizations. The curriculum recognizes the special concerns of nonprofit organizations in such areas as: management of volunteers and professionals; resource development and fundraising; governance by volunteer boards of trustees and directors; management of multiple sources and types of funding; unique legal and regulatory issues; special values of service, community and charity; and the unique demands of nonprofit leadership.

#### **Duplication and Recency of Credits**

Except for students enrolled in the combined B.A./M.N.M. degree program, no credit counted as part of another degree may be counted toward the M.N.M. All work toward the M.N.M. must be completed within seven years after initial registration in the program.

#### **Transfer Credit**

Acceptance of transfer credits from approved institutions depends on the relevance of the work to the

M.N.M. program. Request for transfer credits should be made at the time of admission and is limited to 6 credits in which the student earned a minimum grade of "B." Students may use the petition process to transfer more than 6 credits. Credits older than seven years may not be transferred to the graduate program.

### **Degree Requirements**

The faculty of the college will recommend awarding the Master of Nonprofit Management degree when the following requirements have been met:

1. Completion of 33 credits of approved coursework with no grade below "C," (including "C-") with a minimum average grade of "B" (3.0 on a 4.0 scale).
2. Completion of the core courses below (24 credits). The required internship (PAD 6943) may be waived and replaced by an elective for students who have nonprofit work.
3. Completion of three elective courses (or 9 credits of coursework).

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#### **Core Courses - 21 credits**

Introduction to Nonprofit Management	PAD 6142	3
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Public Policy and Nonprofit Organizations	PAD 6143	3
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Legal and Ethical Issues in Nonprofits	PAD 6165	3
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Human Resource Management for Nonprofits	PAD 6166	3
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Fundraising for Nonprofit Organizations	PAD 6206	3
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Grantwriting and Project Management	PAD 6233	3
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Financial Management for Nonprofit Managers	PAD 6260	3
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#### **Other Requirements - 3 credits**

Internship: Nonprofit Organizations	PAD 6943	3
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**Electives - 9 credits**


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 Select 9 credits of electives in consultation with advisor.

9

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**Total**
**33****ART****BACHELOR OF FINE ARTS (B.F.A.)****Graphic Design Concentration****Studio Art Concentration***(Minimum of 120 credits required)***Graphic Design Concentration**

The B.F.A. Graphic Design concentration provides students with the skills to pursue career opportunities in visual communication. The overall goal of the program is to sharpen students' abilities in visual problem solving and translating verbal concepts into visual images, image-making and graphic techniques that communicate intended messages, moods and concepts. Graphic design projects for both the digital environment and print include posters, brochures, corporate identity systems, trademarks, books, packaging, magazines, interactive media and website design.

Courses cover all facets of the visual communication process, from design brief to thumbnail sketches to finished pieces. Students are given assignments much like those they would encounter in professional settings. The program is planned to help students balance studies in art history and studio art with studies in graphic design. Through each course in the program, students are encouraged to develop an appreciation of the various philosophical and ideological positions that could affect their design perspectives.

All students are required to complete their studies with the senior seminar course, from which they develop their portfolio.

**Program Requirements and Curriculum**

The B.F.A. with concentration in Graphic Design program requires that all students complete 24 credits

of the Core Program Prerequisites, submit and pass a portfolio review and earn 45 credits in upper-division coursework for a total of 69 credits in art, art history and design coursework. Transfer course work to be credited toward the degree must be evaluated by the department chair. Students should also note that at least 75 percent of all upper-division courses for the B.F.A. must be taken in the Department of Visual Arts and Art History at FAU. Consult the Academic Flight Plan for the B.F.A. in Graphic Design with an academic advisor.

This B.F.A. program also requires that students fulfill the University's Foreign Language Requirement (four-year students only). See the [Degree Requirements section](#) in this catalog for complete information.

Lower-division courses are offered at the Boca Raton campus.

Most upper-division courses are offered at the Fort Lauderdale campus.

<b>Core Program Prerequisites</b>		<b>24</b>
Art History Survey 1	ARH 2050	3
Art History Survey 2	ARH 2051	3
2D Art Foundations	ART 1201C	3
3D Art Foundations	ART 1203C	3
Drawing Foundations	ART 1300C	3
Digital Art Foundations	ART 2600C	3
Visual Design Lab 1	GRA 2190C	3
Typographic Design Lab 1	GRA 2208C	3

*All students are required to submit a portfolio for review following completion of the Core Program Prerequisites.*

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<b>Art History Requirements</b>		<b>6</b>
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*See list of 4000-level art history courses in Art History section*

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<b>RI: B.F.A. Senior Seminar (required)</b>	<b>ART 4955C</b>	<b>3</b>
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*Offered in fall and spring terms only; students should take this course in their last semester of degree coursework.*

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<b>Graphic Design Courses</b>		<b>21</b>
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Visual Design Lab 2	GRA 3193C	3
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Typographic Design Lab 2	GRA 3112C	3
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RI: Visual Design Lab 3	GRA 4194C	3
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Visual Design Lab 4	GRA 4183C	3
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Visual Design Lab 5	GRA 4115C	3
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Interactive Design Lab 1	GRA 4521C	3
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Interactive Design Lab 2	GRA 4522C	3
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<b>In-Concentration Design Electives</b>		<b>6</b>
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*(Choose two courses from the list below)*

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Introduction to Multipage Document Software	GRA 2124L	1
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Introduction to Interface Software	GRA 2134L	1
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Introduction to Illustration Software	GRA 2151L	1
Introduction to Image Editing Software	GRA 2152L	1
Poster Design	GRA 3174C	3
Information Design	GRA 4198C	3
Topics - Graphic Design	GRA 4932C	1-3
Graphic Design Internship	GRA 4940C	1-4
Professional Design Studio	GRA 4942C	3
<b>Flex Electives</b>		<b>9</b>
<i>(Choose three upper-division studio courses from Studio Art, Multimedia or Graphic Design courses)</i>		
Alternative Media	ART 3161C	3
Narrative Painting and Drawing	ART 3383C	3
Printmaking 3	ART 3402C	3
Handmade Books; Structure and Binding	ART 4173	3
Building a Web Portfolio	ART 4632C	3
Fundamentals of Multimedia	DIG 3110	4
Digital Video Editing	DIG 3207	4
Digital Audio Recording and Editing	DIG 3253C	4

3D Video Game Design	DIG 3725C	4
Introduction to Multipage Document Software	GRA 2124L	1
Introduction to Interface Software	GRA 2134L	1
Introduction to Illustration Software	GRA 2151L	1
Introduction to Image Editing Software	GRA 2152L	1
Poster Design	GRA 3174C	3
Information Design	GRA 4198C	3
Topics - Graphics Design	GRA 4932C	1-3
Graphic Design Internship	GRA 4940C	1-4
Professional Design Studio	GRA 4942C	3
Interactive Digital Media	MMC 3711	4
New Media Narrative	MMC 4713	4
Applied Digital Photography	PGY 3821C	3
Black and White Photography	PGY 3406C	3
Digital Film Production	RTV 3531	4

### **Recommended Course Sequence for Bachelor of Fine Arts with concentration in Graphic Design**

*(Please also consult the Academic Flight Plan for the B.F.A. in Graphic Design with an academic advisor.)*

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### **First Year, Fall**

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Art History Survey 1	ARH 2050	3
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2D Art Foundations	ART 1201C	3
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### **First Year, Spring**

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Art History Survey 2	ARH 2051	3
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Drawing Foundations	ART 1300C	3
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Digital Art Foundations	ART 2600C	3
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### **Second Year, Fall**

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3D Art Foundations	ART 1203C	3
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Visual Design Lab 1	GRA 2190C	3
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Typographic Design Lab 1	GRA 2208C	3
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### **Second Year, Spring**

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Flex Elective	ART, DIG, GRA, MMC	
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Typographic Design Lab 2	GRA 3112C	3
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Interactive Design Lab 1	GRA 4521C	3
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**Third Year, Fall**

Flex Elective	ART, DIG, GRA, MMC	
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Visual Design Lab 2	GRA 3193C	3
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History of Graphic Design	ARH 4724	3
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**Third Year, Spring**

Design Elective	GRA	3
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Flex Elective	ART, DIG, GRA, MMC	
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RI: Visual Design Lab 3	GRA 4194C	3
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**Fourth Year, Fall**

Design Elective	GRA	3
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Visual Design Lab 4	GRA 4183C	3
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Interactive Design Lab 2	GRA 4522C	3
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**Fourth Year, Spring**

Art History (upper division)	ARH	3
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Visual Design Lab 5	GRA 4115C	3
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RI: B.F.A. Senior Seminar	ART 4955C	3
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## Studio Art Concentration

The B.F.A. with concentration in Studio Art is designed for the student who aspires to a career as a professional artist. Students are given rigorous training in the foundations of art, as well as in ways to explore new and innovative questions, theories and ideas that drive art today. Students are encouraged to create individualized programs of study anchored by intermediate-level study in multiple studio areas. Majors are expected to explore the variety and breadth of contemporary art practice in order to develop their own understanding of directions in visual art and their own artistic practice.

Candidates must complete all University and Dorothy F. Schmidt College of Arts and Letters requirements for the B.F.A. degree program, including 8 credits in any one foreign language (four-year students only). All candidates must take 18 credits of the Art Core Program Prerequisites, submit and pass a portfolio review and take 51 credits in upper-division coursework for a total of 69 credits in major requirements. Transfer students should also note that at least 75 percent of all upper-division courses must be taken in the Department of Visual Arts and Art History at FAU. Transfer course work to be credited toward the degree must be evaluated by the department chair. Please consult the Academic Flight Plan in the relevant studio discipline with an academic advisor.

All students are required to complete their studies with the senior seminar course, from which they develop their portfolio.

### Program Requirements and Curriculum

<b>Core Program Prerequisites</b>		<b>18</b>
Art History Survey 1	ARH 2050	3
Art History Survey 2	ARH 2051	3
2D Art Foundations	ART 1201C	3
3D Art Foundations	ART 1203C	3
Drawing Foundations	ART 1300C	3

Digital Art Foundations	ART 2600C	3
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**All students are required to submit a portfolio for review following completion of the Core Program Prerequisites.**

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<b>Art History Requirements</b>		<b>6</b>
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(Upper-division art history courses; please see the list of 4000-level art history courses above in the Art History major)

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<b>Integrated Areas of Study</b>		<b>30</b>
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(Ceramics, Sculpture, Photography, Printmaking or Painting and Drawing)

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<b>Additional Media Electives and Free Art Electives</b>		<b>9</b>
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*(9 credits from Graphic Design, Art History and Additional Media Electives)*

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<b>RI: B.F.A. Senior Seminar (required)</b>	<b>ART 4955C</b>	<b>3</b>
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*Offered in fall and spring terms only; students should take this course in their last semester of degree coursework.*

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<b>Any RI: Advanced Studio Art course (required)</b>		<b>3</b>
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**Integrated Areas of Study**

*(Required: 30 credits)*

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<b>Painting and Drawing</b>		<b>15</b>
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Drawing 2: Figure Drawing	ART 2330C	3
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Painting 1	ART 2500C	3
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Abstract Painting and Drawing	ART 3522C	3
Narrative Painting and Drawing	ART 3383C	3
Topics in Intermediate Painting and Drawing	ART 3505C	3
RI: Advanced Drawing	ART 4311C	3
Topics - Painting	ART 4506C	3
RI: Advanced Painting	ART 4531C	3
<b>Sculpture</b>		<b>15</b>
Sculpture 1	ART 2701C	3
Sculpture 2	ART 4701C	3
RI: Advanced Sculpture	ART 4712C	3
Topics – Sculpture	ART 4732C	3
<b>Printmaking</b>		<b>15</b>
Printmaking: Color Printing and Layering	ART 2400C	3
Printmaking: Surface and Substrates	ART 2401C	3
Printmaking: Print Installation	ART 3402	3
<b>Photography</b>		<b>15</b>

Digital Photography 1	PGY 2109C	3
Digital Photography 2	PGY 3157C	3
Black and White Photography	PGY 3406C	3
RI: Advanced Photography	PGY 4420C	3
Topics - Photography	PGY 4440C	3
<b>Ceramics</b>		<b>15</b>
Ceramics - Wheel Throwing 1	ART 2751C	3
Ceramics - Handbuilding 1	ART 2754C	3
Ceramics - Handbuilding 2	ART 3761C	3
Ceramics - Wheel Throwing 2	ART 3763C	3
RI: Advanced Ceramics	ART 4782C	3
RI: Ceramics - Clay and Glazes	ART 4785C	3
Special Topics (Ceramics)	ART 4932C	3
<b>Additional Media Electives (see designated advisors)</b>		
Alternative Media	ART 3161C	3
Handmade Books: Structure and Binding	ART 4173	3

Experimental Cinema	RTV 3229	3 or
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Digital Film Production	RTV 3531	3
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### Foreign Language Requirement for Art Majors

Eight credits, two courses of college-level credit in the same foreign language.

FRE/GER/SPN/ITA/JPN or another language (8 credits in the same language, 8 credits for a B.A., 8 credits for a B.F.A. for native students only).

Students with more than one year of foreign language in high school should enroll in Beginning Language and Culture 2 (FRE/GER/SPN/ITA/JPN 1121) or a higher-level course. Students can demonstrate proficiency for a first-level and/or second-level course by successfully completing a higher-level course. CLEP exam credits meet this requirement. Note: Native learners of a foreign language must consult the Department of Languages, Linguistics, and Comparative Literature regarding this requirement.

## ART MINORS

The Department of Visual Arts and Art History offers a minor in Art History and one in Studio Art. All courses must be completed with a "C" or better. Satisfactory/unsatisfactory or pass/fail grades will not be accepted. Studio Arts and Graphic Design majors may minor in Art History, but are not eligible for other Studio or Graphic Design minors. Interested students should contact the department for advising in the appropriate minor.

## ART HISTORY UNDERGRADUATE MINOR

*(Minimum of 18 credits required)*

The minor in Art History includes a minimum of 18 credits. At least 15 of the 18 credits must be taken at Florida Atlantic University.

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### *Required Courses*

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Must be taken first: Art Appreciation and one Art History Survey course OR Art History Survey 1 and 2	ARH 2000 and (ARH 2050 or 2051) OR ARH 2050 and ARH 2051	6
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Four upper-division (3000- and 4000-level) Art History courses		12
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## STUDIO ART UNDERGRADUATE MINOR

*(Minimum of 18 credits required)*

The minor in Studio Art includes 18 credits, 15 of which must be taken at FAU. To receive a minor in Studio Art, a student is required to take three art foundation courses (9 credits) plus three courses at the 2000, 3000 or 4000 level (9 credits). Check course descriptions for course prerequisite requirements.

### Required Courses

<b><i>Foundations</i></b>		<b>9</b>
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Choose three courses from the list below:

2D Art Foundations	ART 1201C	3
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3D Art Foundations	ART 1203C	3
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Drawing Foundations	ART 1300C	3
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Digital Art Foundations	ART 2600C	3
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<b><i>Upper Division Studio Courses</i></b>		<b>9</b>
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Choose three courses from the list below:

Drawing 2: Figure Drawing	ART 2330C	3
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Printmaking: Color Printing and Layering	ART 2400C	3
Printmaking: Surface and Substrates	ART 2401C	3
Painting 1	ART 2500C	3
Sculpture 1	ART 2701C	3
Ceramics - Wheel Throwing 1	ART 2751C	3
Ceramics - Handbuilding 1	ART 2754C	3
Narrative Painting and Drawing	ART 3383C	3
Topics in Intermediate Painting and Drawing	ART 3505C	3
Sculpture 2	ART 3710C	3
Ceramics - Handbuilding 2	ART 3761C	3
Ceramics - Wheel Throwing 2	ART 3763C	3
RI: Advanced Drawing	ART 4311C	3
Special Topics	ART 4932C	3
Visual Design Lab 1	GRA 2190C	3
Typographic Design Lab 1	GRA 2208C	3
Digital Photography 1	PGY 2109C	3

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Digital Photography 2	PGY 3157C	3
Black and White Photography	PGY 3406C	3
Topics - Photography	PGY 4440C	3

### Secondary Education Program

A program leading to teacher certification in Art is available in partnership with the Department of [Curriculum and Instruction](#) in the College of Education. See the Department of Visual Arts and Art History advisor and college advisors in the College of Arts and Letters and College of Education.

## MASTER'S PROGRAMS

### STUDIO/FINE ARTS

#### MASTER OF FINE ARTS (M.F.A.)

##### Graphic Design Concentration

##### Studio Art Concentration

*(Minimum of 60 credits required)*

The M.F.A. with Major in Studio/Fine Arts is designed to further the conceptual development, aesthetic presentation, technical skill and career goals of the M.F.A. candidates. The M.F.A. is offered with a concentration in Graphic Design (Davie campus) or a concentration in Studio Art in the following studio areas of study: Ceramics, Drawing, Painting, Photography, Printmaking and Sculpture (Boca Raton campus) and Book Arts (Boca Raton and Davie campuses). These paths of study are designed to incorporate courses from the range of studio areas should the student desire this type of cross-disciplinary approach and flexibility. Graduates of the programs will be prepared for careers as professional artists. The programs will provide opportunities for students to develop their interests and talents at the terminal degree level.

##### Studio Art Concentration

### Admission Requirements

1. Bachelor of Fine Arts, Bachelor of Arts or equivalent degree.
2. A "B" average or better in all coursework while registered as an upper-division student working for a bachelor's degree.
3. Graduate admission application submitted online to FAU's Graduate College. Application is available at [www.fau.edu/graduate](http://www.fau.edu/graduate).
4. Official college transcript(s) submitted to FAU's Graduate College.

Applicants must submit the following in PDF format by email ([art@fau.edu](mailto:art@fau.edu)) to the departmental graduate coordinator for the respective concentration (Fine Arts, Graphic Design):

1. A statement of intent (stating area of concentration) and brief résumé.
2. Three letters of recommendation (preferably from previous instructors and/or professionals familiar with applicant's academic and artistic background).
3. Portfolio of 20 digital images of recent work in the area of concentration. Applications for painting must include a minimum of two details. Each image should be identified with name, medium, size, date.
4. Copy of official transcript.
5. Completed applications received by February 1 are given preference (applications will be considered through April 30; applications completed after April 30 will roll over to the next academic year).

The Graduate College will be notified by the department of the evaluation results, and the Graduate College will notify candidates formally regarding admission. Only completed portfolios and application packets will be considered.

### **Program Requirements and Curriculum**

This M.F.A. program offered on the Boca Raton campus requires a minimum of 60 credits and includes the following distribution of credits.

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#### **Area of Study: Drawing, Painting, Photography, Printmaking, Sculpture or Book Arts (60 credits)**

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#### ***Studio (20 credits)***

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*Select 20 credits from the following courses*

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Graduate Directed Study

ART 6907C

1-4

*(may be taken multiple times)*

Topics in Studio Art <i>(may be taken multiple times)</i>	ART 6930C	1-4
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Check with advisor for additional studio course(s) available		4
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### ***Art History (12 credits)***

*Required course*

Seminar in Contemporary Art	ARH 6481	4
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*Select 9 credits at the 6000 level with ARH prefix*

### ***Professional Practice (6 credits)***

Studio Arts Pedagogy in Higher Education	ARE 6276	2
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Professional Practices <i>(may be taken multiple times)</i>	ART 6816	2
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### ***Special Topics or Directed Independent Study (8 credits)***

Topics in Studio Art <i>(may be taken multiple times)</i>	ART 6930C	1-4
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Graduate Directed Study <i>(may be taken multiple times)</i>	ART 6907C	1-4
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### ***Free Electives (6 credits)***

*Select up to 6 credits at the 5000 or 6000 level within the College of Arts and Letters*

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***Other Requirements (8 credits)***

Graduate Documentation	ART 6956C	4
Graduate Thesis Exhibition	ART 6972C	4

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**Area of Study: Ceramics (60 credits)**

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***Studio and Seminar (24-32 credits)***

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*Select 24 to 32 credits from the following courses*

Advanced Ceramics	ART 5790C	4
Clay and Glaze Science <i>(may be taken multiple times)</i>	ART 6793C	4
Graduate Directed Study <i>(may be taken multiple times)</i>	ART 6907C	1-4
Topics in Studio Art <i>(may be taken multiple times)</i>	ART 6930C	1-4

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***Art History (12 credits)***

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***Required courses***

History of Ceramics	ARH 6015	4
Seminar in Contemporary Art	ARH 6481	4

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Seminar in Art History (or equivalent course)	ARH 6897	4
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***Professional Practice (4 credits)***

Studio Arts Pedagogy in Higher Education	ARE 6276	2
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Professional Practices (or approved equivalent course)	ART 6816	2
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***Art Electives (8 credits)***

*Select 8 credits at the 5000 or 6000 level with ARE, ARH or ART prefix*

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***Free Electives (4 credits)***

*Select up to 4 credits at the 5000 or 6000 level within the College of Arts and Letters*

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***Other Requirements (8 credits)***

Graduate Documentation	ART 6956C	4
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Graduate Thesis Exhibition	ART 6972C	4
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All candidates accepted into the M.F.A. program will be assigned a three-member supervisory committee from the department faculty with at least one member from the student's stated area of study for the first year. The three-member composition of the supervisory committee will change for the second year. At the end of year two, the M.F.A. candidate will select a three-member committee (by April 30) that will direct them through their exhibition and thesis statement and documentation in year three. The committee will be composed of the candidate's major professor (usually from the area of study) and a member or members of the department faculty. An additional member may be from outside the department and is encouraged. Each committee will meet periodically during each semester to supervise the candidate's progress for the entire period of study. Candidates are required to meet with their committee for an end-of-semester review each term and individual members are to meet at least once with the student during the term. During the candidate's first semester, the candidate will be

required to give a presentation of works in an open-attendance forum.

Upon completion of a minimum of 18 credits, candidates will undergo a first-year oral review organized by their committee and voted on by participating department faculty to determine appropriate progress in their studio work. First-year reviews are scheduled at the end of each spring term. The department's graduate coordinator sets the review dates and times. Successful completion of this review is a prerequisite for continuing as a candidate for the degree.

In the last semester of residency, the candidate will present a graduate exhibition in one of the University galleries. The exhibition will be curated by the M.F.A. candidate and members of the candidate's committee. An oral examination focusing on the candidate's work will take place in the exhibition area prior to the opening. Successful completion of this examination is required for awarding of degree.

The Department of Visual Arts and Art History reserves the right to select work from thesis exhibitions for its permanent collection.

## **Graphic Design Concentration**

The Master of Fine Arts with a Graphic Design concentration engages students in an individual pursuit to expand their knowledge of visual communication design systems with a focus on furthering development toward a career in design education and/or professional practice. Students and faculty from diverse cultural, educational and professional experiences come together to engage in critical discourse that challenges and strengthens each student's understanding of communication theory, research methodology and design problem-solving approaches. Encouraged to identify and expand their own voices as designers, students take a combination of graduate design studios, seminars, art history courses and directed independent study projects, culminating in a graduate thesis project, exhibition and document. Graduate students are expected to take a leadership role in the department and in their interactions with undergraduate students.

## **Admission Requirements**

1. Bachelor of Fine Arts, Bachelor of Arts or equivalent degree from an accredited college or university or, for international students, an institution recognized in its own country as preparing students for further study at the graduate level. Degrees in graphic design or visual communication design are preferred. Candidates from other curricula will be considered based on

abilities demonstrated in portfolio, statement of intent and space available. Two years' experience in the graphic design practice is preferred.

2. The minimum University admission requirements are either a "B" average or better in all work attempted while registered as an upper-division student working for a bachelor's degree; or a graduate degree from an accredited institution.
3. Graduate admission application submitted online to FAU's Graduate College. Application is available at [www.fau.edu/graduate](http://www.fau.edu/graduate).
4. Official college transcript(s) submitted to FAU's Graduate College.

Applicants must submit the following to Graphic Design, Department of Visual Arts and Art History, Florida Atlantic University, 2912 College Avenue, DW 303, Davie, Florida 33314.

1. Three letters of recommendation.
2. Résumé.
3. Statement of intent. Candidates need to submit a two-page essay describing their creative aims and reasons for graduate study.
4. Portfolio that includes 20 examples of applicant's graphic design or electronic media work. Each item should be labeled with name, medium, size and date. Candidates must include a project description sheet with their portfolios. Website examples should list the URL on project description sheet.
5. Copy of official transcript.
6. Completed applications received by February 1 are given preference (applications will be considered through April 30; applications completed after April 30 will roll over to the next academic year).

Completed admission portfolios must be submitted directly to the Department of Visual Arts and Art History. The Graduate College will be notified by the department of the evaluation results and will notify candidates. Only completed portfolios and application packets will be considered.

### **Program Requirements and Curriculum**

The M.F.A. Graphic Design concentration is offered at the Davie campus. The program requires a total of 60 credits of study. It includes the following distribution of credits.

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#### **Graphic Design Concentration (60 credits)**

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##### *Studio and Seminar (24-32 credits)*

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*Select 24 to 32 credits from the following courses*

Design Studio <i>(may be taken multiple times)</i>	ART 6931	4
Design Seminar <i>(may be taken multiple times)</i>	ART 6932	4
Graduate Directed Study <i>(may be taken multiple times)</i>	ART 6907C	1-4
Special Topics in Graphic Design <i>(may be taken multiple times)</i>	ART 6932C	4
Topics in Studio Art <i>(may be taken multiple times)</i>	ART 6930C	1-4

***Art History (12 credits)***

*Required course*

Seminar in Art History	ARH 6897	4
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*Select an additional 9 credits at the 6000 level with the ARH prefix*

***Art Electives (12 credits)***

*Select 12 credits at the 5000 or 6000 level with ARE, ARH or ART prefix*

***Free Electives (4 credits)***

*Select up to 4 credits at the 5000 or 6000 level within the College of Arts and Letters*

*Thesis Work (8 credits)*

Design Thesis	ART 6971C	4
Graduate Thesis Exhibition	ART 6972C	4

All candidates accepted into the M.F.A. Graphic Design concentration will be assigned a three-member supervisory committee from the department faculty with at least two members from the Graphic Design area of concentration the first year. Candidates are required to select their own graduate committee upon completion of candidacy review. The committee will be composed of the candidate's major professor (thesis advisor) and two members from the department faculty. An additional member may be from outside the department.

Upon completion of 30 credits, candidates will undergo a candidacy review by their committee to determine appropriate progress in the Graphic Design concentration. Successful completion of this review is a prerequisite for continuing as a candidate for the degree.

In the last semester of study, the candidate will present a thesis exhibition. The exhibition will be curated by the M.F.A. candidate and members of the candidate's committee. The M.F.A. candidate is required to produce written documentation of research, including a detailed explanation of the thesis exhibition. Copies of thesis documentation must be presented to the committee no less than three weeks prior to the thesis exhibition. An oral examination focusing on the candidate's work will take place directly following the presentation of thesis exhibition. Successful completion of this examination is required for awarding of degree.

The Department of Visual Arts and Art History reserves the right to select work from thesis exhibitions for its permanent collection.

[Link to Course Descriptions for the College of Arts and Letters](#)







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### GENERAL INFORMATION

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[Link to Course Descriptions for the College of Business](#)

**Accreditation:** The undergraduate and graduate programs in business are accredited by The Association to Advance Collegiate Schools of Business International (AACSB). Florida Atlantic University is accredited by the Southern Association of Colleges and Schools (SACS).

The vision of the College of Business is to powerfully impact the business community through nationally recognized academic excellence. In its mission, the College fosters a climate of intellectual achievement and diversity for its stakeholders through creation of and access to relevant business knowledge. The College's core values that support its vision and mission are: scholarship, creativity, academic service, leadership and ethics.

The College offers undergraduate programs in Accounting, Data Science and Analytics, Economics, Finance, Health Administration, Hospitality and Tourism Management, International Business, Management, Management Information Systems, and Marketing. Master's degree programs are available in Accounting, Business Administration, Business Analytics, Data Science and Analytics, Economics, Health Administration, Information Technology and Management, Supply Chain Management, and Taxation. A doctoral program is offered in Business Administration. In addition, the School of Accounting offers an Honors Program. **Note:** The traditional master's in Finance is on hiatus and not accepting students at this time.

All degree programs are offered in Boca Raton. Online undergraduate programs are offered in Accounting, Economics, Finance, Hospitality and Tourism Management, Management, and Marketing. The Davie campus offers undergraduate majors in Accounting, Finance, Management and Marketing and a graduate program in Business Management. Graduate programs are offered in Accounting, Accounting with concentration in Forensic Accounting and Taxation.

The College of Business's largest and most diverse constituency resides in its upper-division baccalaureate and professional programs. The College seeks to develop a spirit of inquiry in its graduates and impart relevant techniques for solving problems in a global business environment. In doing so, it instills skills and knowledge that serve as a basis for change in a world where change is the

norm.

Additionally, the College of Business provides lifelong learning experiences through professional weekend programs and centers that focus on services marketing, technology, entrepreneurship and international business. The College's research and services advance business knowledge by synthesizing ideas in creative ways, thus contributing to South Florida's economic vitality and making the community a better place to live and work.

## BACHELOR'S DEGREE PROGRAM INFORMATION

The College of Business awards the degrees of Bachelor of Business Administration (B.B.A.), Bachelor of Health Services (B.H.S.), Bachelor of Science (B.S.) and Bachelor of Arts (B.A.). All Business majors are eligible for either the B.B.A. or the B.S. degree, except for Health Administration, General Business and General Economics majors. Though both degrees are on an equivalent academic level, the B.S. degree requires additional mathematics. Health Administration majors earn the Bachelor of Health Services (B.H.S.) degree, General Business majors earn the Bachelor of Arts (B.A.) degree, and General Economics majors earn the Bachelor of Science (B.S.) degree.

### General Studies Degree Program

The University offers a Bachelor of General Studies (B.G.S.) degree program that allows students to design a plan of study to meet their personal interests and career goals. The 120-credit program includes 15 credits of upper-division coursework in one discipline, which students select in consultation with an advisor. For more B.G.S. details and degree requirements, please refer to the [Degree Programs](#) section of this catalog.

### Undergraduate Research Certificate

To recognize undergraduate students' excellence in undergraduate research, the Office of Undergraduate Research and Inquiry (OURI) has established the [Undergraduate Research Certificate](#). Requirements for the Research Certificate include completion of 12 credits of research exposure, skill-building and intensive courses as well as dissemination of the outcomes of students' research and inquiry through a research presentation or exhibition.

**Admission Policy** (*for B.B.A. and B.S. degrees, except General Economics majors*)

**Note:** For the Admission Policy for General Business majors (B.A. degree), [click here](#).

**Note:** For the Admission Policy for General Economics majors (B.S. degree), [click here](#).

**Note:** For the Admission Policy for Health Administration majors (B.H.S. degree), [click here](#).

All of the following are required for admission to upper-division specialized majors in the College of Business:

1. Attain a Pre-Business admissions GPA of 2.5 on the courses noted in parentheses below that are relative to success in business programs (ECO 2013, ECO 2023, ACG 2021, ACG 2071, MAC 2233, STA 2023, ENC 1101, ENC 1102 and ISM 2000) with grades of "C" or better within a maximum of two attempts. For Pre-Business admissions GPA calculation, only the highest grade of multiple attempts is used.

**Note:** Students who have attempted any of the Pre-Business admissions courses two or more times, including withdrawals ("W"), cannot be admitted to a specialized business major.

2. Complete the Florida Civic Literacy requirement (for students who initially entered a Florida college system, institution or state university in the fall 2018 semester and thereafter).
3. Complete the foreign language entry (FLENT) requirements.

### **Major Declaration and Upper-Division Status**

Students must be admitted to a major (other than Pre-Business) no later than the semester when they earn 60 credits. A registration hold will prohibit enrollment beyond this threshold. If the student has not declared a specialized major by 60 credits earned, the student will be invited to change their major to meet the university's timely graduation policy.

Students may petition denial of admission to a major through the academic petition process. If the petition is denied, the student may appeal that decision. For an appeal to have merit, students must explain new academic or personal information as well as extenuating circumstances. The evidence should show a student's case is stronger than the initial petition documentation provided.

### **Restricted Access to Upper-Division COB Courses**

Access to upper-division COB courses is restricted. Registration priority for COB upper-division courses will be in the following order:

1. Upper-division COB students (in specialized admissions majors);
2. Students in programs with COB courses as part of the required curriculum;
3. Students in other majors (officially declared and making progress in the program) who desire COB courses to supplement their curriculum;
4. Non-degree seeking students.

Students in categories 3 and 4 above may request permission to enroll in restricted business courses after advance registration via a business academic petition or by emailing [cobadvising@fau.edu](mailto:cobadvising@fau.edu).

### **Suspension and Dismissal**

For any students admitted to the College of Business, suspension and dismissal actions follow the standard University procedure. Students who are dismissed after being delared in a business major will have their reinstatement cases reviewed on an individual basis after remaining out of FAU for the required period.

**Note:** The policy for academic status of graduate students is outlined under the heading Academic Standing in the M.B.A. program description later in this section.

### **Double Majors, Dual Degrees and Second Baccalaureate Degrees**

Undergraduate students may pursue two majors, if approved through advising in the College of Business. If the two majors are in different degrees, such as a B.A. and a B.S., students will receive the degree in the major that they have designated as their primary major. A double major does not require a minimum number of credits beyond those necessary for completing degree requirements (120 or more credits). To graduate with double majors, students must first declare the primary college and major of their choice on the application for admission. Then, undergraduates must inform the second college and department of their intent by completing a Second Major form, available in the [Office of the Registrar](#). Undergraduates must consult with both departments to ensure that all courses needed for graduation are completed. The same catalog year must be used for both majors. A minimum of 21 credits must be applied exclusively toward requirements in the primary major. Students may not pursue multiple degrees in the same academic program, such as a B.B.A. and B.S. in Management.

**Note:** To ensure a timely graduation, students may pursue a double major only if the requirements can be completed without extending the anticipated graduation date. Please refer to the [Timely Graduation Policy](#) for credit requirement thresholds to declare a second major.

Students may earn a second bachelor's degree from FAU if they have a bachelor's degree from an accredited university. Students with earned bachelor's degrees have fulfilled General Education requirements but must complete remaining requirements (College, Pre-Business Foundation coursework, Business Core and major) and earn a minimum of 30 credits from FAU after the first degree. Students may reserve FAU courses from the first degree to apply toward a second degree, but such courses must not have met any requirements for the first degree (including credits as free electives) and be above the 120 minimum credits. Requests to reserve credits from the first degree must

be made in writing to the College of Business before the degree is granted. Grades from these reserved courses will not apply to the first degree GPA, honors classification, etc.

## ONLINE BACHELOR'S DEGREE PROGRAM

The Online Bachelor of Business Administration (B.B.A.) Program offers majors in Accounting, Economics, Finance, Hospitality and Tourism Management, Management, and Marketing. The Online B.B.A. Program can be completed in a part-time or full-time format. For information, visit the [website](#) or call 561-297-3688.

### **Office of Student Academic Services—Academic Advising**

Students are expected to have an advising appointment each semester to seek advice on their academic programs. To facilitate the graduation process and compile a graduation audit of a student's record, undergraduates should also meet with an advisor in the semester prior to graduation or when they are 11 courses short of completing their degree. Students must have a graduation pre-approval meeting prior to completing an application for degree. This meeting ensures the student has met all requirements necessary to graduate.

Located on the Boca Raton and Davie campuses, the Office of Student Academic Services provides the following:

1. Is a source of information on University and College policies, procedures and resources;
2. Helps students evaluate their choice of major;
3. Provides curriculum planning and monitors academic progress;
4. Helps students identify and solve academic-related problems;
5. Serves as an intermediary between students and the University community;
6. Supports students in academic difficulty.

For information on hours and locations, visit [www.business.fau.edu/advising](http://www.business.fau.edu/advising).

### **Residency Requirements**

Students are required to earn at least 75 percent of their major courses at FAU. In addition, 50 percent of all required upper-division classes taught by the College of Business must be taken at FAU (at least 30 credits). Students must earn a minimum of 30 credits at FAU to earn a degree, and the last 30 upper-division credits must be earned at FAU. College of Business certificates require that 100 percent of the courses for the certificate be taken at FAU. After matriculation into the College of Business, transient work is not permitted except in unusual circumstances. In these cases, an academic petition showing

justification is required.

### **Administrative Drops, Prerequisites and Student Responsibility**

Students are responsible for completing prerequisites for courses and meeting all requirements for the degree. Any student who does not meet course prerequisites may be administratively dropped from courses at any time during a semester. Exceptions may be made by petition to the College before registering.

Students who do not attend the first class meeting of a College of Business course may be administratively dropped by the instructor.

### **Incomplete Grade Policy**

A student who is passing a course but has not completed all work due to exceptional circumstances may, with consent of the instructor, temporarily receive a grade of incomplete ("I"). The assignment of the "I" grade is at the discretion of the instructor but only allowed if the student is passing the course. The specific time required to make up an incomplete grade is at the discretion of the instructor. However, the College of Business policy on the resolution of incomplete grades requires that all work required to satisfy an incomplete ("I") grade must be completed within a period not exceeding one calendar year from the semester the incomplete grade was issued. After one calendar year, the incomplete grade automatically becomes a failing ("F") grade. GEB 6215 is an exception to this rule as students may be granted more time with the instructor's recommendation.

### **Late/Add Process**

Students who wish to Late/Add into a course have only one additional week past Add/Drop week to make the request to late/add into any course that is a full-term semester course. Students are not able to Late/Add into half semester or intersession courses past the Add/Drop period.

### **Academic Petition Process**

The College of Business (COB) provides mechanisms for students to seek redress when a College of Business or University academic regulation or policy causes undue hardship. The College petition process does not address cases of grievances with instructors or tuition matters.

The College has established specific rules concerning petitions for late withdrawals from courses and the waiver or alteration of University-level academic requirements (beyond those of the College) as follows:

1. The student should petition in writing using a standardized petition form (available on the COB website: [www.business.fau.edu/advising](http://www.business.fau.edu/advising)) indicating what the student would like to happen.

Attach a letter of explanation and accompanying supporting documentation as needed. The form includes instructions and what documentation is required for each type of petition. The petition and supporting documentation should be submitted to the Office of Student Academic Services at [cobadvising@fau.edu](mailto:cobadvising@fau.edu) to be reviewed.

2. Petitions that deal with events in each semester must be submitted by the end of the subsequent semester. For example, petitions for events occurring in a fall semester are to be submitted by the end of the spring semester; petitions for events occurring in a spring semester are to be submitted by the end of the summer semester. Petitions for events occurring in a summer semester are to be submitted by the end of the fall semester. Petitions submitted after a term has ended will be denied if the student completed all work/final exam for the course. If a late withdrawal is approved, all courses for the semester will be withdrawn. Late withdrawals are not approved for poor performance.
3. Petitions will be approved or denied within 10 business days. For each decision, a memo of explanation will be written.
4. If a petition is denied and the student wishes to appeal, he/she must do so in writing within 10 days of receipt of the petition denial memo. The student should submit an appeal letter and provide reasons, along with additional documentation not provided with the initial petition, for the appeal. The student's documentation and the initial petition decision will be reviewed and either the decision will be upheld or overturned within 30 days of the submission of the appeal. The committee usually meets at least twice per semester.

The decision of the committee is final. There are no higher levels of appeal within FAU.

### **College of Business Career Center**

The College of Business Career Center provides career services to current College of Business undergraduate and graduate students, alumni and employers. For undergraduate and graduate students and alumni, the College of Business Career Center assists with part-time and full-time job placement, internships, personal branding, interview skills and résumé writing. For employers, the Center offers job posting, tabling opportunities, recruiting through corporate information sessions and on-site interviewing. Click [here](#) for more information.

### **Internship Program**

The College of Business Career Center provides students with an opportunity to acquire real-world work experiences through internships within their major disciplines. Internships may be full-time or part-time, may be paid or unpaid and may or may not be taken for credit. Students may not use a position in which they are currently employed unless the internship duties are beyond the normal work responsibilities. In such cases, permission must be granted from the College of Business Career Center.

Students will not be able to register for and get credit for internships retroactively. Eligible students may apply for an internship at any time; however, for-credit internships are tied to the semester academic calendar.

Click [here](#) for more information and application instructions.

### **Directed Independent Study**

Students are allowed to take the equivalent of one course (3 credits) of Directed Independent Study to satisfy specific degree requirements. Additional DIS credits can only be used as free electives.

Students wishing to enroll in a Directed Independent Study must write a proposal and present the proposal to a faculty member for approval. If the faculty member approves the DIS, the student will be provided a permit that will allow them to register for the appropriate course.

Students complete the form, write a proposal and present the form and proposal to a faculty member for approval. Upon receipt of the faculty signature, the student returns the signed form and proposal to the departmental office. After approval, the student must register for the course. Failure to adhere to the above procedure may result in an administrative withdrawal from the directed independent study course.

Students complete the form, write a proposal and present the form and proposal to a faculty member for approval. Upon receipt of the faculty signature, the student will return the signed form and proposal to the departmental office. After approval, students must register for the course. Failure to adhere to the above procedure may result in an administrative withdrawal from a Directed Independent Study.

### **International Experience Credit Policy**

Students may apply credit from one College of Business study abroad field experience course toward College-specific requirements (core, majors, business electives or minors). Field experience classes are usually brief study abroad programs that take place over spring break or in the summer months. Students should speak to their advisors regarding these credits.

### **College of Business International Programs**

The College of Business has developed a cooperative model with several international educational institutions. These programs involve various cooperative agreements wherein FAU's College of Business actively participates in the exchange of students, faculty, program ideas and scholarship with partner universities in various continents. The premise of these international relationships is to provide venues for students, communities, faculty and businesses to work together in the global environment.

Students who are interested in exchange or specific programs with the College's international partners should schedule an appointment with their academic advisor.

### **International Partner Institutions:**

**Aalto University School of Economics**, Helsinki, Finland [www.aalto.fi/en/](http://www.aalto.fi/en/)

**American Business School in Paris (ABS)**, Paris, France [www.absparis.org](http://www.absparis.org)

**Dublin Institute of Technology**, Dublin, Ireland [www.dit.ie](http://www.dit.ie)

**Essec Business School**, Cergy-Pontoise Cedex, France [www.essec.edu](http://www.essec.edu)

**Institute Superior de Ciencias do Trabalho E da Empress (ISCTE)**, Lisbon, Portugal  
<http://iepm.ibs.iscte.pt>

**Instituto Químico de Sarrià (IQS)**, Barcelona, Spain <http://www.iqs.edu/en/>

**Stockholm University**, Stockholm, Sweden [www.su.se/english/study/exchange-students](http://www.su.se/english/study/exchange-students)

**Universidade do Sul de Santa Catarina (UNISUL)**, Florianopolis and Tubarao, Brazil [www.unisul.br](http://www.unisul.br)

**Universidade Federal de Minas Gerais (UFMG)**, Belo Horizonte, Brazil [www.ufmg.br](http://www.ufmg.br)

Click [here](#) for additional options.

### **Business Undergraduate Degree Programs**

The College of Business grants four undergraduate degrees, the Bachelor of Business Administration (B.B.A.), the Bachelor of Science (B.S.), the Bachelor of Arts (B.A.), and the Bachelor of Health Services (B.H.S.). With the exceptions of Health Administration, General Business and General Economics, all majors in the College are eligible to receive the B.B.A. or B.S. degree. The B.S. degree requirements are the same as those of the B.B.A., except the B.S. requires a student to complete 6 additional credits of math or statistics courses beyond the calculus and statistics required in the Pre-Business Foundation courses (e.g., MAC 2311, MAC 2312, STA 3163, ECO 4421, ECO 4422, ECO 4401, ECO 4402, PHI 2102, etc.).

Health Administration majors earn the B.H.S. degree. General Business majors earn the B.A. degree. General Economics majors earn the B.S. degree. For specific requirements for the B.H.S. degree, [click here](#). For specific requirements for the General Business program, [click here](#). For specific requirements for the General Economics program, [click here](#).

Students seeking a B.B.A. or B.S. degree (except General Economics majors) must complete the following requirements.

## **DEGREE REQUIREMENTS (B.B.A. AND B.S.)**

**1. University's General Education Program**

Students who have earned a bachelor's degree from a four-year accredited institution of higher education or an A.A. degree from a Florida community or state college or a state university in Florida are deemed to have completed the General Education requirements.

**2. Pre-Business Foundation Coursework** with grades of "C" or higher.

Principles of Accounting 1	ACG 2021	3
Principles of Accounting 2	ACG 2071	3
Macroeconomic Principles	ECO 2013	3
Microeconomic Principles	ECO 2023	3
Information Systems Fundamentals	ISM 2000	3
Methods of Calculus	MAC 2233	3
Introductory Statistics	STA 2023	3

**3. College of Business Core (33 credits)** with grades of "C" or higher.

Business Law 1	BUL 4421	3
Introduction to Business Communication	GEB 3213	3
Principles of Financial Management	FIN 3403	3
Management Information Systems	ISM 3011	3
Introduction to Management and Organizational Behavior	MAN 3025	3
Operations Management	MAN 3506	3
Global Strategy and Policy	MAN 4720	3
Quantitative Methods in Administration	QMB 3600	3
Principles of Marketing	MAR 3023	3
<b>International Perspective</b>		<b>3</b>

*Select one course from list below:*

Intermediate Theory 1	ACG 3131*	3
International Economics	ECO 3703	3
International Trade	ECO 4704	3
International Monetary Economics	ECO 4713	3
International Economic Development	ECS 3013	3
International Finance	FIN 4604	3
International Business	MAN 3600	3
International Marketing	MAR 4156	3
Enterprise Risk Management and Corporate Governance: Qualitative Analysis	RMI 4423	3
<i>*Required for Accounting majors</i>		

<b>Economics Requirement</b>		<b>3</b>
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*Select one course; must be completed with a grade of "C" or higher. Specific courses that may be used for this requirement vary by major as follows:*

Accounting	ECO 4223
Management Information Systems	ECO 3703, ECO 4704, 4713 or ECS 3013
International Business	ECO 3703, ECO 4704, 4713 or ECS 3013
Management	ECO 4223 or ECP 3703
Marketing (all options)	ECO 3101, 3203 or 4223
Finance	ECO 4223, 3101, 3203 or ECP 3703
Hospitality and Tourism Management	ECO 3703, ECO 4704, 4713 or ECS 3013

4. A College of Business major with grades of "C" or higher. **Major Requirements** are defined in

this College of Business section.

5. A minimum of **51 credits of upper-division College of Business courses**. In addition to the Business Core and major requirements, most majors will require successful completion of Business electives to obtain these 51 credits.

6. A **minimum of 120 credits** (excluding remedial and technical coursework).

7. A **minimum FAU GPA of 2.0**.

8. **Residency Requirements:**

a. After a student matriculates at FAU, the College of Business will not accept upper-level business transfer coursework taken after admission. Exceptions must be requested in writing by petition (Form #1) and courses must be from an AACSB-accredited institution.

b. After being admitted to the College and declaring a major (not Pre-Business), transient coursework is not permitted. Concerned students should consult with an academic advisor.

c. A minimum of 30 upper-level business credits are required from FAU to obtain a College of Business bachelor's degree. The last 30 credits must be from FAU.

d. At least 75 percent of a student's coursework in the major must be completed at FAU.

9. **Foreign Language Entry Requirement:** This must be fulfilled by two years of successful completion of high school foreign language, two successful semesters of a college-level foreign language, the successful completion of the CLEP exam for two semesters of the same foreign language or demonstrated proficiency in a foreign language through the Languages, Linguistics, and Comparative Literature Department.

## **GENERAL BUSINESS BACHELOR OF ARTS (B.A.)**

*(Minimum of 120 credits required)*

The Bachelor of Arts program is intended to provide maximum flexibility for students pursuing a business degree with a preference for a well-rounded understanding of business concepts that can be applied to various evolving industries. Graduates from this program possess a versatile skill set in business, making them appealing candidates for employers in diverse fields.

The University and College of Business degree requirements are listed in the [Degree Requirements](#) section of this catalog, including earning at least 75 percent of all upper-division credits from FAU. In addition to these requirements, General Business students must complete the requirements below.

## Prerequisite Coursework for Transfer Students

Lower-division requirements may be completed through the A.A. degree from any Florida public college, university, or community college or through equivalent coursework at another regional accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for the B.A. in General Business.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually based on content and will require a catalog course description and a copy of the syllabus for assessment.

## Admission Policy

Students must:

1. Attain a “C” or better in each of the pre-business foundation courses in two attempts or less.
2. Complete the Florida Civic Literacy requirement (for students who initially entered a Florida college system institution or state university in Fall 2018 semester and thereafter).
3. Complete the foreign language entry (FLENT) requirements.

## Degree Requirements

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### Pre-Business Foundation Coursework with minimum grades of "C"

Principles of Accounting 1	ACG 2021	3
Principles of Accounting 2	ACG 2071	3
Macroeconomic Principles	ECO 2013	3
Microeconomic Principles	ECO 2023	3
Information Systems Fundamentals	ISM 2000	3

### In addition, two of the following three courses

College Algebra	MAC 1105	3
Methods of Calculus	MAC 2233	3
Introductory Statistics	STA 2023	3

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### Business Core Requirements with minimum grades of "C"

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Business Law 1	BUL 4421	3
Principles of Financial Management	FIN 3403	3
Introduction to Business Communication	GEB 3213	3
Introduction to Management and Organizational Behavior	MAN 3025	3
Principles of Marketing	MAR 3023	3

### **Foreign Language**

Eight credits of college-level foreign language (the same language, in sequence) or Foreign Language Exit (FLEX) completion method, such as the College Level Examination Program (CLEP) exam (0-8 credits)

### **General Business Major Requirements**

In addition to the prior listed Bachelor of Arts degree requirements, the General Business major program courses below (from thematic groups) are necessary.

#### **Thematic Groups with minimum grades of "C." One course required from each group.**

##### ***Group 1: Financial Systems and Practice***

Money and Financial Markets	ECO 4223	3
Personal Finance	FIN 3140	3
Healthcare and Financial Planning	HSA 4170	3
Insurance and Financial Planning	RMI 4116	3

##### ***Group 2: Technology and Data Applications***

Social Media Innovation	ISM 3007	3
Management Information Systems	ISM 3011	3
Contemporary Issues of Digital Data Management	ISM 4041	3
Artificial Intelligence and Digital Transformation for Business	ISM 4421	3

Blockchain and Crypto Assets: Business Implications	ISM 4451	3
Data Management and Analysis with Excel	QMB 3302	3
<b><i>Group 3: Management, Operations and Leadership</i></b>		
Entrepreneurship	ENT 4024	3
Hotel and Resort Management	HFT 4253	3
Service Operations	MAN 4029	3
Leading People and Projects	MAN 4046	3
Strategic Human Resource Management	MAN 4301	3
Project Management	MAN 4583	3
<b><i>Group 4: Marketing and Promotion</i></b>		
Hospitality Marketing and Revenue Management Practices	HFT 4503	3
Principles of Advertising	MAR 3326	3
Retail Management	MAR 4231	3
Personal Selling	MAR 4400	3
Consumer Behavior	MAR 4503	3
<b><i>Group 5: International Business</i></b>		
Law of International Trade	BUL 4451	3
International Economics	ECO 3703	3
Negotiating in a Globalized World	MAN 3442	3
International Business	MAN 3600	3
International Marketing	MAR 4156	3
Study Abroad	Any course offered by the College	

**Additional Requirements**

Twelve upper-level (3000/4000) credits from the College of Business.

Six upper-level (3000/4000) credits from outside the College of Business.

Additional electives as needed to reach the 120 credits required for graduation.

## **BUSINESS ADMINISTRATION AND MANAGEMENT BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)**

*(Minimum of 120 credits required)*

The Business Administration and Management major (BAMG) provides an interdisciplinary program leading to a Bachelor of Business Administration (B.B.A.). The curriculum furnishes skills and knowledge applicable in the global economy.

The Business Administration and Management major is only available to students who transfer to FAU from an articulated Associate of Science degree program in Business at a Florida community or state college. Currently, Broward College is the only school with an approved articulation agreement. Students in this articulated program are not eligible for other majors within the College of Business.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Degree Requirements**

Students must obtain an Associate of Science degree in Business from a Florida community or state college that has an articulated A.S.-to-B.B.A. agreement with FAU. In addition to the A.S. degree, students must complete the following curriculum requirements to obtain a Bachelor of Business Administration degree with a major in Business Administration and Management.

**General Education*****Science – 6 credits (two of the following courses)***

Human Evolution	ANT 3586	3
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Chemistry in Modern Life	CHM 2020	3
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Food and Nutrition	CHS 3410	3
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Earth Systems and Resources	GLY 4012C	3
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Issues in Human Ecology	PCB 3352	3
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***Humanities – 3 credits (choose one of the following)***

Interpretation of Fiction	LIT 2010	3
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Interpretation of Poetry	LIT 2030	3
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Interpretation of Drama	LIT 2040	3
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Introduction to Philosophy	PHI 2010	3
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**Business Program*****Business Core – 27 credits***

Business Law 1	BUL 4421	3
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Money and Financial Markets	ECO 4223	3
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Principles of Financial Management	FIN 3403	3
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Management Information Systems	ISM 3011	3
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Introduction to Management and Organizational Behavior	MAN 3025	3
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Operations Management	MAN 3506	3
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Global Strategy and Policy	MAN 4720	3
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Principles of Marketing	MAR 3023	3
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Quantitative Methods in Administration	QMB 3600	3
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***Major Courses – 21 credits***

Advanced Managerial Finance	FIN 4424	3
International Business	MAN 3600	3
Strategic Human Resource Management	MAN 4301	3
Marketing Strategy	MAR 4803	3

***Choose three of the following courses – 9 credits***

Accounting Information Systems 1	ACG 4401	3
Intermediate Microeconomics	ECO 3101	3
Intermediate Macroeconomics	ECO 3203	3
Financial Management of Institutions	FIN 4313	3
Investment Analysis	FIN 4504	3
Leading Change and Development	MAN 4350	3
Marketing Research and Information Systems	MAR 4613	3

***Cognate Areas – 8 credits***

Introduction to Business Communication	GEB 3213	3
Energy Resources and Usage in Society	PSC 2515	2

***Choose one of the following courses***

American Environmental History	AMH 3630	3
Philosophy of Technology	PHM 4223	3
Race and Ethnic Relations	SYD 4700	3
Men, Women and Work	SYO 4370	3
Technology and Society	SYP 4421	3

## BUSINESS ADMINISTRATION UNDERGRADUATE MINOR

*(Minimum of 21 credits required)*

The Business Administration minor is designed for Health Administration and General Economics majors, as well as majors outside the College of Business. The minor requires the following seven courses with a grade of "C" or better.

### Required Courses

Principles of Accounting 1	ACG 2021	3
Principles of Accounting 2	ACG 2071	3
Macroeconomic Principles	ECO 2013	3
Microeconomic Principles	ECO 2023	3
Introduction to Management and Organizational Behavior	MAN 3025	3
Principles of Marketing	MAR 3023	3
Principles of Financial Management	FIN 3403	3

The three upper-division (3000-level) courses must be taken at FAU. A maximum of 3 credits used for the minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor.

## HEALTH HUMANITIES UNDERGRADUATE MINOR

*(Minimum of 15 credits)*

The minor in Health Humanities is open to all undergraduate students at FAU. The minor is awarded upon graduation from an undergraduate program at FAU; it is not awarded independently of an undergraduate degree. For minor details click [here](#).

## MASTER'S AND DOCTORAL DEGREE PROGRAM

# INFORMATION

Graduate programs in the College of Business are offered to qualified persons who demonstrate business leadership potential. The following programs are offered:

1. Master of Accounting (M.AC.) and Executive Master of Accounting
2. Master of Taxation (M.TX.) and Executive Master of Taxation
3. Master of Business Administration (M.B.A.)
4. Master of Business Administration (M.B.A.) Executive M.B.A.
5. Master of Business Administration (M.B.A.) Professional M.B.A.
6. Master of Health Administration (M.H.A.) and Executive Master of Health Administration
7. Master of Science with Major in Business Analytics
8. Master of Science in with Major in Data Science and Analytics (M.S.)
9. Master of Science with Major in Economics (M.S.)
10. Master of Science with Major in Finance (M.S.) (currently not admitting students) and Finance (Executive)
11. Master of Science with Major in Information Technology and Management (M.S.)
12. Master of Science with Major in International Business (M.S.)
13. Master of Science with Major in Supply Chain Management
14. Doctor of Philosophy in with Major Business Administration (Ph.D.)

## Graduation

Undergraduate or graduate students who expect to graduate at the end of any semester must:

1. Have an Application for Degree form signed by an advisor in the College of Business;
2. File an Application for Degree form with the Office of the Registrar no later than the date specified in the Academic Calendar for the semester in which they expect to graduate;
3. Complete all degree requirements specified for the degree;
4. Have earned an "S" grade in GEB 6215, if required by the program, prior to applying for the degree.

# SCHOOL OF ACCOUNTING

## Faculty:

Young, II, G. R., Director; Cao, J.; DeRoche, R.; Desir, R.; DiCicco, J. M.; Dunn, K.; Fang, X.; Gauci, M.; Gaze, A.; Gendler, R. S.; Higgs, J. L.; Kohlbeck, M.; Pinsker, R.; Rakestraw, J.; Seavey, S; Smatrakalev, G.; Thevenot, M.; Wainberg, J. S.; Young, S. L.

## **Mission**

As a professional school, the College of Business' School of Accounting (SOA) emphasizes high-quality teaching balanced with basic and applied research and service to constituents. The school is committed to providing students, faculty and staff with opportunities to develop, grow and be productive in a supportive atmosphere characterized by respect, collegiality, openness and freedom of expression.

Its mission is to provide a high-quality accounting education to a diverse student group that consists of a geographically dispersed mix of traditional and non-traditional students. Its goal is to help these students become successful professionals in local, national and global organizations. The School of Accounting achieves this goal by providing innovative programs and by employing the best faculty to teach its students and develop their technical, analytical, communication, interpersonal and lifelong learning skills.

The School offers traditional and [online](#) programs in Accounting and [Business Law](#) at the undergraduate level. Students can also earn undergraduate Honors in Accounting. At the graduate level, traditional and executive master's programs in Accounting and in Taxation are available as well as traditional and executive certificates in [Professional Accounting](#).

[Link to Honors Program](#)

[Link to Master's Programs](#)

[Link to Minors](#)

## **ACCOUNTING**

**BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)**

**BACHELOR OF SCIENCE (B.S.)**

The mission of the undergraduate program in Accounting is to provide students with a solid educational foundation for entry into professional careers in accounting-related areas of business and government and to prepare students to pursue graduate or advanced professional education in accounting and related fields.

In addition to the University and College of Business degree requirements listed in the [Degree](#)

[Requirements](#) section of this catalog, Accounting students must complete the following major requirements.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Pre-Business Foundation Coursework**

These are previously listed under the heading [Degree Requirements \(B.B.A. and B.S.\)](#) and subheading Pre-Business Foundation Coursework in this College of Business section.

### **Business Core Requirements**

These are previously listed under the heading [Degree Requirements \(B.B.A. and B.S.\)](#) and subheading College of Business Core in this section.

### **Accounting Major**

The undergraduate Accounting student is required to take nine upper-level accounting/tax courses, including the core courses and accounting/tax electives below for a total of 27 credits.

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#### **Accounting Core Courses (27 credits)**

Intermediate Theory 1	ACG 3131	3
Intermediate Theory 2	ACG 3141	3
Cost Accounting	ACG 3341	3
Accounting Applications of Data Analytics	ACG 3842	3
Accounting Information Systems 1	ACG 4401	3

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Federal Taxation 1	TAX 4001	3
Auditing and Assurance Services 1	ACG 4651	3
ACG/TAX Upper-Division Course (3000 level or above)		3
ACG/TAX Upper-Division Course (3000 level or above)		3

## **ACCOUNTING**

### UNDERGRADUATE MINOR

*(Minimum of 9 credits required)*

The Accounting minor is designed for non-Accounting Business majors requiring the Business Core courses. Because part of the requirements include successful completion of the Business Core classes, the minor is usually not practical for General Economics or Health Administration majors.

The Accounting minor requires three upper-division accounting courses (3000 level or above) with a grade of "C" or better.

A maximum of 3 credits used for the Accounting minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. A minimum of 6 credits must be taken in residence at FAU. The acknowledgment of the minor is official upon successful completion of a College of Business degree program.

## **BUSINESS LAW**

### UNDERGRADUATE MINOR

*(Minimum of 12 credits required)*

The Business Law minor provides students with practical legal knowledge of substantive business law topics and current legal issues. Students learn the skill sets necessary to identify and manage legal issues encountered within personal and business contexts, including litigation, contract law, employment and human resources, real and personal property law, as well as applied critical thinking. The result is a student prepared for career opportunities in management, technology and politics. The minor is also excellent preparation for advanced degrees and for law school.

The minor requires 12 credits taken from the following courses. The courses must be completed with a grade of "C" or better. Students must earn at least 75 percent of all credits required for the minor from FAU. A maximum of 3 credits used for the Business Law minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor.

For the Business Law courses, refer to [Course Descriptions](#).

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### Required Courses

Business Law 1	BUL 4421	3
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Business Law 2	BUL 4422	3
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### Choose two of the courses below

Real Estate Law	REE 4433	3
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Ethics in Business	BUL 4443	3
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Law of International Trade	BUL 4461	3
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Intellectual Property Law	BUL 4514	3
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Employment Law	BUL 4540	3
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Special Topics in Business Law (including Administrative Law)	BUL 4930	3
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Principles of Hospitality Law	HFT 3603	3
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Health Law	HSA 4423	3
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### School of Accounting Policies

This document is to be considered an attachment to all syllabi for courses in the School of Accounting. In the event of a conflict between this document and a course syllabus, this document will prevail.

1. FAU email is the primary mechanism for corresponding with students outside of the classroom. Each student is responsible for checking his/her FAU email account often and for cleaning out the inbox to ensure all email is deliverable. Messages may include time-sensitive information, important announcements and class information. FAU email should never be auto-forwarded to another email account. For more information regarding MyFAU and email, visit [this website](#). For

issues with logging into MyFAU, contact the [Help Desk](#) or 561-297-3999.

2. Professors make every effort to honor the course syllabus as originally presented, however, circumstances may dictate a need to change the organization or content of the course. Students will be informed in writing of all changes made to the syllabus (e.g., hard copy or electronically). Students are responsible for checking the course website and their FAU email account to stay abreast of any changes.
3. A grade of “C” or higher is required in all major courses.
4. No student may register for the same upper-level accounting or tax course after receiving grades of “C-,” “D+,” “D,” “D-” or “F” in that course a total of two times.
5. No student may register for upper-level accounting or tax courses after receiving five grades of “C-,” “D+,” “D,” “D-” or “F” in upper-level accounting and/or tax courses.
6. Once students have been removed from the Accounting major, they will not be readmitted without approval from the School of Accounting through the College of Business petition process. Students may not take more than two 3000-level (or higher) accounting and/or tax courses unless they 1) are in an Accounting degree program, 2) are granted permission by the School of Accounting or 3) already hold a degree from an AACSB-accredited institution (such as FAU) and are taking additional courses for CPA eligibility.
7. Any student who has not met the prerequisites for a course may be administratively withdrawn from the course at any time during the semester that such deficiency is determined to exist.
8. Note that an “Incomplete” is not a substitute for a poor grade and is rarely granted. In accordance with the policies of FAU, the College of Business and the School of Accounting, an “Incomplete” will be granted only under the following circumstances:
  - a. The student is otherwise passing the course with at least a grade of "C."
  - b. The student has an excused absence that prevents the on-time completion of the course requirements.
9. Students are solely responsible for properly dropping or withdrawing from courses they no longer wish to continue. Professors are not permitted to assign grades of “W.”
10. Important dates: [Florida Atlantic University – Academic Calendar](#) .
11. School of Accounting policy does not permit overrides into closed classes. Students are advised to monitor the online schedule for space to become available. The add/drop period is the first week of classes, and there may be windows of opportunity during that time. Accounting and tax professors are not authorized to assist students with registration issues.
12. All students must purchase and use as a reference for written assignments in all accounting courses the book *Effective Writing* , 9th edition, by Claire B. May and Gordon S. May, published by Pearson Prentice Hall.
13. In order to provide appropriate guidance to students seeking a professional career in accounting,

the SOA faculty recommends the following courses as necessary for professional certification (such as CPA, CMA or CIA) or admission to the Master of Accounting program: ACG 3131, ACG 3141, ACG 3341, ACG 4401, ACG 4651, TAX 4001 and TAX 4011.

14. Writing is an important component of the skill sets required in the accounting profession. The College of Business GEB program and certification criteria set the minimum standard of acceptable performance on written assignments in School of Accounting graduate courses. Compliance with GEB guidelines is an important aspect of any written assignment in graduate accounting courses, and failure to comply with GEB guidelines may significantly impact a student's grade.
15. A fundamental principle of academic, business and community life is honesty. In the academic environment, the following are critical:
  - a. For most graded assignments, students are expected to work independently. However, team assignments typically require students to work together. For both individual and team assignments, students should be careful not to represent the work of others as their own.
  - b. Appropriate classroom behavior is expected at all times, including respect for the instructor and peers. Disruptive classroom behavior is unfair to other students who are in class to learn, as well as to the instructor, and will not be tolerated.
  - c. The Internet is a powerful tool providing access to a wealth of information. Students are reminded that plagiarism guidelines that apply to printed materials also apply to materials accessed via the Internet and that the School employs various plagiarism (cheating) detection methods.
  - d. See: [www.fau.edu/regulations](http://www.fau.edu/regulations).
16. All students are referred to the [Code of Academic Integrity](#) of the University Regulations, Chapter 4, Regulation 4.001. It is the policy of the School of Accounting at Florida Atlantic University to adhere to the provisions of this regulation. Faculty of the School of Accounting will take action to secure the maximum penalty in the event of any observation of a violation. Additional rules regarding student responsibility, discipline and a host of other regulations are set out in the Florida Atlantic University Regulations and are subject to change without notice. For the University Regulations in effect at any given time, visit [www.fau.edu/regulations](http://www.fau.edu/regulations).

## **HONORS PROGRAM IN ACCOUNTING BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)**

## **HONORS PROGRAM IN ACCOUNTING BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.) TO MASTER OF**

## ACCOUNTING (M.AC. ) COMBINED DEGREE OPTION

The School of Accounting offers a program that gives students the options of earning undergraduate-degree honors and participating in a combined undergraduate and graduate program allowing a student to count 6 credits towards both degrees, saving both time and money. Students in the honors program are not required to participate in the graduate program but for those who choose to pursue the graduate degree, this option offers a significant benefit.

**The Honors Program:** Students are encouraged to apply for the honors program as early as possible before taking any upper-division accounting classes. For students who have not taken any upper-division accounting courses, a minimum overall GPA of 3.3 and a minimum score of 80 percent on the accounting competency exam are required. However, students who have completed between 3 and 9 upper-division accounting credits may participate in the honors program if they have achieved a minimum overall GPA of 3.3 and have earned a minimum of a "B" in all upper-division accounting coursework. Appeals to admission requirements can be made to the Director of the School of Accounting.

To be eligible to graduate with undergraduate honors, students must achieve an overall GPA of at least 3.0 and an accounting GPA (upper-division ACG and TAX courses) of at least 3.0, and successfully complete the capstone experience. All program requirements must be completed within four semesters (excluding summer semesters) after beginning the program. Students must also complete four honors compacts, a requirement of the university Honors in the Major program. These compacts and the capstone experience involve assignments that develop skills that will help students transition into leadership and professional skills as a Certified Public Accountant.

Students receive special mentoring through interaction with the Coordinator of the School of Accounting Honors Program. The coordinator offers significant career and educational guidance throughout the honors program. Students also receive training on soft skills; adequate soft skills are necessary to be successful as a financial services professional. Workshops, in which this training is conducted, are held exclusively for honors students. Students must attend professional networking events with professionals in the South Florida community to help them better understand the local job market.

Other benefits of the program include cohort classes that enable students to build relationships with other high achieving accounting students. Also, proceeds of some departmental fund-raising events are earmarked for accounting honors students.

Students complete a capstone experience when they are within 12 months of completing the undergraduate degree requirements. The capstone experience usually consists of a case analysis and presentation. To participate in the capstone experience, students must have successfully completed the honors sections of ACG 3141, ACG 4401, and TAX 4001. In addition, they must have either completed or be currently enrolled in the honors section of ACG 4651.

Students admitted to the honors program must maintain high academic and ethical standards. Students may be dismissed from the program for earning two grades lower than "B" in upper-level undergraduate accounting or tax courses, one grade lower than a "B" in graduate-level accounting or tax courses or earning any grade lower than "C" or violating the Code of Academic Integrity.

**Combined B.B.A./M.AC. Degree Option:** The combined program allows the student to count 6 credits of graduate accounting or tax courses towards both the undergraduate and graduate degrees. The student is eligible for a bachelor's degree upon completion of 120 credits. At this point, the student is then granted graduate standing and must complete a total of 30 graduate credits to meet the requirements for the master's program. Six of these accounting or tax credits (ACG 6475 and TAX 6025 or 5000- or 6000-level Accounting or Tax courses approved by the School of Accounting Director) for the graduate degree are taken as a part of the undergraduate program. The undergraduate electives credits that can be substituted with the above-mentioned graduate credits are ACG 4501, BUL 4422, and/or TAX 4011. In total, the student completes a total of 150 credits but 6 of these credits will be counted in both the undergraduate and graduate programs. Students in the honors program who wish to pursue a master's degree apply for the master's program in their junior year.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

# MASTER'S PROGRAMS

FAU offers both traditional and executive master's degree programs. These programs operate independently of one another.

## **Mission**

The Master of Accounting (M.AC.) and Master of Taxation (M.TX.) degree programs share the same goal: to provide accounting education to a diverse group of students in their paths to become successful professionals in local, national and global enterprises. Both degrees aid students in developing technical, analytical, communication, interpersonal and lifelong learning skills.

The programs are designed to meet the general educational goals established by the American Institute of Certified Public Accountants and may be used to meet the educational requirements for the public accounting license to practice as a Certified Public Accountant. In the traditional program, which includes a combination of live and online courses, a concentration is available in Accounting Information Systems and Taxation.

## **The Executive Master's Programs**

Additionally, degrees offered by the Executive programs (M.AC. and M.TX.) are designed to meet the demanding schedules of busy professionals. Students may complete either the M.AC. or M.TX. via some combination of the following: watch recorded lectures, watch live lectures remotely or attend class in person. Work is submitted through a web-based learning system. Students generally can complete these programs within 24-months of matriculation. Students may enter the programs in the fall, spring or summer semesters. The following concentrations are available in the executive M.AC. program:

- Professional Accounting
- Digital Accounting Forensics and Data Analytics
- Dual Forensic Accounting and Digital Accounting Forensics and Data Analytics
- Forensic Accounting
- Master of Accounting with a concentration in Taxation
- Internal Auditing

## **Admission Requirements**

The College of Business seeks a diverse and highly qualified group of graduate students. Admission is competitive and applications are evaluated on several factors indicating the potential for scholarly and professional success. In addition to other requirements for admission to the Graduate College at FAU,

to be considered for these master's programs in the College of Business, applicants must:

1. Have earned a bachelor's degree from a regionally accredited college or university or the international equivalent.
2. Have a good grade point average on all previous college work, though emphasis is placed on the last 60 credits earned.
3. If the applicant is a graduate of a foreign college or university who has completed an academic program equivalent to a bachelor's degree earned in the United States, they should submit an official certified transcript indicating the nature and scope of the their academic training.
4. If the applicant's native language is not English, they should submit a Test of English as a Foreign Language (TOEFL) score.
5. The following is required for Traditional M.AC. and M.TX. but is only recommended for the Executive Program: Submit an official, competitive score on a GMAT, GRE or LSAT exam taken within the past five years. When evaluating test scores, the admissions committee looks for a balance between verbal, quantitative and analytical writing All three components are required. Admission test waivers are considered for 1) students with an active CPA license, J.D. or Ph.D. or those with a master's degree from an AACSB-accredited business program; or 2) students who hold an undergraduate degree in accounting from a College of Business accredited by the Association to Advance Collegiate Schools of Business (AACSB) and have earned a minimum grade point average (GPA) of 3.30 (on a 4.00 scale) overall and in their accounting courses.\*

\* If the applicant's overall GPA and accounting GPA is below 3.30, the applicant may be requested to write an explanation as to why the applicant's GPA is not 3.30 or higher and, after considering the applicant's reasons for the lower-than-expected GPA, may have the GMAT/GRE waived.

***It is recommended that applicants provide the following supplemental information to support the application:***

1. Documentation of professional work experience;
2. Evidence of professional certifications relevant to the accounting profession;
3. Evidence of advanced degrees from a regionally accredited college or university or the international equivalent;
4. A one-page résumé;
5. Letter(s) of recommendation from employers, faculty members or others who can attest to the applicant's scholarly ability and/or agency;
6. A writing sample demonstrating analytical and explanatory skills; this writing sample may explain the student's motivation for applying to the program and career intent after graduation.

Admission into an Accounting Master's Program does not constitute admission into an Executive Accounting Master's Program. Non-Executive students cannot register for courses in the Executive Programs.

### **Admission Requirements – Executive Accounting Master's Programs**

The College of Business seeks a diverse and highly qualified group of graduate students. Admission to the Executive Accounting Master's Programs is competitive and applications are evaluated on several factors indicating the potential for scholarly and professional success. In addition to other requirements for admission to the Graduate College at FAU, to be considered for these master's programs in the College of Business, applicants must:

1. Have earned a bachelor's degree from a regionally accredited college or university or the international equivalent.
2. Have a competitive grade point average on all previous college work, though emphasis is placed on the last 60 credits earned.
3. If the applicant is a graduate of a foreign college or university who has completed an academic program equivalent to a bachelor's degree earned in the United States, submit an official certified transcript indicating the nature and scope of the applicant's academic training.
4. If the applicant's native language is not English, submit a Test of English as a Foreign Language (TOEFL).

***It is recommended that applicants provide the following supplemental information to support the application:***

1. An official, competitive score on a GMAT, GRE or LSAT exam taken within the past five years. When evaluating test scores, the admissions committee looks for a balance between verbal, quantitative and analytical writing strengths.
2. Documentation of professional work experience;
3. Evidence of professional certifications relevant to the accounting profession;
4. Evidence of advanced degrees from a regionally accredited college or university or the international equivalent;
5. A one-page résumé;
6. Letter(s) of recommendation from employers, faculty members or others who can attest to the applicant's scholarly ability and/or agency;
7. A writing sample demonstrating analytical and explanatory skills; this writing sample may explain the student's motivation for applying to the program and career intent after graduation.

Admission into an Executive Accounting Master's Program does not constitute admission into a non-

Executive Accounting Master's Program. Executive students can only register for courses in the Executive Programs.

## **Degree Requirements**

To qualify for the degree of Master of Accounting (M.AC.) or Master of Taxation (M.TX.), candidates must:

1. Meet all general requirements of the University for a master's degree, and complete the program within five years.
2. Complete or receive credit for a minimum of 15 credits of Business Foundation courses. No grade lower than "C" will be accepted. The number of foundation courses to be taken depends on the student's undergraduate background and performance in business and related subjects. Students will be notified of these and other requirements upon admission.
3. Complete 30 credits of required and elective credits with a minimum cumulative GPA of "B" (3.0). Any grade below "C" is considered a failure and the course must be retaken. A maximum of two 5000-level courses may be taken toward completion of the 30 credits in the Master of Accounting program with advance written permission of the College of Business Office of Graduate Student Programs. These approved courses count toward program electives. Students seeking a M.AC. degree may be required to complete Accounting Foundation courses. These courses are in addition to the 30 required credits as described in the Master of Accounting section below.
4. Complete all requirements of the Graduate Communication Program.

## **Academic Standing Policy**

Student continuation in a program requires satisfactory progress toward the graduate degree. Evidence of such progress includes maintenance of a cumulative 3.0 average. In addition, only grades of "A," "A-," "B+," "B," "B-," "C+" or "C" are acceptable in fulfilling graduate school requirements.

Failure to attain a 3.0 cumulative average within two successive semesters of active enrollment following the semester in which the deficiency first occurred will result in automatic dismissal.

Students who fail to attain a 3.0 FAU graduate GPA will be placed on academic warning. Students on warning are subject to academic dismissal from the College. In conjunction with the Graduate College's warning and dismissal procedures, the College of Business Student Academic Services Office requires many categories of students on warning to complete an academic progression plan (APP) to establish a path for success. The APP is a contractual agreement that outlines particular courses and grades to

reestablish good academic standing. APPs should generally outline a path (usually not more than two semesters) to reestablish a 3.0 GPA. Students who do not fulfill the obligations of their APPs are recommended for dismissal to the Dean of the Graduate College.

Graduate students with low GPAs (less than 2.5) after their first semester may be required to complete an APP. All students on academic warning for two continuous semesters are required by the College of Business to complete an APP during their third semester; the College may enact registration holds to prohibit a student's future enrollment until the APP is finalized. Students who do not fulfill the obligations established in the APP are recommended for dismissal to the Dean of the Graduate College.

The School of Accounting and the Director of Graduate Programs in Accounting reserve the right to dismiss any student at any time if the student is deemed to be making unsatisfactory progress toward degree completion within the stipulated time.

### **Business Foundation Component**

The foundation component introduces the broad field of business administration and the fundamental quantitative techniques used in business analysis. These courses should be completed before the student takes other graduate courses. The number of foundation credits required for each student depends on the student's previous academic background. Additional information may be obtained from the College of Business Office of Graduate Student Programs. In special cases, the student may take a foundation course concurrently with a graduate course with the permission of the Director of the School of Accounting. Courses in the Business Foundation Component are:

Financial Accounting Concepts*	ACG 6027	3
Seminar in Modern Economic Concepts and Theories	ECO 6008	3
Financial Management*	FIN 6406	3
Marketing Functions and Processes	MAR 6055	3
Data Analysis for Managers	QMB 6603	3

\* Business Foundation for the Executive Program.

## **ACCOUNTING** **MASTER OF ACCOUNTING (M.AC.)** **TRADITIONAL PROGRAM**

## Accounting Information Systems Concentration Tax Concentration

### ACCOUNTING MASTER OF ACCOUNTING (M.AC.) EXECUTIVE PROGRAM

#### Concentrations:

**Business Valuation**

**Digital Accounting Forensics and Data Analytics**

**Forensic Accounting**

**Forensic Accounting and Business Valuation**

**Forensic Accounting and Digital Accounting Forensics**

**Internal Auditing**

**Professional Accounting**

**Tax**

*(Minimum of 30 credits required)*

Students with an accounting background will likely receive a waiver for all Accounting Foundation courses. Students without an accounting background or those who did not perform at a satisfactory level in undergraduate courses may have to resolve deficiencies through the Accounting Foundation Component.

#### Accounting Foundation Component

Students with an accounting background will likely receive a waiver for all accounting foundation courses, but those without an accounting background or who did not perform at a satisfactory level in undergraduate courses may have to resolve deficiencies. The accounting foundation provides the student with the minimum accounting knowledge required to complete the Master of Accounting program. These courses, or the undergraduate equivalent, must be completed with a grade of "C" or better and should be taken as early in the program as possible because they serve as prerequisites for many other courses. Courses in the accounting foundation component are:

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Financial Reporting and Accounting Concepts <i>(Undergraduate equivalent of Intermediate Theory 1 and 2 (ACG 3131 and ACG 3141.)</i>	ACG 6137	3
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Auditing Theory and Practice <i>(Undergraduate equivalent of Auditing and Assurance Services 1 (ACG 4651.)</i>	ACG 6635	3
Cost Accounting Theory and Practice <i>(Undergraduate equivalent of Cost Accounting (ACG 3341.)</i>	ACG 6347	3

The exact number of accounting foundation credits required for each student will depend on the student's previous academic record. These foundation credits are in addition to the 30 credits required in the Master of Accounting program.

Accounting foundation courses may not be used to satisfy the core or elective requirements for the Master of Accounting traditional program; however, students in the Executive Program without an undergraduate business degree may include required Accounting Foundation courses as program electives.

### **Communication Requirement**

The communication course requirement works in tandem with other accounting or tax courses where the student must demonstrate proficiency in written and verbal communication appropriate to both the academic and professional environments. Students may receive an incomplete in the communication strategies course until they also complete the writing requirements in the tandem course. Once the communication requirement is met, a grade of satisfactory replaces the incomplete grade. Students who do not meet the communication requirement receive an unsatisfactory grade and must register for the course again in the next active semester, or they will be administratively dropped from graduate courses. Students in the traditional Master of Accounting program must register for the communication requirement in their first semester in the program unless they are only taking Business Foundation courses.

Students take one of the following courses depending on their program:

- Communication Strategies for Business Professionals and Core-Course Follow-Up (GEB 6215) -- Traditional Master of Accounting and Master of Taxation
- Communication Strategies for Professional Accountants (ACG 6396) – Executive Master of Accounting
- Communication Strategies for Tax Accountants (TAX 6878) – Executive Master of Taxation

### **Master of Accounting (M.AC.) - 30 credits plus foundation courses, if needed**

The accounting profession offers many diverse career options. While the undergraduate degree provides the background for many jobs, the courses in the Master of Accounting program are needed to develop the skills for many of the more desirable jobs in the profession and to acquire the requisite knowledge for successful completion of the CPA exam. The master's program focuses on communications skills, complex problems and understanding the business environments facing today's professionals. Accordingly, we offer many different paths depending on the unique interests of students. We encourage students to begin thinking about career possibilities early in their college careers so that they have the ability to plan their education to meet their career goals. The School of Accounting has student organizations to help students learn about the profession, becoming a Certified Public Accountant, and career options that do not require becoming a CPA. We have faculty who have worked in the profession and who are eager to advise students. Please call the advising office for further information.

### **Traditional Master of Accounting (M.AC.) - 30 credits plus foundation courses, if needed**

#### **Traditional Master of Accounting Core**

Advanced Accounting Theory	ACG 6135	3
Advanced Financial Reporting and Accounting Concepts	ACG 6138	3
Advanced Accounting Information Systems	ACG 6475	3
Advanced Auditing Theory and Practice	ACG 6655	3
Communication Strategies for Business Professionals and Core-Course Follow-Up*	GEB 6215	3
Concepts of Federal Income Tax	TAX 6025	3
<i>Choose one of the following options</i>		12

#### **No Concentration Option**

Accounting or Tax Elective	ACG or TAX	3
Program electives (5000 or 6000 level in accounting or related business areas)		9

*Students are encouraged to select at least one course in finance or economics from the following list*

Advanced Monetary Economics	ECO 6216	3
Advanced International Trade	ECO 6706	3
Advanced International Monetary Economics	ECO 6716	3
Financial Management: Investment Decisions and Policy	FIN 6436	3
Investment Management	FIN 6515	3
Financial Risk Management and Derivatives	FIN 6537	3
Multinational Finance	FIN 6605	3
Real Estate Investment Analysis	REE 6305	3
<b>Accounting Information Systems Concentration Option</b>		
IT Auditing	ACG 6625	3
<i>Choose three courses from the following list</i>		
Data Mining and Predictive Analytics	ISM 6136	3
Database Management Systems	ISM 6217	3
Information Technology Project and Change Management	ISM 6316	3
Management of Information Assurance and Security	ISM 6328	3
Enterprise Information Technology Service Management	ISM 6368	3
Introduction to Business Analytics and Big Data	ISM 6404	3
Advanced Business Analytics	ISM 6405	3
Data Management and Analysis with Excel	QMB 6303	3
<b>Tax Concentration Option</b>		
Tax Research	TAX 6065	3
Corporate Taxation	TAX 6105	3

Partnership Taxation	TAX 6205	3
International Taxation	TAX 6525	3

**Executive Master of Accounting (M.A.C.) - 30-36 credits depending on the specialization plus business and accounting foundation courses, if needed**

Because students in the Executive Program typically have significant work experience, substitutions for classes may be needed when a student already has demonstrated expertise in a particular area. Substitutions may be approved by either the Director of the School of Accounting or the Academic Director of the School of Accounting Executive Programs.

<b>Executive Master of Accounting Core</b>		<b>9</b>
Communication Strategies for Professional Accountants	ACG 6396	3
Advanced Accounting Information Systems	ACG 6475	3
Forensic Accounting, Fraud and Taxation	ACG 6689	3 or
Concepts of Federal Income Tax	TAX 6025	3

Students may choose one of the following concentrations.

**Executive Professional Accounting Concentration - 30 credits plus business and accounting foundation credits**

Executive Master of Accounting Core		9
Governmental and Not-for-Profit Accounting Theory	ACG 5505	3
Advanced Accounting Theory	ACG 6135	3
Advanced Financial Reporting and Accounting Concepts	ACG 6138	3
Financial Statement Analysis	ACG 6175	3
IT Auditing	ACG 6625	3
Advanced Auditing Theory and Practice	ACG 6655	3

***Students are directed into one of the following courses depending on their background***

Accounting for E-Commerce	ACG 6455	3
Accounting Fraud Examination Concepts	ACG 6686	3

**Executive Tax Concentration - 30 credits plus business and accounting foundation credits**

Executive Master of Accounting Core		9
Accounting for E-Commerce	ACG 6455	3
Advanced Auditing Theory and Practice	ACG 6655	3
Tax Research	TAX 6065	3
Corporate Taxation	TAX 6105	3
Partnership Taxation	TAX 6205	3
International Taxation	TAX 6525	3
IRS Practice and Procedures	TAX 6877	3

**Executive Forensic Accounting Concentration - 30 credits plus business and accounting foundation credits**

Executive Master of Accounting Core		9
Business Valuation for Forensic Accountants	ACG 6375	3
Accounting Fraud Examination Concepts	ACG 6686	3
Accounting Fraud Examination Conduct and Procedures	ACG 6687	3
Forensic Accounting and the Legal Environment	ACG 6688	3

***Students with an accounting background take***

Advanced Digital Forensics in Forensic Accounting	ACG 6498	3
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Advanced Auditing Theory and Practice	ACG 6655	3
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Interviewing for Forensic Accountants and Auditors	ACG 6685	3
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***Students without an accounting background take***

Financial Reporting and Accounting Concepts	ACG 6137	3
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Cost Accounting Theory and Practice	ACG 6347	3
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Auditng Theory and Practice	ACG 6635	3
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**Executive Digital Accounting Forensics and Data Analytics Concentration - 30 credits plus business foundation credits**

Executive Master of Accounting Core		9
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Advanced Accounting Applications of Data Analytics	ACG 6496	3
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IT Auditing	ACG 6625	3
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Accounting Fraud Examination Concepts	ACG 6686	3
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Forensic Accounting and the Legal Environment	ACG 6688	3
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***Students with an accounting background take***

Business Valuation for Forensic Accountants	ACG 6375	3
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Advanced Auditing Theory and Practice	ACG 6655	3
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Accounting Fraud Examination Conduct and Procedures	ACG 6687	3
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***Students without an accounting background take***

Financial Reporting and Accounting Concepts	ACG 6137	3
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Cost Accounting Theory and Practice	ACG 6347	3
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Auditing Theory and Practice	ACG 6635	3
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**Executive Dual Digital Accounting Forensics and Data Analytics and Forensic Accounting Concentration - 30 or 36 credits plus business and accounting foundation credits**

Executive Master of Accounting Core		9
Business Valuation for Forensic Accountants	ACG 6375	3
Advanced Accounting Applications of Data Analytics	ACG 6496	3
Advanced Digital Forensics in Forensic Accounting	ACG 6498	3
IT Auditing	ACG 6625	3
Accounting Fraud Examination Concepts	ACG 6686	3
Accounting Fraud Examination Conduct and Procedures	ACG 6687	3
Forensic Accounting and the Legal Environment	ACG 6688	3

***Students with an accounting background take the following two courses for a total of 36 credits***

Advanced Auditing Theory and Practice	ACG 6655	3
Interviewing for Forensic Accountants and Auditors	ACG 6685	3

**Executive Internal Auditing Concentration - 30 credits plus accounting foundation credits**

Executive Master of Accounting Core		9
Advanced Accounting Theory	ACG 6135	3
Advanced Financial Reporting and Accounting Concepts	ACG 6138	3
Advanced Digital Forensics in Forensic Accounting	ACG 6498	3
IT Auditing	ACG 6625	3
Advanced Auditing Theory and Practice	ACG 6655	3
Internal Auditing Theory and Practice	ACG 6675	3
Internal Auditing Cases and Projects	ACG 6678	3

## Executive Business Valuation Concentration - 30 credits plus business and accounting foundation credits

Executive Master of Accounting Core		9
Business Valuation for Forensic Accountants	ACG 6375	3
Business Valuation for Fair Value Accounting, Auditing and Financial Reporting	ACG 6377	3
Advanced Accounting Applications in Business Valuation	ACG 6378	3
Business Valuation, Advanced Theory, Concepts and Methodologies	ACG 6379	3
<i>Students with an accounting background take</i>		
Advanced Digital Forensics in Forensic Accounting	ACG 6498	3
Advanced Auditing Theory and Practice	ACG 6655	3
Interviewing for Forensic Accountants and Auditors	ACG 6685	3
<i>Students without an accounting background take</i>		
Financial Reporting and Accounting Concepts	ACG 6137	3
Cost Accounting Theory and Practice	ACG 6347	3
Auditing Theory and Practice	ACG 6635	3

## PROFESSIONAL ACCOUNTING GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

The certificate in Professional Accounting is designed for students who need additional upper-division accounting or tax coursework to meet professional licensure requirements, but who do not wish to pursue a graduate degree. The certificate gives these students the opportunity to obtain the coursework they need. It is available for traditional as well as executive students.

Students must complete 12 credits of coursework and all courses must be completed with a grade of "C" or better. Students may select from the courses below or select up to 6 credits of preapproved 3000-4000-level ACG/TAX courses that were not taken as part of their undergraduate degree program. Prerequisite restrictions apply.

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**Select from courses below**

*(or 6 credits of preapproved upper-division ACG/TAX courses)*

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Advanced Accounting 1	ACG 5205	3
Auditing and Assurance Services 2	ACG 5647	3
Internal Auditing	ACG 5677	3
Financial Statement Analysis	ACG 6175	3
Accounting for E-Commerce	ACG 6465	3
IT Auditing	ACG 6625	3
Accounting Fraud Examination Concepts	ACG 6686	3

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Credits counted toward an undergraduate or graduate degree program may not be used toward the certificate in Professional Accounting. The certificate is only open to non-degree-seeking students. However, with advisor approval, students may begin the certificate during their last semester of undergraduate coursework. Students earning more than one grade below a "C" in the approved certificate courses may not receive the certificate in Professional Accounting or register for additional graduate courses.

## **TAXATION**

### **MASTER OF TAXATION (M.TX.)**

#### **TRADITIONAL PROGRAM**

## **TAXATION**

### **MASTER OF TAXATION (M.TX.)**

#### **EXECUTIVE PROGRAM**

*(Minimum of 30 credits required)*

**Master of Taxation (M.TX.) - 30 credits plus foundation courses, if needed**

Communication Strategies for Business Professionals and Core-Course Follow-Up	GEB 6215	3
Concepts of Federal Income Tax	TAX 6025	3
Tax Research	TAX 6065	3
Corporate Taxation	TAX 6105	3
Partnership Taxation	TAX 6205	3
Estates and Trusts	TAX 6405	3
<i>Select three from the following options</i>		
Advanced Corporate Taxation	TAX 6115	3
International Taxation	TAX 6625	3
Contemporary Tax Topics	TAX 6875	3
IRS Practice and Procedures	TAX 6877	3

*Select any approved TAX 6000-level or ACG 5000-level course (Accounting, Tax, Business Law, Finance or Economics). Foundation courses are not included.*

**Executive Master of Taxation (M.TX.) - 30 credits plus foundation courses, if needed**

Forensic Accounting, Fraud and Taxation	ACG 6025	3 or
Concepts of Federal Income Tax	TAX 6025	3
Tax Research	TAX 6065	3
Corporate Taxation	TAX 6105	3
Advanced Corporate Taxation	TAX 6115	3
Partnership Taxation	TAX 6205	3
Estates and Trusts	TAX 6405	3

International Taxation	TAX 6525	3
IRS Practice and Procedures	TAX 6877	3
<b><i>Students are directed into one of the following courses based on their background</i></b>		
Financial Reporting and Accounting Concepts	ACG 6137	3
Contemporary Tax Topics	TAX 6875	3

## Accounting Graduate Policies

### ***Transfer Credit***

No transfer credit is allowed in the Master of Taxation, Master of Accounting or related Executive Master's Programs.

### ***Time Limit Policy Statement***

Candidates for either the M.AC. or M.TX. degree must complete all work within a consecutive five-year term after initial admission into the graduate program.

### ***Prerequisite Policy Statement***

Any student not meeting course prerequisites may be dropped at any time during a semester if such deficiency is determined to exist.

### ***Communication Strategies for Business Professionals and Core-Course Follow-Up (GEB 6215)***

Written and verbal communication skills are integrated components of both the M.AC. and M.TX. programs. Students must demonstrate their written and verbal communication proficiency, appropriate to both the academic and professional environments, in one or more of their accounting courses before they successfully complete GEB 6215\* and in their successful completion of GEB 6215. This course includes:

1. Weekly professional development sessions;
2. Written course assignments;
3. Classroom presentations.

M.AC. and M.TX. students must register for GEB 6215 in their first semester in the program unless they are only taking Business Foundation courses. Registration in GEB 6215 is required when the student enrolls in the first required or elective graduate-level course. In the Master of Accounting program this includes the 5000-level elective courses.

Once students satisfy the Graduate Communication Program requirements, a grade of satisfactory ("S") replaces the incomplete ("I") grade. Students who fail to advance through GEB 6215 receive an unsatisfactory grade ("U") in the course and must register for the course again.

Failure to complete GEB 6215 within the designated time frame will result in the student's ineligibility to take further graduate-level courses. Students who have received a grade of "U" and who do not re-register for GEB 6215 in the next active semester after issuance of the "U" grade will be administratively dropped from graduate courses.

Applications for the degree will not be accepted unless all certification requirements have been completed prior to the graduating term.

\*Communication courses for students in the Executive Accounting and Executive Taxation Programs are different from those required of traditional M.AC. and M.TX. students.

## ECONOMICS

### Faculty:

Escaleras, M., Chair; Banerjee, K.; Bosshardt, W., Director, Center for Economic Education; Boudreaux, C.; Caudill, S. B.; Faria, J. R.; Ghosh, S.; Gropper, D.; Levy, E.; Levy, T.; Liu, L.; Luther, W. J., Graduate Director; Manage, N.; Rhodd, R.; Van Tassel, E.

The Economics Department offers two undergraduate programs that prepare students for careers in business and government, as well as for graduate study. The General Economics program provides a broad liberal arts education with emphasis in social science and leads to a B.S. degree. The Economics program with a concentration in Business Economics has the same diverse foundation in core business principles as other majors in the College, but also integrates business and economics courses in such a way that students can analyze business problems with the insight that the economics discipline offers. This program leads to a B.B.A. or B.S. degree with the B.B.A. option available in person and online. Both undergraduate degree programs require a minimum of 120 credits. Students must complete a minimum of 45 credits at the upper-division (3000 and 4000) level. The department also offers several Economics minors.

The department also offers an [Honors Program in Economics](#) that provides undergraduate students the opportunity to achieve academic excellence beyond the level of standard coursework.

A [combined degree program](#) - Bachelor of Business Administration or Bachelor of Science with major

in Economics to Master of Science with major in Economics - is available for students interested in pursuing graduate work in Economics.

For students pursuing graduate study, the department offers a Master of Science in Teaching and a Master of Science with Major in Economics with three concentrations available: International Economics, Financial Economics and Econometrics and Data Analytics.

### **Economics Graduate Study Prerequisites**

Economics majors interested in a graduate degree in Economics should include the following courses as part of their undergraduate degree program.

Mathematical Modeling in a Connected World	ECO 4401	3
Introduction to Econometric Methods	ECO 4421	3
Calculus with Analytic Geometry 1	MAC 2311	4
Calculus with Analytic Geometry 2	MAC 2312	4
Matrix Theory	MAS 2103	3

## **ECONOMICS**

**BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)**

**BACHELOR OF SCIENCE (B.S.)**

### **Business Economics Concentration**

*(Minimum of 120 credits required)*

[Link to Master's Programs](#) / [Link to Minors](#)

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the

## *Transition Guides .*

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **General Economics**

(Liberal Arts Foundation)

General Economics combines the requirements of the Economics major with cognate work in the social sciences and electives. The following courses are required.

### **Admission Policy**

1. Pass the following pre-major courses, ECO 2013, ECO 2023 and MAC 2233, with grades of "C" or better. For pre-Economics admissions GPA calculation, only the highest grade of multiple attempts is used.

**Note:** Students who have attempted any of the pre-Economics admissions courses more than three times, including withdrawals ("W"), cannot be admitted.

2. Earn a minimum of 51 credits in addition to the 9 credits noted above for the pre-major courses.
3. Complete the foreign language entry (FLENT) requirements.

### **Pre-Business Foundation Coursework**

These are previously listed under the heading [Degree Requirements \(B.B.A. and B.S.\)](#) and subheading Pre-Business Foundation Coursework in this section.

### **Economics Course Requirements**

The program requires 27 credits of economics courses (beyond Microeconomic Principles and Macroeconomic Principles). All economics courses must be completed with a grade of "C" or better. The following are required.

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#### **Four courses in Economic Foundations**

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Intermediate Microeconomics	ECO 3101	3
Intermediate Macroeconomics	ECO 3203	3
Introduction to Econometric Methods	ECO 4421	3

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Economic Policy Analysis	ECO 4933	3
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<b>Five additional economics courses</b> (3 credits each at the 3000 level or above)		15
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### Social Science Cognates

Students must complete 12 credits of work in the social sciences. The departments that comprise the social sciences are Anthropology, Geosciences, History, Political Science, Psychology and Sociology. The following courses are suggested as two of the courses required; however, students may choose any course from the social sciences.

International Political Economy	INR 3702	3
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Government and the Economy	PUP 4710	3
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### Free Electives or Foreign Language

Students are required to complete an additional 21 credits that may be taken in any department. Care should be exercised to meet the minimum requirement of 45 credits at the upper-division level (3000 and 4000). Additionally, elective credit may be utilized to meet the foreign language graduation requirement of two semesters of the same college-level language (8 credits) or equivalent competency.

### Business Economics Concentration

(College of Business Foundation)

In addition to the University and College of Business degree requirements listed in the [Degree Requirements](#) section of this catalog, Business Economics concentration students must complete the major requirements below.

#### *Business Economics Course Requirements*

The program requires 21 credits of economics courses (beyond Microeconomic Principles and Macroeconomic Principles). All economics courses must be completed with a grade of "C" or better. The following are required.

#### **Four courses in Economic Foundations**

Intermediate Microeconomics	ECO 3101	3
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Intermediate Macroeconomics	ECO 3203	3
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Introduction to Econometric Methods	ECO 4421	3
Economic Policy Analysis	ECO 4933	3
<b>Three additional economics courses</b> (3 credits each at the 3000 level or above)		9

## **ECONOMICS**

### UNDERGRADUATE MINOR FOR NON-BUSINESS MAJORS

*(Minimum of 15 credits required)*

A minor in Economics shall consist of a minimum of 15 credits in upper-division economics courses. The following courses are required, all with a grade of "C" or better.

#### **Core Courses**

Intermediate Microeconomics	ECO 3101	3
Intermediate Macroeconomics	ECO 3203	3

#### **Electives**

Three economics courses (3 credits each at the 3000 level or above)		9
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A minimum of 12 of the 15 credits must be earned from FAU, including the core courses.

## **INTERNATIONAL ECONOMICS**

### UNDERGRADUATE MINOR FOR NON-BUSINESS MAJORS

*(Minimum of 15 credits required)*

A minor in International Economics shall consist of a minimum of 15 credits in upper-division economics courses. The following courses are required, all with a grade of "C" or better.

#### **Core Courses**

Intermediate Microeconomics	ECO 3101	3
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Intermediate Macroeconomics	ECO 3203	3
<b>International Economics Courses</b>		
International Trade	ECO 4704	3
International Monetary Economics	ECO 4713	3
International Economic Development	ECS 3013	3

A minimum of 12 of the 15 credits must be earned from FAU, including the core courses.

## **ECONOMICS**

### **UNDERGRADUATE MINOR FOR BUSINESS MAJORS**

*(Minimum of 9 credits required)*

The Economics minor is designed for non-Economics Business majors requiring the Business Core courses. Because part of its requirements include successful completion of the Business Core classes, the minor is usually not practical for Health Administration majors.

The Economics minor requires three upper-division economics courses (3000 level or above with a grade of "C" or better.

A maximum of 3 credits used for the Economics minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. A minimum of 6 credits must be taken in residence at FAU. The acknowledgment of the minor is official upon successful completion of a College of Business degree program.

## **ECONOMICS**

### **UNDERGRADUATE MINOR FOR SECONDARY SOCIAL SCIENCE EDUCATION MAJORS**

*(Minimum of 12 credits required)*

This minor consists of 12 credits. The following courses are required, all with a grade of "C" or better.

**Core Course (choose one)**

Intermediate Microeconomics	ECO 3101	3
Intermediate Macroeconomics	ECO 3203	3

**Upper-Division Economics Courses (choose three)**

ECO, ECS, ECP upper-division courses at 3 credits each		9
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A minimum of 9 of the 12 credits must be earned from FAU, including the core courses.

**HONORS PROGRAM IN ECONOMICS**

The Honors Program in Economics provides FAU undergraduate students the opportunity to achieve academic excellence beyond the level of standard coursework by completing honors level enrichment in Economics. Students interested in pursuing an Honors designation in Economics are required to meet the eligibility and admission requirements noted below. Each student's Honors program of study includes 12 credits in Honors coursework in upper level Economics courses.

Undergraduate students who successfully fulfill all requirements below and have a final cumulative GPA of 3.25 or greater at the time of degree conferral will receive a designation of Honors in the Major on their transcript. The transcript designations is **Honors in Economics: [Honors Capstone Research]**

**Eligibility Requirements**

Eligible students have:

1. Completed Microeconomics and Macroeconomics principles (ECO 2023 and ECO 2013), Methods of Calculus (MAC 2233), and Introductory Statistics (STA 2023) with a minimum cumulative GPA in those courses of 3.5;
2. Attained a cumulative undergraduate GPA of at least 3.25 overall;
3. Submitted a formal application after completion of 30 credits no later than three weeks prior to the beginning of the semester for which students seek to enroll in the Honors Program in Economics. Most students will apply for the program after completing their sophomore year.

**Admissions Requirements**

1. Application form;
2. Unofficial transcript;

3. Resume;
4. Personal statement;
5. A letter of support by a member of the Economics department faculty (a Principles instructor).  
The director will schedule a brief interview before enrolling students into the honors program.

### **Standards for Maintaining Active Status**

Students must:

1. Maintain good academic and ethical standing;
2. Maintain cumulative undergraduate GPA of at least 3.25 overall;
3. Maintain cumulative undergraduate GPA of 3.5 in all four honors courses.

If any of the above standards for maintaining eligibility in the program are not met, students will be advised accordingly on how to undertake remedial actions. Students will be required to bring their GPA up to the required 3.5 by the end of the program. If students are not able to bring their GPA in the four courses back up to a 3.5 or their cumulative GPA falls below 3.25, they will be removed from the honors program, but credits will still apply toward their undergraduate degree in economics.

Students will not be allowed to continue in the Honors Program in Economics for Violation of the Code of Academic Integrity or any grade of less than B in an Honors course.

### **Honors Program Curriculum**

The Honors Program in Economics consists of four courses (Students who have already taken any of the core courses in the honors program as a non-honors course [Intermediate micro, Intermediate macro or Econometrics] are ineligible for the program. The four courses are: an Honors section of Intermediate Microeconomics, an Honors section of Intermediate Macroeconomics, an Honors section of Introduction to Econometrics, and a senior capstone Honors research course called Honors Senior Seminar in Economics. Students will take Honors Intermediate Microeconomics in the fall semester of their junior year, followed by Honors Intermediate Macroeconomics and Honors Applied Econometrics in the spring semester of their junior year. In the fall of their senior year they will take the capstone undergraduate research course.

### **Honors Level Enrichment**

Honors level enrichment will be provided in the form of extensive mentoring in practical research by departmental faculty or approved departmental affiliated faculty culminating in production of a research project. Honors students will meet regularly with a faculty mentor and a mentor from our Advisory Board. Honors students will be invited to all faculty seminars and workshops. Students will have a total of two years to complete all requirements for the honors program, after which they will

have to meet with the director to discuss their progress.

## Honors Capstone Research Outcomes

The anticipated outcomes for students in this Honors program include:

1. Production of a high-quality report for an external agency or internal use, a research grant application, conference paper or a journal article;
2. Dissemination of research results via a presentation or a poster at a local, regional, national or international research conference/ symposium;
3. If the requirements are not met, the student will receive a grade for the course that will count toward her/his degree in Economics but will not receive the Honors Designation;
4. Students will be encouraged to seek opportunities for publication/ presentation such as participation in the *Undergraduate Research Symposium*, *Distinction through Discovery* competitions, *FAU Undergraduate Research Journal*, and National Collegiate Honors Society conference, among others;
5. All Honors students must complete the Honors Senior Seminar course, which will involve individual supervised research. Students complete a research paper on a topic of their choosing. At the end of the semester the Honors students will present their research to the class, members of the faculty and other guests and submit the paper to a journal for consideration for publication.

## COMBINED PROGRAM

### ECONOMICS

### BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

The department offers a combined Bachelor of Business Administration in Economics or Bachelor of Science in Economics to Master of Science in Economics degree program. Students in this combined program may count up to 9 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's degree and master's degree.

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

With the approximate duration of five years, this combined program provides attractive ways for students to continue their graduate work. Students will complete and graduate from their bachelor

degree first, and then continue coursework to finish their master's degree program.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the pre-requisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Admission Requirements**

The GRE/GMAT requirement is waived for this program. To be eligible for the combined program, the baccalaureate student in Economics should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the bachelor's degree in Economics.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the master's degree portion of their program.

Once admitted to the program, students begin taking graduate courses (5000/6000 level courses) in their senior year that would apply to both the bachelor's and master's degree programs. Students in the combined program must maintain continuous enrollment, in full-time status, during their bachelor's degree to remain in the combined program. Once students are admitted to the master's degree program, they must maintain continuous enrollment to remain in good standing. Students must also meet all of the degree requirements of the graduate program.

### **Degree Requirements**

To be eligible for the combined B.B.A. or B.S. in Economics to M.S. in Economics Degree Program, students must fulfill the following requirements:

1. Completion of the requirements for the B.B.A. or B.S. in Economics, and other requirements stipulated by the University or College.
2. Completion of all requirements for the M.S. in Economics.

## Credits Counted toward Bachelor's and Master's Degrees

The following undergraduate course requirements may be replaced with the shown graduate-level courses (up to a total of 9 credits). These graduate credits count toward both the bachelor's degree and master's degree.

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<b>Undergraduate Course Requirements</b>	<b>Graduate Course Substitution (Choose among the following courses)</b>
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Upper Division Economics Elective (3 credits)	Advanced Microeconomics, ECO 6115 Advanced Macroeconomics, ECO 6206 Advanced Monetary Economics, ECO 6216 Advanced Mathematical Economics, ECO 6403
Upper Division Economics Elective (3 credits)	Advanced Game Theory and Applications, ECO 6409 Advanced Econometrics, ECO 6426 Advanced International Trade, ECO 6706
Upper Division Economics Elective (3 credits) or Upper Division Business Elective (3 credits)	Advanced International Development, ECO 6709 Advanced International Monetary Economics, ECO 6716

## MASTER'S PROGRAMS

### ECONOMICS

#### MASTER OF SCIENCE (M.S.)

##### Econometrics and Data Analytics Concentration

##### Financial Economics Concentration

##### International Economics Concentration

The Master of Science in Economics degree prepares students for careers in government and business and provides a basis for Ph.D. study. The program is designed to permit properly prepared full-time students to complete the requirements in one year. Many of the courses are offered in the late afternoon or evening.

### Admission Requirements

**Unconditional Acceptance:** Unconditional or full acceptance into the master's program is granted to applicants who have earned:

1. A bachelor's degree from an accredited institution.
2. A cumulative grade point average of 3.0 on a 4.0 scale in the last 60 (or equivalent) credits of college coursework leading toward a bachelor's degree. Post-baccalaureate coursework from an AACSB-accredited business school not included in an advanced degree may be included in the calculation.
3. Submit an official, competitive score on a GMAT or GRE taken within five years. A score of at least 1000 (combined quantitative and verbal) or 150 Verbal, 150 Quantitative and 4.0 Analytical Writing on the Graduate Record Examination (GRE) or a score of at least 500 on the Graduate Management Admission Test (GMAT). When evaluating GMAT/GRE scores, the admissions committee looks for a balance between verbal, quantitative and analytical writing strengths. All three components of the GMAT/GRE are required.

**Conditional Admission:** Conditional admission may be given to applicants who fall just short of the requirements. Persons who receive conditional admission have only one academic year in which to meet the specific conditions established by the Director of Master's Programs in Economics. By the end of that year, the director notifies the Graduate College of the final action to be taken, either unconditionally accepting or dropping the student from the master's program.

### **Degree Requirements**

The Master of Science in Economics Program (minimum of 30 credits) provides the General Economics program and three concentrations: International Economics, Financial Economics and Econometrics and Data Analytics. The General Economics major offers the tools for in-depth analysis of economics. The International Economics concentration gears the economics program to an international dimension of business in an environment of globalization. The Financial Economics concentration aims to blend the core of economics with the essence of finance in such a way that students take full advantage of the integration of the two disciplines. The Econometrics and Data Analytics concentration satisfies the growing demand by employers for working professionals with skills in economics and data analytics, including offering experience with time series and panel data, business analytics, Big Data Analytics and Blockchain. All economic fields lead to a Master of Science degree with major in Economics. The general program and three concentrations have a common core of economics courses, with the remaining requirements tailored to each area. M.B.A. Foundation courses (ACG 6027, ECO 6008, FIN 6406 and MAR 6055) may be required as prerequisites for desired graduate electives but cannot count for graduate credit.

**Core of Economics Courses (12 credits)**

Advanced Microeconomics	ECO 6115	3
Advanced Macroeconomics	ECO 6206	3
Advanced Mathematical Economics	ECO 6403	3
Advanced Econometrics	ECO 6426*	3

\* ECO 4422 cannot substitute for ECO 6426.

The core classes are taken by all Economics students. Additional requirements for the General Economics program and three concentrations are as follows:

**General Economics**

Completion of the core classes above and the following.

***Two Field Courses in Economics (6 credits)***

Advanced Monetary Economics	ECO 6216	3
Advanced Game Theory and Applications	ECO 6409	3
Topics in Econometrics	ECO 6424	3
Advanced International Trade	ECO 6706	3
Advanced International Development	ECO 6709	3
Advanced International Monetary Economics	ECO 6716	3
International Economics Field Experience	ECO 6958	3

***Two Graduate Courses in Business (6 credits):***

1. Students with no background in business must take FIN 6406 before taking any other finance course. Foundation courses such as FIN 6406 do not count as graduate credit.
2. Students with prior training in business may select two courses from the approved lists for Financial Economics or International Economics.

***Master's Thesis or Graduate Economic Electives (6 credits):***

Students may elect to write a master's thesis for 6 credits or take 6 additional credits of Economics courses. One course may be taken at the 5000 level.

### **International Economics Concentration**

Completion of the core classes above and the following.

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#### ***Two Field Courses in Economics (6 credits)***

Advanced International Trade	ECO 6706	3
Advanced International Development	ECO 6709	3
Advanced International Monetary Economics	ECO 6716	3
International Economics Field Experience	ECO 6958	3

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#### ***Two Graduate Courses in Business (6 credits)***

Multinational Finance	FIN 6605*	3
International Business Operations	MAN 6614	3
Global Business Strategy	MAN 6721	3
Emerging Market Economies	MAN 6728	3
Global Environment of Management	MAN 6937	3

\* Students selecting FIN 6605 must complete FIN 6406, or its equivalent, as a prerequisite that cannot count for graduate credit.

#### ***Master's Thesis or Graduate Electives in Economics or International Business (6 credits):***

Students may elect to write a master's thesis for 6 credits or take 6 additional credits in economics and/or international business. One course, if an economics course, may be taken at the 5000 level.

### **Financial Economics Concentration**

Completion of the core classes above and the following:

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#### ***Two Field Courses in Economics (6 credits)***

Advanced Monetary Economics	ECO 6216	3
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Advanced International Monetary Economics	ECO 6716	3
International Economics Field Experience	ECO 6958	3

***Two Graduate Courses in Finance (6 credits)***

Financial Management	FIN 6406*	3
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\* This course or its equivalent must be completed before any other finance course and cannot be counted for graduate credit. Students with prior training in finance may choose two courses from the following:

Seminar in Financial Markets	FIN 6246	3
Financial Management: Investment Decisions and Policy	FIN 6436	3
Investment Management	FIN 6515	3
Financial Risk Management and Derivatives	FIN 6537	3
Multinational Finance	FIN 6605	3
Theory of Financial Management	FIN 6804	3
Advanced Financial Management	FIN 6806	3

***Master's Thesis or Two Graduate Courses in Economics or Finance (6 credits):***

Students may elect to write a master's thesis for 6 credits or take 6 additional credits in economics and/or finance. One course, if an economics course, may be taken at the 5000 level.

***The Master's Thesis***

Students electing to write a master's thesis may select the thesis topic and thesis committee. The thesis is written under supervision of this committee, composed of a thesis director and at least two other faculty members. One member of the committee must be from outside the department.

**Econometrics and Data Analytics Concentration**

Completion of the core classes above and the following:

***Three Field Courses (9 credits)***

Topics in Econometrics	ECO 6424	3
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Panel Data	ECO 6427	3
Introduction to Business Analytics and Big Data	ISM 6404	3
Advanced Business Analytics	ISM 6405	3
<b><i>One Graduate Course in Information Technology and Operations Management (ITOM) (3 credits)</i></b>		
Data Mining and Predictive Analysis	ISM 6136	3
Business Innovation and Artificial Intelligence	ISM 6427C	3
Blockchain and Crypto Assets: Digital Business Transformation	ISM 6455	3
Data Management and Analysis with Excel	QMB 6303	3
Additional course from Field Courses above	ECO/ISM	3

***Master's Thesis or Two Graduate Courses in Econometrics or ITOM (6 credits):***

Students may elect to write a master's thesis for 6 credits, take 6 additional credits in economics (ECO 6000 level or higher), or take 3 additional credits in economics (ECO 6000 level or higher) and 3 additional credits from the list of ITOM courses above.

***The Master's Thesis***

Students electing to write a master's thesis may select the thesis topic and thesis committee. The thesis is written under supervision of this committee, composed of a thesis director and at least two other faculty members. One member of the committee must be from outside the department.

**ECONOMICS****MASTER OF SCIENCE IN TEACHING (M.S.T.)**

Economics offers a Master of Science in Teaching. The following option is for students who hold State of Florida certification in secondary social studies teaching. A minimum of 30 credits is required as follows:

1. Eighteen credits of required courses in the Master of Science in Economics program;
2. Six credits in College of Education courses;
3. Six credits of directed research in economics (a final comprehensive paper with modified thesis

format is required).

## FINANCE

### Faculty:

Pennathur, A., Chair; Agapova, A.; Castater, N.; Cheng, P.; Cole, R.; Cumming, D., DeSantis Distinguished Professor of Finance and Entrepreneurship; Dubois, P.; Garcia-Feijoo, L.; Giannetti, A.; Gropper, D.; Javakhadze, D.; Johan, S.; Johnson, K.; Knight, R.; Pomeranets, A.; Yang, C.

The Department of Finance is committed to providing quality instruction. Its objective is to prepare students for careers in finance and other industries. The department considers as an integral part of its mission the production of scholarly research and involvement of its faculty in providing service to the College, the University and the community.

Undergraduate Finance programs include a Bachelor of Science (B.S.), a Bachelor of Business Administration (B.B.A.) and an [online B.B.A.](#) Minors in [Finance](#), [FinTech \(Financial Technology\)](#), [Investment Management](#) and [Real Estate](#) are offered as well as FinTech (Financial Technology) [undergraduate](#) and [graduate](#) certificates, an Investment Management [undergraduate](#) certificate and Risk Management [undergraduate](#) and [graduate](#) certificates. The department also offers an executive Master of Science (M.S.) in Finance while the traditional Master of Science in Finance is on hiatus and currently not accepting students.

[Link to Master's Programs](#)

## FINANCE

### BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)

### BACHELOR OF SCIENCE (B.S.)

The Finance Department provides high-quality instruction in the various areas of finance so that students understand the finance functions of a business enterprise. To this end, the department offers courses in corporate finance, investments, financial markets and institutions, international finance, banking, risk management/enterprise risk management and personal finance.

Along with the University and College of Business degree requirements listed in the [Degree Requirements](#) section of this catalog, Finance program students must complete the requirements below.

## Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Pre-Business Foundation Coursework

These are previously listed under the heading [Degree Requirements \(B.B.A. and B.S.\)](#) and subheading Pre-Business Foundation Coursework in this section.

## Business Core Requirements

These are previously listed under the heading [Degree Requirements \(B.B.A. and B.S.\)](#) and subheading College of Business Core in this section.

## Finance Major (18 credits)

The program requires 18 credits of upper-level finance courses, beyond FIN 3403, as outlined below. A grade of "C" or better is required in all major courses.

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### Finance Major Required Courses

Financial Institutions	FIN 4303	3
Advanced Managerial Finance	FIN 4424	3
Investment Analysis	FIN 4504	3

***Choose four Finance major electives. The electives are to be selected to align with career paths of interest; for example, investment management, corporate finance, investment banking, commercial banking, Fintech, real estate or risk management and insurance.***

Crowdfunding	ENT 4512	3
Financial Management of Institutions	FIN 4313	3

Cases in Financial Management	FIN 4422	3
Financial Derivatives	FIN 4533	3
Student-Managed Investment Fund	FIN 4560	3
International Finance	FIN 4604	3
Global Capital Markets	FIN 4633	3
Special Topics	FIN 4934	3
Finance Internship	FIN 4940	3
Principles of Real Estate	REE 3043	3
Real Estate Finance	REE 4204	3
Real Estate Investment	REE 4303	3
Risk Management and Insurance	RMI 3011	3
Insurance and Financial Planning	RMI 4116	3
Corporate Risk Management	RMI 4353	3
Risk Management and Insurance Internship	RMI 4940	3

## FINANCE

### UNDERGRADUATE MINOR

*(Minimum of 9 credits required)*

The Finance minor is designed for non-Finance Business majors requiring the Business Core courses. Since part of the requirements include successful completion of the Business Core classes, the minor is usually not practical for General Economics or Health Administration majors. The Finance minor requires the following courses with a grade of "C" or better:

#### Required Courses

Financial Institutions	FIN 4303	3
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Investment Analysis	FIN 4504	3
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***One of the following courses***

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Advanced Managerial Finance	FIN 4424	3
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Cases in Financial Management	FIN 4422	3
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A maximum of 3 credits used for the Finance minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. A minimum of 6 credits must be taken in residence at FAU. The acknowledgment of the minor is official upon successful completion of a College of Business degree program.

## **FINTECH (FINANCIAL TECHNOLOGY) UNDERGRADUATE MINOR UNDERGRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

### [Link to FinTech Graduate Certificate](#)

The FinTech minor and certificate are offered jointly by the Department of Finance and the Department of Information Technology and Operations Management (ITOM). These programs enhance the qualifications of students pursuing careers in fields related to business, finance and information technologies. Students acquire knowledge and skills in online and digital business and digital finance, as well as in developing, analyzing and enhancing a company's ability to access capital through financial technologies. Also, students acquire knowledge and skills pertinent to the use of financial technology in trading. Professions and majors benefiting from the minor and certificate include finance, information technology, management information systems and others.

The minor is available to all undergraduate degree-seeking students and may be earned upon successful completion of the coursework below and the simultaneous completion of a bachelor's degree at FAU. For non-Business majors, waiver of prerequisites may be made on a case-by-case basis. For Business majors, a maximum of 3 credits used for the minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. For exceptions, a petition should be submitted to the Finance Department chair or the ITOM Department chair.

The certificate is available to degree-seeking students, non-degree students and working professionals.

Students pursuing the certificate may apply for it in the College of Business Office of Student Academic Services upon successful completion of the coursework below.

Students cannot obtain both a certificate and a minor. Both programs require 12 credits each, with minimum grades of "C" required in all courses for the minor and certificate. For the minor, at least 9 of the 12 credits must be earned from FAU.

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### **Finance Course**

Crowdfunding	ENT 4512	3
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### ***Finance Courses - Select one of the following***

Financial Institutions	FIN 4303	3
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Financial Derivatives	FIN 4533	3
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### ***Information Technology and Operations Management Courses***

Artificial Intelligence and Digital Transformation for Business	ISM 4421	3
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Blockchain and Crypto Assets: Business Implications	ISM 4451	3
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## **INVESTMENT MANAGEMENT UNDERGRADUATE MINOR UNDERGRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The Investment Management minor is available to all undergraduate degree-seeking students and may be earned upon successful completion of the coursework below and the simultaneous completion of a bachelor's degree at FAU. For non-Business majors, waiver of prerequisites will be made on a case-by-case basis. For Business majors, a maximum of 3 credits used for the minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. For exceptions, a petition should be submitted to the Finance Department chair.

The Investment Management certificate is available to degree-seeking and non-degree students. Students pursuing the certificate may apply for it in the College of Business Office of Student

Academic Services upon successful completion of the coursework below.

Students cannot obtain both a certificate and a minor. Both programs require 12 credits each, with minimum grades of "C" required in all courses for the minor and certificate. For the minor, at least 9 of the 12 credits must be earned from FAU. The certificate requires the following four FAU courses.

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### Required Courses (12 credits)

Principles of Financial Management	FIN 3403	3
Investment Analysis	FIN 4504	3
Financial Derivatives	FIN 4533	3
Student-Managed Investment Fund (SMF)	FIN 4560	3

## **REAL ESTATE** UNDERGRADUATE MINOR

*(Minimum of 9 credits required)*

The Real Estate minor is designed for non-Real Estate Business majors requiring the Business Core courses. Because part of the requirements include successful completion of the Business Core classes, the minor is usually not practical for General Economics or Health Administration majors. The Real Estate minor requires the following three courses with a grade of "C" or better:

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### Required Courses (9 credits)

Principles of Real Estate	REE 3043	3
Real Estate Finance	REE 4204	3
Real Estate Investment	REE 4303	3

A maximum of 3 credits used for the Real Estate minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. A minimum of 6 credits must be taken in residence at FAU. The acknowledgment of the minor is official upon successful completion of a College of Business degree program.

## RISK MANAGEMENT AND INSURANCE UNDERGRADUATE CERTIFICATE

*(Minimum of 9 credits required)*

[Link to Graduate Certificate](#)

The Risk Management and Insurance certificate provides students with an overall background in risk management and insurance. The certificate requires the following three courses with a grade of "C" or better .

### Required Courses (9 credits)

Risk Management and Insurance	RMI 3011	3
Insurance and Financial Planning	RMI 4116	3
Corporate Risk Management	RMI 4353	3

## MASTER'S PROGRAMS

### FINANCE

#### MASTER OF SCIENCE (M.S.) EXECUTIVE PROGRAM

This 16-month executive program is specially designed to allow participants to continue their professional responsibilities while earning an AACSB-accredited M.S. degree with major in Finance. Each class begins and progresses through the program as a group, sharing the same sequence of classes and educational experiences. The program requires 30 credits with courses offered on Monday and Wednesday evenings from 6:15 p.m. to 10 p.m. on the Boca Raton campus.

#### Admission Requirements

The College of Business seeks a diverse, highly qualified group of graduate students. Applications are evaluated on several factors emphasizing prior academic performance, GMAT or GRE scores, work experience and the potential for scholarly and professional success.

1. Bachelor's degree in any discipline; no business prerequisites are required;
2. GPA approximately 3.0 or higher over the last 60 undergraduate credits;

3. Four years of non-industry-specific professional work experience;
4. GMAT/GRE (see waiver information below)

### **GMAT/GRE Waiver Information**

The GMAT or GRE will be waived if the applicant meets one of the following conditions:

1. Undergraduate degree in any discipline with an upper division GPA of at least 3.0 AND an advanced degree (masters, doctoral, professional) with at least a 3.0 GPA;
2. Undergraduate degree in business with an upper division GPA of at least 3.0 AND at least four years in a finance affiliated industry such as banking, investment, accounting, insurance, etc.;
3. Undergraduate degree in Finance, Economics or Accounting from FAU AND upper division GPA is at least 3.0;
4. Undergraduate degree in Finance, Economics or Accounting from an AACSB-accredited School of Business with an upper division GPA of 3.5 or higher;
5. Undergraduate degree in mathematics from a SACS-accredited university with an upper division GPA of 3.5 or higher.

If it is determined by the Admissions Committee that the GMAT or GRE is required, the minimum score requirement is: GMAT: 500; GRE: (Verbal) 150; (Quantitative) 150; (Analytical Writing) 4.

International students who obtained a degree from a U.S. education institution prior to applying to the M.S. program will not need to take the English proficiency test.

Students making "B" grades or better in FAU's Executive Education's Financial Analyst Program (FAP) will receive credit for two courses upon admission to the program. The likely courses to be waived are FIN 6804, Theory of Financial Management, and FIN 6605, Multinational Finance.

Conditional admission may be available under extraordinary circumstances to applicants who have received a bachelor's degree from a regionally accredited institution, but who fall short of the GPA and/or the GMAT requirement or who show high promise. In these cases, the M.S. in Finance admissions committee will review all evidence of high promise, including but not limited to: grade trends, mature work experience, work accomplishment and promotion, type and rigor of undergraduate degree program, references and letters of recommendation and evidence of having attained some "A" grades in rigorous courses.

After the first year in the M.S. in Finance Executive program, the admissions committee will review each student receiving conditional admission and will recommend either full admission to or dismissal from the program.

## Executive Program Format

The program consists of 30 credits. Courses are every Monday and Wednesday evening on the Boca Raton campus from 6:15 p.m. to 10 p.m., with breaks between semesters. The pace and intensity of the program are balanced to provide students with optimal opportunities to assimilate knowledge.

A variety of learning methods are employed throughout the program. Case studies, computer simulations of challenging, competitive business situations, problem-solving discussions, team presentations, individual study, lectures, visual presentations, guest speakers and assigned readings are regularly used. Students also complete research and analytical studies to develop strategic thinking abilities. On-site M.S. in Finance Executive programs are available to local sponsoring organizations.

## Curriculum

Students start the M.S. in Finance Executive program with a boot camp. The boot camp is designed to give students a refresher in quantitative methods, finance, accounting, and economics and covers material from FIN 6406, ACG 6027 and ECP 6705. The boot camp is required and included in tuition fees at no additional cost. A passing grade is required for boot camp courses and is assessed toward the student's overall GPA. Students then take the courses below in order.

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### Boot Camp with Final Exam

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Financial Statement Analysis	ACG 6175	3
Communication Strategies for Business Professionals	GEB 6217	3
Theory of Financial Management	FIN 6804	3
Financial Markets	FIN 6246	3
Security Analysis	FIN 6517	3
Quantitative Methods in Finance	FIN 6456	3
Financial Modeling	FIN 6455	3
Financial Risk Management and Derivatives	FIN 6537	3
Multinational Finance	FIN 6605	3
Portfolio Management	FIN 6525	3

Content, coursework and fees may vary as determined by the administration. Florida Atlantic University reserves the right to change curriculum, sequence, program fees and other program requirements as necessary.

### **Academic Standing, Policies, Graduation**

The M.S. in Finance Executive program follows the same policies regarding academic standing and graduation used in the College of Business and the same grading standards of the University. Student continuation in the M.S. in Finance Executive program requires satisfactory progress toward the graduate degree. Evidence of such progress includes maintenance of a cumulative 3.0 grade point average (GPA). Graduation will be prohibited if the final cumulative GPA is less than 3.0 upon completion of the total program curriculum.

Graduate students with GPAs less than 3.0 will be required to complete an academic progression plan (APP). The APP is a contractual agreement that outlines particular courses and grades to reestablish good academic standing. APPs should generally outline a path (usually not more than two semesters) to reestablish a 3.0 GPA. Students that are placed on an academic progression plan and are not making progress towards their academic goals set forth by the APP may be recommended for dismissal from the program. The College may enact registration holds to prohibit a student's future enrollment until the APP is finalized. Students who do not fulfill the obligations established in the APP are recommended for dismissal to the Dean of the Graduate College.

### **Program Fees**

The M.S. in Finance Executive program is a full-service, all-inclusive program. The program fees cover all program costs, including tuition, textbooks, course materials, snacks and graduation activities. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>. See the Finance [website](#) for more information.

### **Application Process and More Information**

To apply to or receive more information about the M.S. in Finance Executive program, see the [website](#) or call 561-297-6000.

## **FINANCE**

### **MASTER OF SCIENCE (M.S.)**

**This program is on hiatus and currently not accepting students.**

The design focus of this master's degree is to extend the educational opportunities for business baccalaureate degree holders who wish to further their knowledge in the specialty of finance. The degree emphasizes finance and directly supportive fields rather than offering a broad view of business functional areas as offered in an M.B.A. degree.

### **Admission Requirements**

The College of Business seeks a diverse, highly qualified group of graduate students. Applications are evaluated on several factors emphasizing prior academic performance, GMAT or GRE scores and the potential for scholarly and professional success. In addition to other requirements for admission to the Graduate College at FAU, to be considered for these master's programs in the College of Business, applicants must:

1. Have earned a bachelor's degree from a regionally accredited college or university or the international equivalent.
2. Have a strong grade point average on all previous college work, though emphasis will be on the last 60 credits earned.
3. Submit a one-to-two page essay describing both the applicant's background and objectives for undertaking graduate study.
4. Submit an official, competitive score on a GMAT or GRE exam taken within five years. When evaluating test scores, the admissions committee looks for a balance between verbal, quantitative and analytical writing strengths. All three components are required.
5. International applicants whose native language is not English must have a TOEFL score of at least 600 (paper), 250 (computer) or 100 (Internet).
6. Have all materials for the application complete and filed with FAU prior to the deadlines.  
Deadlines for domestic admission: July 1 for fall, November 1 for spring and April 1 for summer.  
Deadlines for international admission: February 15 for fall, July 15 for spring and January 15 for summer.

Supplemental information that may be provided to highlight characteristics not evident in the required admissions materials includes:

1. A one-page résumé.
2. Letter(s) of recommendation from employers, faculty members or others who can attest to scholarly ability and/or agency.
3. A writing sample demonstrating analytical and explanatory skills.

### **Degree Requirements**

To qualify for this M.S. degree, each candidate must:

1. Meet all general requirements of the University for a master's degree and complete the program within five years of first enrollment in a finance course.
2. Complete or receive credit for a minimum of 9 credits of foundation courses. No grade lower than "C" will be accepted. Required foundation courses will be determined by the Office of Graduate Student Programs. Students will be notified of these and other requirements on admission.
3. Complete 30 credits of required and elective courses with a GPA of 3.0 or better. Any grade below "C" is considered a failure and the course must be retaken.
4. Complete all requirements of GEB 6215.
5. Transfer credits, credit duplication, academic standing, financial assistance, career placement assistance and graduation are subject to the policies, procedures, rules and guidelines as stated in the M.B.A. section of this catalog.

### Program Components

The degree program includes 30 graduate credits. Candidates who do not hold business baccalaureate degrees enroll in 9 additional credits of preparatory courses. All candidates must successfully complete three required finance courses, two required accounting courses, one required economics course and one required Graduate Communications course. Each candidate must successfully complete three elective courses in finance.

### Foundation Component and Courses

The Foundation Component introduces the broad field of business administration and the fundamental quantitative techniques used in business analysis.

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#### Courses in the Foundation Component

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Financial Accounting Concepts	ACG 6027	3
Seminar in Modern Economic Concepts and Theories	ECO 6008	3
Financial Management	FIN 6406	3

The exact number of credits required for each student will depend upon the previous academic record. More information may be obtained from the Office of Master's Programs in Business.

**Fundamental knowledge of college algebra, calculus, statistics and software is assumed.** It is recommended that all candidates evaluate their skills in those areas prior to application.

Successful performance in graduate-level coursework will require proficiency in the use of a personal

computer to employ word processing, spreadsheet and database software.

No foundation course may be used to satisfy core or elective requirements for any program.

### **Graduate Business Communication Program**

Written and verbal communication skills are integrated components of the Master of Science with Major in Finance. Students will demonstrate communication proficiency appropriate to both the academic and professional environments. Students will demonstrate their written and verbal communication skills as they complete the Communication Strategies for Business Professionals and Core-Course Follow-Up course (GEB 6215) that includes:

1. The class itself;
2. The evaluation of integrated course papers;
3. The evaluation of integrated course presentations.

Master's students in Finance must register for GEB 6215 in the first semester of taking core or elective courses. GEB 6215 must be taken prior to or concurrent with ACG 6137 and FIN 6806. Students who are exempt from either or both classes need to notify their GEB 6215 instructor so an alternative course or courses can be selected. Students must complete GEB 6215 within one active semester of taking ACG 6137 and FIN 6806 or the agreed upon alternative course(s).

Students will receive a grade of incomplete ("I") in GEB 6215 until they have completed all the communication requirements. Students who do not advance toward completing their communication requirements will receive an unsatisfactory ("U") grade and must re-register for the course. Students who receive a "U" and do not re-register for GEB 6215 in the next active semester will be administratively dropped from their classes.

Applications for degree will not be accepted unless the communication certification requirements have been completed.

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### **Core Component**

Financial Reporting and Accounting Concepts	ACG 6137*	3
Financial Statement Analysis	ACG 6175	3
Advanced Mathematical Economics	ECO 6403	3
Financial Markets	FIN 6246	3

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Investment Management	FIN 6515	3
Seminar in Advanced Financial Management	FIN 6806*	3
Communication Strategies for Business Professionals and Core-Course Follow-Up	GEB 6215*	3
<b>Core Total</b>		<b>21</b>
Electives		9
<b>Degree Total</b>		<b>30</b>

\* Students must take GEB 6215 before or at the same time as they take ACG 6137 and FIN 6806.

### Program Electives

*Students must select 9 credits from the following list*

Financial Management of Financial Institutions	FIN 6314	3
Financial Management: Investment Decisions and Policy	FIN 6436	3
Financial Risk Management and Derivatives	FIN 6537	3
Multinational Finance	FIN 6605	3
Theory of Financial Management	FIN 6804	3

Students who have successfully completed graduate or undergraduate courses that are equivalent to M.S. in Finance core courses will be required to complete substitute elective courses in the subject area. Example: If a student has completed Intermediate Accounting at the undergraduate or graduate level, then a substitute elective in accounting is required to replace ACG 6137.

### Time Limit

Candidates for the M.S. in Finance degree must complete all work within a consecutive five-year period after initial admission into the graduate program.

## FINTECH (FINANCIAL TECHNOLOGY) GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

The FinTech graduate certificate is offered jointly by the Department of Finance and the Department of Information Technology and Operations Management. This program enhances the qualifications of students pursuing careers in fields related to business, finance and information technologies. Students acquire knowledge and skills in online and digital business and digital finance, as well as in developing, analyzing and enhancing a company's ability to access capital through financial technologies. Also, students acquire knowledge and skills pertinent to the use of financial technology in trading. Professions and majors benefiting from the certificate include finance, information technology, management information systems and others.

The FinTech graduate certificate will be granted to a student who completes four courses as indicated in the list below.

### Admission

Open to students and professionals who have, at a minimum, a bachelor's degree in business or in a related field and a GPA of at least 3.0. Students must satisfy the prerequisites for each course in the program. The four courses (12 credits) must be completed with a GPA of 3.0 or better. All course materials are in English; international students must demonstrate proficiency in English to enter the program.

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#### Finance Course

Special Topics (such as Crowdfunding)	FIN 6936	3
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#### *Finance Courses - Select one of the following*

Financial Markets	FIN 6246	3
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Financial Risk Management and Derivatives	FIN 6537	3
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#### *Information Technology and Operations Management Courses*

Business Innovation with Artificial Intelligence	ISM 6427C	3
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Blockchain and Crypto Assets: Digital Business Transformation	ISM 6455	3
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## **RISK MANAGEMENT** **GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The Risk Management certificate, available to all College of Business students, enhances the qualifications of students pursuing careers in all industries.

The certificate is available to degree-seeking students and is awarded upon successful completion of the coursework below and the simultaneous successful completion of a master's degree in the College of Business. The certificate will be posted on the student's transcript upon successful completion of the coursework below.

The program requires 12 credits, with minimum grades of "C" required in all courses for the certificate.

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### **Required Courses (12 credits)**

Risk Management and Insurance	RMI 6016	3
Insurance and Financial Planning	RMI 6118	3
Corporate Risk Management	RMI 6356	3
Financial Risk Management and Derivatives	FIN 6537	3

## INFORMATION TECHNOLOGY AND OPERATIONS MANAGEMENT

### **Faculty:**

Dinev, T., Chair; Basiratmand, M., Director of Innovation and Programs; Babbar, S.; Baghersad, M.; Behara, R.; Bishop, D.; Carnovale, J.; Carnovale, S., Program Director for Supply Chain Management Graduate Program; Cervený, R. P. Emeritus; Chin, P.; Dye, K. C.; Emadikhiav, M.; Feidelman, L.; Galup, S.; Goo, J.; Han, J.; Hart, P.; Huang, D.; Hur, I.; Mehrani, S.; Menachof, D.; Neshenko, N.; Pusztai, Z.; Queiroz, M.; Schindlbeck, M.; Sharma, B.; Sweet, J.; Yoo, C.

The Department of Information Technology and Operations Management's mission is to develop competence in information systems, operations management (including quality management) and related decision-sciences disciplines for traditional and non-traditional students across the College of Business; to produce skilled individuals proficient in information technology who are able to contribute effectively to their organizations and communities in an ever-evolving technological environment; to

engage in an active partnership with the business community; and to continually innovate and increase the quality of its educational and research activities in a manner that increases education effectiveness and global reach.

Undergraduate programs available in Management Information Systems include a Bachelor of Science (B.S.) and a Bachelor of Business Administration (B.B.A.). In addition, the following minors and certificates are available: [Management Information Systems minor](#), [Operations Management minor](#), [Business Analytics minor and certificate](#), [Cybersecurity minor and certificate](#), [Digital Marketing minor and certificate](#), [FinTech \(Financial Technology\) minor and certificate](#), and [Healthcare Information Systems minor and certificate](#).

Two of the department's graduate degree programs are multi-college and interdisciplinary in nature: the [Master of Science with Major in Data Science and Analytics](#) and the [Master of Science with Major in Information Technology and Management \(MSITM\)](#). Its [Big Data Analytics Graduate Certificate](#), [Professional Big Data Analytics Certificate](#) and the MSITM program are offered jointly with the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science. Its Data Science and Analytics program is offered in conjunction with the colleges of Science, Engineering and Computer Science, and Arts and Letters.

Details of the [Master of Science with Major in Business Analytics](#) and the [Master of Science with Major in Supply Chain Management](#) are shown below in the Master's Programs section.

A graduate certificate in Transportation, Logistics and Supply Chain Management is offered jointly with the Department of Civil, Environmental and Geomatics Engineering in the College of Engineering and Computer Science. Details can be found [here](#). A graduate certificate in FinTech (Financial Technology) is offered jointly with the Finance Department. Details are found [here](#).

[Combined degree programs](#) culminating in the award of a Bachelor of Business Administration or Bachelor of Science with Major in Management Information Systems and a Master of Science with Major in [Business Analytics](#) or [Information Technology and Management](#) or [Supply Chain Management](#) are also available to qualified students.

[Link to B.S. with Major in Data Science and Analytics](#)

[Link to Combined Programs](#)

[Link to Master's Programs](#)

## **MANAGEMENT INFORMATION SYSTEMS**

### **BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)**

### **BACHELOR OF SCIENCE (B.S.)**

#### **Business Analytics Concentration**

#### **Cybersecurity Concentration**

Management Information Systems develops specialized proficiencies in management information technology and leads to the B.B.A. or B.S. degree. It focuses on the concepts and tools necessary for analyzing, designing, planning and developing resources.

Along with the **University** and **College of Business** degree requirements listed in the [Degree Requirements](#) section of this catalog, Management Information Systems students must complete the requirements below.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

#### **Pre-Business Foundation Coursework**

These are previously listed under the heading [Degree Requirements \(B.B.A. and B.S.\)](#) and subheading Pre-Business Foundation Coursework in this section.

#### **Core Requirements**

These are previously listed under the heading [Degree Requirements \(B.B.A. and B.S.\)](#) and subheading College of Business Core in this section.

#### **Management Information Systems Major Courses**

Students who major in MIS are required to take Advanced Systems Analysis and Design (ISM 4133)

and five other MIS electives (18 total credits) beyond Management Information Systems (ISM 3011). A grade of "C" or better is required in all major courses. Students may choose to follow one of the two paths below or may choose courses from both paths in consultation with their advisor. The Information Technology path is the classical MIS path that provides core technical skills needed to manage and design information technology in organizations. Students acquire the basic four technical skills of application development and programming languages, databases, data communications and system analysis. The Information and Knowledge Management path provides students with general, broad knowledge in information and knowledge management in organizations, digital products and service development, social media analysis, as well as project management. Graduates will have the skills to analyze and lead technology-enabled products and services and consult organizations on digital products and services.

Additionally, students may choose to concentrate in Business Analytics or Cybersecurity, but are not required to. If a student pursues the Business Analytics concentration, the student must take Database Management Systems (ISM 4212) and any other three courses that constitute the chosen concentration. If a student pursues the Cybersecurity concentration, the student must take the four courses that constitute the chosen concentration. Concentration courses are noted below.

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### **Information Technology Path**

Introduction to Computer Systems and Software Development	ISM 3230	3
Database Management Systems*	ISM 4212	3
Business Data Communications**	ISM 4220	3
Advanced Systems Analysis and Design	ISM 4133	3

### ***Choose two of the following courses***

Special Topics	ISM 4930	3
Social Media and Web Technologies	ISM 4054	3
Project Management	MAN 4583	3
Information Technology and Operations Management Internship	ISM 4940	3
Introduction to Business Analytics and Big Data*	ISM 3116	3

Data Mining and Predictive Analytics*	ISM 4117	3
Advanced Business Analytics*	ISM 4403	3
Introduction to Cybersecurity**	ISM 4320	3
Management of Information Assurance and Security**	ISM 4323	3
Computer Forensics**	ISM 4324	3
Mobile Apps for Business	ISM 4053	3
Social Media and Web Analytics*	ISM 4420	3
Advanced Business Software Development	ISM 4234	3
Business Software Systems Development Project	ISM 4243	3
Artificial Intelligence and Digital Transformation for Business *	ISM 4421	3
Blockchain and Crypto Assets: Business Implications	ISM 4451	3

\* These courses constitute the Business Analytics concentration.

\*\* These courses constitute the Cybersecurity concentration.

### **Information and Knowledge Management Path**

Advanced Systems Analysis and Design	ISM 4133	3
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#### ***Choose five of the following courses***

Special Topics	ISM 4930	3
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Social Media and Web Technologies	ISM 4054	3
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Project Management	MAN 4583	3
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Information Technology and Operations Management Internship	ISM 4940	3
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Introduction to Computer Systems and Software	ISM 3230	3
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## Development

Database Management Systems*	ISM 4212	3
Introduction to Business Analytics and Big Data*	ISM 3116	3
Data Mining and Predictive Analytics*	ISM 4117	3
Advanced Business Analytics*	ISM 4403	3
Business Data Communications**	ISM 4220	3
Introduction to Cybersecurity**	ISM 4320	3
Management of Information Assurance and Security**	ISM 4323	3
Computer Forensics**	ISM 4324	3
Global Supply Chain Management	MAN 4597	3
Contemporary Issues of Digital Data Management	ISM 4041	3
Mobile Apps for Business	ISM 4053	3
Social Media Innovation	ISM 3007	3
Healthcare Information Systems	ISM 4381	3
Social Media and Web Analytics*	ISM 4420	3
Artificial Intelligence and Digital Transformation for Business*	ISM 4421	3
Blockchain and Crypto Assets: Business Implications	ISM 4451	3
Data Management and Analysis with Excel	QMB 3302	3

\* These courses constitute the Business Analytics concentration.

\*\* These courses constitute the Cybersecurity concentration.

## DATA SCIENCE AND ANALYTICS BACHELOR OF SCIENCE (B.S.)

**Data Science in Business Concentration****Data Science and Engineering Concentration****Data Science in the Natural Sciences Concentration**

The Bachelor of Science with Major in Data Science and Analytics (BSDSA) program is a multi-college, interdisciplinary program administered jointly by the Department of Mathematics and Statistics in the Charles E. Schmidt College of Science, the Department of Electrical Engineering and Computer Science (EECS) in the College of Engineering and Computer Science, the Department of Information Technology and Operations Management (ITOM) in the College of Business, the Department of Political Science in the Dorothy F. Schmidt College of Arts and Letters and the School of Criminology and Criminal Justice in the College of Social Work and Criminal Justice. For details about this program, see the [Interdisciplinary Programs](#) section of this catalog.

## MANAGEMENT INFORMATION SYSTEMS UNDERGRADUATE MINOR

*(Minimum of 12 credits required)*

The Management Information Systems (MIS) minor is designed for non-MIS majors in the College of Business and students outside the College of Business. The minor provides students with practical knowledge on managing information technology (IT) and on substantive and current IT topics and issues. Students learn the skill sets necessary to apply information and communications technologies and systems to solve real business issues. The result is a student prepared for careers that involve usage and decision-making regarding IT. The minor in Management Information Systems requires the following courses with a grade of "C" or better.

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### **Business Core Requirement**

Management Information Systems	ISM 3011	3
Advanced Systems Analysis and Design	ISM 4133	3

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### **Elective Requirement\***

Two ISM courses (3000 level or above)		6
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\* While earning the MIS minor is not limited to specific MIS elective courses, the following suggested MIS minor paths of study could be chosen depending on the student's interest.

**Programming and Databases path of study:** For electives, choose ISM 3230 and ISM 4212.

**Cybersecurity path of study:** For electives, choose two of the following three courses: ISM 4320, ISM 4323 or ISM 4324.

**Business Analytics path of study:** For electives, choose two of the following three courses: ISM 3116, ISM 4117 or ISM 4403.

A maximum of 3 credits used for the MIS minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. For exceptions, a petition should be submitted to the ITOM Department chair. For non-Business majors, waiver of prerequisites will be made on a case-by-case basis. A minimum of 9 credits must be taken in residence at FAU. The acknowledgment of the minor is official upon successful completion of a degree program at FAU.

## **OPERATIONS MANAGEMENT UNDERGRADUATE MINOR**

*(Minimum of 9 credits required)*

The Operations Management minor is designed for all undergraduate Business majors. In addition to completion of the Business/Health Administration core courses, minor requirements include three courses from the Operations Management options, as indicated in the table below, or two courses from the Operations Management options and one course from Operations Cognate options. All required courses must be completed with a grade of “C” or better.

### **Operations Management Options**

Project Management	MAN 4583	3
Global Supply Chain Management	MAN 4597	3
Service Operations	MAN 4029	3
Operations Management Applications	MAN 4504	3

### **Operations Cognate Options**

International Business Operations	MAN 4602	3
Entrepreneurship	ENT 4024	3

Advanced Business Planning	ENT 4114	3
Health Care Quality Management	HSA 4383	3
Practice Management	HSA 4511	3
Technology in Health Care Organizations	HSA 3191	3
Corporate Risk Management	RMI 4353	3
Enterprise Risk Management and Corporate Governance: Qualitative Analysis	RMI 4423	3
Digital Marketing	MAR 4721	3
Marketing and Product/Service Innovation	MAR 4836	3
Events Management	HFT 3741	3
Hotel and Resort Management	HFT 4253	3
International Field Experience in Hospitality Management	HFT 4955	3
Introduction to Business Analytics and Big Data	ISM 3116	3

A maximum of 3 credits used for the minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. For exceptions, a petition should be submitted to the ITOM Department chair. At least two of the three courses (6 credits) for the minor must be taken in residence at FAU. The acknowledgment of the minor is official upon successful completion of a College of Business degree program.

## **BUSINESS ANALYTICS**

### **UNDERGRADUATE MINOR**

### **UNDERGRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The Business Analytics minor and certificate enhance the qualifications of students pursuing careers in information technology areas related to the collection, integration, analysis and presentation of business

data.

The minor is available to all undergraduate degree-seeking students and may be earned upon successful completion of the coursework below and the simultaneous completion of a bachelor's degree at FAU. For non-Business majors, waiver of prerequisites will be made on a case-by-case basis. For Business majors, a maximum of 3 credits used for the minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. For exceptions, a petition should be submitted to the ITOM Department chair.

The certificate is available to degree-seeking students, non-degree students and working professionals. Students pursuing the certificate may apply for it in the College of Business Office of Student Academic Services upon successful completion of the coursework below.

Students cannot obtain both a certificate and a minor. Both programs require 12 credits each, with minimum grades of "C" required in all courses for the minor and certificate. For the minor, at least 9 of the 12 credits must be earned from FAU.

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**Select four of the following courses (12 credits)**

Introduction to Business Analytics and Big Data	ISM 3116	3
Data Mining and Predictive Analytics	ISM 4117	3
Database Management Systems	ISM 4212	3
Advanced Business Analytics	ISM 4403	3
Social Media and Web Analytics	ISM 4420	3
Artificial Intelligence and Digital Transformation for Business	ISM 4421	3
Data Management and Analysis with Excel	QMB 3302	3

**CYBERSECURITY**  
**UNDERGRADUATE MINOR**  
**UNDERGRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

Cybersecurity is the study of methods to ensure information and system security. Industry and government need an educated workforce to serve as information and systems security analysts, security and network administrators and more. Due their extensive expertise and facilities, the departments of Information Technology and Operations Management (in the College of Business), Electrical Engineering and Computer Science (in the College of Engineering and Computer Science) and Mathematics and Statistics (in the College of Science) have jointly designed the Cybersecurity Minor and Certificate. Three tracks, each requiring 12 credits, constitute the minor and certificate: Information Technology (IT), Computer Science (CS) and Mathematical Sciences (MS). Details of this minor and certificate can be found in the [Interdisciplinary Programs section](#) of this catalog.

## **DIGITAL MARKETING**

### **UNDERGRADUATE MINOR**

### **UNDERGRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The Digital Marketing minor and certificate are jointly offered by the Department of Information Technology and Operations Management and the Department of Marketing. These programs enhance the qualifications of students pursuing careers in fields related to business, marketing and information technologies. Students acquire knowledge and skills in online and digital business and digital product delivery, as well as in developing, analyzing and enhancing a company's presence on the web and in social networking. Professions and majors benefiting from the minor and certificate include marketing, business development, business strategy, information technology, management information systems and others.

The minor is available to all undergraduate degree-seeking students and may be earned upon successful completion of the coursework below and the simultaneous completion of a bachelor's degree at FAU. For non-Business majors, waiver of prerequisites will be made on a case-by-case basis. For Business majors, a maximum of 3 credits used for the minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. For exceptions, a petition should be submitted to the ITOM Department chair or the Department of Marketing chair.

The certificate is available to degree-seeking students, non-degree students and working professionals. Students pursuing the certificate may apply for it in the College of Business Office of Student Academic Services upon successful completion of the coursework below.

Students cannot obtain both a certificate and a minor. Both programs require 12 credits each, with minimum grades of "C" required in all courses for the minor and certificate. For the minor, at least 9 of the 12 credits must be earned from FAU.

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### **Information Technology and Operations Management Courses**

*(Select two courses from the following four)*

Social Media Innovation	ISM 3007	3
Contemporary Issues of Digital Data Management	ISM 4041	3
Social Media and Web Technologies	ISM 4054	3
Social Media and Web Analytics	ISM 4420	3

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### **Marketing Courses**

Marketing Research and Information Systems	MAR 4613	3
Digital Marketing	MAR 4721	3

## **FINTECH (FINANCIAL TECHNOLOGY)**

### **UNDERGRADUATE MINOR**

### **UNDERGRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

[Link to Graduate Certificate](#)

The FinTech minor and undergraduate certificate are offered jointly by the Department of Finance and the Department of Information Technology and Operations Management. These programs enhance the qualifications of students pursuing careers in fields related to business, finance and information technologies. Students acquire knowledge and skills in online and digital business and digital finance, as well as in developing, analyzing and enhancing a company's ability to access capital through financial technologies. Details are found [here](#).

## **HEALTHCARE INFORMATION SYSTEMS**

### **UNDERGRADUATE MINOR**

### **UNDERGRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The Healthcare Information Systems minor and certificate enhance the qualifications of students pursuing careers in fields related to healthcare. Professions and majors benefiting from these programs include healthcare administration, nursing, medicine, biomedical sciences, actuaries, insurance, information technology and management information systems, among others. This minor and certificate are offered in conjunction with the Health Administration program of the College of Business Management Programs Department.

The minor is available to all undergraduate degree-seeking students and may be earned upon successful completion of the coursework below and the simultaneous completion of a bachelor's degree at FAU. For non-Business majors, waiver of prerequisites will be made on a case-by-case basis. For Business majors, a maximum of 3 credits used for the minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. For exceptions, a petition should be submitted to the ITOM Department chair or the Health Administration Program director.

The certificate is available to degree-seeking students, non-degree students and working professionals. Students pursuing the certificate may apply for it in the College of Business Office of Student Academic Services upon successful completion of the coursework below.

Students cannot obtain both a certificate and a minor. Both programs require 12 credits each, with minimum grades of "C" required in all courses for the minor and certificate. For the minor, at least 9 of the 12 credits must be earned from FAU.

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### **Information Technology and Operations Management Courses**

*(Select two courses from the following three)*

Healthcare Information Systems	ISM 4381	3
Contemporary Issues of Digital Data Management	ISM 4041	3
Service Operations	MAN 4029	3

### **Health Administration Courses**

Health Delivery Systems	HSA 3111	3
Technology in Health Care Organizations	HSA 3191	3

The certificate is available to degree-seeking students, non-degree students and working professionals. Students pursuing the certificate may apply for it in the college where the track is located upon successful completion of the coursework.

## COMBINED PROGRAMS

### **MANAGEMENT INFORMATION SYSTEMS TO BUSINESS ANALYTICS BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

The Information Technology and Operations Management department offers a combined Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Management Information Systems to Master of Science (M.S.) in Business Analytics (MSBA) program. Students in this combined program may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's degree and master's degree long as the combined program totals a minimum of 150 credits and:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

With the approximate duration of five years, this combined program provides attractive ways for students to continue their graduate work. Students complete and graduate from their bachelor's degree first, and continue coursework to finish their master's degree program.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog

course description and a copy of the syllabus for assessment.

### **Admission Requirements**

The GRE/GMAT requirement is waived for this program. To be eligible for the combined program, students in the Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Management Information Systems should:

1. Have a cumulative undergraduate FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in the Management Information Systems degree program.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the M.S. in Business Analytics portion of the program.

Once admitted to the program, students begin taking graduate courses (5000/6000 level courses) in their senior year that would apply to both the bachelor's and master's degree programs. Students in the combined program must maintain continuous enrollment, in full-time status, during their bachelor's degree to remain in the combined program. Once students are admitted to the M.S. in Business Analytics program, they must maintain continuous enrollment to remain in good standing. Students must also meet all of the degree requirements of the graduate program.

### **Degree Requirements**

To be eligible for the combined Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Management Information Systems to Master of Science (M.S.) in Business Analytics (MSBA) degree program, students must fulfill the following requirements:

1. Completion of the requirements for the Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Management Information Systems; and
2. Completion of all requirements for the Master of Science (M.S.) in Business Analytics (MSBA).

### **Credits counted Toward Bachelor's and Master's Degrees**

The following undergraduate course requirements may be replaced with the shown graduate-level courses (up to a total of 12 credits). These graduate credits count toward both the bachelor's degree and the master's degree programs.

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#### **Undergraduate Course Requirements**

**Graduate Course Substitutions.\* Choose any three courses (9 credits) from the Business Analytics group and any one course (3**

**credits) from the Technology Management group**

Upper Division ITOM  
Department Electives  
(12 credits)

***Business Analytics Group***

Data Mining and Predictive Analytics	ISM 6136
Database Management Systems	ISM 6217
Introduction to Business Analytics and Big Data	ISM 6404
Advanced Business Analytics	ISM 6405
Business Innovation with Artificial Intelligence	ISM 6427C
Social Media and Web Analytics	ISM 6555
Special Topics	ISM 6930
Data Management and Analysis with Excel	QMB 6303

***Technology Management Group***

Blockchain and Crypto Assets: Digital Business Transformation	ISM 6455
Special Topics	ISM 6930
Project Management	MAN 6581
Supply Chain Management	MAN 6596
Supply Chain Analytics	QMB 6616

\* Students who have taken an undergraduate elective course cannot use the corresponding graduate course for substitution or for credit towards the graduate program. The following are corresponding undergraduate-graduate courses: ISM 3116-ISM 6404; ISM 4117-ISM 6136; ISM 4212-ISM 6217; ISM 4403- ISM 6405; ISM 4420-ISM 6555; ISM 4421-ISM 6427C; ISM 4451-ISM 6455; MAN 4583-MAN 6581; MAN 4597-MAN 6596; QMB 3302-QMB 6303.

## **MANAGEMENT INFORMATION SYSTEMS TO INFORMATION TECHNOLOGY AND MANAGEMENT**

## BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S) COMBINED PROGRAM

The Information Technology and Operations Management department offers a combined Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Management Information Systems to a Master of Science (M.S.) in Information Technology and Management (MSITM) program. Students in this combined program may count up to 12 credits of approved graduate coursework (5000-level or higher courses) toward both their bachelor's degree and their master's degree as long as the combined program totals a minimum of 150 credits and:

1. The student has met the minimum of 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000-level or higher courses for the master's program.

With an approximate duration of five years, this combined program provides attractive ways for students to continue their graduate work. Students complete and graduate from their bachelor's degree program first, and continue coursework to finish their master's degree program.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Admission Requirements**

The GRE/GMAT requirement is waived for this program. To be eligible for the combined program, students in the Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Management Information Systems program should:

1. Have a cumulative undergraduate FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in the Management

Information Systems degree program.

2. Have an Information Technology GPA of 3.25 or better at the end of their junior year.
3. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the M.S. in Information Technology and Management portion of their program.

Once admitted to the program, students begin taking graduate courses (5000/6000 level courses) in their senior year that would apply to both the bachelor's and master's degree programs. Students in the combined program must maintain continuous enrollment, in full-time status, during their bachelor's degree to remain in the combined program. Once students are admitted to the M.S. in Information Technology and Management program, they must maintain continuous enrollment to remain in good standing. Students must also meet all of the degree requirements of the graduate program.

### **Degree Requirements**

To be eligible for the combined Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Management Information Systems to Master of Science (M.S.) in Information Technology and Management (MSITM) degree program, students must fulfill the following requirements:

1. Completion of the requirements for the Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Management Information Systems; and
2. Completion of all requirements for the Master of Science (M.S.) in Information Technology and Management (MSITM).

### **Credits Counted Toward Bachelor's and Master's Degrees**

The following undergraduate course requirements may be replaced with the graduate-level courses shown (up to a total of 12 credits). These graduate credits count toward both the bachelor's degree and the master's degree programs.

<b>Undergraduate Course Requirements</b>	<b>Graduate Course Substitutions.*</b>	
Upper Division ITOM Department Core Courses (3 credits)	<b>Choose one from the following 3-credit courses</b>	
	Information Technology Fundamentals	ISM 6148
	Database Management Systems	ISM 6217

Business Data Communications

ISM 6225

**Choose three from the following 3-credit courses**

Upper Division ITOM  
Department Electives  
(9 credits)

***Business Analytics Group***

Data Mining and Predictive Analytics

ISM 6136

Database Management Systems

ISM 6217

Introduction to Business Analytics and Big Data

ISM 6404

Advanced Business Analytics

ISM 6405

Business Innovation with Artificial Intelligence

ISM  
6427C

Social Media and Web Analytics

ISM 6555

Special Topics

ISM 6930

***Information Technology Management Group***

Mobile Apps for Business

ISM 6058

Information Technology Fundamentals

ISM 6148

Business Data Communications

ISM 6225

Information Technology Project and Change  
Management

ISM 6316

Management of Information Assurance and  
Security

ISM 6328

Blockchain and Crypto Assets: Digital Business  
Transformation

ISM 6455

Web-Based Business Development

ISM 6508

Information Technology Sourcing Management

ISM 6509

Special Topics

ISM 6930

Data Management and Analysis with Excel

QMB

\* ISM 4133 must be taken at the undergraduate level so that the WAC requirement is satisfied. Students pursuing the Business Analytics concentration for MSITM should choose two courses from the Business Analytics Group and one course from the Technology Management Group. Students pursuing the Information Technology Management concentration for MSITM should choose two courses from the Technology Management Group and one course from the Business Analytics Group.

Students who have taken an undergraduate elective course cannot use the corresponding graduate course for substitution or for credit toward the graduate program. The following are corresponding undergraduate-graduate courses: ISM 3116-ISM 6404; ISM 3230-ISM 6148; ISM 4053-ISM 6058; ISM 4117-ISM 6136; ISM 4133-ISM 6123; ISM 4212-ISM 6217; ISM 4220-ISM 6225; ISM 4320-ISM 6328; ISM 4403-ISM 6405; ISM 4420-ISM 6555; ISM 4421-ISM 6427C; ISM 4451-ISM 6455; MAN 4583-MAN 6581; MAN 4597-MAN 6596; QMB 3302-QMB 6303.

## **MANAGEMENT INFORMATION SYSTEMS TO SUPPLY CHAIN MANAGEMENT**

### **BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

The Information Technology and Operations Management department offers a combined Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Management Information Systems to Master of Science (M.S.) in Supply Chain Management (MSSCM) program. Students in this combined program may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's degree and master's degree long as the combined program totals a minimum of 150 credits and:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

With the approximate duration of five years, this combined program provides attractive ways for students to continue their graduate work. Students complete and graduate from their bachelor's degree first, and continue coursework to finish their master's degree program.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Admission Requirements**

The GRE/GMAT requirement is waived for this program. To be eligible for the combined program, students in the Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Management Information Systems should:

1. Have a cumulative undergraduate FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in the Management Information Systems degree program.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the M.S. in Business Analytics portion of the program.

Once admitted to the program, students begin taking graduate courses (5000/6000 level courses) in their senior year that would apply to both the bachelor's and master's degree programs. Students in the combined program must maintain continuous enrollment, in full-time status, during their bachelor's degree to remain in the combined program. Once students are admitted to the M.S in Supply Chain Management (MSSCM) program, they must maintain continuous enrollment to remain in good standing. Students must also meet all of the degree requirements of the graduate program.

### **Degree Requirements**

To be eligible for the combined Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Management Information Systems to Master of Science (M.S.) in Supply Chain Management (MSSCM) degree program, students must fulfill the following requirements:

1. Completion of the requirements for the Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Management Information Systems; and

2. Completion of all requirements for the Master of Science (M.S.) in Supply Chain Management (MSSCM).

### Credits Counted Toward Bachelor's and Master's Degrees

The following undergraduate course requirements may be replaced with the shown graduate-level courses (up to a total of 12 credits). These graduate credits count toward both the bachelor's degree and the master's degree programs.

<b>Undergraduate Course Requirements</b>	<b>Graduate Course Substitutions.* Choose any three courses (9 credits) from the Technology Management group and any one course (3 credits) from the Business Analytics group</b>	
Upper Division ITOM Department Electives (12 credits)	<b><i>Technology Management Group</i></b>	
	Blockchain and Crypto Assets: Digital Business Transformation	ISM 6455
	Special Topics	ISM 6930
	Project Management	MAN 6581
	Supply Chain Management	MAN 6596
	Supply Chain Analytics	QMB 6616
	<b><i>Business Analytics Group</i></b>	
	Data Mining and Predictive Analytics	ISM 6136
	Database Management	ISM 6217
	Introduction to Business Analytics and Big Data	ISM 6404
	Advanced Business Analytics	ISM 6405
	Business Innovation with Artificial Intelligence	ISM 6427C
	Social Media and Web Analytics	ISM 6555
	Special Topics	ISM 6930
	Data Management and Analysis with Excel	QMB 6303

\* Students who have taken an undergraduate elective course cannot use the corresponding graduate course for substitution or for credit towards the graduate program. The following are corresponding undergraduate-graduate courses: ISM 3116-ISM 6404; ISM 4117-ISM 6136; ISM 4212-ISM 6217; ISM 4403- ISM 6405; ISM 4420-ISM 6555; ISM 4421-ISM 6427C; ISM 4451-ISM 6455; MAN 4583-MAN 6581; MAN 4597-MAN 6596; QMB 3302-QMB 6303.

## MASTER'S PROGRAMS

### BUSINESS ANALYTICS

#### MASTER OF SCIENCE (M.S.)

The Master of Science in Business Analytics is a STEM program with emphasis on artificial intelligence that provides a strong curriculum. It teaches business graduate students methods and tools to extract, curate, preserve, analyze, mine, visualize and present structured and unstructured business data, helping them make well-informed managerial and executive decisions in various domain-specific business contexts. The program provides graduates with the key skills and hands-on experience demanded by employers locally, statewide, nationally and internationally. Students are required to complete 30 graduate-level credits with a 3.0 GPA or better to graduate. The program does not offer a thesis option. It is available in person or fully online.

#### Admissions

The College of Business seeks a diverse, highly qualified group of graduate students. Applications are evaluated on several factors emphasizing prior academic performance, GMAT or GRE scores, work experience and the potential for scholarly and professional success. Other aspects of admission include:

1. Bachelor's degree in any discipline; no business prerequisites are required;
2. GPA approximately 3.0 or higher over the last 60 undergraduate credits;
3. GRE/GMAT scores more than five years old are normally not acceptable. The GRE and the GMAT requirement is waived for any student who has a baccalaureate degree from FAU's Department of Information Technology and Operations Management (ITOM) with a GPA of at least 3.25 (out of a possible 4.0) in the last 60 credits attempted prior to graduation;
4. International students from non-English-speaking countries must be proficient in written and spoken English as evidenced by a score of at least 500 (paper-based test) or 213 (computer-based test) or 79 (Internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing System (IELTS); and
5. Applicants must meet other requirements of the FAU Graduate College.

## Degree Requirements

Students are required to complete 30 graduate-level credits, or ten 3-credit courses (5000 level or higher), with a 3.0 GPA or higher to graduate. The program does not offer a thesis option.

### Required Courses - 24 credits

Communication Strategies for Business Professionals and Core-Course Follow-Up	GEB 6215	3 or
Communication Strategies for Business Professionals (for students in the Professional MSBA only)	GEB 6217	3
Management of information Systems and Technology	ISM 6026	3
Data Mining and Predictive Analytics	ISM 6136	3
Introduction to Business Analytics and Big Data	ISM 6404	3
Advanced Business Analytics	ISM 6405	3
Business Innovation with Artificial Intelligence	ISM 6427C	3
Social Media and Web Analytics	ISM 6555	3
Data Management and Analysis with Excel	QMB 6303	3
<b>Elective Courses - Select two from this list</b>		
Database Management Systems	ISM 6217	3
Blockchain and Crypto Assets: Digital Business Transformation	ISM 6455	3
Special Topics	ISM 6930	2-5
Graduate Information Technology and Operations Management Internship	ISM 6942	3
Project Management	MAN 6581	3
Supply Chain Management	MAN 6596	3
Marketing Analysis and Executive Action	MAR 6816	3

## **BUSINESS ANALYTICS**

### **MASTER OF SCIENCE (M.S.)**

### **PROFESSIONAL PROGRAM**

The Professional Master of Science with major in Business Analytics is a new self-supporting program administered by the Executive Education Department in the College of Business. This program is designed for working professional students. There are no concentrations, tracks or specializations. The program requires 30 credits and does not offer a thesis option. Each course duration is eight weeks, and students are expected to take two courses simultaneously. Required and elective courses are listed in the table above. The expected fast track completion time is 12 months.

## **DATA SCIENCE AND ANALYTICS**

### **MASTER OF SCIENCE (M.S.)**

#### **Concentrations:**

**Data Science in Business**

**Data Science via Scientific Inquiry**

**Data Science and Engineering**

**Data Science in Society**

The [Master of Science with Major in Data Science and Analytics](#) (MSDSA) is a multi-college interdisciplinary program jointly administered by the Department of Mathematics and Statistics in the Charles E. Schmidt College of Science, the Department of Electrical Engineering and Computer Science (EECS) in the College of Engineering and Computer Science (EECS), the Department of Information Technology and Operations Management (ITOM) in the College of Business and the Department of Political Science in the Dorothy F. Schmidt College of Arts and Letters. The program aims to prepare students with essential skill sets needed to analyze small, fast, big, massive and complex data. To allow for maximum flexibility in career aspirations, students may select from four concentrations:

- Data Science via Scientific Inquiry Concentration, Department of Mathematics and Statistics.
- Data Science and Engineering Concentration, Department of Electrical Engineering and Computer Science.

- Data Science in Business Concentration, Department of Information Technology and Operations Management.
- Data Science in Society Concentration, Department of Political Science.

For more information about the Master of Science with Major in Data Science and Analytics degree program, see the [Interdisciplinary Program](#) section of this catalog.

## **INFORMATION TECHNOLOGY AND MANAGEMENT** **MASTER OF SCIENCE (M.S.)**

**Advanced Information Technology Concentration**

**Business Analytics Concentration**

**Computer Science Data Analytics Concentration**

**Cybersecurity Concentration**

**Information Technology Management Concentration**

The [Master of Science with Major in Information Technology and Management \(MSITM\)](#) is offered jointly with the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science. Details of this program can be found in the [Interdisciplinary Programs](#) section of this catalog. The program is offered in person with the Business Analytics and the Information Technology Management concentrations offered in person and fully online.

## **INFORMATION TECHNOLOGY AND MANAGEMENT** **MASTER OF SCIENCE (M.S.)** **PROFESSIONAL PROGRAM**

**Advanced Information Technology Concentration**

**Business Analytics Concentration**

**Computer Science Data Analytics Concentration**

**Information Technology Management Concentration**

Details for the [Professional Master of Science with Major in Information Technology and Management](#) are also described in the [Interdisciplinary Programs](#) section of the catalog. The program is offered in person with the Business Analytics and the Information Technology Management concentrations offered in person and fully online.

## SUPPLY CHAIN MANAGEMENT MASTER OF SCIENCE (M.S.)

The Master of Science with Major in Supply Chain Management offers a strong curriculum delivering the foundations and principles of Supply Chain Management, Operations Management, Procurement and Sourcing. This curriculum is integrated with concentrated study of Business Analytics, Shipping and Trade to provide students with the key skills and hands-on experience demanded by employers locally, statewide, nationally and internationally. Students are required to complete 30 graduate-level credits with a 3.0 GPA or better to graduate. The program does not offer a thesis option. It is available in person or fully online.

### Admission

The College of Business seeks a diverse, highly qualified group of graduate students. Applications are evaluated on several factors emphasizing prior academic performance, GMAT or GRE scores, work experience and the potential for scholarly and professional success. Important factors are:

1. A bachelor's degree in any discipline. No business prerequisites are required;
2. A GPA approximately 3.0 or higher over the last 60 undergraduate credits;
3. GRE/GMAT scores more than five years old are normally not acceptable. The GRE and the GMAT requirement is waived for any student who has a baccalaureate degree from FAU's Department of Information Technology and Operations Management (ITOM) with a GPA of at least 3.25 (out of a possible 4.0) in the last 60 credits attempted prior to graduation;
4. International students from non-English-speaking countries must be proficient in written and spoken English as evidenced by a score of at least 500 (paper-based test) or 213 (computer-based test) or 79 (internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing Systems (IELTS); and
5. Students must meet other requirements of the FAU Graduate College.

### Degree Requirements

Students are required to complete 30 graduate-level credits or ten 3-credit courses (5000 level or higher) with a GPA of 3.0 or higher to graduate. The program does not offer a thesis option.

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### Required Courses - 24 credits

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Communication Strategies for Business Professionals and Core-Course Follow-Up	GEB 6215	3 or
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Communication Strategies for Business Professionals (for students in the Professional MSSCM only)	GEB 6217	3
Information Technology Sourcing Management	ISM 6509	3
Operations Management	MAN 6501	3
Business Process Improvement Management	MAN 6525	3
International Shipping, Trade and Port Management	MAN 6565	3
Supply Chain Management	MAN 6596	3
Data Management and Analysis with Excel	QMB 6303	3
Supply Chain Analytics	QMB 6616	3
<b>Elective Courses - Select two from this list</b>		
Data Mining and Predictive Analytics	ISM 6136	3
Database Management Systems	ISM 6217	3
Advanced Business Analytics	ISM 6405	3
Business Innovation with Artificial Intelligence	ISM 6427C	3
Blockchain and Crypto Assets: Digital Business Transformation	ISM 6455	3
Web-Based Business Development	ISM 6508	3
Social Media and Web Analytics	ISM 6555	3
Special Topics	ISM 6930	2-5
Graduate Information Technology and Operations Management Internship	ISM 6942	3
Business Process Improvement Management	MAN 6525	3
Project Management	MAN 6581	3

## **SUPPLY CHAIN MANAGEMENT**

### **MASTER OF SCIENCE (M.S.)**

### **PROFESSIONAL PROGRAM**

The Professional Master of Science with major in Supply Chain Management is a self-supporting program administered by the Executive Education Department in the College of Business. Designed for working professional students, the program requires 30 credits and does not offer a thesis option. There are no concentrations, tracks or specializations. Each course duration is eight weeks, and students are expected to take two courses simultaneously. Required and elective courses are listed in the table above. The expected fast track completion time is 12 months. The program is available in person or fully online.

## **BIG DATA ANALYTICS**

### **GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The digital age is here to stay. Organizations now own and have access to unfathomable amounts of data. New technologies and efforts are needed to move on to the next phase of the digital revolution - the data revolution. To provide students with the knowledge necessary in this age of Big Data, the Department of Electrical Engineering and Computer Science (EECS) and the Department of Information Technology and Operations Management (ITOM) have jointly designed the [Big Data Analytics graduate certificate](#). This 12-credit certificate allows graduate students to expand their knowledge and skills in the concepts, technologies, and tools of business intelligence, data analytics and business analytics and be recognized for their achievement. The certificate program has two tracks: Computer Science (CS) and Business (BU). Details for both tracks can be found in the [Interdisciplinary Programs](#) section of this catalog.

## **BIG DATA ANALYTICS**

### **GRADUATE CERTIFICATE**

### **PROFESSIONAL PROGRAM**

*(Minimum of 12 credits required)*

Details for the [Professional Big Data Analytics Graduate Certificate](#) are also described in the [Interdisciplinary Programs](#) section of the catalog.

## **FINTECH (FINANCIAL TECHNOLOGY)**

### GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

The FinTech minor and undergraduate certificate are offered jointly by the Department of Finance and the Department of Information Technology and Operations Management. These programs enhance the qualifications of students pursuing careers in fields related to business, finance and information technologies. Students acquire knowledge and skills in online and digital business and digital finance, as well as in developing, analyzing and enhancing a company's ability to access capital through financial technologies. Details are found [here](#).

## MANAGEMENT PROGRAMS

### **Faculty:**

Williams, E., Chair; Alexandre, P.; Arikan, A.; Attonito, J.; Barbera, S.; Bernet, P.; Brant, K.; Castro, S.; Castrogiovanni, G.; Chandrashekar, L.; Cooke, D.; Cox, K.; Ellis, K.; Feyereisen, S.; Golden, P., Emeritus; Goodrick, E.; Gumus, G.; Harari, M.; Herst, D.; Kidwell, R.; Li, M.; Mishra, C.; Monestime, J.; Neubaum, D.; Newmann, L.; Paczkowski, P.; Palkon, D.; Patton, J.; Puro, N.; Sawant, R.; Schwartz, H.; Searcy, O.; Smith, S.; Terjesen, S.; Thams, V.; Trevino, L.; Whiteman, A.; Willis, L.

The Department of Management Programs develops future leaders who are skilled in the art of managing in a global business environment. The department recognizes the urban nature of the student population and designs programs to be delivered through non-traditional and technology-driven delivery systems. Through its programs in Health Administration, [International Business](#), and [Management](#), it provides skill bases that are useful in a world marketplace. The department's scholarly initiatives and service make it a valuable partner for the regional and international community.

In addition to the programs mentioned above, the department offers courses in Motion Picture Management and Sport Management. See [Course Descriptions](#).

## PROGRAMS IN HEALTH ADMINISTRATION

[Link to Health Administration Master's Programs](#)

[Link to Health Administration Graduate Certificates](#)

[Link to Health Administration Combined Program](#)

[Link to Health Administration Minors](#)

[Link to Health Administration Undergraduate Certificates](#)

## **HEALTH ADMINISTRATION**

### **BACHELOR OF HEALTH SERVICES (B.H.S.)**

The Bachelor of Health Services (B.H.S.) is concentrated at the upper division of the baccalaureate program. This curriculum provides students with a university education that promotes personal and professional growth as well as concentrated awareness of health systems and their effects on society. Flexibility in course selection allows students to strengthen their analytical skills and develop their awareness of leadership and responsibility as citizens and future health administrators. The graduate of this program is prepared to assume entry managerial positions in health; to continue the study of health administration or other relevant disciplines at the graduate level; and to advance to health administration positions with broader responsibility and leadership. Program requires a minimum of 120 credits.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

#### **Admission Policy**

Students are classified as Pre-Business until the preprofessional courses below are completed with "C"

or better grades and 60 minimum credits are attained with a 2.25 minimum FAU GPA. Until admitted, students can only take three upper-level courses in the program: HSA 3104, HSA 3111 and HSA 3534.

### Preprofessional Requirements

Preprofessional requirements are lower-division courses (1000-2000 level) conveying information or skills necessary to be successful in a student's major course of study. The Health Administration major requires the five courses listed below. Four of the courses, excluding ECO 2023, must be taken before a student can be formally classified as a Health Administration major. A grade of "C" or better (or passing the competency exam in ISM 2000) is required in each course.

Principles of Accounting 1	ACG 2021	3
Principles of Accounting 2	ACG 2071	3
Microeconomic Principles	ECO 2023	3
Information Systems Fundamentals	ISM 2000	3
Introductory Statistics	STA 2023	3

Students interested in majoring in Health Administration who have not yet completed the four courses (again, ECO 2023 may be taken later) with a "C" or better will be placed in the Pre-Business major until the courses are successfully completed or waived. While in Pre-Business status, students may take these three Health Administration courses:

Health Delivery Systems	HSA 3111	3
Introduction to Health Professions	HSA 3104	3
Health Care Medical Terminology	HSA 3534	3

This preprofessional requirement also applies to students who are classified Pre-Business and are seeking a minor in Health Administration. Students from other colleges seeking a minor in Health Administration are not required to complete the four (again, excepting ECO 2023) preprofessional courses before taking the Health Administration courses leading to a minor.

### Residency Requirements

1. After a student matriculates at FAU, the College of Business will not accept upper-level business

- transfer coursework taken after admission, except from AACSB-accredited institutions.
2. After being admitted to the College and declaring a major (not Pre-Business), transient coursework is not permitted.
  3. A minimum of 30 upper-level business credits (including GEB 3213) are required from FAU to obtain a College of Business bachelor's degree. The last 30 credits must be from FAU.
  4. At least 75 percent of a student's coursework in the major must be completed at FAU.

## Degree Requirements

Students enrolled in Health Administration must complete 33 credits in the program (24 credits of Health Administration major courses, including RI: Health Practicum (HSA 4817), and 9 credits of Health Administration electives); 15 credits in additional business courses at the upper division (3000-level or above); and 12 credits of additional electives out-of-College. A minimum of 18 credits in Health Administration major courses must be earned at FAU.

Students must complete the RI: Health Practicum (HSA 4817) to graduate. The Practicum is a combination internship/classroom course. Registration in the Practicum requires an FAU GPA of 2.5 and successful completion (earning a "C" or better) of the six other Health Administration core courses and three other required courses in business and writing skills (see below).

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### Health Administration Courses – 33 credits

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#### *Health Administration Major Courses – 24 credits*

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Health Delivery Systems	HSA 3111	3
Organizational Behavior in Health Care	HSA 4110	3
Strategic Management in Health Organizations	HSA 4140	3
Health Law	HSA 4423	3
Introduction to Health Research and Managerial Epidemiology	HSA 4700	3
Health Care Financial Management (see item 2 below)	HSA 4170	3 or
Principles of Financial Management	FIN 3403	3

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RI: Health Practicum	HSA 4817	6
<b><i>Health Administration Elective Courses – 9 credits</i></b>		
Introduction to Health Professions	HSA 3104	3
Technology in Health Care Organizations	HSA 3191	3
Health Care Medical Terminology	HSA 3534	3
Managed Care	HSA 4109	3
Issues and Trends in Health Care	HSA 4113	3
International Healthcare Systems	HSA 4124	3
Long-Term Care Administration	HSA 4222	3
Management of Long-Term Care Facilities	HSA 4223	3
Health Care Quality Management	HSA 4383	3
Practice Management	HSA 4511	3
Directed Independent Study	HSA 4905	1-3
Special Topics	HSA 4930	1-3

### **Choice of Financial Management Course**

The option to take FIN 3403 rather than HSA 4170 is available only to students seeking a Business Administration minor. Students choosing this option must still complete 33 credits in Health Administration courses. They will do this by taking an additional Health Administration elective for a total of 12 elective credits rather than the standard 9 credits.

### **RI: Health Practicum, HSA 4817**

Successful completion of RI: Health Practicum is necessary for graduation. Students taking the Practicum must:

1. Have successfully completed, i.e., earned a "C" or better, the six core courses;
2. Have a GPA of 2.5 or better in all courses taken at FAU;
3. Have completed at least 33 upper-division (3000-level or above) credits;
4. Be a Health Administration program major; and

5. Not be on academic probation.

### **College of Business Courses – 15 credits**

ISM 3011, Management Information Systems; ECP 4530, Health Care Economics and Policy; GEB 3213, Introduction to Business Communication; and 6 additional upper-division credits of College of Business courses are required. Students must earn a grade of "C" or better in the three specified business courses: ISM 3011, ECP 4530 and GEB 3213. Students are encouraged to take courses in several Business departments.

### **Out-of-College Courses – 12 credits**

Courses in social sciences, communication, education, science, nursing or public administration are recommended. College of Business courses may not be used.

**Gordon Rule Math and Writing Requirements** are mandated by the State of Florida. The Writing Requirement states that students must complete four courses with significant writing content with grades of "C" or higher. The Math requirement states that students must earn 6 credits in mathematics (including statistics) at or above the level of college algebra with grades of "C" or higher.

**Foreign Language Entry Requirement** must be fulfilled by: two years of successful completion of high school foreign language, two successful semesters of a college-level foreign language, the successful completion of the CLEP exam for two semesters of the same foreign language or demonstrated proficiency in a foreign language through the Languages, Linguistics, and Comparative Literature Department.

Complete a **minimum of 120 credits** (excluding remedial and technical coursework).

An FAU **minimum GPA** of 2.5.

The University's General Education Program.

## **HEALTH ADMINISTRATION**

### **BACHELOR OF HEALTH SERVICES (B.H.S.) TO MASTER OF HEALTH ADMINISTRATION (M.H.A.) COMBINED PROGRAM**

The Management Programs Department offers a combined Bachelor of Health Services (B.H.S.) to Master of Health Administration (M.H.A.) program. Students in this combined program may count up to 9 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's degree and master's degree as long as the combined program totals a minimum of 150 credits and:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

With the approximate duration of five years, this combined program provides an attractive way for students to continue their graduate work. Students complete and graduate from their bachelor's degree program first, and then continue coursework to finish their master's degree program.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Admission Requirements**

The GRE/GMAT requirement is waived for this program. To be eligible for the combined program, the bachelor's students in the B.H.S. program should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the bachelor's degree in Health Administration.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the M.H.A. portion of their program.

Once admitted to the program, students begin taking graduate courses (5000/6000 level courses) in their senior year that would apply to both the bachelor's and master's degree programs. Students in the combined program must maintain continuous enrollment, in full-time status, during their bachelor's degree to remain in the combined program. Once students are admitted to the M.H.A. program, they must maintain continuous enrollment to remain in good standing. Students must also meet all of the degree requirements of the graduate program.

### **Degree Requirements**

To be eligible for the combined B.H.S. in Health Administration to M.H.A in Health Administration

Degree Program, students must fulfill the following requirements:

1. Completion of the requirements for the B.H.S. in Health Administration.
2. Completion of the requirements for the M.H.A in Health Administration.

### Credits Counted Toward Bachelor's and Master's Degrees

The following undergraduate course requirements may be replaced with the graduate level courses shown (up to a total of 9 credits). These graduate credits count toward both the bachelor's degree and the master's degree.

Undergraduate Course Requirements	Graduate Course Substitution				
Upper Division Health Administration Elective (6 credits)	<i>Choose among the following courses:</i>				
	Entrepreneurial Skills for Managers	ENT 6226	3		
	Special Topics (such as Global Health, Managed Care, Medical Practice Management, Disaster Management in Health Care, Introduction to Public Health)	HSA 6930	3		
	Current Topics in Health Care Management	HSA 6937	3		
	Human Resource Management	MAN 6156	3		
	Data Analysis form Managers	QMB 6603	3		
Health Law	HSA 4423	3	Health Law	HSA 6425	3

[Link to Master of Health Administration \(M.H.A.\)](#)

## HEALTHCARE INFORMATION SYSTEMS UNDERGRADUATE MINOR

*(Minimum of 12 credits required)*

The Healthcare Information Systems minor, available to all undergraduate degree-seeking students, enhances the qualifications of students pursuing careers in fields related to healthcare. Professions and majors benefiting from the minor include healthcare administration, nursing, medicine, biomedical sciences, actuaries, insurance, information technology and management information systems, among others. This minor is offered in conjunction with the Department of Information Technology and Operations Management (ITOM) in the College of Business. [Minor requirements](#) are listed in ITOM's catalog section above.

## **HEALTH ADMINISTRATION** UNDERGRADUATE MINOR FOR BUSINESS MAJORS

*(Minimum of 9 credits required)*

Students seeking a major in the College of Business other than Health Administration may concurrently earn a minor in Health Administration while pursuing a bachelor's degree. To earn the minor, students must complete 9 credits with a grade of "C" or better from the following courses.

### **Required Courses**

Health Delivery Systems	HSA 3111	3
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### ***Select two of the following***

Technology in Health Care Organizations	HSA 3191	3
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Health Care Medical Terminology	HSA 3534	3
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Managed Care	HSA 4109	3
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Organizational Behavior in Health Care	HSA 4110	3
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Issues and Trends in Health Care	HSA 4113	3
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International Healthcare Systems	HSA 4124	3
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Strategic Management in Health Organizations	HSA 4140	3
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Health Care Financial Management	HSA 4170	3
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Long-Term Care Administration	HSA 4222	3
Health Law	HSA 4423	3
Health Care Quality Management	HSA 4383	3
Practice Management	HSA 4511	3

At least two of the three courses (6 credits) must be completed at FAU. Successful completion of the minor requires the successful completion of the College of Business baccalaureate degree. A maximum of 3 credits used for the minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor.

## **HEALTH ADMINISTRATION**

### **UNDERGRADUATE MINOR FOR NON-BUSINESS MAJORS**

*(Minimum of 15 credits required)*

Students seeking a major in a college other than the College of Business may concurrently earn a minor in Health Administration while pursuing a bachelor's degree. To earn the minor, students must complete 15 credits with a grade of "C" or better from the following courses.

#### **Required Courses**

Health Delivery Systems	HSA 3111	3
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#### ***Select four of the following***

Introduction to Health Professions	HSA 3104	3
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Technology in Health Care Organizations	HSA 3191	3
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Health Care Medical Terminology	HSA 3534	3
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Managed Care	HSA 4109	3
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Organizational Behavior in Health Care	HSA 4110	3
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Issues and Trends in Health Care	HSA 4113	3
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International Healthcare Systems	HSA 4124	3
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Strategic Management in Health Organizations	HSA 4140	3
Health Care Financial Management	HSA 4170	3
Long-Term Care Administration	HSA 4222	3
Health Law	HSA 4423	3
Introduction to Health Research and Managerial Epidemiology	HSA 4700	3
Health Care Quality Management	HSA 4383	3
Practice Management	HSA 4511	3

At least four of the five courses (12 credits) must be completed at FAU. Successful completion of the minor requires the successful completion of the student's College baccalaureate major.

## **GERONTOLOGY**

### **UNDERGRADUATE CERTIFICATE**

*(Minimum of 15 credits required)*

The certificate in Gerontology provides an interdisciplinary educational opportunity for undergraduate students working with older adults and for those interested in the process of aging. Student must complete 15 credits from the courses below. All courses must be completed with a minimum grade of "C" or better.

#### **Core Courses (9 credits)**

Health Delivery Systems	HSA 3111	3
Long-Term Care Administration	HSA 4222	3
Management of Long-Term Care Facilities	HSA 4223	3

#### **Electives (6 credits; select one course from each group)**

##### ***Group A - Exercise Science/Health Promotion and Psychology***

Human Memory	EXP 4525	3
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Perspectives in Health	HSC 3102	3
Nutrition in Health and Exercise	PET 3361	3
<b><i>Group B - Social Sciences</i></b>		
Sociology of Aging and Dying	SYP 3740	3
Social Work with Aging Populations	SOW 4643	3

## **HEALTHCARE INFORMATION SYSTEMS UNDERGRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The certificate in Healthcare Information Systems enhance the qualifications of students pursuing careers in fields related to healthcare. Professions and majors benefiting from these programs include healthcare administration, nursing, medicine, biomedical sciences, actuaries, insurance, information technology and management information systems, among others. This 12-credit certificate is offered in conjunction with the Department of Information Technology and Operations Management (ITOM) in the College of Business. [Certificate requirements](#) are listed under ITOM's catalog section above.

[Link to Master of Health Administration \(M.H.A.\)](#)

## **PROGRAMS IN INTERNATIONAL BUSINESS**

[Link to Honors Program in International Business](#)

[Link to Combined Program in International Business](#)

[Link to International Business Minor](#)

[Link to International Business Certificate](#)

[Link to Master's Program](#)

## **INTERNATIONAL BUSINESS**

**BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)**

**BACHELOR OF SCIENCE (B.S.)**

The major in International Business attracts high-quality students and prepares them to contribute effectively to their organizations and community in a global business environment. This program's goals are accomplished through an active partnership with the business community while the program continuously enhances the quality and impact of international business education.

In addition to the University and College of Business degree requirements listed in the [Degree Requirements](#) section of this catalog, International Business students must complete the requirements below.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Pre-Business Foundation Coursework**

These are previously listed under the heading [Degree Requirements \(B.B.A. and B.S.\)](#) and subheading Pre-Business Foundation Coursework in this section.

### **Business Core Requirements**

These are previously listed under the heading [Degree Requirements \(B.B.A. and B.S.\)](#) and subheading College of Business Core in this section.

### **Foreign Language Requirement**

Two semesters of the same college-level foreign language (6-8 credits) or equivalent competency.

### **International Business Major**

A grade of "C" required in all major courses.

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**Core Courses - 15 credits**

International Finance	FIN 4604	3
International Business	MAN 3600	3
Global Human Resource Management	MAN 4610	3
International Operations	MAN 4602	3
International Marketing	MAR 4156	3

**International Cognate Options- 3 credits required; choose one course**

Law of International Trade	BUL 4461	3
International Healthcare Systems	HSA 4124	3
Negotiating in a Globalized World	MAN 3442	3
Global Supply Chain Management	MAN 4597	3
International Business Study Abroad	MAN 4956	1-4
Marketing Study Abroad	MAR 4957	1-4
Enterprise Risk Management and Corporate Governance: Qualitative Analysis	RMI 4423	3
Any 3000/4000-level foreign language course		3
An approved internship with significant international/cross-cultural content		3
Special Topics	MAN 4930	3

Students may select an additional international economics course (ECO 4704, 4713 or ECS 3013) beyond the one required to meet the College Economics Requirement.

**INTERNATIONAL BUSINESS**

## UNDERGRADUATE MINOR

*(Minimum of 12 credits required)*

The minor is designed for non-Management majors. It gives non-Management majors the option to internationalize without fulfilling the requirements for a major. The minor consists of four courses indicated below. A grade of "C" or better is required in all minor courses.

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### Required Courses - 9 credits

International Business	MAN 3600	3
International Business Operations	MAN 4602	3
Global Human Resource Management	MAN 4610	3

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### *Select one of the following, 3 credits*

International Finance	FIN 4604	3
International Healthcare Systems	HSA 4124	3
International Marketing	MAR 4156	3

A maximum of 3 credits used for the International Business minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. At least three of the courses above (9 credits) must be taken in residence at Florida Atlantic University.

Acknowledgment of the minor is official upon successful completion of a Florida Atlantic University degree program.

## INTERNATIONAL BUSINESS UNDERGRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

The certificate in International Business: Theory and Practice meets the needs of working professionals whose jobs have an international dimension and students who envision a career with an international business component. This certificate is an ideal enhancement to an undergraduate Business major; however, it is not available to students obtaining a major in International Business. Participants must

have at least two years of college or university education and must satisfy the certificate's requirements below.

To sign up for the certificate or for more information, call the Office of Student Academic Services at 561-297-3688.

## Required Courses

### **1. *International Business***

MAN 3600 3

### **2. *Two courses at FAU from the list below***

Law of International Trade BUL 4461 3

International Trade ECO 4704 3

International Monetary Economics ECO 4713 3

International Economic Development ECS 3013 3

International Finance FIN 4604 3

International Healthcare Systems HSA 4124 3

Negotiating in a Globalized World MAN 3442 3

Global Human Resource Management MAN 4610 3

Global Supply Chain Management MAN 4597 3

International Marketing MAR 4156 3

Personal Selling MAR 4400 3

### **3. *Practical Component – One of the following Executive Education courses is required; all four options are off campus***

Directed Independent Study with significant international/cross-cultural content MAN 4690 1-4

International Business Study Abroad MAN 4956 1-4

An approved internship with significant international/cross-cultural content

## **HONORS PROGRAM IN INTERNATIONAL BUSINESS**

The Honors in International Business provides FAU undergraduate students the opportunity to achieve academic excellence beyond the level of standard coursework by completing honors-level enrichment within and outside of coursework in International Business. Students interested in pursuing the Honors designation in International Business are required to meet the eligibility and admission requirements noted below. Each student's Honors program of study includes 9 credits in Honors coursework in upper-level International Business courses, in addition to other enrichment requirements.

Undergraduate students who successfully fulfill all requirements below and have a final cumulative GPA of 3.25 or greater at the time of degree conferral receive a designation of Honors in the Major on their transcript. The transcript designation is Honors in International Business.

### **Eligibility Requirements**

Eligible students have:

1. Been accepted into the College of Business at FAU as a declared major in International Business;
2. A cumulative/overall GPA of at least 3.25;
3. Submitted a formal application after completion of 30 credits no later than three weeks prior to the beginning of the semester for which students seek to enroll in the Honors Program in International Business. Most students will apply for the program after completing their sophomore year.

### **Admissions Requirements**

1. Application form;
2. Unofficial transcript;
3. Résumé;
4. Personal statement;
5. A letter of support by a member of the International Business department faculty;
6. A brief interview, the result of which will be added by an interviewer after packet. The director or a designated faculty member will conduct interviews.

### **Standards for Maintaining Active Status**

1. Maintain good academic and ethical standing;
2. Maintain cumulative GPA of at least 2.5 overall;
3. Maintain cumulative GPA of 5 in all three Honors-in-the-Major courses;

#### 4. Participate in all enrichment

If any of the above standards for maintaining eligibility in the program are not met, students will be advised accordingly on how to undertake remedial actions.

Students will not be allowed to continue in the Honors in International Business for Violation of the Code of Academic Integrity or any grade of less than a B in an Honors-course.

### **Honors in International Business Enrichment Requirements**

Honors-level enrichment includes all designated ways in which a student in the International Business Honors program will experience an improved and enhanced quality education in the major of International Business at FAU.

If the enrichment requirements detailed below are not met, the student will not receive the Honors designation. However, work toward their degree and grades received for each course completed will be unaffected.

#### ***Requirement #1: General Enrichment***

In general, Honors students are required to:

1. Participate in a form of extensive mentoring in practical research by department faculty or approved departmental affiliated faculty, culminating in the completion of the Capstone Project as detailed
2. In addition to course instructors, Honors students will meet regularly with a designated faculty mentor from the International Business Program.
3. Join the undergraduate club for the International Business Program, currently named the Student Global Business Honors students are expected to participate in activities and, where possible, serve as officers.
4. Participate, after being invited, in all of the International Business Program's faculty seminars and
5. Complete within two years all requirements for the Honors program, after which they will meet with the director to discuss their situation and options.

**Note:** Prior to application, students who have already completed four or more of the approved Honors-level courses available in the program are not eligible for the Please see the next section for a list of approved courses.

#### ***Requirement #2: Coursework***

The Honors in International Business program requires the completion of three courses upon which additional enrichment requirements have been agreed. These requirements are determined between the student and the instructor of the course according to an Honors Compact.

### **Course Selection and Honors Compact Procedure**

1. Students must register for an approved course that may be designated as Honors level. Courses that may be designated as Honors-level include:
  - FIN 4604 International Finance
  - MAN3442 International Business Negotiations
  - MAN 3600 International Business
  - MAN 4602 International Business Operations
  - MAN 4610 Global Human Resource Management
  - MAR 4156 International Marketing
2. Students may approach the course instructor and request that the course be designated as Honors- This decision is entirely the instructor's. The instructor is not required to work with the student. However, a system will be developed so that all faculty will share the responsibility of supporting the Honors Program coursework requirements.
3. The student will present the Honors Compact to the Instructor with their portion of the form A form for the Honor's Compact will be provided by the International Business program.
4. The instructor determines the nature of the Honors-level enrichment of the
5. After the student and the instructor sign the Honors Compact, it will be sent to the Honors in International Business program faculty advisor, as well as to the University Honors Director, for final Honors Compacts must have final approval completed no later than three weeks after the beginning of a semester.

Students take Honors course #1 in their first semester of their first year of the Honors program, followed by Honors course #2 and #3 in subsequent semesters. Ideally, Honors courses should be completed no later than the end of the fall of their senior year at FAU.

### ***Requirement #3: Honors Capstone Project***

In addition to coursework and general enrichment, students in the Honors in International Business Program also need to complete a Capstone Project. A student's Capstone Project consists of two parts: An experiential component, followed by the creation of a portfolio exploring the connections between work completed in their Honor's Compacts and the experiential component. The final portfolio acts as their Honors Capstone Project.

## Part 1: Experiential Component

Completion of the equivalent of one semester of one of the following experiences after entering the International Business Honors program:

1. Study abroad as a full-time enrolled student at an International Business Program and/or FAU approved foreign university or college.
2. MAN 4956 International Business Study Abroad course enrollment, or approved equivalent, required for at least one semester.

An international internship with an organization that is doing, or dealing with, for-profit business, all while living in a foreign country. The International Business Program must grant approval of the internship before it begins.

1. MAN 4940 Management Internship course enrollment required for at least one semester.

Domestic internship with international requirements for at least 50 percent of required on-the-job duties. The International Business Program must grant approval of the internship before it begins. Again, the organization must be doing, or dealing with, for-profit business.

1. MAN 4940 Management Internship course enrollment required for at least one semester.

## Part 2: Honors Capstone Portfolio Project

Honors students create a portfolio consisting of the following:

1. Completed work from all three Honors Courses
2. A major analysis of the experiential component using prior Honors Compact
  - a. Analysis consists of applying Course Compact work to real-world situations experienced by the student during an internship or study abroad.
  - b. The goal of the portfolio project is for students to see connections among their honors experiences and to document for others their honors-level achievements.

The Capstone Portfolio Project is evaluated utilizing a set of criteria designed according to the type of experiential component chosen by the Honors student. In addition, the portfolio represents at least 25 percent of the student's grade in the associated internship/study abroad courses. Honors students are required to score at least a 75 percent on their final Capstone Portfolio Project to complete the requirement.

## INTERNATIONAL BUSINESS

## BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S) COMBINED PROGRAM

The International Business department offers a combined Bachelor of Business Administration in International Business or Bachelor of Science in International Business to Master of Science in International Business program. Students in this combined program may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's degree and master's degree.

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

With the approximate duration of five years, this combined program provides attractive ways for students to continue their graduate work. Students will complete and graduate from their bachelor degree first, and then continue coursework to finish their master degree program.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transfer Student Manual](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Admission Requirements**

The GRE/GMAT requirement is waived for this program. To be eligible for the combined program, the bachelor student in International Business should:

1. Have a cumulative and FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU and GPA of at least 3.25 must be maintained until the completion of the bachelor's degree in International Business.
2. Formally apply to the combined program, completing the admissions process at least one

semester prior to the beginning of the master's degree portion of their program.

Once admitted to the program, students begin taking graduate courses (5000/6000 level courses) in their senior year that would apply to both the bachelor's and master's degree programs. Students in the combined program must maintain continuous enrollment, in full-time status, during their bachelor's degree to remain in the combined program. Once students are admitted to the master's degree program, they must maintain continuous enrollment to remain in good standing. Students must also meet all of the degree requirements of the graduate program.

### **Degree Requirements**

To be eligible for the combined B.B.A. or B.S. in International Business to M.S. in International Business Degree Program, students must fulfill the following requirements:

1. Completion of the requirements for the B.B.A. or B.S. in International Business, and other requirements stipulated by the University or College; and
2. Completion of all requirements for the M.S. in International Business.

### **Credits Counted Toward Bachelor's and Master's Degrees**

The following undergraduate course requirements may be replaced with the shown graduate-level courses (a total of 12 credits). These graduate credits will count toward both the bachelor's degree and master's degree.

<b>Undergraduate Course Requirements</b>	<b>Graduate Course Requirements</b>
Upper Division International Cognate Elective - 3 credits	Choose one of the following courses:  Supply Chain Management, MAN 6596 International Business Operations, MAN 6614
Upper Division Business Elective - 3 credits	Choose one of the following courses:  International Field Study Tour, GEB 6957

Cross Cultural  
Management, MAN 6609  
Global Leadership  
Assessment and  
Development, MAN 6899  
Multinational Finance, FIN  
6605

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International Finance - FIN 4604 - 3 credits

Financial Markets, FIN  
6246

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International Marketing - MAR 4156 - 3 credits

Advanced Marketing  
Management, MAR 6815

## PROGRAMS IN MANAGEMENT

[Link to Master's Programs](#)

[Link to Doctoral Program](#)

[Link to Entrepreneurship Minor](#)

[Link to Entrepreneurial Management Minor](#)

[Link to Leadership and Human Resource Development Minor](#)

[Link to Crisis and Disaster Management Certificate](#)

[Link to Innovation Entrepreneurship Certificate](#)

## **MANAGEMENT**

**BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)**

**BACHELOR OF SCIENCE (B.S.)**

**Entrepreneurship Concentration**

## Leadership and Applied Management Skills Concentration

The major in Management attracts high-quality students and prepares them to contribute effectively to organizations in the areas of general management skills and entrepreneurship. The department achieves this through an active partnership with the business community using traditional and alternate delivery systems to create managers and entrepreneurs with necessary skills to advance in a complex and changing world. The major in Management has two possible concentrations, one in Leadership and Applied Management Skills and the other in Entrepreneurship. To obtain a Management major, students must complete one of the concentrations. Since there is significant overlap in the coursework and the major granted is the same (Management), double majors are not permitted.

The department also offers an undergraduate [online Management program](#) (Leadership and Applied Management Skills concentration only); undergraduate minors in [Entrepreneurship](#), [Entrepreneurial Management](#), and [Leadership and Human Resource Development](#); and graduate certificates in [Crisis and Disaster Management](#) and [Innovation Entrepreneurship](#).

In addition to the University and College of Business degree requirements listed in the [Degree Requirements](#) section of this catalog, Management majors must complete the requirements below.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### Pre-Business Foundation Coursework

These are previously listed under the heading [Degree Requirements \(B.B.A. and B.S.\)](#) and subheading Pre-Business Foundation Coursework in this section.

### Business Core Requirements

These are previously listed under the heading [Degree Requirements \(B.B.A. and B.S.\)](#) and subheading College of Business Core in this College of Business section.

## Management Major

A grade of "C" or better is required in all major courses.

### Core Courses (6 credits)

International Business	MAN 3600	3
Strategic Human Resource Management	MAN 4301	3

### Management Major Concentrations

(Choose one of the concentrations below; 15 credits)

#### *1. Leadership and Change Management Skills Concentration - 9 credits required*

Leading People and Projects	MAN 4046	3
Negotiating in a Globalized World	MAN 3442	3
Leading Change and Development	MAN 4350	3

#### **Electives - choose 6 credits from the following list**

Operations Management Applications	MAN 4504	3
Managing Workplace Diversity	MAN 3113	3
Entrepreneurship	ENT 4024	3
International Business Operations	MAN 4602	3
Management Internship	MAN 4940	1-4
Employment Law	BUL 4540	3
Human Resource Recruitment and Selection	MAN 4320	3
Special Topics	MAN 4930	1-4

#### *2. Entrepreneurship and Innovation Concentration - 9 credits required*

Entrepreneurship	ENT 4024	3
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Entrepreneurial Finance	ENT 4412	3
Entrepreneurship Consulting Project	ENT 4934	3
<b>Electives - choose 6 credits from the following list</b>		
Launching Your Business	ENT 4015	3
Entrepreneurship Internship	ENT 4940	1-4
Intellectual Property Law	BUL 4514	3
Economics of Entrepreneurship	ECP 4407	3
Directed Independent Study	ENT 4905	3
Negotiating in a Globalized World	MAN 3442	3
Leading People and Projects	MAN 4046	3
Special Topics	ENT 4935	1-4

## **ENTREPRENEURSHIP**

### **UNDERGRADUATE MINOR**

*(Minimum of 9 credits required)*

The Entrepreneurship minor is designed for non-Management Business majors. Completion of the Business Core courses is required for this minor in addition to the three courses indicated below, all of which must be completed with a grade of "C" or better.

#### **Required Courses (in addition to the Business Core)**

Entrepreneurship	ENT 4024	3
Entrepreneurial Finance	ENT 4412	3
Intellectual Property Law	BUL 4514	3

A maximum of 3 credits used for the Entrepreneurship minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. At least two of the

courses above (6 credits) must be taken in residence at FAU. The acknowledgement of the minor is official upon successful completion of a College of Business degree program.

## **ENTREPRENEURIAL MANAGEMENT** UNDERGRADUATE MINOR

*(Minimum of 12 credits required)*

The Entrepreneurial Management minor is designed for non-Business majors interested in organizing, owning, managing and assuming the risks of a business or assisting organizations in developing new business opportunities. Four courses are required as indicated below, all of which must be completed with a grade of "C" or better.

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### **Required Courses (12 credits)**

Entrepreneurship	ENT 4024	3
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Entrepreneurial Finance	ENT 4412	3
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Entrepreneurship Consulting Project	ENT 4934	3
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### ***Select one of the courses below:***

Launching Your Business	ENT 4015	3
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Entrepreneurship Internship	ENT 4940	1-4
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At least three of the courses above (9 credits) must be taken in residence at FAU. The acknowledgement of the minor is official upon successful completion of a Florida Atlantic University degree program.

## **LEADERSHIP AND HUMAN RESOURCE DEVELOPMENT** UNDERGRADUATE MINOR

*(Minimum of 12 credits required)*

Effective leadership, change management and human resource planning and development are critical in today's competitive business environment. The minor in Leadership and Human Resource

Development is designed to enhance students' personal leadership potential, capacity to implement organization change and ability to organize and develop employees. Students examine contemporary leadership models, strategies for approaching organizational transformation and employee intervention processes.

The minor is available to Business or non-Business majors interested in leadership and human resource development in organizations. Students must complete the four courses below (12 credits) with a grade of "C" or better.

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### **Required Courses - 9 credits**

Introduction to Management and Organizational Behavior	MAN 3025	3
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Leading People and Projects	MAN 4046	3
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Strategic Human Resource Management	MAN 4301	3
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### ***Choose one course from the following:***

Human Resource Recruitment and Selection	MAN 4320	3
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Leading Change and Development	MAN 4350	3
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<b>Total</b>		<b>12</b>
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A maximum of 3 credits used for the Leadership and Human Resource Development minor may count toward other Business major requirements. At least three of the courses above (9 credits) must be taken in residence at FAU. The acknowledgement of the minor is official upon successful completion of an FAU degree program.

## MASTER'S PROGRAMS

### PROGRAMS IN HEALTH ADMINISTRATION

[Link to Programs in International Business](#)

[Link to Programs in Business Administration](#)

## **HEALTH ADMINISTRATION**

### MASTER OF HEALTH ADMINISTRATION (M.H.A.)

[Link to Executive M.H.A.](#)

[Link to Health Administration Certificates](#)

The Master of Health Administration (M.H.A.) is a 30-37 credit program that builds skills reflecting the latest in management and health care theory and practice. The M.H.A. program develops leaders who possess the values, knowledge and skills to achieve optimal delivery of healthcare. The program is designed for:

1. Recent graduates of health administration programs or business programs who want to further prepare for a non-clinical career in a health care or related field.
2. Graduates of clinical programs—medicine, physical therapy, nursing, etc.—who want to pursue a management career or who want to develop management skills.
3. Clinical practitioners and aspiring administrators seeking to make a career change or wanting to move into an administrative position.
4. People working in non-health fields who want to make a career change.

M.H.A. students gain a mastery of knowledge in healthcare administration varying from hospitals to nursing homes, outpatient clinics and assisted living facilities. Students gain understanding of patient demographics, health law, health insurance, systems organization, research, finance, health care technology and leading topics in today's healthcare industry. For more information, visit [www.business.fau.edu/masters-phd/mha/index.aspx](http://www.business.fau.edu/masters-phd/mha/index.aspx).

#### **Admission Requirements**

Applicants must meet the following qualifications:

1. A bachelor's degree from an accredited institution or its equivalent; and
2. A cumulative grade point average of 3.0 on a 4.0 scale in the last 60 (or equivalent) credits of college coursework leading toward a bachelor's degree. Post-baccalaureate coursework from an AACSB-accredited business school not included in an advanced degree may be included in the calculation; and
3. Submit official, competitive scores on a GMAT or GRE taken within five years: GMAT scores of 500 and 4.0 (writing), or GRE scores of at least 153 (verbal), 144 (quantitative) and 4 (analytical writing).\* When evaluating GMAT/GRE scores, the admissions committee looks for a balance

between verbal, quantitative and analytical writing strengths. All three components of the GMAT are required.

\* The GMAT or GRE requirement is waived for licensed physicians (MDs, osteopathic physicians, dentists, chiropractic and pediatric physicians and others) who have completed a nationally recognized qualifying examination for admission to post-graduate training.

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## Program Components

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### Foundation Requirements

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Financial Accounting Concepts	ACG 6027	3
Marketing Functions and Processes	MAR 6055	3

The courses above are waived for students who have already taken them or similar courses as part of their undergraduate program, subject to program approval.

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### Core Courses

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Communication Strategies for Business Professionals and Core-Course Follow-Up	GEB 6215	3
Introduction to Health Care Systems	HSA 6103	3
Planning and Marketing in Healthcare	HSA 6108	3
Organizational Behavior in Healthcare	HSA 6118	3
Health Policy	HSA 6152	3
Healthcare Finance	HSA 6175	3
Health Law	HSA 6425	3
Research Methods for Healthcare Management	HSA 6707	3

<b>Total</b>		<b>24</b>
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### Recommended Electives

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Students are encouraged to select two additional courses (6 credits) from the list below. Students may petition the program director if they want to satisfy their elective requirements with courses other than these.

***Health Administration***

Current Topics in Health Care Management	HSA 6937	3
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***Business***

Entrepreneurial Skills for Managers	ENT 6226	3
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Human Resources Management	MAN 6156	3
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Venture Creation	ENT 6016	3
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Data Analysis for Managers	QMB 6603	3
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***Nursing***

Influencing Health Care Policy through Nursing: Advanced Nursing Situations	NGR 6892	3
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***Public Administration***

Introduction to Public Administration	PAD 6053	3
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Public Policy and Nonprofit Organizations	PAD 6143	3
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Fundraising for Nonprofits	PAD 6206	3
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Grantwriting and Project Management	PAD 6233	3
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***Social Work***

Advanced Context of Social Work Practice within Healthcare	SOW 6605	3
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**Internship**

Students who do not have sufficient prior work experience in healthcare, as defined below, are required to take GEB 6901 for 1 credit, in which they will perform an internship activity for about 15 hours per week during the semester. The internship will be approved by the instructor prior to registration and will meet the goal and one or more of the objectives stated below. The internship must be shown to accomplish at least one of objectives 1 through 3 below before it will be approved.

***Internship Goal:*** To provide M.H.A. students with a practical learning experience within the

management structure of a healthcare organization.

**Internship Objectives:** For M.H.A. students to:

1. Experience the interaction of patients, providers and payments;
2. Learn the nature of the interactions between sectors in the healthcare industry;
3. Function in the work environment of the healthcare sector of their career interest;
4. Make contacts that can help the student locate a job when they finish their degree.

The internship requirement may be waived if the student has acceptable prior job experience, which includes two years of supervisory or managerial experience in an organization that diagnoses, produces products for, treats or cares for frail, sick or injured people, or makes grants to or pays for care in such organizations. "Supervisory or managerial experience" means that the person had at least two employees reporting to her/him and the person had budgetary responsibility for a functional area.

### **Graduate Business Communication Program**

Students must register for GEB 6215 their first term in the main program. Students enrolling in only foundation-level courses are not required to register for GEB 6215 at that point, but they must register for it during the next semester in which they register for M.H.A. core or elective credits.

### **Disallowed Course Combinations**

M.H.A. students may not take both HSA 6707 and SOW 6404 for credit toward the M.H.A. degree. However, SOW 6404 may be substituted for HSA 6707 in extraordinarily extenuating circumstances with approval of the program director and lead course instructor.

## **HEALTH ADMINISTRATION**

### **MASTER OF HEALTH ADMINISTRATION (M.H.A.)**

#### **EXECUTIVE PROGRAM**

### **Crisis and Disaster Management Concentration**

This 15-month executive program is specially designed to allow participants to continue their professional responsibilities or for those students who prefer the convenience of a full service, structured cohort program. The program requires 30 credits with courses offered every third weekend, Saturday and Sunday, 8 a.m. to 6:15 p.m., and it is fully accredited by the Association to Advance Collegiate Schools of Business (AACSB) and the Southern Association of Colleges and Schools (SACS). FAU offers the program in two formats: on-campus every third weekend and 100 percent online.

## **Online Master of Health Administration**

FAU's Executive Master of Health Administration Online Program (OMHA) is 100 percent asynchronous, allowing students to access courses at any time and from any location, with an internet connection. The instruction and content replicates the classroom experience, where students have recorded online lectures, presentations, discussion and chats.

### **Admission Requirements**

The EMHA/ OMHA curriculum is a cross section of business disciplines. From Health Law and Organization Behavior in Healthcare to Healthcare Finance and Research Methods, the EMHA/OMHA courses are packed with the latest health administration-specific content. Additionally, students earn the Lean Six-Sigma Green Belt certification.

To qualify for unconditional or full acceptance to the Executive Master of Health Administration or Online Master of Health Administration, applicants are required to have:

1. At least four years of professional work experience;
2. An undergraduate degree in any discipline from a regionally accredited institution with at least a cumulative grade point average of 3.0 on a 4.0 scale in the last 60 (or equivalent) credits of college coursework leading toward a bachelor's degree. Post-baccalaureate coursework from an AACSB-accredited business school not included in an advanced degree may be included in the calculation.
3. An official GMAT score of at least 500 or GRE scores of at least 153 (verbal), 144 (quantitative) and 4 (analytical writing) are required. The GMAT/GRE exam score may be waived for the program. GMAT/GRE waiver eligibility is based on evaluation of credentials listed under Admission Requirements.

Conditional admission may be available under extraordinary circumstances to applicants who have received a bachelor's degree from a regionally accredited institution, but who fall short of the GPA and/or the GMAT requirement or who show high promise. In these cases. The Executive Master of Health Administration or Online Master of Health Administration admissions committee will review all evidence of high promise, including but not limited to: grade trends, mature work experience, work accomplishment and promotion, type and rigor of undergraduate degree program, references and letters of recommendation and evidence of having attained some "A" grades in rigorous courses.

After the first year in the Executive Master of Health Administration or Online Master of Health Administration program, the admissions committee will review each student receiving conditional admission and will recommend either full admission to or dismissal from the program.

## Executive Master of Health Administration Format

Florida Atlantic University's Executive Master of Health Administration (EMHA) Program is an intensive 15-month program offering exceptional quality.

The Executive M.H.A. curriculum allows participants to continue their professional responsibilities while earning an AACSB accredited M.H.A. degree as full-time graduate students. Each class begins and progresses through the program as a group, sharing the same sequence of classes and educational experiences.

This program consists of 30 credits. Classes are held every third weekend (Saturday and Sunday) from 8 a.m. to 6:15 p.m., with breakfast and lunch served each weekend.

The Executive Master of Health Administration Program is offered at the FAU campus in Boca Raton. On-site Executive Master of Health Administration are available to local sponsoring organizations.

## Online Master of Health Administration Format

The online M.H.A. is 100 percent online and contains the same curriculum and is taught by the same professors as in the campus-based programs.

## Executive Master of Health Administration Curriculum

Class 1	Introduction to Health Care Systems	HSA 6103	3
Class 2	Communication Strategies for Business Professionals	GEB 6217	3
Class 3	Global Issues in Health Care Delivery	HSA 6125	3
Class 4	Healthcare Finance	HSA 6175	3
Class 5	Organizational Behavior in Healthcare	HSA 6118	3
Class 6	Research Methods for Healthcare Management	HSA 6707	3
Class 7	Planning and Marketing in Healthcare	HSA 6108	3
Class 8	Health Policy	HSA 6152	3
Class 9	Health Law	HSA 6425	3
Class 10	Current Topics in Healthcare Management	HSA 6937	3

Content, coursework and fees may vary as determined by the administration. Florida Atlantic University reserves the right to change curriculum, sequence, program fees and other program requirements as necessary.

### **Academic Standing, Policies, Graduation**

The Executive Master of Health Administration program and Online Master of Health Administration programs follow the same policies regarding academic standing and graduation used in the College of Business and the same grading standards of the University. Student continuation in the Executive Master of Health Administration program or Online Master of Health Administration program requires satisfactory progress toward the graduate degree. Evidence of such progress includes maintenance of a cumulative 3.0 grade point average (GPA). Graduation will be prohibited if the final cumulative GPA is less than 3.0 upon completion of the total program curriculum.

Graduate students with GPAs less than 3.0 will be required to complete an academic progression plan (APP). The APP is a contractual agreement that outlines particular courses and grades to reestablish good academic standing. APPs should generally outline a path (usually not more than two semesters) to reestablish a 3.0 GPA. Students who are placed on an academic progression plan and are not making progress toward their academic goals set forth by the APP may be recommended for dismissal from the program. The College may enact registration holds to prohibit a student's future enrollment until the APP is finalized. Students who do not fulfill the obligations established in the APP are recommended for dismissal to the Dean of the Graduate College.

### **Program Fees Executive M.H.A.**

The Executive Master of Health Administration program is a full-service, all-inclusive program. Executive Master of Health Administration Program fees cover all program costs, including tuition, textbooks, course materials, meals and graduation activities. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>. See the Executive M.H.A. [website](#) for more information.

### **Program Fees Online M.H.A.**

The Online Master of Health Administration program is a full-service, all-inclusive program. Online Master of Health Administration program fees cover all program costs, including tuition and graduation activities. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>. Books are not included for the Online Master of Health Administration. See the [website](#) for more information.

## Application Process and More Information

To apply or to receive more information about the Executive Master of Health Administration program or Online Master of Health Administration program, see [website](#) or call 561-297-6000.

## HEALTH ADMINISTRATION GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

Graduate students may earn a certificate in Health Administration with the successful completion of four courses from the choices below. If a student chooses this option, the courses used to earn the certificate cannot later be counted toward a Master of Health Administration degree.

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### Certificate Requirements

Introduction to Healthcare Systems (required)	HSA 6103	3
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*One of the following*

Planning and Marketing in Healthcare	HSA 6108	3
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Organizational Behavior in Healthcare	HSA 6118	3
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*One of the following*

Health Policy	HSA 6152	3
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Health Law	HSA 6425	3
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*One of the following*

Healthcare Finance	HSA 6175	3
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Research Methods for Healthcare Management	HSA 6707	3
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## HEALTH ADMINISTRATION GRADUATE CERTIFICATE PROFESSIONAL PROGRAM

*(Minimum of 12 credits required)*

The Professional Health Administration certificate is designed for working professionals currently enrolled in self-supporting programs in the College of Business. This is a stand-alone certificate tailored for working professionals and alumni with graduate degrees who are looking for specialized knowledge in Health Administration. The certificate consists of 12 credits chosen from the table above.

## PROGRAMS IN INTERNATIONAL BUSINESS

[Link to International Business Executive Program](#)

### **INTERNATIONAL BUSINESS** **MASTER OF SCIENCE (M.S.)**

The Master of Science (M.S.) with major in International Business is a 33-credit program that provides specialized management education for students who want to pursue or enhance a career in businesses and organizations that are involved in global, cross-national production, services, trade or investment. Prior business coursework is not required for the program. The degree combines a broad-based curriculum in international business, classroom learning, a possible study abroad field experience as well as an applied project designed to develop managerial skills in various aspects of global business.

#### **Admission Requirements**

Applicants will:

1. Have earned a bachelor's degree from a regionally accredited college or university or the international equivalent;
2. Have a strong grade point average on all previous coursework (typically 3.0 minimum GPA), though emphasis will be on the last 60 credits earned;
3. Submit a one- to two-page essay describing both the applicant's background and objectives for undertaking graduate study;
4. Submit an official GMAT score of at least 500 or GRE scores of at least 153 (verbal), 144 (quantitative) and 4 (analytical writing);

Conditional admission may be available under certain circumstances to applicants who have received a bachelor's degree from a regionally accredited institution, but who fall short of the GPA and/or the GMAT requirement or who show high promise. In these cases, the admissions committee will review all evidence of high promise including, but not limited to, grade trends, mature work experience, work accomplishment and promotion, type and rigor of undergraduate degree program, references and letters

of recommendation and evidence of having attained some "A" grades in rigorous courses. After the first term, the admissions committee will review each student receiving conditional admission and will recommend either full admission to or dismissal from the program.

### Admission Requirements for International Students

A graduate of a college or university outside of the United States who has completed an academic program equivalent to an American bachelor's degree may apply for admission to the master's program. International students are required to submit the application forms and an official certified transcript indicating the nature and scope of their academic training. An international applicant whose native language is not English must submit a score of at least 600 (CBT-250) on the Test of English as a Foreign Language (TOEFL). For details, applicants should visit [www.ets.org](http://www.ets.org). The IELTS test may also be considered. Visit [www.ielts.org](http://www.ielts.org).

### Application Procedure and Deadlines

Applicants must follow application procedures outlined in the [Admissions](#) section of this catalog. The GMAT or GRE must be taken, and the required application material must be submitted to the Graduate College by the deadline established by the University each term. Early submission of admission documents facilitates the decision process.

### Curriculum

The coursework conveys the body of knowledge of international business management. Prior coursework in business is not required.

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#### Required Coursework (33 credits)

Advanced International Monetary Economics	ECO 6716	3
Entrepreneurial Consulting Project	ENT 6946	3
Financial Markets	FIN 6246	3
Communication Strategies for Business Professionals	GEB 6217	3
Cross-Cultural Management and Human Resources	MAN 6609	3
Managing Effectively in Emerging Markets	MAN 6728	3
Global Environment of Management	MAN 6937	3
Advanced Marketing Management	MAR 6815	3

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One of the following two courses

Supply Chain Management	MAN 6596	3 <b>or</b>
International Business Operations	MAN 6614	3

### **International Business Elective Coursework**

Graduate electives relevant to international business approved by the chair or program director. Typical coursework includes a short study abroad excursion and additional classes from departmental offerings. 6

**Total Required Credits** **33**

## **INTERNATIONAL BUSINESS** MASTER OF SCIENCE (M.S.) EXECUTIVE PROGRAM

The Executive Program in International Business is designed to prepare emerging leaders for work in national and global corporations in various business-centric roles, including business development, finance, economics, marketing, operations, communications and entrepreneurship. Classes are held on weeknights and are designed with the working professional in mind. This is a 33-credit, 15-month program and does not require prior business coursework. The curriculum is the same as for the traditional M.S. program noted above. The program is available in person or fully online.

## PROGRAMS IN BUSINESS ADMINISTRATION

### **BUSINESS ADMINISTRATION** MASTER OF BUSINESS ADMINISTRATION (M.B.A.)

#### **Concentrations:**

**Accounting**

**Business Analytics**

**Crisis and Disaster Management**

**Entrepreneurial Management**

**Finance**

**Health Administration**

**Hospitality and Tourism Management**

## **International Business**

## **Management Information Systems**

## **Marketing**

## **Operations Management**

## **Sport Management**

[Link to Executive M.B.A.](#)

[Link to Professional M.B.A.](#)

[Link to Crisis and Disaster Management Certificate](#)

[Link to Innovation Entrepreneurship Certificate](#)

The principal objective of the Master of Business Administration (M.B.A.) Program is to advance the quality of business management. The program provides advanced management education in an environment that encourages students to extend their leadership capabilities. It enables students to gain broad managerial skills and to develop specialized expertise in a business discipline that best suits their career aspirations. This program also available online.

### **Admission Requirements**

The College of Business seeks a diverse, highly qualified group of graduate students. Applications are evaluated on several factors emphasizing prior academic performance, GMAT or GRE scores and the potential for scholarly and professional success. In addition to other requirements for admission to the Graduate College at FAU, to be considered for this master's program in the College of Business, applicants must:

- Have earned a bachelor's degree from a regionally accredited college or university or the international equivalent.
- Have a strong grade point average on all previous college work, though emphasis will be on the last 60 credits earned.
- Submit a one-to-two page essay describing both the applicant's background and objectives for undertaking graduate study.
- Submit an official, competitive score on a GMAT or GRE taken within five years: a score of at least 1000 (combined quantitative and verbal) or 153 Verbal, 144 Quantitative and 4 Analytical Writing on the GRE or a score of at least 500 on the GMAT. When evaluating GMAT/GRE scores, the admissions committee looks for a balance between verbal, quantitative and analytical

writing strengths. All three components of the GMAT/GRE are required.

- International applicants whose native language is not English must have a TOEFL score of at least 600 (paper), 250 (computer) or 100 (Internet).
- Have all materials for the application complete and filed with FAU prior to the deadlines.

Deadlines for domestic admission: July 1 for fall, November 1 for spring and April 1 for summer.

Deadlines for international admission: February 15 for fall, July 15 for spring and January 15 for summer.

Supplemental information that may be provided to highlight characteristics not evident in the required admissions materials includes:

- A one-page résumé.
- Letter(s) of recommendation from employers, faculty members or others who can attest to scholarly ability and/or agency.
- A writing sample demonstrating analytical and explanatory skills.

Successful performance in other graduate work attempted will also be considered in the admission decision. Due to the uniqueness of The Executive M.B.A. Program, transfer between programs is not possible. Admission to one program does not constitute admission to all programs.

Transient students are students in good standing in a graduate program at another accredited institution. To enroll in graduate business courses at FAU and transfer that credit to another institution, transient students must present a letter certifying good standing and enumerating the exact courses to be taken from FAU. Transient students enroll for those courses on a space-available basis and as non-degree-seeking students.

Non-Business graduate students who are fully admitted, are making progress in an FAU graduate program and are in good standing may enroll in graduate business courses with permission of the assistant or associate dean. All course prerequisites must be met.

### **Admission Requirements for International Students**

A graduate of a foreign college or university who has completed an academic program equivalent to an American bachelor's degree may apply for admission to the master's program. International students are required to submit the application forms and an official certified transcript indicating the nature and scope of their academic training. An international applicant whose native language is not English must submit a score of at least 600 (CBT-250) on the Test of English as a Foreign Language (TOEFL). For details, applicants should write to: Test of English as a Foreign Language, Educational Testing Service, P.O. Box 6151, Princeton, New Jersey, 08540-6151, U.S.A., or visit [www.ets.org](http://www.ets.org). The IELTS test may

also be considered. See [www.ielts.org](http://www.ielts.org).

## Application Procedures and Deadlines

Applicants must follow application procedures outlined in the [Admissions](#) section of this catalog. The GMAT must be taken and the required application material must be submitted to the Graduate College by the deadline established by the University each term. Early submission of admission documents will facilitate the decision process.

## Enrollment Policy

Priority for enrollment in graduate (6000 and 7000 level) business courses is as follows:

1. Students who have been admitted to a graduate business program that requires a particular course;
2. Students in other FAU graduate programs that require a specific business course;
3. Students who have been admitted to a graduate business program not requiring a particular course but desire the course as an elective;
4. Degree-seeking students in other FAU graduate programs who desire a business class as an elective to supplement their program.

Students must have completed class prerequisites to enroll in graduate business courses. In most cases, non-degree students are not permitted to enroll in graduate business courses unless they have received permission from Student Academic Services and/or the faculty member teaching the course. Students in the M.B.A. or M.AC. programs who lack foundation coursework may be prohibited from registering for some courses until foundation requirements are met.

Students not falling into one of the above categories may not register for graduate business courses at the 6000 and 7000 levels without permission from the assistant or associate dean and the instructor. Persons doing so will be administratively withdrawn from those classes sometime after the drop/add period.

## Degree Requirements

To qualify for the M.B.A. degree, each candidate must:

1. Meet all general requirements of the University for a master's degree and complete the program within 10 years of first enrollment in an M.B.A. graduate course. If the thesis option is selected, the thesis must be completed within five years of its start and within the 10-year period.
2. Complete 43 credits of required and elective courses with a GPA of 3.0 or better. Any grade below a "C" is typically considered a failure and the course must be retaken. No more than two courses or 6 credits of M.B.A. graduate work can be transferred from other accredited institutions.

Any additional transfer credit may be accepted only by petition. (See Transfer Credits heading appearing later in this section.)

3. Successfully complete GEB 6215 requirements.
4. File a plan of study no later than one semester prior to graduation.

### **Location**

Courses in the M.B.A. curriculum are offered at the Fort Lauderdale campus in the evening and the Boca Raton campus during the day and in the evening. Nearly all M.B.A. courses are offered at all locations as affected by demand and resource constraints. A few M.B.A. courses are offered online, but the entire degree program likely cannot be completed without traditional courses.

### **Time Commitment**

Full-time graduate students having the required academic background in business can complete the M.B.A. Program in as little as 18 months. For full-time students lacking that background, completion requires at least 30 months. Part-time students can progress at their own pace, the only requirement being that all degree requirements must be completed within 10 years of first enrollment in a graduate M.B.A. course.

### **Academic Standing Policy Statement**

Continuation in the program requires satisfactory progress toward the graduate degree. Evidence of such progress includes maintenance of a cumulative 3.0 average throughout the course of academic study. In addition, only grades of "A," "A-," "B+," "B," "B-," "C+" or "C" are acceptable in fulfilling graduate school requirements in the M.B.A. plan of study.

Students who fall below a 3.0 GPA are placed on academic warning. Students on academic warning for two consecutive semesters may be academically dismissed. Failure to attain a 3.0 cumulative average within three successive semesters of active enrollment will result in automatic dismissal. The Assistant or Associate Dean of Business reserves the right to dismiss any student at any time when, in the dean's judgment, the student is not making satisfactory progress toward the degree.

### **Prerequisite Policy Statement**

Any student who does not meet course prerequisites will be dropped by the administration from such course(s) at any time during a semester when the deficiency is discovered. Tuition will be forfeited.

### **The M.B.A. Curriculum**

The M.B.A. Program consists of 43-55 credits of graduate business study. All new M.B.A. students must register for GEB 6215, Communication Strategies for Business Professionals and Core-Course Follow-Up, and GEB 6931, The Executive Forum, at their first registration in core or elective courses.

<b>First semester</b>		
Business Law and Applied Ethics	BUL 6455	1.5
Advanced Managerial Economics	ECP 6705	1.5
Communication Strategies for Business Professionals and Core-Course Follow-Up	GEB 6215	3
Contemporary Issues in Industry: The Executive Forum	GEB 6931	1
<b>Second semester</b>		
Financial Accounting Concepts	ACG 6027*	3
Leadership and Organizations	MAN 6296	3
<b>Subsequent semesters</b>		
Advanced Analysis and Application of Accounting Data (1)	ACG 6315	3
Financial Management	FIN 6406*	3
Advanced Financial Management (2)	FIN 6806	3
Management of Information Systems and Technology (1)	ISM 6026	3
Operations Management (3)	MAN 6501	3
Global Business Strategy	MAN 6721	3
Global Environment of Management	MAN 6937	3
Marketing Functions and Processes	MAR 6055*	3
Advanced Marketing Management (4)	MAR 6815	3
Data Analysis for Managers	QMB 6603*	3
<b>Core Total</b>		<b>31-43*</b>
Electives		12
<b>Degree Total</b>		<b>43-55*</b>

\* Course can be waived if student has taken undergraduate course equivalent.

## Notes:

1. Accounting concentration students must be approved by both the School of Accounting and the M.B.A. program. Admission to the M.B.A. program does not guarantee entry into the Accounting concentration. The Accounting concentration student will substitute ACG 6138 for ACG 6315 and ACG 6475 for ISM 6026. M.B.A. students who are undergraduate Accounting majors NOT in an Accounting concentration will substitute another 6000-level accounting elective course for ACG 6315. ACG 6027, ACG 6137, ACG 6347 and ACG 6635 may not be counted for graduate credit. The exact substitutions must be approved by the College of Business Office of Graduate Student Programs based on the prior academic record.
2. Students with 18 or more undergraduate credits in Finance may substitute another 6000-level FIN course for FIN 6806.
3. Students who have had an undergraduate operations management course may substitute MAN 6525, MAN 6581 or MAN 6596 for MAN 6501.
4. Students with 18 or more undergraduate credits in Marketing may substitute a 6000-level MAR elective offered by the Marketing Department for MAR 6815.

## CONCENTRATIONS

Concentrations are not required and may not be desirable for a student seeking a well-rounded, diverse skill set. For students who desire the depth of a concentration, all concentrations within the M.B.A. program consist of the basic core as listed above (31 credits) and concentration electives (12 credits). In order to receive certification in a concentration, all coursework must be completed with no grade less than a "B-" and an average of 3.0 for the 12 to 15 credits of the concentration. Students who do not elect a concentration will be granted a General M.B.A. Concentrations are not designated on a diploma, but they are noted on the transcript.

**The Accounting Concentration:** Students electing the Accounting concentration will take the basic core as listed above and make the appropriate substitutions as listed in Note #1 under the Core Component. In addition, students must complete four 6000-level ACG or TAX courses for which prerequisites have been met. ACG 6027, ACG 6137, ACG 6347, ACG 6635 and Accounting courses at the 5000-level are not acceptable for the Accounting concentration in the M.B.A. program.

**The Business Analytics Concentration:** Students electing the Business Analytics concentration take the basic core as listed above and four of the following elective courses:

ISM 6136, Data Mining and Predictive Analytics  
ISM 6217, Database Management Systems  
ISM 6404, Introduction to Business Analytics  
ISM 6405, Advanced Business Analytics  
ISM 6427C, Business Innovation with Artificial Intelligence  
ISM 6555, Social Media and Web Analytics  
QMB 6303, Data Management and Analysis with Excel  
QMB 6616, Supply Chain Analytics

Or other approved courses.

**The Crisis and Disaster Management Concentration:** Students take the basic core courses listed above and the following 3-credit course plus three additional courses in consultation with the advisor for a total of 12 credits for the concentration.

Three graduate MAN courses in consultation with an advisor  
MAN 6926, Field Project

**The Entrepreneurial Management Concentration:** Students in the Entrepreneurial Management concentration will take the basic core as listed above. The entrepreneurial component consists of four courses as follows:

***Required:*** ENT 6016, Venture Creation

***Two of the following:***

ENT 6116, Advanced Business Plan Development  
ENT 6186, Technology Commercialization Strategies  
ENT 6428, Entrepreneurship and Venture Capital  
MAN 6581, Project Management  
MAR 6837, Developing and Marketing Innovations

***One of the following:***

ENT 6226, Entrepreneurial Skills for Managers  
ENT 6946, Entrepreneurial Consulting Project  
HSA 6103, Introduction to Health Care Systems  
ISM 6508, Web-Based Business Development  
MAN 6156, Human Resources Management

MAN 6931, Special Topics

MAN 6943, Graduate Management Internship

SPB 6815, Managing the Sport Enterprise

or a relevant course from another graduate program (subject to department chair or advisor approval)

**The Finance Concentration:** Students electing the Finance concentration will take the basic core as listed above and any four of the following courses: FIN 6246, FIN 6436, FIN 6537, FIN 6605, FIN 6515, REE 6305, FIN 6936, RMI 6356, RMI 6426 or RMI 6727. Students with 18 undergraduate credits in Finance may replace FIN 6806 in the core with an alternative course from the elective list.

**The Health Administration Concentration:** Students electing the Health Administration concentration will take the basic core as listed above and four elective courses as follows:

***Required:*** HSA 6103, Introduction to Healthcare Systems

***One of the following:***

HSA 6108, Planning and Marketing in Healthcare

HSA 6118, Organizational Behavior in Healthcare

***One of the following:***

HSA 6152, Health Policy

HSA 6425, Health Law

***One of the following:***

HSA 6175, Healthcare Finance

HSA 6707, Research Methods for Healthcare Management

**The Hospitality and Tourism Management Concentration:** Permits students to combine interests in the hospitality and tourism industry in a complementary manner to the core courses of the MBA. Students gain an understanding of the core areas within this industry, including, but not limited to, guest service, operations, finance and marketing/revenue management.

Students electing the Hospitality and Tourism Management concentration will take the basic MBA core courses and four elective courses (12 credits) from the list below. Students interested in Directed Independent Study (DIS) must receive permission from both the chair/director and the instructor of record prior to using the DIS course toward the 12-credit concentration\*.

Students must be in good standing at FAU, must meet all requirements of their respective graduate

program and may use hospitality and tourism management courses as electives if permitted by their particular graduate program. Students must maintain an overall average grade of "B" (3.0 GPA) upon completion of all required courses in order to receive the Hospitality and Tourism Management concentration.

***Choose any four courses from the following list (12 credits):***

HMG 6299, Hospitality Operations: A Case Approach, 3 credits

HMG 6506, Contemporary Issues in Hospitality Marketing, 3 credits

HMG 6546, Strategies for Excellence in Guest Service Management, 3 credits

HMG 6756, Meetings and Events Management, 3 credits

HMG 6901, Directed Independent Study in Hospitality Management, 3 credits

Any Marketing (MAR) course at the 6000 level or higher, 3 credits

**The International Business Concentration:** Students in the International Business concentration will take the basic core as listed above. The international component consists of four elective courses within three blocks. Students must take one course from each block. The fourth course may be chosen from any block with a limit of 3 credits for GEB 6957, International Field Experience.

**Block 1:** ECO 6706, Advanced International Trade; ECO 6716, Advanced International Monetary Economics; or FIN 6605, Multinational Finance.

**Block 2:** MAN 6614, International Business Operations; MAN 6728, Managing Effectively in Emerging Market Economies; MAR 6158, Global Marketing; or MAN 6609, Cross-Cultural Management and Human Resources.

**Block 3:** ACG 6275, International Accounting; GEB 6957, International Field Experience (research on and travel to a foreign country); or an additional course from Block 1 or 2.

**The Management Information Systems Concentration:** Students electing the Management Information Systems concentration will take the basic core as listed above and four of the following: ISM 6508, ISM 6328, ISM 6368, ISM 6427C, ISM 6455, ISM 6509, MAN 6581.

**The Marketing Concentration:** Students electing the Marketing concentration will take the basic core as listed above with any four elective courses offered by the Marketing Department at the 6000 level.

**The Operations Management Concentration:** Students electing the Operations Management concentration will take the basic core as listed above and four elective courses as follows: MAN 6525,

Business Process Improvement Management; MAN 6581, Project Management; MAN 6596, Supply Chain Management; and one class from the following list: ISM 6508, ISM 6455, MAR 6837, QMB 6616 or other approved Special Topics courses.

**The Sport Management Concentration:** Students electing the Sport Management concentration will take the basic core as listed above and the following required courses: SPB 6406, Sport Law; SPB 6815, Managing the Sport Enterprise; SPB 5817, Financial Aspects of Sport Management; SPB 6940, Sport Management Internship; and SPB 6716, Sport Marketing. Students must also take either SPB 6106, Management of Intercollegiate Athletics; or SPB 6306, Management of Sport, Entertainment and Convention Facilities. Admission to the Sport Management concentration is dependent upon the recommendation of the director. A pre-admission interview is required.

### **Graduate Business Communication Program**

Written and verbal communication skills are integrated components of the M.B.A. program. As such, students must demonstrate communication proficiency appropriate to academic, professional and business environments. Students will demonstrate their written and verbal communication skills as they complete the following activities: weekly professional development sessions, written course assignments and classroom presentations. Students are not permitted to register for key integrated courses (ACG 6315, ACG 6138, ACG 6475, MAN 6937, ISM 6026, FIN 6806 or HSA 6103) unless they have enrolled in GEB 6215.

The Graduate Communications Program is offered in GEB 6215: Communication Strategies for Business Professionals and Core-Course Follow-Up. It is integrated with core and elective courses. Some assignments are evaluated by both the professor and by Graduate Communication Program instructors. Communication skills are also enhanced in the weekly sessions.

Students must register for GEB 6215 upon their first registration in core or elective courses. Students enrolling only for foundation-level courses are not required to register for GEB 6215 at that point. Grades in GEB 6215 are distributed on a satisfactory or unsatisfactory basis. Students who fail to advance through GEB 6215 will receive an unsatisfactory ("U") grade and must register for the course again. Failure to complete GEB 6215 in a reasonable timeframe will result in the student's dismissal from the M.B.A. program.

A student who does not register for GEB 6215 during the first semester of M.B.A. core or elective credit will have an academic hold placed on the student's record. The hold denies advance registration privileges until the student has conferred with the Director of Master's Programs in Business.

Students who have received a grade of "U" and who do not re-register for GEB 6215 in the next

semester of attendance following issuance of the "U" will be administratively dropped from graduate courses.

Applications for degree will not be accepted unless certification requirements have been met and a grade of "S" has been issued.

### **Contemporary Issues in Industry: The Executive Forum**

The forum provides exposure to and interaction with business executives from a variety of fields. Students will register for the forum in the first fall or spring semester of their program and must attend 10 sessions or presentations by executives to receive credit. There will be 14 presentations each fall and spring semester, and the student may complete the requirements in one semester or may divide attendance into two semesters. Presentations will not be made in summer semesters.

The executives invited to participate provide an invaluable bridge between the theory and practice of business and the consideration of current challenges facing business and industry, and provide an important linkage with the business community.

The forum will be graded on a satisfactory/unsatisfactory ("S"/"U") basis, with an incomplete ("I") grade issued until all requirements are completed.

### **Elective Component**

The elective component consisting of 12 advanced graduate credits in business at the 6000 level:

1. From one or more departments in the College of Business, or
2. From thesis options that provide 6 credits in an original area of research in lieu of coursework, or
3. Electives as specified in a concentration.

Electives are available in accounting, information technology, economics, finance, health administration, human resources, international business, management, marketing, operations management and real estate, as well as from interdisciplinary industry-specific programs. Out-of-College electives may be approved by the Assistant or Associate Dean of Business if they are pertinent to the individual plan. Directed study electives are limited to one course or 3 credits. No foundation course may be used as an elective in any program.

### **The Thesis Option**

The Thesis option consists of 6 graduate credits of thesis research in business. Thesis work involves the following steps and regulations:

1. Submit to the appropriate department chair a written proposal discussing the area in which the

study/research will be conducted. The scope of the study must involve a significant amount of originality.

2. If the proposal is satisfactory, the department chair will recommend to the Director of Master's Programs in Business a thesis committee. It will include a thesis committee chair and two faculty members, one of whom will be from outside the concerned department.
3. The original and three copies of the completed thesis must be submitted to the chair of the thesis committee at least 30 days before the end of the semester in which the student expects to receive the degree.
4. An examining committee will then conduct an oral examination during which the student defends the thesis.
5. Upon passing the oral defense, the student shall deliver to the Assistant or Associate Dean of Business copies of the thesis in final form in accordance with Graduate College policies. It must be properly signed by the chair of the thesis committee and the chair of the thesis director's department. The chair must be a graduate faculty member of the College of Business.
6. Refer to University thesis guidelines for earlier deadlines and requirements.
7. The student can be certified for the M.B.A. degree only after the thesis has been approved and accepted by the Assistant or Associate Dean of Business and the Graduate College.

Once the thesis is begun, the student will be expected to register for at least 3 credits of thesis study each succeeding term (excepting summer term) until the degree requirements are satisfied. Students who find it necessary to be excused from thesis registration for any term because they will, indeed, be inactive for the term, must obtain written approval from the Assistant or Associate Dean of Business prior to the beginning of the term.

### **Transfer Credits**

Acceptance of transfer credits from accredited institutions is dependent upon the pertinence of the work to the M.B.A. Program. A transfer student must confer with a graduate business advisor immediately upon entry to ensure that no misunderstanding occurs with regard to transfer credit in the degree plan. The transfer of two courses or 6 credits may be allowed subject to the following restrictions:

1. All transfer credits must be at least a "B" (3.0 on a 4.0 scale), and the student's overall grade point average in all previous graduate work must be at least a 3.0 on a 4.0 scale.
2. No graduate credit will be allowed for life experience.
3. Additional transfer credits may be accepted, by petition, from other institutions that are accredited by AACSB. A maximum of one-third of the credits leading to a degree is eligible for transfer consideration.
4. The use of transfer credit in concentrations is strictly limited and requires advance, written

approval.

5. Transfer credits are only considered if earned less than seven years prior to matriculating into the program.

### **Credit Duplication Policy Statement**

Neither credit used for another degree nor any foundation course credit may be counted toward the 40 credits of advanced courses. Students will not receive credit for core courses that duplicate their undergraduate education courses.

### **Time Limit**

Candidates for the M.B.A. degree must complete all work within a 10-consecutive-year period after initial registration in an M.B.A. course. Thesis credits must be earned within five years of first thesis registration and within 10 years of first registration in a graduate M.B.A. course.

### **Academic Standing**

Continuation in the M.B.A. Program requires satisfactory progress toward the degree. Evidence of such progress includes:

1. Maintenance of a 3.0 cumulative GPA throughout the program, including the Foundation Component;
2. Progress made toward completing GEB 6215 in a timely fashion;
3. Absence of academic irregularities, as defined in the FAU Student Handbook;
4. Progress made since first enrollment in a graduate course. Only grades of "A," "A-," "B+," "B," "B-," "C+" and "C" are acceptable in fulfilling graduate school and M.B.A. Program requirements.

Failure to attain a 3.0 cumulative average within two successive semesters may result in dismissal. The College reserves the right to dismiss any student at any time in their academic career when the student is not making satisfactory progress.

Students who fail to attain a 3.0 FAU graduate GPA will be placed on academic warning. Students on warning are subject to possible academic dismissal from the College. In conjunction with the Graduate College's warning and dismissal procedures, the College of Business Student Academic Services Office may require many categories of students on warning to complete an academic progression plan (APP) to establish a path for success. Graduate students with very poor GPAs (less than 2.5) after their first semester may be required to complete an APP. Students who do not fulfill the obligations established in the APP will be recommended for dismissal to the Dean of the Graduate College.

A student receiving conditional admission will be informed by the M.B.A. admissions committee about

the admission/dismissal decision at the end of the conditional admission period, which is within one year or less from the beginning of the semester specified in the letter of conditional acceptance. A student who fails to meet the criteria for unconditional/full admission will be dismissed at either the termination date specified under the conditional admission arrangement, or as soon as evidence of unsatisfactory progress becomes available.

### **Financial Assistance**

Limited financial assistance is available to graduate students in the College of Business through fellowships and assistantships, which may include both income and out-of-state tuition waivers. Interested students should contact a graduate business advisor or a department chair. Additional information may be obtained from the Student Financial Aid Office.

Cooperative education programs are available. Contact the [FAU Career Center](#). Full-time and part-time employment in the local community is available to graduate students as well.

### **Career Placement Assistance**

The FAU Career Center provides full-time staff to assist graduate students in finding employment opportunities that meet their various needs. The College of Business has established an Office of Career Placement and Internships to assist graduate students in the College.

## **BUSINESS ADMINISTRATION**

### **MASTER OF BUSINESS ADMINISTRATION (M.B.A.)**

#### **EXECUTIVE PROGRAM**

#### **Concentrations:**

**Accounting**

**Business Analytics**

**Crisis and Disaster Management**

**Entrepreneurial Management**

**Finance**

**Health Administration**

**Hospitality and Tourism Management**

**International Business**

**Management Information Systems**

**Marketing**

**Operations Management**

**Sport Management**

The Executive Master of Business Administration Program (Executive M.B.A.) was developed in response to a need for convenient, advanced executive education. The goal of the Executive M.B.A. Program is to prepare participating managers to assume leadership roles so that they and their companies can maximize investments in executive education. Many graduates will occupy senior management positions and provide leadership in an increasingly competitive business environment. The Executive M.B.A. is internationally accredited by The Association to Advance Collegiate Schools of Business International (AACSB).

### **Admission Requirements**

The Executive Master of Business Administration Program is designed to educate a broad range of people displaying management potential, including but not limited to, managers, salespersons, computer systems professionals, engineers, government administrators and workers, medical and legal professionals and scientists. Candidates should have significant business and professional experience and must demonstrate potential for continued career growth in management.

To qualify for unconditional or full acceptance to the Executive M.B.A. Program, applicants are required to have:

1. Five or more years of professional/managerial work experience.
2. An undergraduate degree in any discipline from a regionally accredited institution with at least a cumulative grade point average of 3.0 on a 4.0 scale in the last 60 (or equivalent) credits of college coursework leading toward a bachelor's degree. Post-baccalaureate coursework from an AACSB-accredited business school not included in an advanced degree may be included in the calculation.
3. An official GMAT score of at least 500 or GRE scores of at least 153 (verbal), 144 (quantitative) and 4 (analytical writing). The GMAT/GRE exam score may be waived for the program. GMAT/GRE waiver eligibility is based on evaluation of credentials listed under Admission Requirements.

Conditional admission may be available under extraordinary circumstances to applicants who have received a bachelor's degree from a regionally accredited institution, but who fall short of the GPA and/or the GMAT requirement or who show high promise. In these cases, the Executive M.B.A. admissions committee will review all evidence of high promise, including but not limited to: grade trends, mature work experience, work accomplishment and promotion, type and rigor of undergraduate degree program, references and letters of recommendation and evidence of having attained some "A" grades in rigorous courses.

After the first year in the Executive M.B.A. Program, the admissions committee will review each student receiving conditional admission and will recommend either full admission to or dismissal from the program.

### **Executive M.B.A. Format**

The Executive M.B.A. Program is an accelerated, 23-month program that allows participants to continue their managerial responsibilities while earning a nationally accredited M.B.A. degree. Each class of executives begins and progresses through the program together, taking the same sequence of courses and sharing the same educational experiences.

The program consists of 40-46 graduate credits in business. Classes are held every third weekend (Saturday and Sunday) from 8 a.m. to 6:15 p.m., with breakfast and lunch served each weekend.

The Executive M.B.A. Program is offered at the FAU campus in Boca Raton. On-site Executive M.B.A. programs are available to local sponsoring organizations.

### **Curriculum**

The foundation component of the M.B.A. Program is covered in FIN 6406 and ACG 6027. The required courses are:

Financial Accounting Concepts	ACG 6027*	3
Advanced Analysis and Application of Accounting Data	ACG 6315	3
Financial Management	FIN 6406*	3
Advanced Financial Management	FIN 6806	3
Communication Strategies for Business Professionals	GEB 6217	3
Contemporary Issues in Industry: The Executive Forum	GEB 6931	1
Management of Information Systems and Technology	ISM 6026	3
Operations Management	MAN 6501	3
Global Business Strategy	MAN 6721	3
Global Environment of Management	MAN 6937	3
Advanced Marketing Management	MAR 6815	3

International Field Experience	GEB 6957	3
Advanced International Monetary Economics	ECO 6716	3
International Business Operations	MAN 6614	3
Managing Effectively in Emerging Marketing Economics	MAN 6728	3
<b>Program Total</b>		<b>40-46</b>

\* ACG 6027 and FIN 6406 may be waived with a previously received grade of "B" or better within the last five years.

Depending on career trajectory and areas of interest, students can either choose to take elective courses across several areas for a more generalized business understanding or opt to take all elective courses from one single area for focused expertise in a specialized business function. Students who do not elect a specialization will be granted a General MBA. Elective options and specializations can be found [here](#).

Content, coursework and fees may vary as determined by the administration. Florida Atlantic University reserves the right to change curriculum, sequence, program fees and other program requirements as necessary.

### **Academic Standing, Policies, Graduation**

The Executive M.B.A. Program follows the same policies regarding academic standing and graduation used in the College of Business and the same grading standards of the University. *Student continuation in the Executive M.B.A. program requires satisfactory progress toward the graduate degree. Evidence of such progress includes maintenance of a cumulative 3.0 grade point average(GPA). Graduation will be prohibited if the final cumulative GPA is less than 3.0 upon completion of the total program curriculum.*

Graduate students with GPAs less than 2.5 may be required to complete an academic progression plan (APP). The APP is a contractual agreement that outlines particular courses and grades to reestablish good academic standing. APPs should generally outline a path (usually not more than two semesters) to reestablish a 3.0 GPA. Students who are placed on an academic progression plan and are not making progress toward their academic goals set forth by the APP may be recommended for dismissal from the program. The College may enact registration holds to prohibit a student's future enrollment until the APP is finalized. Students who do not fulfill the obligations established in the APP are recommended for dismissal to the Dean of the Graduate College.

## **Program Fees**

The Executive M.B.A. is a full-service, all-inclusive program. Executive M.B.A. Program fees cover all program costs, including tuition, text books, course materials, meals and graduation activities. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>. See the Executive M.B.A. [website](#) for more information.

## **Application Process and Additional Information**

To apply to or receive more information about the Executive M.B.A. Program, see the [website](#) or call 561-297-6000.

## **BUSINESS ADMINISTRATION**

### **MASTER OF BUSINESS ADMINISTRATION (M.B.A.) PROFESSIONAL PROGRAM**

#### **Concentrations:**

**Accounting**

**Business Analytics**

**Crisis and Disaster Management**

**Entrepreneurial Management**

**Finance**

**Health Administration**

**Hospitality and Tourism Management**

**International Business**

**Management Information Systems**

**Marketing**

**Operations Management**

**Sport Management**

The Professional Master of Business Administration Program (Professional M.B.A.) was developed in response to a need for convenient, advanced executive education. The goal of the Professional M.B.A. Program is to prepare participating managers to assume leadership roles so that they and their companies can maximize investments in executive education. Many graduates will occupy management positions and provide leadership in an increasingly competitive business environment. The Professional M.B.A. is internationally accredited by The Association to Advance Collegiate Schools of Business International (AACSB).

## **Online Master of Business Administration Program**

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The Executive Graduate Programs Office in the College of Business at Florida Atlantic University is host to the 23-month or Online M.B.A program. The Online M.B.A program is specially designed to allow participants to continue their professional responsibilities while earning an AACSB-accredited M.B.A degree as full-time graduate students, in a fully online environment.

FAU's Online M.B.A is 100 percent asynchronous, allowing students to access courses at any time and from any location, with an internet connection. The instruction and content replicates the classroom experience, where students have access to recorded online lectures, presentations, discussion and chats.

The Online M.B.A contains the same curriculum and is taught by the same professors as the campus-based programs. The Online MBA has the same Admission Requirements as the Professional M.B.A.

### **Admission Requirements**

The Professional Master of Business Administration Program and the Online Master of Business Administration Program are designed to educate a broad range of people displaying management potential, including but not limited to, managers, salespersons, computer systems professionals, engineers, government administrators and workers, medical and legal professionals and scientists. Candidates should have significant work experience and must demonstrate potential for continued career growth in management.

To qualify for unconditional or full acceptance to the Professional M.B.A. Program or Online M.B.A. Program, applicants are required to have:

1. At least four years of professional work experience.
2. An undergraduate degree in any discipline from a regionally accredited institution with at least a cumulative grade point average of 3.0 on a 4.0 scale in the last 60 (or equivalent) credits of college coursework leading toward a bachelor's degree. Post-baccalaureate coursework from an AACSB-accredited business school not included in an advanced degree may be included in the calculation.
3. An official GMAT score of at least 500 or GRE scores of at least 153 (verbal), 144 (quantitative) and 4 (analytical writing). The GMAT/GRE exam score may be waived for the program. GMAT/GRE waiver eligibility is based on evaluation of credentials listed under Admission Requirements.

Conditional admission may be available under extraordinary circumstances to applicants who have received a bachelor's degree from a regionally accredited institution, but who fall short of the GPA and/or the GMAT requirement or who show high promise. In these cases, the Professional M.B.A or Online M.B.A. admissions committee will review all evidence of high promise, including but not

limited to: grade trends, mature work experience, work accomplishment and promotion, type and rigor of undergraduate degree program, references and letters of recommendation and evidence of having attained some "A" grades in rigorous courses.

After the first year in the Professional M.B.A. or Online M.B.A. Program, the admissions committee will review each student receiving conditional admission and will recommend either full admission to or dismissal from the program.

### **Professional M.B.A. Format**

The Professional M.B.A. Program is an accelerated, 23-month program that allows participants to continue their managerial responsibilities while earning a nationally accredited M.B.A. degree. Each class of executives begins and progresses through the program together, taking the same sequence of courses and sharing the same educational experiences.

The program consists of 40-46 graduate credits in business. Classes are held on the Boca Raton campus on Tuesday and Thursday evenings from 6:15 p.m. to 10 p.m. Classes are held on the Davie campus on Monday and Wednesday evenings from 6:15 p.m. to 10 p.m. On-site Professional M.B.A. programs are available to local sponsoring organizations.

### **Online M.B.A Format**

The Online M.B.A. is 100 percent online.

### **The Professional M.B.A. and Online M.B.A. Curriculum**

The Foundation Component of the M.B.A. Program is covered in FIN 6406 and ACG 6027. The required courses are:

Financial Accounting Concepts	ACG 6027*	3
Advanced Analysis and Application of Accounting Data	ACG 6315	3
Financial Management	FIN 6406*	3
Advanced Financial Management	FIN 6806	3
Communication Strategies for Business Professionals	GEB 6217	3
Contemporary Issues in Industry: The Executive Forum	GEB 6931	1
Management of Information Systems and Technology	ISM 6026	3
Operations Management	MAN 6501	3

Global Business Strategy	MAN 6721	3
Global Environment of Management	MAN 6937	3
Advanced Marketing Management	MAR 6815	3
International Field Experience	GEB 6957	3
Advanced International Monetary Economics	ECO 6716	3
International Business Operations	MAN 6614	3
Managing Effectively in Emerging Marketing Economics	MAN 6728	3
<b>Program Total</b>		<b>40-46</b>

\* ACG 6027 and FIN 6406 may be waived with a previously received grade of "B" or better within the last five years.

Depending on career trajectory and areas of interest, students can either choose to take elective courses across several areas for a more generalized business understanding or opt to take all elective courses from one single area for focused expertise in a specialized business function. Students who do not elect a specialization will be granted a General MBA. Elective options and specializations can be found [here](#).

Content, coursework and fees may vary as determined by the administration. Florida Atlantic University reserves the right to change curriculum, sequence, program fees and other program requirements as necessary.

### **International Business Focus and Concentrations**

Specialization courses are international business-specific with an optional international field study tour. Optional concentrations are also available. Details can be found [here](#).

### **Academic Standing, Policies, Graduation**

The Professional M.B.A. and Online M.B.A. programs follows the same policies regarding academic standing and graduation used in the College of Business and the same grading standards of the University. Student continuation in the Professional M.B.A. program or Online M.B.A. program require satisfactory progress toward the graduate degree. Evidence of such progress includes maintenance of a cumulative 3.0 grade point average (GPA). Graduation will be prohibited if the final cumulative GPA is less than 3.0 upon completion of the total program curriculum.

Graduate students with GPAs less than 2.5 may be required to complete an academic progression plan (APP). The APP is a contractual agreement that outlines particular courses and grades to reestablish good academic standing. APPs should generally outline a path (usually not more than two semesters) to reestablish a 3.0 GPA. Students who are placed on an academic progression plan and are not making progress toward their academic goals set forth by the APP may be recommended for dismissal from the program. The College may enact registration holds to prohibit a student's future enrollment until the APP is finalized. Students who do not fulfill the obligations established in the APP are recommended for dismissal to the Dean of the Graduate College.

### **Program Fees Professional M.B.A.**

The Professional M.B.A. is a full-service, all-inclusive program. Professional M.B.A. Program fees cover all program costs, including tuition, textbooks, course materials, meals and graduation activities. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>. See the Professional M.B.A. [website](#) for more information.

### **Program Fees Online M.B.A.**

The Online M.B.A. is a full-service, all-inclusive program. Online M.B.A. program fees cover all program costs, including tuition and graduation activities. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>. Books are not included for the Online M.B.A. See the [website](#) for more information.

### **Application Process and More Information**

To apply to or receive more information about the [Professional M.B.A. program](#) or the [Online M.B.A. program](#), click on the links or call 561-297-6000.

## **ENVIRONMENTAL**

### **MASTER OF BUSINESS ADMINISTRATION (M.B.A.)**

**This program is on hiatus and currently not accepting students.**

The Environmental Master of Business Administration (M.B.A.) is a 22-month weekend program that combines the traditional M.B.A. program with environmental business management courses. Students meet face-to-face with faculty approximately every third weekend. The program is designed for working professionals who have a bachelor's or higher degree (not necessarily in business) from an accredited university.

The high-tech, industry-based Environmental M.B.A. program is designed for:

1. Individuals currently working in environmental business.
2. Those who want to be in environmental business management.

The program covers current and future compliance needs while helping business managers establish a competitive edge. Its purpose is to provide a formal learning experience in the environmental business management field, to provide managers with the skills to meet stakeholder needs and to provide a forum for the exchange of ideas and research findings in the high-technology, industry-specific environmental business fields for the future. For information, call 561-297-1086.

### Admission Requirements

Admission into the Environmental M.B.A. Program requires a B.A. or B.S. degree (or higher degree in any field) from an accredited institution of higher learning, a minimum GPA of 3.0, a GMAT score of 500 and work experience or potential in a high-tech and/or environmental activity. The application, including two letters of recommendation from the work place, must be mailed directly to the College of Business Environmental M.B.A. Program Office. Exceptions are reviewed on a case-by-case basis.

### Program Components

The Environmental M.B.A. comprises 28-34 credits of required core graduate business courses and 12 credits of required environmental management courses.

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#### Core Courses

Financial Accounting Concepts*	ACG 6027	3
Financial Management*	FIN 6406	3
Advanced Analysis and Application of Accounting Data	ACG 6315	3
Advanced Financial Management	FIN 6806	3
Communication Strategies for Business Professionals and Core-Course Follow-Up	GEB 6215	3
Contemporary Issues in Industry: The Executive Forum	GEB 6931	1
Management of Information Systems and Technology	ISM 6026	3

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Operations Management	MAN 6501	3
Global Business Strategy	MAN 6721	3
Advanced Marketing Management	MAR 6815	3
Global Environment of Management	MAN 6937	3

\* Course may be waived contingent upon evaluation of transcripts.

### **Environmental Management Courses**

Special Topics	GEB 6930	3
Corporate Management (Green Pinstripes) and Environmental Policy	GEB 6944	2
Environmental Project Management	GEB 6945	2

## **LEGAL COMPLIANCE MANAGEMENT** MASTER OF BUSINESS ADMINISTRATION (M.B.A.)

**This program is on hiatus and currently not accepting students.**

The M.B.A. program in Legal Compliance Management is one of the first programs in the U.S. to offer this specialization. The program's objective is to develop managers whose primary or secondary responsibilities are to ensure legal and regulatory compliance within their companies or operating units.

This program is designed for regulatory affairs officers; managers in highly regulated departments (HR, FDA, etc.); legal counsel and attorneys with legal oversight responsibilities; risk and loss prevention managers and consultants; and federal, state and local regulatory personnel.

Experts in the legal compliance field will teach students how the legal/regulatory process functions, the impact of regulations (law) on the business environment, how to design and implement compliance policy, methodologies to measure and enforce compliance, the major regulatory schemes common to all organizations, regulation central to the larger organization (OSHA, HIPAA, Sarbanes-Oxley, etc.) and regulation that focuses on the student's specific career objectives (Directed Independent Study).

The M.B.A. program in Legal Compliance Management can be completed in less than two years.

Classes meet on the Boca Raton campus for five semesters with six weekend meetings each on Saturdays (8 a.m. to 6 p.m.) and Sundays (8 a.m. to 5 p.m.). Admission requirements are similar to those of the Environmental M.B.A. program, combining the traditional M.B.A. courses with the following four specialized courses:

Employment Practices, Risk Management and Legal Compliance	BUL 6843	3
Corporate Governance and Compliance	BUL 6872	3
Contractual Compliance	BUL 6876	3
Principles and Practices of Enterprise Risk Management and Legal Compliance	RMI 6346	3

## CERTIFICATE PROGRAMS

The Management Programs Department offers several graduate certificates as noted below in the requirements for the Crisis and Disaster Management certificate and the Innovation Entrepreneurship certificate. Two additional certificate programs, Environmental Management and Legal Compliance Management, are on hiatus and currently not accepting students.

### **CRISIS AND DISASTER MANAGEMENT** GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

The certificate in Crisis and Disaster Management enables graduate students and working professionals to obtain cutting-edge knowledge of the crisis and disaster management field and to develop their management leadership skills in that field. These areas form the primary objectives of the certificate program so that students will be able to apply their knowledge and skills to develop disaster resilient organizations.

The program is interdisciplinary in nature, linking the disciplines of business, health administration, medicine, nursing and public administration. The interdisciplinary threads carried through all four certificate courses include impacts on business/economy; health/medical issues; psychological, social,

behavioral issues; and communication.

This certificate is available to any graduate student in good standing at FAU and to any graduate-level non-degree seeking student accepted by FAU. Students must complete four courses for 12 credits, including the course noted below and three additional courses in consultation with an advisor. The courses must be completed with a grade of "B" or better. FAU graduate students or non-degree seeking students accepted by FAU must complete at least one of the additional three courses before taking the Field Project course. For information about the certificate program, call 561-297-6000.

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### Required Courses (12 credits)

Three graduate courses in consultation with an advisor	MAN	9
Field Project	MAN 6926	3

## **INNOVATION ENTREPRENEURSHIP** GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

The certificate in Innovation Entrepreneurship allows graduate students to combine interests in innovation and entrepreneurship with the thrust of their particular master's program in a complementary manner. The certificate program facilitates innovation and entrepreneurship across the University's graduate programs.

Among the program's objectives, students will gain an understanding of the entrepreneurial process, from initial idea to business development, and about commercializing new technologies, assessing product-adoption likelihood, evaluating licensing opportunities and dealing with intellectual property issues. In addition, students will acquire an appreciation for new venture finance and become familiar with the key challenges encountered in developing an innovation.

The certificate in Innovation Entrepreneurship is available to any graduate student in good standing at FAU. Students may obtain this certificate by completing each of the following four courses with a grade of "B" or better and meeting all the requirements of their respective graduate program. The four courses below may be taken as electives that fulfill requirements of the student's graduate program if permitted by that graduate program. If not permitted, they must be taken as additional courses.

**Required Courses (12 credits)**

Venture Creation	ENT 6016	3
Technology Commercialization Strategies	ENT 6186	3
Entrepreneurship and Venture Capital	ENT 6428	3
Developing and Marketing Innovations	MAR 6837	3

**DOCTORAL PROGRAM****BUSINESS ADMINISTRATION****DOCTOR OF PHILOSOPHY (PH.D.)****Concentrations:****Accounting****Finance****Information Technology and Operations Management****Management****Marketing****Executive**

The College of Business offers a Doctor of Philosophy (Ph.D.) degree in Business Administration with concentrations in Accounting, Finance, Information Technology and Operations Management, Management and Marketing (collectively referred to as the specialized concentrations) as well as an [Executive](#) concentration. Required courses consist of a set of tool courses (such as statistics and econometrics), a set of courses tailored to the student's concentration and a dissertation. Students accepted into the program are required to enroll on a full-time basis.

The doctoral program's specialized concentrations prepare students for university teaching and research. Students entering the doctoral program and pursuing a specialized concentration typically have a master's in a Business Administration program and require about four to five years to complete the requirements for the Ph.D. in Business Administration. The Executive Doctorate concentration of the doctoral program enhances research and consulting capabilities. Students entering the doctoral program pursuing an Executive Doctorate have significant business experience and require three years to complete requirements for the Ph.D. in Business Administration.

## Admission Requirements

Admission to the program is restricted to students who show exceptionally high promise for mastering the conceptual and analytic tools required for doctoral study in business. Evidence of such promise is obtained by evaluation of previous graduate and undergraduate class standing, the score on the Graduate Management Admission Test (GMAT) or Graduate Record Examination (GRE), letters of recommendation and the applicant's statement of career goals. In addition, if feasible, applicants are interviewed either in person, by video or by telephone. The minimum criteria for admission include the following:

1. The student must satisfactorily meet the general University requirements for admission to graduate programs. International applicants must also satisfactorily meet any additional requirements of the Graduate College. Additional details are found [here](#).
2. The student must hold a master's in a related discipline or an M.B.A. degree, preferably from an AACSB-accredited, graduate-level institution.
3. Typically the student presents a minimum score of 600 on the GMAT or a comparable score on the GRE, taken within the last five years.
4. An applicant whose native language is not English must present a minimum score as set by the Graduate College on the Test of English as a Foreign Language (TOEFL) or the Test of Spoken English (TSE). Applicants who have completed a minimum of two years of postsecondary education in the United States are exempt from this requirement.

An entering student is expected to be proficient in computer and quantitative skills. An exceptionally qualified student with a master's degree in a non-business discipline may also enter the program, but must undertake additional work that is sufficient to establish knowledge of the material comprising the AACSB M.B.A. core requirements. The minimum criteria do not guarantee acceptance into the program, as enrollment in any year is limited.

## Application Process and More Information

For details about admission and degree requirements for the Ph.D. degree in Business Administration, contact [Program Admissions](#), 561-297-2179.

## Degree Requirements

1. Basic Tool Areas: Doctoral-level courses such as Statistics, Quantitative Methods and Economics.
2. Area of Concentration: Several courses are required in the student's area of concentration.
3. Comprehensive Examination: Students pursuing specialized concentrations must pass a comprehensive examination that will be administered in the area of the concentration after completion of all required coursework.

4. Dissertation: A minimum of 18 credits of dissertation must be taken, and the completed dissertation, reflecting an original contribution to knowledge, must be successfully defended at both the proposal stage as well as at the final completed stage.
5. A minimum of 80 credits is required (including dissertation credits).
6. To remain in good standing, Ph.D. students must maintain a minimum grade point average of 3.0 (based on a 4.0 scale) on all courses taken for the doctoral program (individual concentrations may have higher minimums). If a Ph.D. student receives a grade below "B" for any course or has a grade point average below the minimum permitted for the student's area of concentration, a Ph.D. committee of professors within the student's area of concentration will decide whether any action (such as remedial coursework requirements, dismissal, etc.) should be taken.

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### **Accounting Concentration in the Ph.D. Program in Business Administration**

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#### **Foundation and Statistics Courses - 24 credits**

Advanced Accounting Theory	ACG 6135	3
Scientific Method in Business	ACG 7884	3
Seminar in University Business Education	BTE 7175	3
Advanced Microeconomics	ECO 6115	3
Advanced Econometrics	ECO 6426	3
Research Methods 1	QMB 7565	3

#### ***Select 6 credits from the following list***

Topics in Econometrics	ECO 6424	3
Special Topics	ECO 6930	1-3
Empirical Methods in Finance	FIN 7817	3
Advanced Business Analytics	ISM 6405	3
Research Methods 2	QMB 7566	3
Measurement Design and Evaluation	QMB 7567	3
Experimental Design 2	PSY 6207	3

Advanced Statistics	STA 7114	3
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**Accounting Core Courses - 18 credits**

Seminar in Financial Accounting	ACG 7145	3
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Seminar in Accounting Information Systems	ACG 7415	3
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Seminar in Auditing	ACG 7646	3
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Seminar in Current Accounting Research Issues	ACG 7918	3
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Qualifying Research Project	ACG 7916	3
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Summer Paper	ACG 7917	3
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**Elective Courses - 9 credits**

*Select 9 credits from the following courses, 6 of which must be at the 7000 level*

Seminar on Accounting Research and Capital Markets	ACG 7896	3
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Special Topics in Accounting ( <i>may be taken multiple times if topics vary</i> )	ACG 7935	3
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Advanced Macroeconomics	ECO 6206	3
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Advanced Game Theory and Applications	ECO 6409	3
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Introduction to Qualitative Theory	EDA 6415	3
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Financial Markets	FIN 6246	3
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Investment Management	FIN 6515	3
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Advanced Financial Management	FIN 6806	3
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Seminar in Capital Markets	FIN 7247	3
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Seminar in Corporate Financial Theory	FIN 7449	3
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Seminar in Investments	FIN 7527	3
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Seminar in Financial Institutions	FIN 7811	3
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Empirical Methods in Finance	FIN 7817	3
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Seminar in Current Financial Research ( <i>may be taken multiple times if topics vary</i> )	FIN 7932	3
Seminar in International Finance	FIN 7938	3
Business Transformation in Information Systems and Operations Management	ISM 7345	3
Big Data Research Methods	ISM 7888	3
Seminar in Information Systems	ISM 7935	3
Organizational Theory	MAN 7207	3
Organizational Behavior	MAN 7275	3
Seminar in Operations and Supply Chain Management	MAN 7768	3
Business Impact of Artificial Intelligence and Emerging Technologies	MAN 7926	3
Advanced Social Behavior	SOP 6079	3
Cognitive Behavioral Theory and Techniques for Social Work	SOW 6128	3
<b>Dissertation - 30 credits (minimum)</b>		
Advanced Research in Accounting ( <i>may be taken multiple times</i> )	ACG 7978	12-18
Doctoral Dissertation in Accounting ( <i>may be taken multiple times</i> )	ACG 7980	18-24
<b>Finance Concentration in the Ph.D. Program in Business Administration</b>		
<b>Foundation and Statistics Courses - 18 credits</b>		
Seminar in University Business Education	BTE 7175	3
Advanced Microeconomics	ECO 6115	3

Advanced Econometrics	ECO 6426	3
Special Topics	ECO 6930	3
Empirical Methods in Finance	FIN 7817	3
Research Methods 1	QMB 7565	3
<b>Finance Core Courses - 12 credits</b>		
Seminar in Capital Markets	FIN 7247	3
Seminar in Corporate Financial Theory	FIN 7449	3
Seminar in Investments	FIN 7527	3
Seminar in International Finance	FIN 7938	3
<b>Elective Courses - 15 credits</b>		
<i>Select a total of 15 credits from the following list</i>		
Advanced Accounting Theory	ACG 6135	3
Seminar in Financial Accounting	ACG 7145	3
Advanced Macroeconomics	ECO 6206	3
Advanced Mathematical Economics	ECO 6403	3
Advanced Game Theory and Applications	ECO 6409	3
Topics in Econometrics	ECO 6424	3
Advanced International Monetary Economics	ECO 6716	3
Financial Markets	FIN 6246	3
Financial Management: Investment Decisions and Policy	FIN 6436	3
Quantitative Methods in Finance	FIN 6456	3
Investment Management	FIN 6515	3
Financial Risk Management and Derivatives	FIN 6537	3

Multinational Finance	FIN 6605	3
Theory of Financial Management	FIN 6804	3
Advanced Financial Management	FIN 6806	3
Directed Independent Study	FIN 6906	1-3
Special Topics	FIN 6936	1-3
Seminar in Financial Institutions	FIN 7811	3
Seminar in Current Financial Research <i>(may be taken multiple times if topics vary)</i>	FIN 7932	3
Advanced Research in Finance <i>(may be taken multiple times)</i>	FIN 7978	1-9
Risk Management and Insurance	RMI 6016	3
Corporate Risk Management	RMI 6356	3
Applied Time Series Analysis	STA 6857	3
Advanced Statistics	STA 7114	3
<b>Dissertation - 36 credits (minimum)</b>		
Advanced Research in Finance <i>(may be taken multiple times)</i>	FIN 7978	18
Doctoral Dissertation - Finance/Real Estate <i>(may be taken multiple times)</i>	FIN 7980	18-24
<b>Information Technology and Operations Management Concentration in the Ph.D. Program in Business Administration</b>		
<b>Foundation and Statistics Courses - 18 credits</b>		
Seminar in University Business Education	BTE 7175	3
Big Data Research Methods	ISM 7888	3

Scientific Method in Business	MAN 7640	3
Research Methods 1	QMB 7565	3
<i>Select 3 credits from the following list</i>		
Research Methods 2	QMB 7566	3
Measurement Design and Evaluation	QMB 7567	3
<i>Select 3 credits from the following list</i>		
Topics in Econometrics	ECO 6424	3
Advanced Econometrics	ECO 6426	3
Experimental Design 2	PSY 6207	3
Advanced Statistics	STA 7114	3
<b>ITOM Core Courses - 12 credits</b>		
Business Transformation in Information Systems and Operations Management	ISM 7345	3
Seminar in Information Systems	ISM 7935	3
Seminar in Operations and Supply Chain Management	MAN 7768	3
Business Impact of Artificial Intelligence and Emerging Technologies	MAN 7926	3
<b>Elective Courses - 15 credits</b>		
<i>Select a total of 15 credits from the following list</i>		
Seminar in Accounting Information Systems	ACG 7415	3
Advanced Microeconomics	ECO 6115	3
Advanced Mathematical Economics	ECO 6403	3
Special Topics (such as Panel Data)	ECO 6930	1-3
Introduction to Qualitative Inquiry	EDA 6415	3

Seminar in Current Financial Research	FIN 7932	3
Data Mining and Predictive Analysis	ISM 6136	3
Management of Information Assurance and Security	ISM 6328	3
Introduction to Business Analytics and Big Data	ISM 6404	3
Advanced Business Analytics	ISM 6405	3
Web-Based Business Development	ISM 6508	3
Operations Management	MAN 6501	3
Business Process Improvement Management	MAN 6525	3
International Shipping Trade Port Management	MAN 6565	3
Supply Chain Management	MAN 6596	3
Organizational Theory	MAN 7207	3
Organizational Behavior	MAN 7275	3
Strategic Management Seminar	MAN 7729	3
Supply Chain Analytics	QMB 6616	3
<b>Dissertation - 36 credits (minimum)</b>		
Advanced Research in Information Technology <i>(may be taken multiple times)</i>	ISM 7978	18
Doctoral Dissertation Research <i>(may be taken multiple times)</i>	ISM 7980	18-24
<b>Management Concentration in the Ph.D. Program in Business Administration</b>		
<b>Foundation and Statistics Courses - 15 credits</b>		
Seminar in University Business Education	BTE 7175	3
Scientific Method in Business	MAN 7640	3

Research Methods 1	QMB 7565	3
Measurement Design and Evaluation	QMB 7567	3
<b><i>Select 3 credits from the following list</i></b>		
Research Methods 2	QMB 7566	3
Advanced Statistics	STA 7114	3
<b>Management Core Courses - 12 credits</b>		
The Entrepreneurship Field	ENT 7168	3
Organizational Theory	MAN 7207	3
Organizational Behavior	MAN 7275	3
Strategic Management Seminar	MAN 7729	3
<b>Elective Courses - 18 credits</b>		
<b><i>Select a total of 18 credits from the following list</i></b>		
Advanced Econometrics	ECO 6426	3
Special Topics	ECO 6930	3
Introduction to Qualitative Theory	EDA 6415	3
Advanced Qualitative Inquiry	EDA 7416	3
Seminar in Current Financial Research ( <i>may be taken multiple times if topics vary</i> )	FIN 7932	3
International Business Operations	MAN 6614	3
Managing Effectively in Emerging Market Economies	MAN 6728	3
Directed Independent Study	MAN 6905	1-4
Special Topics in Management ( <i>may be taken multiple times if topics vary</i> )	MAN 7931	3

Advanced Research in Management	MAN 7978	1-9
Grant Writing and Project Management	PAD 6233	3
Seminar in Organization Theory	PAD 7107	3
Organizational Behavior and Development	PAD 7155	3
Qualitative Methods in Public Affairs Research	PAF 7820	3
Advanced Social Behavior	SOP 6079	3
Cognitive Behavioral Theory and Techniques for Social Work	SOW 6128	3
Seminar in Advanced Qualitative Methods	SYA 6315	3
<b>Dissertation - 36 credits (minimum)</b>		
Advanced Research in Management ( <i>may be taken multiple times</i> )	MAN 7978	18
Doctoral Dissertation - Management ( <i>may be taken multiple times</i> )	MAN 7980	18-24
<b>Marketing Concentration in the Ph.D. Program in Business Administration</b>		
<b>Foundation and Statistics Courses - 15 credits</b>		
Seminar in University Business Education	BTE 7175	3
Scientific Method in Business	MAR 7785	3
Research Methods 1	QMB 7565	3
Measurement Design and Evaluation	QMB 7567	3
<b><i>Select 3 credits from the following list</i></b>		
Research Methods 2	QMB 7566	3
Advanced Statistics	STA 7114	3

**Marketing Core Courses - 12 credits**

Interorganizational Relationships in Marketing	MAR 7459	3
Seminar in Consumer Behavior	MAN 7507	3
Seminar in Marketing 1 and 2 (students take the course once as seminar 1, and then as seminar 2, 3 credits each)	MAR 7936	6

**Elective Courses - 18 credits**

*Select a total of 18 credits from the following list*

Topics in Econometrics	ECO 6424	3
Advanced Econometrics	ECO 6426	3
Special Topics	ECO 6930	3
Introduction to Qualitative Theory	EDA 6415	3
Seminar in Human Perception	EXP 6208	3
Seminar in Cognition	EXP 6609	3
Special Topics in Cognition	EXP 6930	3
Organizational Theory	MAN 7207	3
Organizational Behavior	MAN 7275	3
Strategic Management Seminar	MAN 7729	3
Special Topics in Marketing ( <i>may be taken multiple times, if topics vary</i> )	MAR 7931	3
Special Topics in Personality and Social Psychology	PPE 6930	3

**Dissertation - 36 credits (minimum)**

Advanced Research in Marketing ( <i>may be taken multiple times</i> )	MAR 7978	18
Doctoral Dissertation in Marketing ( <i>may be taken multiple times</i> )	MAR 7980	18-24

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## Executive Concentration in the Ph.D. Program in Business Administration

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### Foundation and Statistics Courses - 12 credits

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Topics in Econometrics	ECO 6424	3
Scientific Methods in Business	MAN 7640	3
Research Methods 1	QMB 7565	3
Research Methods 2	QMB 7566	3

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### Executive Core Courses - 36 credits

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Survey of Accounting Behavioral Research	ACG 7837	3 or
Seminar in Current Accounting Research Issues	ACG 7918	3
Survey of Archival Accounting Research	ACG 7886	3
Microeconomic Foundations of Strategic Decision Making	ECO 7178	3
Contemporary Issues in Global Macroeconomics	ECO 7296	3
Theory of Corporate Finance: Readings and Empirics	FIN 7808	3
State-of-the-Art Managerial Finance	FIN 7895	3
Business Transformation in Information Systems and Operations Management	ISM 7345	3
Seminar in Information Systems	ISM 7935	3
Strategic Management Seminar	MAN 7729	3
Advanced Management Theory	MAN 7779	3
Seminar in Marketing 1 and 2 <i>(Students take course twice, once as seminar 1 and then as seminar 2, 3 credits each.)</i>	MAR 7936	6

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### Dissertation - 32 credits (minimum)

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***Choose 6 credits in area of interest (may be taken multiple times)***

Advanced Research in Accounting	ACG 7978	1-6
Advanced Research in Economics	ECO 7978	1-6
Advanced Research in Finance	FIN 7978	1-6
Advanced Research in Information Technology	ISM 7978	1-6
Advanced Research in Management	MAN 7978	1-6
Advanced Research in Marketing	MAR 7978	1-6

***Choose courses in area of interest - 26 credits  
(may be taken multiple times)***

Doctoral Dissertation in Accounting	ACG 7980	1-15
Doctoral Dissertation in Economics	ECO 7980	1-15
Doctoral Dissertation - Finance/Real Estate	FIN 7980	1-15
Doctoral Dissertation Research	ISM 7980	1-15
Doctoral Dissertation - Management	MAN 7980	1-15
Doctoral Dissertation in Marketing	MAR 7980	1-15

**MARKETING****Faculty:**

Yuan, H., Chair; Acello, E.; Bilgihan, A.; Bohan, G.; Gallan, A.; Jarvis, C. B.; Javadina, A.; Korgaonkar, P.; Koku, P. S., Emeritus; Lorenz, M.; Mangleburg, T.; McClure, T.; Nardini, G.; Ostinelli, M.; Park, S.; Quintero, S.; Rhorer, M.; Ricci, P.; Root, A.; Sashi, C. M.; Shaw, E. H., Emeritus; Ward, J. B.; Zhang, Y.

The Department of Marketing offers programs of study that prepare students for responsible positions and professional careers in the growing fields of marketing and hospitality and tourism management.

Programs in Marketing provide students with an enduring base of knowledge and the ability to adapt

new marketing practices as they continually evolve. The department offers a Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Marketing, an [online B.B.A. in Marketing](#), a [B.B.A. or B.S. in Hospitality and Tourism Management](#), an [online B.B.A. in Hospitality and Tourism Management](#), minors in Marketing, Digital Marketing and Hospitality and Tourism Management, and certificates in [Casino and Gaming Industry Management](#), [Club Management](#), [Digital Marketing](#), [Hospitality and Tourism Management](#), [Professional Hospitality and Tourism Management](#) and [Events Management](#). A variety of courses, offered day and evening, weekdays and weekends across multiple campuses, allow traditional and non-traditional students to tailor programs of study to meet their individual needs. A concentration in Advertising is available for students interested in this discipline. For graduate students, the department offers a certificate in Hospitality and Tourism Management.

The Department of Marketing offers an array of professional development opportunities and support in producing scholarly research to faculty by providing an environment conducive to the growth and enrichment of a community of scholars. Marketing also provides consulting as well as a diversity of other professional services to the business and academic communities—locally, nationally and internationally.

## **MARKETING**

### **BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)**

### **BACHELOR OF SCIENCE (B.S.)**

#### **Advertising Concentration**

[Link to minors and certificate](#)

Along with the University and College of Business degree requirements listed in the [Degree Requirements](#) section of this catalog, Marketing students must complete the requirements below.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to

satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Pre-Business Foundation Coursework**

These are previously listed under the heading [Degree Requirements \(B.B.A. and B.S.\)](#) and subheading Pre-Business Foundation Coursework in this section.

### **Business Core Requirements**

These are previously listed under the heading [Degree Requirements \(B.B.A. and B.S.\)](#) and subheading College of Business Core in this section. Principles of Marketing (MAR 3023) is a Business Core requirement and a prerequisite for all 4000-level marketing courses.

### **Marketing Department Major Programs**

The Marketing program, including the Advertising concentration, consists of 18 credits of Marketing coursework (excluding MAR 3023), in addition to the college pre-business and core coursework. The General Marketing major requires three specific courses (Consumer Behavior, Marketing Research and Information Systems and Marketing Strategy) plus three (9 credits) of upper-division marketing electives. Students in the Advertising concentration are required to take Principles of Advertising (MAR 3326), Marketing Strategy (MAR 4803), any three of the four courses listed below for the Advertising concentration, and a Marketing elective to meet the minimum of 18 credits of Marketing coursework. A grade of "C" or better is required in all major courses.

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### **General Marketing Major**

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#### **Required Courses - 9 credits**

Consumer Behavior	MAR 4503	3
RI: Marketing Research and Information Systems	MAR 4613	3
Marketing Strategy	MAR 4803	3

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#### **Electives - 9 credits**

Choose three upper-division Marketing courses

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### **Advertising Concentration**

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#### **Required Courses - 6 credits**

Principles of Advertising	MAR 3326	3
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Marketing Strategy	MAR 4803	3
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**Plus three of the following - 9 credits**

Advertising Internship	MAR 4940	3
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Promotional Management	MAR 4323	3
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Creative Advertising Strategy: Concepts and Design	MAR 4334	3
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Digital Marketing	MAR 4721	3
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**Plus one upper-division Marketing elective - 3 credits**

One of the following Hospitality courses may be substituted for 3 elective credits:

HFT 3741 Events Management

HFT 4240 Excellence in Guest Service Management

HFT 4503 Hospitality Marketing and Revenue Management Practices

## **MARKETING**

### **UNDERGRADUATE MINOR**

*(Minimum of 9 credits required)*

The Marketing minor is designed for non-Marketing Business majors requiring the Business Core courses. Because part of the requirements include successful completion of the Business Core classes, the minor is usually not practical for majors in General Economics or Health Administration.

The Marketing minor requires MAR 4803 and two additional upper-division marketing or advertising courses (3000 level or above) with a grade of "C" or better. In cases where MAR 4803 is required for a major, an additional upper-division marketing course is required for the minor.

A maximum of 3 credits used for the Marketing minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor. A minimum of 6 credits must be taken in residence at FAU. The acknowledgment of the minor is official upon successful completion of a College of Business degree program.

## **DIGITAL MARKETING**

## UNDERGRADUATE MINOR

*(Minimum of 12 credits required)*

The Digital Marketing minor is jointly offered by the Department of Information Technology and Operations Management and the Department of Marketing. Students acquire knowledge and skills in online and digital business and digital product delivery as well as in developing, analyzing and enhancing a company's presence on the web and in social networking. Professions and majors that benefit from the minor include marketing, business development, business strategy, information technology, management information systems and others. For complete details on this program, please click [here](#).

## **DIGITAL MARKETING** UNDERGRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

The certificate in Digital Marketing is a 12-credit program offered jointly by the Department of Information Technology and Operations Management and the Department of Marketing. This certificate, available to FAU degree-seeking students, non-degree students and working professionals, enhances the qualifications of students pursuing careers in fields related to business, marketing and information technologies. For complete details on this program, please click [here](#).

## **HOSPITALITY AND TOURISM MANAGEMENT** BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.) BACHELOR OF SCIENCE (B.S.)

The Bachelor of Business Administration (B.B.A.) or Bachelor of Science (B.S.) in Hospitality and Tourism Management program prepares students for management positions in multiple segments of the world's largest industry. Graduates assume managerial roles in varied hospitality disciplines including: resorts, hotels, restaurants, private clubs, meeting and event planning corporations, destination marketing organizations, convention centers, cruise lines, casinos, theme parks, car rental agencies, sports facilities, spas, entertainment venues and vacation ownership or fractional ownership operations. An [online B.B.A. in Hospitality and Tourism Management](#), minors in [Hospitality and Tourism Management](#) and certificates in [Casino and Gaming Industry Management](#), [Club Management](#), [Hospitality and Tourism Management](#) and [Events Management](#) are also available. In

addition, the program offers graduate certificates [in Hospitality and Tourism Management](#) and [Professional Hospitality and Tourism Management](#).

Potential careers within the hospitality industry include positions in a wide assortment of disciplines, including but not limited to: sales and marketing, revenue management, human resource management, business operations, planning and development, real estate and food and beverage management.

Students will gain a solid education in the various core disciplines of business administration combined with foundational knowledge specific to hospitality and tourism management.

### **Degree Requirements**

In addition to the **University** and **College of Business** degree requirements listed in the [Degree Requirements](#) section of this catalog, Hospitality and Tourism Management students must complete the following requirements for the major.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

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### **Required**

Introduction to Hospitality Management	HFT 3003	3
Principles of Food and Beverage Management	HFT 3263	3
Principles of Hospitality Law	HFT 3603	3
Hospitality Marketing and Revenue Management Practices	HFT 4503	3
Excellence in Guest Service Management	HFT 4240	3

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Hotel and Resort Management	HFT 4253	3
Internship in Hospitality and Tourism Management	HFT 4941	0
<b><i>Select one of the following*</i></b>		
Events Management	HFT 3741	3
Human Resources Management for the Hospitality Industry	HFT 3221	3
Club Management	HFT 4277	3
Financial Analytics for Hospitality Managers	HFT 4453	3
International Field Experience in Hospitality Management	HFT 4955	3
Casinos and the Gaming Industry	HFT 3785	3
Revenue Management and Predictive Analytics in the Hospitality and Tourism Industry	HFT 4481	3

\* Special Topics, HFT 4930, also may be selected for this area.

Hospitality and Tourism Management majors must take ECS 3013, ECO 4713 or ECO 4704 as part of their Business Core to satisfy both the Economics and International Perspective requirements of the College.

## **HOSPITALITY AND TOURISM MANAGEMENT** **UNDERGRADUATE MINOR FOR BUSINESS MAJORS**

*(Minimum of 9 credits required)*

Students seeking a major in the College of Business other than Hospitality and Tourism Management (specifically majors that require the Business Core) may concurrently earn a minor in Hospitality and Tourism Management. To earn the minor, students must complete 9 credits with a grade of "C" or better from the following courses and must receive an "S" (satisfactory) in HFT 4941. A maximum of 3 credits used for the minor may count toward other Business major requirements. A minimum of two courses (6 credits) must be exclusive to the minor.

### **Required**

Introduction to Hospitality Management	HFT 3003	3
Internship in Hospitality and Tourism Management	HFT 4941	0
<i>Select two of the following*</i>		
Excellence in Guest Service Management	HFT 4240	3
Principles of Hospitality Law	HFT 3603	3
Hospitality Marketing and Revenue Management Practices	HFT 4503	3
Hotel and Resort Management	HFT 4253	3
Events Management	HFT 3741	3
Principles of Food and Beverage Management	HFT 3263	3
Human Resources Management for the Hospitality Industry	HFT 3221	3
Club Management	HFT 4277	3
International Field Experience in Hospitality Management	HFT 4955	3
Casinos and the Gaming Industry	HFT 3785	3
Revenue Management and Predictive Analytics in the Hospitality and Tourism Industry	HFT 4481	3

\* Special Topics, HFT 4930, also may be selected for this area.

Of the 9 credits, at least 6 must be earned from FAU. Successful completion of the minor also requires the successful completion of all coursework in the student's chosen major degree program.

## **HOSPITALITY AND TOURISM MANAGEMENT** **UNDERGRADUATE MINOR FOR NON-BUSINESS MAJORS**

*(Minimum of 15 credits required)*

Students seeking a major outside the College of Business (or a major in the College of Business that

does not require the Business Core) may concurrently earn a minor in Hospitality and Tourism Management. To earn the minor, students must complete 15 credits with a grade of "C" or better from the following courses and must receive an "S" (satisfactory) in HFT 4941.

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### Required

Introduction to Hospitality Management	HFT 3003	3
Internship in Hospitality and Tourism Management	HFT 4941	0

### *Select four of the following\**

Excellence in Guest Service Management	HFT 4240	3
Principles of Hospitality Law	HFT 3603	3
Hospitality Marketing and Revenue Management Practices	HFT 4503	3
Hotel and Resort Management	HFT 4253	3
Events Management	HFT 3741	3
Principles of Food and Beverage Management	HFT 3263	3
Human Resources Management for the Hospitality Industry	HFT 3221	3
Club Management	HFT 4277	3
International Field Experience in Hospitality Management	HFT 4955	3
Casinos and the Gaming Industry	HFT 3785	3
Revenue Management and Predictive Analytics in the Hospitality and Tourism Industry	HFT 4481	3

\* Special Topics, HFT 4930, also may be selected for this area.

Of the 15 required credits, 12 must be earned from FAU. Successful completion of the minor also requires the successful completion of all coursework in the student's chosen major degree program.

## **CASINO AND GAMING INDUSTRY MANAGEMENT**

## UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

This undergraduate certificate provides a focused curriculum including key subject areas deemed relevant and vital to success in the casino and gaming industry. These competencies span food and beverage, marketing, casino operations and hotel/resort management. The casino and gaming industry employs hundreds of thousands in the United States including over 10,000 in south Florida.

Students must complete 15 credits from the courses below. The certificate in the Casino and Gaming Industry is open to both degree-seeking and non-degree-seeking students and is available in person or fully online. All courses must be completed with a minimum grade of "C." Courses may have prerequisites, corequisites or other requirements. Non-degree-seeking students need program director approval prior to enrollment in all courses.

The certificate is particularly valuable for FAU degree-seeking students outside the College of Business and to community members, hospitality industry professionals and seasonal residents. For further information, please reach out to the Hospitality and Tourism Management Program Director, Dr. Peter Ricci at [peter.ricci@fau.edu](mailto:peter.ricci@fau.edu) or 561-297-3666.

After completion of all courses with a grade of "C" or higher, students may then request their certificate from the Student Academic Services Office (academic advising) located in the FAU College of Business, Boca Raton campus, Fleming West Building, Room 102, 561-297-3688.

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### Required Courses (15 credits)

Human Resources Management for the Hospitality Industry	HFT 3221	3
Principles of Food and Beverage Management	HFT 3263	3
Casinos and the Gaming Industry	HFT 3785	3
Hotel and Resort Management	HFT 4253	3
Hospitality Marketing and Revenue Management Practices	HFT 4503	3

## **CLUB MANAGEMENT** UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The undergraduate certificate in Club Management provides a focused curriculum on those managerial competencies deemed important to private club managers of the 21st Century. These managerial competencies include: golf, spa, tennis, aquatics, food and beverage, marketing, human resources and leadership. The private country club industry is one of the highest-paying hospitality niche professions in Florida offering great employment opportunities. The sheer number of private clubs (over 125 clubs in Palm Beach, Broward, and Miami-Dade) make the region very strong in club management.

Students must complete 15 credits from the courses below. The certificate in Club Management is open to both degree-seeking and non-degree-seeking students and is available in person or fully online. All courses must be completed with a minimum grade of "C." Courses may have prerequisites, corequisites or other requirements. Non-degree-seeking students need program director approval prior to enrollment in all courses.

The certificate is particularly valuable for FAU degree-seeking students outside the College of Business and to community members, hospitality industry professionals and seasonal residents. For further information, please reach out to the Hospitality and Tourism Management Program Director, Dr. Peter Ricci at [peter.ricci@fau.edu](mailto:peter.ricci@fau.edu) or 561-297-3666.

After completion of all courses with a grade of "C" or higher, students may then request their certificate from the Student Academic Services Office (academic advising) located in the FAU College of Business, Boca Raton campus, Fleming West Building, Room 102, 561-297-3688.

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### **Required Courses (15 credits)**

Introduction to Hospitality Management	HFT 3003	3
Club Management	HFT 4277	3
Principles of Food and Beverage Management	HFT 3263	3
Hospitality Marketing and Revenue Management Practices	HFT 4503	3
Human Resources Management for the Hospitality Industry	HFT 3221	3

## **HOSPITALITY AND TOURISM MANAGEMENT** **UNDERGRADUATE CERTIFICATE**

*(Minimum of 15 credits required)*

The undergraduate certificate in Hospitality and Tourism Management provides an industry-focused curriculum to those who desire employment with the hospitality and tourism industry—Florida's number 1 private employer. Students must complete 15 credits from the courses below. The certificate in Hospitality and Tourism Management is open to both degree-seeking and non-degree-seeking students and is available in person or fully online. All courses must be completed with a minimum grade of "C." Courses may have prerequisites, corequisites or other requirements. Non-degree-seeking students need program director approval prior to enrollment in all courses.

The certificate is particularly valuable for FAU degree-seeking students outside of the College of Business and to community members, hospitality industry professionals and seasonal residents. For further information, please reach out to Hospitality and Tourism Management Program Director, Dr. Peter Ricci, at [peter.ricci@fau.edu](mailto:peter.ricci@fau.edu) or 561-297-3666.

After completion of all courses with a grade of "C" or higher, students may then request their certificate from the Student Academic Services Office (academic advising) located in the FAU College of Business, Boca Raton campus, Fleming West Building, Room 102, 561-297-3688.

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### **Core Courses (9 credits)**

Introduction to Hospitality Management	HFT 3003	3
Excellence in Guest Service Management	HFT 4240	3
Hotel and Resort Management	HFT 4253	3

### **Electives (6 credits)**

*Select any two courses from the group below*

Principles of Food and Beverage Management	HFT 3263	3
Hospitality Marketing and Revenue Management Practices	HFT 4503	3
Club Management	HFT 4277	3
Events Management	HFT 3741	3
Principles of Hospitality Law	HFT 3603	3
Human Resources Management for the Hospitality Industry	HFT 3221	3

International Field Experience in Hospitality Management	HFT 4955	3
Special Topics in Hospitality Management	HFT 4930	3

## **HOSPITALITY AND TOURISM MANAGEMENT**

### **GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The graduate certificate in Hospitality and Tourism Management permits students to combine interests in the hospitality and tourism industry in a complementary manner to their overall graduate studies or as a non-degree-seeking student. Students gain an understanding of the core areas within hospitality and tourism management, including, but not limited to, guest service, operations, finance and marketing/revenue management.

Students electing the Hospitality and Tourism Management certificate will take the required courses for their master's or doctoral degree in addition to the Hospitality and Tourism Management certificate courses, unless they are non-degree seeking. In the event they are non-degree seeking, they will only take the hospitality-specific courses. All students pursuing the certificate will choose four courses (12 credits) from the list below. Students interested in Directed Independent Study (DIS) must receive permission from both the chair/director and the instructor of record prior to using the DIS course toward the 12-credit certificate\*.

Students must be in good standing at FAU, must meet all requirements of their respective graduate program (if enrolled in one) and may use hospitality and tourism management courses as electives if permitted by their particular graduate program. Or, as stated above, students may be non-degree seeking. Further, students must have an overall average grade of "B" (3.0 GPA) upon completion of all required courses in order to receive the Hospitality and Tourism Management certificate.

#### **Select four of the following courses (12 credits)**

Hospitality Operations: A Case Approach	HMG 6299	3
Contemporary Issues in Hospitality Marketing	HMG 6506	3
Strategies for Excellence in Guest Service Management	HMG 6546	3
Meetings and Events Management	HMG 6756	3

Directed Independent Study in Hospitality Management*	HMG 6901	3
Any 6000-level marketing course beyond the core	MAR 6***	3

## **HOSPITALITY AND TOURISM MANAGEMENT**

### GRADUATE CERTIFICATE

### PROFESSIONAL PROGRAM

*(Minimum of 12 credits required)*

The Professional Hospitality and Tourism Management certificate is designed for working professionals currently enrolled in self-supporting programs in the College of Business. This is a stand-alone certificate tailored for working professionals and alumni with graduate degrees who are looking for specialized knowledge in Hospitality and Tourism Management. The certificate consists of 12 credits chosen from the table above.

## **EVENTS MANAGEMENT**

### UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The undergraduate certificate in Events Management provides an operations-focused curriculum to those who desire employment within the meetings, events, exhibitions or conventions industries. Students must complete 15 credits from the courses below. The certificate in Events Management is open to both degree-seeking and non-degree-seeking students and is available in person or fully online. All courses must be completed with a minimum grade of "C" or higher. Courses may have prerequisites, corequisites or other requirements. Non-degree-seeking students need program director approval prior to enrollment in all courses.

The certificate is particularly valuable for FAU degree-seeking students outside of the College of Business and to community members, hospitality and tourism industry professionals and seasonal residents. For further information, please reach out to Hospitality and Tourism Management Program Director, Dr. Peter Ricci, at [peter.ricci@fau.edu](mailto:peter.ricci@fau.edu) or 561-297-3666.

After completion of all courses with a grade of "C" or higher, students may then request their certificate from the Student Academic Services Office (academic advising) located in the FAU College of

Business, Boca Raton campus, Fleming West Building, Room 102, 561-297-3688.

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### **Core Courses (12 credits)**

Introduction to Hospitality Management	HFT 3003	3
Events Management	HFT 3741	3
Hotel and Resort Management	HFT 4253	3
Excellence in Guest Service Management	HFT 4240	3

### **Electives (3 credits)**

*Select any one course from the group below*

Principles of Food and Beverage Management	HFT 3263	3
Hospitality Marketing and Revenue Management Practices	HFT 4503	3
Special Topics (such as Special Venue Marketing)	MAR 4933	3
Promotional Management	MAR 4323	3

[Link to Course Descriptions for the College of Business](#)





# UNIVERSITY CATALOG

## SUB MENU



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### GENERAL INFORMATION

### COURSE DESCRIPTIONS

## COLLEGE OF EDUCATION

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### Departments

## Communication Sciences and Disorders

- Counselor Education
- Curriculum and Instruction
- Educational Leadership and Research Methodology
- Special Education

### [Link to Course Descriptions for the College of Education](#)

**Accreditation:** The College of Education at Florida Atlantic University is accredited by the Council for the Accreditation of Educator Preparation (CAEP), 140 19th St. N.W., Suite 400, Washington, D.C. 20036, 202-223-0077. This accreditation covers initial teacher preparation programs and advanced educator preparation programs. Graduates of Florida Atlantic University who successfully complete approved teacher education programs are qualified for teaching certificates in all states recognizing this accreditation.

### **National Report Card**

Under Federal Title II requirements, institutions preparing individuals for initial teacher certification are required to make available information concerning the effectiveness of their teacher preparation programs. This information on Florida Atlantic University's professional education programs can be viewed on the College of Education's website at [www.coe.fau.edu](http://www.coe.fau.edu).

### **Mission Statement**

The mission of the College of Education is to serve the community of Florida Atlantic University by providing effective leadership in areas of research, service and teaching at the local, state, national and international levels through the initial and advanced preparation of informed, capable, ethical and reflective decision-making professionals. The College's faculty and students seek to promote and sustain authentic change, excellence and equity in their respective fields and in the organizations and systems with which they are associated. The College's programs reflect changing societal needs and incorporate web-supported delivery systems, current methodologies and research, bringing faculty and students together to improve the quality of education for all in an increasingly diverse, technological, inclusive and global society.

### **Live Text Resource Requirement**

The College of Education has adopted a student assessment resource (Live Text). Based on program requirements, students will purchase and utilize this resource from the beginning of their degree program through program completion. More information is provided on the College of

Education [website](#).

## LOWER-DIVISION GENERAL PREPARATION REQUIREMENTS

In addition to FAU general education lower-division preparation, Elementary, Secondary and Special Education majors must take the following education prerequisites:

Introduction to the Teaching Profession	EDF 2005
Introduction to Diversity for Educators	EDF 2085
Introduction to Technology for Educators	EME 2040

For prerequisite information for undergraduate transfer students, refer to each major's description below.

### Freshman Requirements

First-time-in-college students (freshmen) who entered fall 2001 and transfer students who entered fall 2003 who are majoring in Elementary Education, Secondary Education or Special Education must also take 45 credits in general knowledge within the current 51 credits required from the following areas:

1. **Communications** – minimum of 6 credits in English, including writing;
2. **Mathematics** – minimum of 6 credits, excluding intermediate algebra and including college algebra or higher and geometry;
3. **Sciences** – minimum of 6 credits, including earth science, life science and physical science, with a minimum of one associated lab;
4. **Humanities** – minimum of 9 credits, including philosophy and fine arts;
5. **Social Sciences** – minimum of 9 credits, including general psychology and American history.

### Previously Enrolled and Transfer Students

First-time-in-college students (freshmen) who entered fall 1999 and transfer students who entered fall 2001 who are majoring in Elementary Education or Special Education must take 51 credits from the following areas:

1. **Communications** – minimum of 6 credits, including a speech course;
2. **Mathematics** – minimum of 6 credits, excluding intermediate algebra and computer courses;

3. **Sciences** – minimum of 6 credits in the natural and/or physical sciences with a minimum of one associated lab;
4. **Humanities** – minimum of 6 credits;
5. **Social Sciences** – minimum of 6 credits, including a psychology or human growth and development course.

## Transfer Students

1. **Communications** – minimum of 6 credits in English composition;
2. **Mathematics** – minimum of 6 credits, to include college algebra and statistics;
3. **Sciences** – minimum of 6 credits (a physical science course and a biological science course recommended); individual degree programs may have specific science requirements; consult an academic advisor for further information;
4. **Humanities** – minimum of 6 credits;
5. **Social Sciences** – minimum of 6 credits; individual degree programs may have specific social science requirements; consult an academic advisor for further information;
6. **General Education Electives** – minimum of 6 additional credits required from Areas 1-5.

All general education requirements should be completed prior to admission to a teacher preparation program.

A student who enters FAU as a freshman or transfers with fewer than 30 credits should follow the four-year core requirements, using electives to meet any requirements listed above not included in the four-year curriculum.

# BACHELOR'S DEGREE PROGRAM INFORMATION

## General Studies Degree Program

The University offers a Bachelor of General Studies (B.G.S.) degree program that allows students to design a plan of study to meet their personal interests and career goals. The 120-credit program includes 15 credits of upper-division coursework in one discipline, which students select in consultation with an advisor. For more B.G.S. details and degree requirements, please refer to the [Degree Programs](#) section of this catalog.

## Undergraduate Research Certificate

To recognize undergraduate students' excellence in undergraduate research, the Office of Undergraduate Research and Inquiry (OURI) has established the [Undergraduate Research](#)

**Certificate.** Requirements for the Research Certificate include completion of 12 credits of research exposure, skill-building and intensive courses as well as dissemination of the outcomes of students' research and inquiry through a research presentation or exhibition.

### **Admission Requirements**

Admission to the University and/or to the College of Education does not constitute admission to a teacher preparation program. Students seeking admission to a particular program must also meet the admission requirements of the program of their choice.

In general, to be admitted to a teacher preparation program, the applicant must:

1. Have a minimum grade point average (GPA) of 2.5 on a 4.0 scale on the general education component of undergraduate studies or have completed requirements for a baccalaureate degree with a minimum GPA of 2.5 from any college or university accredited by a regional accrediting institution;
2. Meet the general University first-year student or transfer admission requirements. See the [Admissions section](#) of this catalog;
3. Meet minimum standards of physical and mental health;
4. Be interviewed and recommended for admission;
5. Be approved for admission by the department concerned and the College of Education Office for Academic and Student Services;
6. Be programmed by an assigned advisor.

### ***Background Check***

State of Florida teacher certification requires all applicants to be fingerprinted and screened by the FBI for felony convictions. School districts also require a fingerprint check and screening for school-based clinical assignments for education students. This includes both student teaching and pre-student teaching assignments. Students with felony records will NOT be permitted to be placed in internship settings and will NOT be able to successfully complete the program of studies for their degree and/or certification. Consequently, students with a record of a felony conviction(s) will NOT be eligible for admission to a teacher preparation program at Florida Atlantic University. Admission to the teacher preparation program does not ensure that the student will be able to complete the program and receive the degree in education if ethical violations occur.

### **Degree Requirements**

Students are awarded the Bachelor of Arts in Education (B.A.E.) degree by completing the required work in one of the following disciplines: Elementary Education (K-6), Exceptional Student Education

(K-12) and Secondary Education (6-12).

These degrees do not require a foreign language at the community or state college or university level. Instead, they require two years of the same foreign language at the high school level. However, students who meet the foreign language requirement at the community or state college or university level may apply for a B.A. or B.S. degree as in other colleges.

Students who complete the requirements for the bachelor's degree in Early Care and Education will be awarded the B.E.C.E. This program is offered jointly by the Department of Special Education and the Department of Curriculum and Instruction.

Students who complete the requirements for the bachelor's degree in Music Education will be awarded the B.M.E. This program is offered jointly by the Department of Curriculum and Instruction in the College of Education and by the Department of Music in the Dorothy F. Schmidt College of Arts and Letters.

### ***Eligibility for B.A.E. or B.S.E. Degree***

To be eligible for the Bachelor of Arts in Education (B.A.E.) or Bachelor of Science in Education (B.S.E.) degree, students must fulfill the following requirements:

1. Satisfy the University and College's degree requirements;
2. Satisfactorily complete the last 30 credits as a student in the College of Education with a minimum of 30 credits after final admission to a teacher preparation program;
3. Complete one of the approved teacher preparation programs with a "C" grade or better in all education courses and an "S" in Student Teaching;
4. Elementary, Secondary and Exceptional Student Education majors must complete the education course sequence with a minimum GPA of 2.5 as well as an overall GPA of 2.5;
5. Elementary and Secondary Education majors must pass the Florida Teacher Certification Examination (FTCE) prior to student teaching and satisfactorily complete a Preservice Teacher Composite Portfolio. Exceptional Student Education majors must pass the FTCE prior to completing their student teaching and graduation;
6. Be recommended for graduation by the faculty of the student's major field department and the faculty of the College of Education.

SINCE JULY 1, 1980, THE STATE OF FLORIDA HAS REQUIRED ALL APPLICANTS FOR INITIAL FLORIDA CERTIFICATION TO DEMONSTRATE, THROUGH A COMPREHENSIVE WRITTEN EXAMINATION, MASTERY OF THE MINIMUM FLORIDA SUBJECT AREA

## COMPETENCIES AND SKILLS AND OTHER CRITERIA ADOPTED BY THE STATE BOARD OF EDUCATION (Florida Teacher Certification Examination-FTCE).

### ***Security Clearance***

Students registering for courses requiring field experience **MUST** go through a security clearance process. This process requires students to be fingerprinted and, depending on the school district, to participate in a drug screening to be approved for security clearance. A processing fee payable to the appropriate school district is required. It is strongly recommended that students complete this process once they are admitted to the University.

For detailed information, visit the College of Education Student Services [website](#). Information will also be provided in courses with field placement requirements.

### **Admission to Supervised Teaching Experience**

Each candidate for student teaching and practicum and for graduate internships must file, in advance, an application in the Office for Academic and Student Services. Student teaching is offered in the fall and spring semesters (ESE in spring only). Deadlines for applications are:

***Fall Semester*** – Applications to student teach during the fall semester must be filed by January 31.

***Spring Semester*** – Applications to student teach during the spring semester must be filed by September 15.

Special requirements for enrollment in student teaching are:

1. Admission to a degree or certification program in the College of Education;
2. Completion of an application for student teaching;
3. Successful completion of all required coursework. Secondary subject majors must have completed all academic and professional requirements. All Education majors must have at least a "C" in each foundations course;
4. An overall GPA of 2.5 or higher;
5. Approval of student's advisor and department;
6. All Elementary Education and Secondary Education majors must have a minimum of a "C" in each Education major course and must have satisfactorily completed all screening examinations;
7. Exceptional Student Education majors must have completed all courses, earned at least a grade of "C" or better in all education courses and demonstrated competency on Florida's Educator Accomplished Practices;
8. All incompletes must be removed prior to being admitted to student teaching;
9. Any required departmental policies/exit examinations must have been completed;

10. Elementary Education and Secondary Education majors must present passing scores on the Florida Teacher Certification Examination (both subject matter and professional) prior to being approved to enroll in student teaching.

## MASTER'S DEGREE PROGRAM INFORMATION

Master's degree programs are offered by the College of Education to qualified persons who have sufficient and satisfactory undergraduate preparation. The following programs are offered:

### **Communication Sciences and Disorders - M.S.**

#### **Counselor Education - M.Ed. with concentrations in:**

Clinical Mental Health Counseling  
Clinical Rehabilitation Counseling  
School Counseling

#### **Curriculum and Instruction - M.Ed. with majors in:**

Curriculum and Instruction  
Educational Psychology  
Elementary Education  
Elementary Education with ESOL plus Certification  
Environmental Education  
Instructional Technology  
Reading Education (K-12)  
Secondary Education plus Certification

Curriculum and Instruction plus certification concentrations in: *(The program is being phased out.)*

Art (K-12)  
Elementary Education (K-6)  
English with ESOL (6-12)  
Environmental Education (not linked to certification)  
Foreign Language (French, Spanish: K-12)  
Mathematics (6-12)  
Science Education (Biology, Chemistry, Physics: 6-12)  
Social Science (6-12)

### **Educational Leadership and Research Methodology - M.Ed. with concentrations in:**

Adult and Community Educational Leaders

Higher Education Leaders

School Leaders (K-12)

### **Special Education - M.Ed. in Special Education with areas of study in:**

Applied Behavior Analysis

Autism Spectrum Disorders

Early Childhood

Gifted Education (endorsement courses available)

Instructional Practices in ESE

Professional Development

Reading

### **Admission Requirements**

1. Applicants must have a minimum grade point average of 3.0 or higher in the last 60 credits of undergraduate work attempted prior to receiving the bachelor's degree and a minimum combined score of 800 on the verbal and quantitative portions of the Graduate Record Examination, **OR**

A minimum combined score of 1000 on the verbal and quantitative portions of the Graduate Record Examination (GRE) and a minimum grade point average of 2.5 in the last 60 credits of undergraduate work attempted prior to receiving the bachelor's degree. Applicants for the Communication Sciences and Disorders Program must have a 3.0 GPA and a minimum 1000 on the verbal and quantitative sections of the GRE. Applicants for the Special Education Program must earn acceptable scores on either the GRE or the Miller Analogy Test (MAT). For applicants using the MAT, an acceptable score is in the 50th percentile for intended Education majors.

2. Applicants must be approved for admission by the appropriate department as well as by the College of Education. Contact the appropriate department for specific requirements and deadlines.

### **Admission to Candidacy**

Admission to the College of Education graduate program does not constitute admission to candidacy for a degree. Admission to candidacy for a degree has specific requirements which may include:

1. Acceptance by the department;
2. Appointment of an advisor;

3. Preparation by the advisor of a formal program of studies for the degree desired;
4. Passing an examination or other criteria that demonstrate understanding of the broad areas of education and/or field of study covered in the preparation for the master's degree (successful completion of Graduate Internship, Field Project or Master's Thesis in Special Education);
5. Passing M.Ed. Reading (subject area portion of FTCE);
6. Having an approved thesis/dissertation topic.

### **Degree Requirements**

The Master of Education degree, consisting of a minimum of 36 credits, is awarded to students who have:

1. Completed at least 18 credits in courses open only to graduate students;
2. Completed an approved program of study as certified by the department chair;
3. Achieved a grade point average of at least 3.0 on all graduate work attempted ("B" in all courses for Special Education);
4. Completed the research and statistics core satisfactorily;
5. Been recommended for the degree by the faculty of the College of Education.

### **Admission to Supervised Internship Experience**

Internship is offered in the fall, spring and summer semesters (fall and spring only in Curriculum and Instruction plus Certification, Exceptional Student Education, Elementary Education, Guidance and Counseling and Secondary Education [6-12 or K-12]). Special requirements for enrollment in internship are:

1. Admission to a graduate degree program in the University;
2. Contact the Office for Academic and Student Services for deadlines to apply for admission to student teaching;
3. Overall GPA as required by the department;
4. Approval of student's advisor and department;
5. Coursework completed as required by the department;

## **COMBINED DEGREE PROGRAM INFORMATION**

This combined program in Counselor Education pairs the 60-credit Master of Education program with the Specialist in Education program. Students enrolled in this program apply once and are eligible to graduate with their master's degree after they have completed 60 credits of coursework. After completing an additional 12 credits for a total of 72, students would receive their specialist in education

degree. [See relevant section below.](#)

## SPECIALIST'S DEGREE PROGRAM INFORMATION

The Specialist in Education (Ed.S.) degree is designed to provide an organized sequence of advanced preparation for various types of educational positions requiring more preparation than the master's degree, but for which the doctoral degree with its major research emphasis is not required.

The College of Education offers a program of study leading to the educational specialist's degree in:

1. Counselor Education—Concentrations in Mental Health Counseling or School Counseling;
2. Curriculum and Instruction;
3. Educational Leadership—Concentrations in Adult and Community Educational Leaders or in School Leaders (K-12).

### **Admission Requirements**

1. Applicants must meet College and University requirements.
2. Applicants must be approved for admission by the appropriate department.
3. Other requirements are listed by department.

### ***Counselor Education***

1. A master's degree in Counselor Education or related field;
2. An average GPA of 3.0 or higher on all graduate work attempted;
3. A 300-word writing sample that identifies the applicant's career goals and how the program will enable him/her to meet those goals;
4. Three professional and/or academic letters of recommendation regarding suitability for advanced graduate study in the counseling field;
5. The faculty reserves the right to interview any or all applicants prior to admission.

### ***Curriculum and Instruction***

1. A master's degree from a regionally accredited college or university;
2. An overall grade point average of 3.0 or better in the last 60 credits of undergraduate work prior to the granting of the bachelor's degree;
3. An overall grade point average of at least 3.25 or better on all graduate work attempted;

4. Specified scores on the Graduate Record Examination (GRE); for GRE scores and additional information, click [here](#);
5. Letters of recommendation from two professional supervisors/colleagues;

Additional admission requirements exist for International Students. Contact the FAU Office of International Students and Scholars and the Graduate College for these requirements.

### ***Educational Leadership***

1. Master's degree from an accredited college or university;
2. Achieve a minimum GPA of 3.0 in a master's program, **OR**
3. Complete the GRE (no minimum sub-score requirement); score may not be more than five years old;
4. A sponsor commitment form from a school principal who is willing to sponsor the student for three semesters of internship (only for School Leaders K-12 students pursuing certification).

### **Degree Requirements**

The minimum requirements for the Specialist in Education (Ed.S.) are as follows:

1. **For Counselor Education**
  - a. students must complete an approved program with a minimum of 72 graduate credits. Additional coursework and other requirements may be required for certification or licensure. Likewise, additional coursework may be required to remove deficiencies.
  - b. **For Curriculum and Instruction**, students must complete a minimum of 33 credits above the master's degree in an approved program.
  - c. **For Educational Leadership**, students must complete a minimum of 36 credits above the master's degree and a total of at least 72 graduate credits.
2. Take no more than one-third of the graduate credits above the degree prior to being programmed for the specialist's degree.
3. Complete at least one semester of full-time graduate study at Florida Atlantic University.
4. Achieve a grade point average of at least 3.0 on all graduate work attempted.
5. Complete all internship and/or teaching experience required.
6. Complete area of concentration (cognate) requirement of 15-18 credits of graduate-level courses.
7. Complete 6-15 credits of elective requirements in one or more fields outside of the concentration, except Counselor Education.
8. Complete the entire program of study, as certified by the student's advisor or chair.
9. Pass any required qualifying or comprehensive examination in the area of concentration.
10. Receive recommendation for the degree by the College of Education faculty.

## DOCTORAL DEGREE PROGRAM INFORMATION

The College of Education of Florida Atlantic University, with the approval of the Board of Trustees and the State of Florida, offers programs of study leading to doctoral degrees in:

1. [Counseling](#) (Ph.D.).
2. [Curriculum and Instruction](#) (Ph.D.).
3. [Educational Leadership](#)—Concentrations in Adult and Community Educational Leaders, Higher Education Leaders or School Leaders (K-12) (Ph.D.).
4. [Neuroscience](#) (Ph.D.).
5. [Special Education](#) (Ph.D.)

Requirements for the program are listed under individual departments.

## COMMUNICATION SCIENCES AND DISORDERS

### **Faculty:**

Williams, D., Interim Chair; Clark, C., Clinic Director; Danesh, A.; Imgrund, C.; Porcaro, C. K.; Steele, K.

### **Program Accreditation**

The Communication Sciences and Disorders Department is accredited by the Council on Academic Accreditation (CAA) of the American Speech-Language-Hearing Association (ASHA).

The CAA requires programs to provide information about the program that is current, accurate and readily available to the public with regard to the following: program completion, pass rates for the Praxis examination in Speech-Language Pathology and employment information. Students are encouraged to access the department's [webpage](#) to view current information on the department's performance in these areas.

### **Department Goals and Objectives**

1. Upon completion of the program, the student will have demonstrated the critical knowledge and skills necessary for entry-level independent practice in the field of speech-language pathology.
2. Upon completion of the program, the student will have met all of the academic and clinical requirements for the certificate of Clinical Competence in Speech-Language Pathology as well as

met the department's standards for academic and clinical excellence.

## Objectives

Upon completion of the program:

1. The student will have demonstrated knowledge of basic human communication and swallowing processes, including their biological, neurological, acoustic, psychological, developmental and linguistic and cultural bases.
2. The student will have demonstrated knowledge of the nature of speech, language, hearing, and communication disorders and differences and swallowing disorders, including the etiologies, characteristics, anatomical/physiological, acoustic, psychological, developmental, and linguistic and cultural correlates in the K-9.
3. The student will have demonstrated knowledge of the principles and methods of prevention, assessment and intervention for people with communication and swallowing disorders, including consideration of anatomical/physiological, psychological, developmental, and linguistic and cultural correlates of the disorders in the K-9.
4. The student will have demonstrated knowledge of the processes used in research and the integration of research principles into evidence-based clinical practice.
5. The student will have demonstrated knowledge of contemporary professional issues.
6. The student will have demonstrated knowledge about certification, specialty recognition, licensure and other relevant professional credentials.
7. The student will have demonstrated sufficient skill in oral and written communication for entry into professional practice.
8. The student will have demonstrated the interaction and personal qualities requisite for entry into professional practice:
  - a. Effectively communicate while recognizing the needs, values, preferred mode of communication and cultural/linguistic background of the client/patient, family, caregivers and relevant others;
  - b. Collaborate with other professionals in case management;
  - c. Provide counseling regarding communication and swallowing disorders to clients patients, family, caregivers and relevant others;
  - d. Adhere to the ASHA Code of Ethics and behave professionally.

## Mission Statement

The mission of the Department of Communication Sciences and Disorders is fourfold:

1. To prepare highly qualified, capable, ethical professionals who will engage in reflective decision making and promote and sustain authentic change, excellence and equity as well as exceed the

department's and ASHA's guidelines for clinical and academic preparation in speech-language pathology;

2. To engage in research of the normal and abnormal processes of speech, hearing and language toward the furthering of both clinical and academic knowledge, reflecting the diversity and needs of a global society while considering current methodologies and incorporating current technology;
3. To provide quality speech, language and hearing diagnostic and habilitation/rehabilitation services to all FAU students, staff and faculty and to any individual outside of the FAU community requiring such services;
4. To act as a resource for the University as well as for local, state, national and international communities by serving as consultants, liaisons, lecturers, facilitators, master clinicians and authorities in the various areas of communication disorders.

## **SPEECH – LANGUAGE PATHOLOGY/AUDIOLOGY** **MASTER OF SCIENCE (M.S.)**

### **Admission Requirements**

1. The student must meet College and University requirements.
2. Consideration for admission to the Communication Sciences and Disorders Department requires submission of official transcripts from all institutions attended.
3. Graduate Record Exam scores must be submitted.
4. The student must include three letters of recommendation with the application for admission.
5. All Department of Communication Sciences and Disorders prerequisite courses must be completed prior to enrollment.

Admission to the Department of Communication Sciences and Disorders is competitive. Students are accepted to begin the program for the fall term only. All admissions are subject to faculty approval.

The graduate school application must be submitted online via [CSDCAS](#). The graduate program is a limited-access program. All application materials must be received no later than January 15 prior to the fall semester for which admission is being sought. A full description of the application process is available on the department's [webpage](#).

### **Policy On Graduate Students With Limited English Proficiency (LEP)**

Competence in oral and written English is required for both the academic and clinical practicum aspects of the program. Applicants who were educated outside of the United States, whose primary language is not English and/or who graduated from a university where the language of instruction was

not English must demonstrate facility in the English language by the successful completion of the Test of English as a Foreign Language (TOEFL).

The criteria for the Test of English as a Foreign Language (TOEFL) is as follows:

1. Applicants taking the paper-based TOEFL exam must achieve a minimum score of 600 with 5 on the Test of Written English (TWE) and 50 on the Test of Spoken English (TSE).
2. Applicants taking the computer-based TOEFL exam must achieve a minimum score of 550 on the paper-based test (TOEFL PBT) or 80 on the internet-based version (TOEFL iBT). The CSD department also accepts IELTS test results with a minimum score of 6.5.

In addition to the proficiency test, applicants may be requested to attend a meeting with faculty and staff of the Department of Communication Sciences and Disorders. During this meeting, mastery of oral English for meeting clinical requirements will be assessed and the following questions considered:

1. Does the individual have the expected level of knowledge in normal and disordered communication?
2. Does the individual have the expected level of diagnostic and clinical case management skills?
3. If modeling is necessary, is the individual able to model the target phoneme, grammatical feature or other aspect of speech and language that characterizes the client's particular problem? (1)

If indicated, a plan for improvement will be developed. The student must meet the goals of this plan before beginning clinical practicum. If the student is not able to meet satisfactorily the improvement plan criteria, the program will counsel the student regarding strengths and weaknesses in standard English and how these might affect employers' perceptions or impact the student's ability to perform in various work settings. (2) The student will be given an opportunity to continue remediation or may choose to leave the program.

(1), (2) American Speech-Language-Hearing Association. (1998). Students and Professionals Who Speak English with Accents and Non-Standard Dialects: Issues and Recommendations [Technical Report].

## **Degree Requirements**

1. The student must meet College and University requirements.
2. The student must earn grades of "B" or higher in all courses in the program and will be required to repeat any course in which a grade of less than "B" ("B-" and below) is earned. Students are required to maintain an overall graduate course average of 3.0. (A course may be repeated only once.) Students failing to earn a "B" in two courses will be dismissed from the program.

3. The student must satisfactorily complete three semesters of on-campus practicum with a minimum grade of "B" or higher. Failure to earn a minimum practicum grade of "B" will require an additional semester of practicum experience. Also, the student must complete two semesters of off-campus practicum with a grade of "B+" or higher.
4. Prior to graduation, the student must complete all course critical assignments and all clinical skill requirements at the "exemplary" or "satisfactory" level.
5. Prior to graduation, the student must provide evidence of a passing score (currently 600) on the NESPA (National Examination in Speech Pathology and Audiology).
6. Prior to graduation, each Communication Sciences and Disorders student must complete all academic and clinical practicum requirements for the certificate of Clinical Competence in Speech/Language Pathology issued by the American Speech/Language/Hearing Association.
7. The student must successfully complete either the thesis (6 credits) or non-thesis option (two, 3-credit electives and comprehensive examination).
8. The student must complete a minimum 68-credit program of study.
9. Students must apply for and receive malpractice insurance coverage and security clearance prior to initiating any clinical practicum. This process requires students to be fingerprinted and complete the necessary paperwork. Students are responsible for any associated processing fees.

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### **Program of Study - 68 credits**

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#### ***College of Education Requirements - 6 credits***

Educational Research	EDF 6481	3
Educational Statistics	STA 6113	3

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#### ***Departmental Courses - 42 credits***

Professional Practice and Program Organization	SPA 6006	3
Disorders of Articulation and Phonology	SPA 6204	3
Voice and Velopharyngeal Disorders	SPA 6211	3
Disorders of Fluency	SPA 6225	3
Motor Speech Disorders and Augmentative Communication	SPA 6230	3
Aural Habilitation-Rehabilitation	SPA 6322	3

Language Disorders: Birth to Four	SPA 6401	3
Language Disorders: School Age and Adolescent	SPA 6403	3
Adult Language Disorders	SPA 6410	3
Diagnostic Principles and Procedures in Communication Disorders	SPA 6553	3
Evaluation and Treatment of Linguistically and Culturally Different Populations	SPA 6558	3
Augmentative and Alternative Communication	SPA 6559	3
Dysphagia	SPA 6565	3
Current Research in Communication Sciences and Disorders	SPA 6825	3
<b><i>Practicum - 14 credits</i></b>		
Clinical Practicum in Speech Language Pathology	SPA 6505	1-4*
<b><i>Thesis - 6 credits</i></b>		
Master's Thesis or Non-Thesis Option		6
Comprehensive Examination		

*\*A total of 14 credits of practicum is needed to complete program requirements. Students register for 1-4 credits for five semesters.*

## **NEUROSCIENCE**

### **DOCTOR OF PHILOSOPHY (PH.D.)**

This doctoral program in Neuroscience is a multi-college, multi-institute interdisciplinary degree program organized in partnership with the FAU Brain Institute. Graduate-level instruction is provided by faculty in multiple departments located in the Charles E. Schmidt College of Science, the Charles

Schmidt College of Medicine, the College of Engineering and Computer Science, the College of Education and the Harriet L. Wilkes Honors College. Affiliated faculty from the Max Planck Florida Institute for Neuroscience and Scripps Research Florida also participate in the program. The program aims to equip students with the advanced conceptual and technical skills needed to forge productive, neuroscience-oriented careers in industry, academia and government. Specific details for this doctoral program appear in the [Interdisciplinary Programs](#) section of this catalog.

## COUNSELOR EDUCATION

### Faculty:

Gill, C., Chair; Bowers, P. H.; Canfield, B. S.; Emelianchik-Key, K.; Frain, M.; Mariani, M.; Peluso, P. R.; Torres, A.; Villares, E.

### Mission Statement

Counselor Education's mission is to educate a diverse community of students for professional counseling practice and leadership in local, national and international domains. Mindful that education extends beyond coursework, faculty and students collaborate with schools, communities, agencies and professionals to conduct research and provide services. The research and services are provided with the highest ethical and professional standards in response to the personal, educational and vocational needs of individuals and families living in diverse and multicultural environments. Faculty aspire to uncover new knowledge and relevant research, create dynamic atmospheres for learning and encourage students to actualize their potential, all with the goal of achieving just solutions to human concerns.

### Degree Programs Available

At the undergraduate level, the Department of Counselor Education offers developmental courses that give students considering the field a realistic and comprehensive view of counselors and what they do. The department also offers a certificate in [Applied Mental Health Services](#) in conjunction with the Department of Psychology in the Charles E. Schmidt College of Science. This certificate program provides a curricular experience for students who wish to pursue careers in clinical psychology, mental health counseling and allied human services that enhances the student's chosen major. Certificate details and program requirements are listed under the [Interdisciplinary Programs](#) catalog section.

At the graduate level, Counselor Education offers a Master of Education (M.Ed.) with major in Counselor Education and three concentrations, a combined [Master of Education \(M.Ed.\) to Specialist in Education \(Ed.S.\) with major in Counselor Education](#) and two concentrations, and a Specialist in Education (Ed.S.) with major in Counselor Education with two concentrations. A Doctor of Philosophy

(Ph.D.) with major in Counseling is also part of this department's offerings.

[Link to Combined Program](#)

[Link to Specialist's Program](#)

[Link to Doctoral Program](#)

## **COUNSELOR EDUCATION**

### **MASTER OF EDUCATION (M.ED.)**

**Clinical Mental Health Counseling Concentration**

**Clinical Rehabilitation Counseling Concentration**

**School Counseling Concentration**

The Master of Education (M.Ed.) with major in Counselor Education may be structured with a Clinical Mental Health Counseling, Clinical Rehabilitation Counseling or School Counseling concentration.

Note that admission requirements differ for these concentrations. The concentrations in Clinical Mental Health Counseling and School Counseling require 60 credits; the concentration in Clinical Rehabilitation Counseling requires 63 credits.

### **Admission Requirements**

1. The student must meet College and University requirements.
2. The student must have a minimum grade point average of 2.5 in the last 60 credits of undergraduate study prior to receiving the bachelor's degree and must submit official Graduate Record Examination (GRE) scores.
3. The student must provide a professional goal statement (one-to-two pages) along with a separate page describing the student's work experience related to counseling and three letters of recommendation on each reference's letterhead attesting to the student's suitability for graduate study and entry into the field of professional counseling.
4. Admissions are made twice each year on a competitive basis, except for Clinical Mental Health Counseling, which accepts applicants for the fall semester only.
5. Students should contact the department for specific application procedures and deadlines.
6. All application materials must be received no later than January 15 for fall admission and September 15 for spring admission.

7. The student may take no more than 18 graduate credits from FAU toward the degree prior to admission to the master's degree program in Counselor Education.
8. Permission from a full-time faculty member is required for each course.

### **Admission to Candidacy**

See Admission to Candidacy heading listed under Master's Degree Program Information.

### **Degree Requirements**

1. The student must satisfy College and University requirements.
2. The student may use MHS 6710 to satisfy the College research core requirement.
3. The student must complete a minimum 60-credit program of study for the master's degree.

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### **Clinical Mental Health Counseling Concentration**

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#### ***Core Courses – 24 credits***

Multicultural Counseling for Diverse Populations	MHS 5428	3
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Appraisal and Evaluation in Counseling	MHS 6220	3
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Career Development	MHS 6340	3
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Family Counseling	MHS 6430	3
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Life Span Development	MHS 6482	3
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Group Counseling	MHS 6510	3
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Legal, Ethical and Professional Issues in Counseling	MHS 6700	3
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Counseling Research and Evidence-Based Practice	MHS 6710	3
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#### ***Additional Required Courses – 18 credits***

Psychopathology in Counseling	MHS 6070	3
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Substance Abuse Counseling	MHS 6450	3
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Traumatic Stress, Trauma and Crisis Counseling	MHS 6466	3
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Counseling and Human Sexuality	MHS 6470	3
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Issues in Mental Health Counseling Practice	MHS 6701	3
Educational Statistics	STA 6113	3
<b><i>Pre-Practicum Courses – 6 credits</i></b>		
Processes in Counseling	MHS 5005	3
Counseling Theories and Techniques	MHS 6401	3
<b><i>Field Experience Courses – 12 credits</i></b>		
Practicum in Mental Health Counseling	MHS 6800	3
Internship - Mental Health Counseling <i>(may be taken over two terms for a total of 6 credits)</i>	MHS 6830	3-6
Elective		3
<b>Total</b>		<b>60</b>

### **Clinical Rehabilitation Concentration**

#### ***Foundation Courses – 9 credits***

Processes in Counseling	MHS 5005	3
Counseling Theories and Techniques	MHS 6401	3
Life Span Development	MHS 6482	3

#### ***Core Courses – 30 credits***

Multicultural Counseling for Diverse Populations	MHS 5428	3
Appraisal and Evaluation in Counseling	MHS 6220	3
Career Development	MHS 6340	3
Family Counseling	MHS 6430	3

Substance Abuse Counseling	MHS 6450	3
Counseling and Human Sexuality	MHS 6470	3
Group Counseling	MHS 6510	3
Legal, Ethical and Professional Issues in Counseling	MHS 6700	3
Counseling Research and Evidence-Based Practice	MHS 6710	3
Educational Statistics	STA 6113	3
<b><i>Concentration Courses – 27 credits</i></b>		
Psychopathology in Counseling	MHS 6070	3
Foundations of Rehabilitation Counseling	RCS 6031	3
Medical and Psychosocial Aspects of Disability	RCS 6080	3
Occupational Information and Job Placement	RCS 6320	3
Case Management and Vocational Rehabilitation	RCS 6644	3
Rehabilitation Counseling Practicum	RCS 6801	3
Rehabilitation Counseling Internship (may be taken over two terms for a total of 6 credits)	RCS 6825	3-6
<b>Total</b>		<b>63</b>

### **School Counseling Concentration**

#### ***Core Courses – 30 credits***

Processes in Counseling	MHS 5005	3
Appraisal and Evaluation in Counseling	MHS 6220	3
Counseling Theories and Techniques	MHS 6401	3
Counseling Children	MHS 6421	3

Counseling Adolescents	MHS 6423	3
Life Span Development	MHS 6482	3
Group Counseling	MHS 6510	3
Consultation and Behavior Management	MHS 6600	3
Legal, Ethical and Professional Issues in Counseling	MHS 6700	3
Fundamentals of School Counseling	SDS 5010	3
<b><i>Additional Required Courses – 24 credits</i></b>		
Multicultural Counseling for Diverse Populations	MHS 5428	3
Career Development	MHS 6340	3
Family Counseling	MHS 6430	3
Counseling Research and Evidence-Based Practice	MHS 6710	3 <b>or</b>
Educational Research	EDF 6481	3
Practicum in Counseling	MHS 6800	3
Internship - Counselor Education <i>(may be taken over two terms for a total of 6 credits)</i>	SDS 6820	3-6
Educational Statistics	STA 6113	3
<b><i>Elective Courses – 6 credits. Select two courses from the following:</i></b>		
Play Techniques for Counseling Children and Adolescents	MHS 5422	3
Counseling Research and Evidence-Based Practice	MHS 6710	3
Teaching Reading in Secondary and Middle School	RED 6361	3
Data Driven Practices in School Counseling	SDS 6316	3
Counseling Interventions for College Readiness and Student Success	SDS 6344	3
Guidance and Counseling Gifted Students	SDS 6426	3

Methods of TESOL and Bilingual Education

TSL 5345

3

**Total****60****COUNSELOR EDUCATION****MASTER OF EDUCATION (M.ED.) TO SPECIALIST IN EDUCATION (ED.S.)  
COMBINED PROGRAM****Clinical Mental Health Counseling Concentration****School Counseling Concentration***(Minimum of 84 credits required)*

This Combined M.Ed. and Ed.S. with major in Counselor Education program may be structured with a Clinical Mental Health Counseling or School Counseling concentration. It requires at least 12 credits of coursework beyond the minimum of 60 credits needed for the M.Ed. program. Students receive their M.Ed. after completing a minimum of 60 credits of coursework; the Ed.S. is awarded after completion of a total of 72 credits (and no more than 84 credits for the combined program with departmental permission). Any courses in the Department of Counselor Education can be used to fulfill these requirements with advisor permission.

The Admission Requirements for the M.Ed./Ed.S. are the same as for the M.Ed. The Degree Requirements are also the same except for item 3:

3. The student must complete a minimum 60-credit program of study for the master's degree and complete a minimum of 72 credits for the combined M.Ed./Ed.S. program with no more than 84 credits.

**COUNSELOR EDUCATION****SPECIALIST IN EDUCATION (ED.S.)****Mental Health Counseling Concentration****School Counseling Concentration**

The Specialist in Education (Ed.S.) with major in Counselor Education is available with the following concentrations: Mental Health Counseling or School Counseling. For admission and degree requirements refer to the heading [Specialist's Degree Program Information](#). All application materials

must be received no later than January 15 for summer/fall admission and September 15 for spring admission. The Ed.S. degree requires 72 credits.

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## **Mental Health Counseling Concentration**

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### ***Core Courses – 24 credits***

Multicultural Counseling for Diverse Populations	MHS 5428	3
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Appraisal and Evaluation in Counseling	MHS 6220	3
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Career Development	MHS 6340	3
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Family Counseling	MHS 6430	3
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Life Span Development	MHS 6482	3
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Group Counseling	MHS 6510	3
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Legal, Ethical and Professional Issues in Counseling	MHS 6700	3
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Counseling Research and Evidence-Based Practice	MHS 6710	3
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### ***Additional Required Courses – 18 credits***

Psychopathology in Counseling	MHS 6070	3
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Substance Abuse Counseling	MHS 6450	3
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Traumatic Stress, Trauma and Crisis Counseling	MHS 6466	3
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Counseling and Human Sexuality	MHS 6470	3
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Issues in Mental Health Counseling Practice	MHS 6701	3
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Educational Statistics	STA 6113	3
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### ***Pre-Practicum Courses – 6 credits***

Processes in Counseling	MHS 5005	3
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Counseling Theories and Techniques	MHS 6401	3
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***Field Experience Courses – 12 credits***

Practicum in Mental Health Counseling	MHS 6800	3
Advanced Practicum in Counseling	MHS 6801	3
Internship - Mental Health Counseling <i>(may be taken over two terms for a total of 6 credits)</i>	MHS 6830	3-6

**Additional Specialist Requirements - minimum 12 credits; recommendations below. Select at least four courses from the following OR any courses in the Department of Counselor Education can be used to fulfill these requirements, with advisor permission.**

Special Topics <i>(various topics, may be taken multiple times)</i>	MHS 5930	1-5
Professional Seminar <i>(various topics, may be taken multiple times)</i>	MHS 6930	3
<b>Total</b>		<b>72</b>

**School Counseling Concentration*****Core Courses – 30 credits***

Processes in Counseling	MHS 5005	3
Appraisal and Evaluation in Counseling	MHS 6220	3
Counseling Theories and Techniques	MHS 6401	3
Counseling Children	MHS 6421	3
Counseling Adolescents	MHS 6423	3
Life Span Development	MHS 6482	3
Group Counseling	MHS 6510	3
Consultation and Behavior Management	MHS 6600	3

Legal, Ethical and Professional Issues in Counseling	MHS 6700	3
Fundamentals of School Counseling	SDS 5010	3
<b><i>Additional Required Courses – 24 credits</i></b>		
Multicultural Counseling for Diverse Populations	MHS 5428	3
Career Development	MHS 6340	3
Family Counseling	MHS 6430	3
Counseling Research and Evidence-Based Practice	MHS 6710	3 <b>or</b>
Educational Research	EDF 6481	3
Practicum in Counseling	MHS 6800	3
Internship - Counselor Education ( <i>may be taken over two terms for a total of 6 credits</i> )	SDS 6820	3-6
Educational Statistics	STA 6113	3
<b><i>Elective Courses – 6 credits. Select two courses from the following:</i></b>		
Play Techniques for Counseling Children and Adolescents	MHS 5422	3
Counseling Research and Evidence-Based Practice	MHS 6710	3
Teaching Reading in Secondary and Middle School	RED 6361	3
Data Driven Practices in School Counseling	SDS 6316	3
Counseling Interventions for College Readiness and Student Success	SDS 6344	3
Guidance and Counseling Gifted Students	SDS 6426	3
Methods of TESOL and Bilingual Education	TSL 5345	3
<b>Additional Specialist Requirements - minimum 12 credits; recommendations below; cannot repeat a course taken previously as an elective. Select at least four courses from the following OR any courses in the Department of Counselor Education can be used to fulfill these requirements, with advisor permission.</b>		

Play Techniques for Counseling Children and Adolescents	MHS 5422	3
Special Topics ( <i>various topics, may be taken multiple times</i> )	MHS 5930	1-5
Counseling Research and Evidence-Based Practice	MHS 6710	3
Professional Seminar ( <i>various topics, may be taken multiple times</i> )	MHS 6930	3
Data Driven Practices in School Counseling	SDS 6316	3
Counseling Interventions for College Readiness and Student Success	SDS 6344	3
Guidance and Counseling Gifted Students	SDS 6426	3
<b>Total</b>		<b>72</b>

## COUNSELING DOCTOR OF PHILOSOPHY (PH.D.)

The Doctor of Philosophy (Ph.D.) with major in Counseling is a research-oriented program designed specifically to prepare graduates for local and national leadership as university professors, researchers, clinical supervisors, directors and program coordinators in mental health agencies, school settings and rehabilitation programs. Given that the doctoral program accepts students who are already licensed or certified counselors, it is not primarily a clinically focused degree, although it will enhance students' clinical and supervisory skills. The Ph.D. degree requires 60 credits.

Faculty members are committed to providing doctoral students with a broad base of intellectual and interpersonal experiences to understand, assess, formulate and plan interventions with children, adolescents, adults, couples and families, as well as in researching and evaluating such interventions. The doctoral program focuses on developmental and preventive processes in addition to therapeutic processes.

A unique feature of the Ph.D. program is student-faculty collaboration in research groups. The program was designed based on the standards of the Council for the Accreditation of Counseling and Related Educational Programs (CACREP). The program emphasizes scholarly and empirical research in addition to the enhancement of technical counseling skills and prepares doctoral students broadly to

become dedicated, knowledgeable, skillful, socially aware and ethically responsible leaders in the counseling profession for the 21st century.

## **Program Objectives**

The program has six interrelated objectives:

1. Prepare counselors who aspire to become leaders in the field as counselor educators, clinical supervisors or program coordinators/directors in mental health agencies and schools and rehabilitation programs;
2. Educate doctoral students in "best-of-practice" counseling methods linking research to practice in the delivery of counseling services;
3. Develop specific areas of research emphasis via faculty/student research groups within the department's doctoral program. Studies from the research groups will build upon one another to establish Florida Atlantic University as a national leader in distinct, clearly defined areas of inquiry;
4. Provide a stimulating and supportive environment for faculty and students who will collaboratively engage in teaching and research;
5. Enhance the quality of counseling services at the local and national levels;
6. Model the sensitivity and clinical skills consistent with the highest level of ethical and professional practice expected of counseling professionals in a multicultural world and environment.

## **Admission Requirements**

Admission applications are accepted for the fall term each year. November 1 is the deadline for priority admission (eligible for tuition support) and November 15 for all other admission consideration.

Students who wish to enter this degree program must have the following:

1. A master's degree in counseling from a regionally accredited CACREP program with a cumulative GPA of 3.5 (on a scale of 4.0) or higher. Students who possess master's degrees from other programs or with less than 60 semester credits will need to complete prerequisite courses;
2. Licensure as a Mental Health Counselor or have certification in School Counseling. Two years of experience as a professional counselor/therapist or school counselor is preferred;
3. A satisfactory score on the GRE (verbal and quantitative), and a high score on the analytic section of the revised GRE taken within five years of application;
4. A high level of professionalism and potential for leadership in the counseling profession, as demonstrated in the personal essay, interview and letters of reference;
5. Strong writing skills, as demonstrated in the personal essay and writing samples;

6. Clear objectives related to obtaining the Ph.D., as demonstrated in the personal essay and interview;
7. Effective and appropriate interpersonal and counseling skills as determined in personal interviews with program faculty.

**Note:** International students must submit official test scores on the Test of English as a Foreign Language (TOEFL) of at least 550 on the written tests or 220 on the computer-based test. Tests must have been taken within the past two years.

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### **Core Courses – 18 credits**

Advanced Counseling Theories: Contemporary Therapies	MHS 7402	3
Multicultural, Spiritual, and Professional Issues in Counseling	MHS 7429	3
Consultation and Leadership in Counseling	MHS 7606	3
Advanced Instruction in Counselor Education	MHS 7611	3
Advanced Supervision in Counselor Education	MHS 7809	3
Special Topics	MHS 7930	3

### ***Clinical/Field Experiences Courses – 9 credits***

Advanced Practicum in Counselor Education	MHS 7942	3
Internship <i>(may be taken over multiple terms for a total of 6 credits)</i>	MHS 7945	3-6

### ***Research Courses – 27 credits***

Appraisal of Children, Adults, Couples, and Families	MHS 7222	3
Outcomes Assessment and Evaluation in Counseling	MHS 7714	3
Advanced Research in Counseling	MHS 7730	3
Dissertation Seminar	MHS 7978	3
Dissertation <i>(may be taken over multiple terms for a total of 12 credits)</i>	MHS 7980	1-6

Advanced Statistics	STA 7114	3
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***Specialization (Elective Courses) – 6 credits. Select two courses from the following:***

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Introduction to Qualitative Inquiry	EDA 6415	3
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Advanced Qualitative Inquiry	EDA 7416	3
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Seminar in School Administration	EDA 7930	3
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Optimal Human Functioning and Development in Counseling	MHS 7406	3
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Counseling Interventions with Children and Adolescents	MHS 7424	3
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Theory, Research, and Interventions with Couples, Families	MHS 7431	3
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Advanced Group Counseling	MHS 7512	3
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Consultation in School and Community	MHS 7608	3
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Directed Independent Study (variable and repeatable credits)	MHS 7905	1-5
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Special Topics (may be taken multiple times)	MHS 7930	3
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Program Review and Analysis	PAD 6327	3
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<b>Total</b>		<b>60</b>
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## CURRICULUM AND INSTRUCTION

### Faculty:

Dukes, C., Chair; Acosta, M.; Antonelli, M.; Ariza, E.; Baxley, T.; Bhagwanji, Y.; Bousalis, R.; Brewer, E. A.; Brown, S.; Brown, V.; Dernikos, B.; Furner, J.; Gonzalez-DeHaas, A.; Klein, R.; Kumar, D.; Lapp, S.; Leit, J.; Musgrove, A.; Nichols, B.; Nightengale-Lee, B.; Persin, R.; Powers, J.; Ramirez, A. A.; Rhone, A.; Schoorman, D.; Sembiente, S.; Vaughan, M.; Willems, P.; Zainuddin, H.

(Department's mission statement in progress.)

[Link to B.A. or B.A.E. in Elementary Education](#)

[Link to Honors in Environmental Education Program](#)

[Link to Elementary Education Honors Program](#)

[Link to Secondary Education Programs - Undergraduate](#)

[Link to Secondary Education Honors Program](#)

[Link to Master's Programs](#)

[Link to Specialist's Program](#)

[Link to Doctoral Program](#)

[Link to TESOL Endorsement](#)

[Link to Diversity and Global Studies Minor](#)

[Link to Early Childhood Environmental Education Certificate](#)

[Link to Diversity and Global Studies Certificate](#)

[Link to Multicultural Education Certificate](#)

[Link to Teacher Leadership Certificate](#)

## **EARLY CARE AND EDUCATION**

### **BACHELOR OF EARLY CARE AND EDUCATION (B.E.C.E.)**

(This program description also appears in the Special Education Department.)

The Bachelor of Early Care and Education (B.E.C.E.) is a joint program offered by the Department of Curriculum and Instruction and the Department of Special Education. The B.E.C.E. is designed to prepare teachers and related personnel for employment in the fields of child care and children's services for young children from birth to age five. The program is offered at the Boca Raton campus.

## Admissions Requirements

Students enrolling in the B.E.C.E. may exhibit a range of prior levels of preparation. Generally, all students are required to have completed 60 credits of lower-division coursework. This could include the A.A. or A.S. degree in Early Childhood Education determined by articulation agreements with community or state colleges.

All students seeking admission to the B.E.C.E. must meet the University's admission requirements. In addition each applicant must:

1. Have a minimum GPA of 2.5 on a 4.0 scale on lower-division undergraduate coursework for a total of 60 credits;
2. Be programmed for admission to the B.E.C.E. by a faculty advisor from the Department of Special Education or the Department of Curriculum and Instruction.

## Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the Intellectual Foundations Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Course Requirements

As a joint program of two FAU departments, the B.E.C.E. is made up of coursework, field experiences and advisement from both departments. In addition, a careful review of student transcripts will guide advising decisions.

All students are required to take seven Early Childhood core courses (21 credits) and two Reading Courses (6 credits). All students must complete General Education requirements (36 credits), either from an associate's degree program or as non-restricted elective courses in the B.E.C.E. General Education courses include six credits in each of the following areas: Math, English Composition, Science, Social Studies, Humanities and General Education (electives). Gordon Rule/WAC courses,

Math and English composition, are included in the General Education Requirements. If foreign language courses have not been completed previously, they must be taken as part of the non-restricted electives.

Additionally, students enrolled in the B.E.C.E. will complete 18-21 or more credits of upper-division elective courses in education and related disciplines, which will be determined in consultation with an advisor. A list of recommended electives will be provided for all advisors and students.

### **Sequence of Course Requirements**

Required Early Childhood core courses are offered in a prescribed sequence with specific prerequisites beginning in each fall semester. The sequence of courses requires a minimum of four semesters, including a minimum of one summer term, to complete. Students should be programmed as soon as possible to receive appropriate advising.

A summary of the 120-credit program follows:

### **Transfer Credits – 60 credits**

Determined through Articulation Agreements with community or state colleges. Early Childhood and General Education Courses can transfer as a 60-credit block for students having completed A.A. or A.S. degrees in Early Childhood. Students transferring the A.S. degree may need additional coursework to satisfy the FAU lower-division General Education core.

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### ***FAU Early Childhood Core Courses – 21 credits***

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Typical/Atypical Child Development, Birth – Age 8	EEX 3201	3
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Assessment of All Young Children	EEX 3226	3
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Designing and Implementing a Blended Curriculum: Birth to Age Eight	EEC 3214	3
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Language Development and Intervention in Young Children	EEX 4112	3
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Building Family, Community and School Partnerships	EEX 3754	2
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Positive Behavior Supports in Inclusive Early	EEX 3606	3
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## Childhood Settings

Blended Early Childhood Methods: Birth – 5	EEC 4313	4
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### ***FAU Reading and COE Courses – 12 credits***

Language Arts and Literature, Birth – Grade 8	LAE 4353	3
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Reading Development I: Birth – Grade 3	RED 4308	3
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Educational Measurement and Evaluation	EDF 3430	3
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Introduction to Theories and Practices of TESOL	TSL 4080	3
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### ***B.E.C.E. Open Electives - 15 credits***

These courses should be selected in consultation with B.E.C.E. advisor.

### ***B.E.C.E. Program Electives - 12 credits***

These courses should be selected in consultation with B.E.C.E. advisor.

## Graduation Requirements

B.E.C.E. graduation requirements are consistent with FAU and College of Education standards. Each candidate for graduation must:

1. Earn a minimum of 120 credits in academic courses acceptable toward the degree;
2. Earn a minimum of 45 of these credits at the upper division;
3. Earn the last 30 upper-division credits in residence at FAU;
4. Earn at least 75 percent of all upper-division credits from FAU in the departments of Curriculum and Instruction-and/or Special Education, or other departments in the College of Education;
5. Satisfy Gordon Rule/Writing Across Curriculum requirements;
6. Fulfill all admissions, program and course requirements;
7. Earn a "C" or better in all Education courses and a "C-" or better in all non-Education courses, maintaining a 2.5 GPA upon graduation;
8. Fulfill the FAU foreign language requirement;
9. Submit a completed Application for Graduation form.

## Accreditation Standards for the B.E.C.E.

The B.E.C.E. represents the highest professional standards promulgated by the National Association for the Education of Young Children and the Council for Exceptional Children Division of Early Childhood. All course syllabi include standards delineated by the Florida Department of Education's

Educator Accomplished Practices and the FAU College of Education's corresponding Behavioral Indicators. Students must demonstrate competence on all critical assignments embedded in Early Childhood Core Courses and Reading Courses.

## **ELEMENTARY EDUCATION (K-6) WITH ESOL AND READING ENDORSEMENTS**

**BACHELOR OF ARTS (B.A.)**

**BACHELOR OF ARTS IN EDUCATION (B.A.E.)**

### **Admission Requirements**

All students seeking admission to the undergraduate program in Elementary Education must first meet the University's general upper-division admission requirements, as well as the lower-division general preparation requirements listed previously in this College of Education section. In addition, each applicant must:

1. Have attained an overall grade point average of 2.5 or higher;
2. Present passing scores on all sections of the General Knowledge Test and disposition screening;
3. Be recommended for admission to the program by the Department of Teaching and Learning and approved by the Office for Academic and Student Services;
4. Be assigned to and programmed by an academic advisor.

Students must be formally admitted into the College of Education prior to enrolling in RED 4308, RED 4552, RED 4750, EDG 3324 and TSL 4081. During the first week of these courses, students must show a photocopy of the official program signed by the student and faculty advisor.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the Intellectual Foundations Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Course Requirements

All Elementary Education majors entering the program are required to enroll in courses in a prescribed sequence with specific prerequisites. Students should be programmed as soon as possible to receive appropriate advising. Students must be admitted and programmed prior to the second semester of enrollment. Students who complete all program requirements will be eligible for both ESOL and Reading Endorsements upon graduation.

### Scope and Sequence of Elementary Education Coursework - 63

(after lower-division general preparation requirements)

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#### First Semester *(prerequisite courses)*

Language Arts and Literature: Birth through Grade 8	LAE 4353	3
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Introduction to Theories and Practices of TESOL	TSL 4080	3
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#### Early Program Courses

*(May be taken at any time during junior or senior years.)*

Art: Elementary School	ARE 4313	3
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Educational Measurement and Evaluation	EDF 3430	3
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Applied Learning Theory	EDF 3210	3
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Equity Issues in Multicultural Education	EDF 3203	3
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Inclusive Education for General Educators	EEX 4070*	3
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Educational Technology for 21st Century Teaching	EME 4312	3
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Mathematics Content and Standards for K-6 Teachers	MAE 4310	3
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Science Content and Standards for K-6 Teachers	SCE 4113	3
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**Mid-Program Courses** *(May not be taken during the first semester of enrollment but must be completed by the final semester prior to student teaching. LAE 4353, TSL 4080, MAE 4310, and SCE 4113 are prerequisites for the courses below.)*

Principles and Methods: K-9 School Math	MAE 4350	3
Reading Development 1: Birth through Grade 3	RED 4308 +	3
Principles and Methods: K-9 School Science	SCE 4350	3
K-9 Social Studies	SSE 4150	3
<b>Semester Prior to Student Teaching</b>		
Reading Development 2: Grades 3 through 8	RED 4750 +	3
Reading Diagnosis and Remediation: Pre-K through Grade 8	RED 4552 +	3
TESOL Issues and Practices	TSL 4081*+	3
Effective Teaching Practices	EDG 3324**+	3
Classroom Management for Inclusive Elementary Schools	EEX 4616	3
<b>Final Semester</b> <i>(All program courses must be completed prior to student teaching.)</i>		
Supervised Literacy Practicum	RED 4348*	3
Student Teaching - Elementary	EDE 4943 or	3-9
<b>One-Year Student Teaching Option (both semesters)</b>		
Student Teaching (fall semester)	EDE 4945	3-6
Student Teaching (spring semester)	EDE 4945	3-6

\* Denotes field experience credits.

\*\* Denotes 90 field experience hours.

+ Students must be admitted and programmed into the College of Education prior to enrolling in these courses.

Students who complete all program requirements will be eligible for both ESOL and Reading Endorsements upon graduation.

**Notes to read CAREFULLY:**

1. EDF 2005, Introduction to the Teaching Profession; EDF 2085, Introduction to Diversity for Educators; and EME 2040, Introduction to Technology for Educators; or community or state college equivalents are program requirements.
2. See the General Education lower-division requirements elsewhere in this catalog.
3. Grading policy: Students must pass ALL teacher preparation courses with a grade of "C" or better. A "C-" is not considered a passing grade, and the course must be retaken.
4. An active LiveText account is a requirement for all program coursework.
5. Out-of-state transfer students must take EDG 3324 at FAU.
6. EDG 3324 requires **one additional day per week** in a public school setting during the fall and spring semesters.
7. EDG 3324 (summer 2: Davie campus), TSL 4081 (summer 2) **may** be offered on a **limited basis** in the summer **by permission only**. Students should plan to enroll in these courses during the fall and spring semesters.
8. EDF 2005 is not offered in the summer term.
9. Students must pass RED 4308 and RED 4750 prior to taking RED 4552. No literacy courses (LAE 4353, RED 4308, RED 4750) may be taken after RED 4552.
10. RED 4750 may be taken concurrently with RED 4308. RED 4750 may not be taken before RED 4308.
11. Students must pass TSL 4080 prior to taking TSL 4081. TSL 4080 may not be taken concurrently in one semester with TSL 4081.
12. EDG 3324 grading policy: If a student earns a "D" or an "F" in the field evaluation component or a "D" or an "F" in the coursework component, then the highest grade the student can receive for the course is a "C-." A "C-" is not considered a passing grade, and the course must be retaken. Students cannot take the EDG 3324 course more than twice.
13. Field experiences in school settings are required in some teacher preparation methods courses.
14. The following must be completed and passed prior to receiving a placement for student teaching: all program courses and other requirements, the professional and subject sections of the FTCE and all appropriate sections of the General Knowledge Test.
15. EDE 4943, Student Teaching, requires that the student is in a public school setting **five full days** a week during the school day in fall or spring semester.
16. State of Florida teacher certification requires all applicants to be fingerprinted and screened by the FBI for felony convictions. School districts also require a fingerprint check and screening for school-based clinical teaching assignments. Students with felony records will NOT be permitted to be placed in internship settings and will NOT be permitted to successfully complete the

program of studies for their degree and/or certification. Consequently, students with a record of felony conviction(s) will NOT be eligible for admission to a teacher preparation program at Florida Atlantic University.

17. For assistance contact the Office for Academic and Student Services:

Boca campus, 561-297-3570

Davie campus, 954-236-1028

Jupiter campus, 561-799-8135

## HONORS IN ENVIRONMENTAL EDUCATION

Students in both B.A. and B.A.E. programs may be eligible for this honors program, designed for preservice teachers who are passionate about nature, animals and environmental issues. The program delineates ways in which environmental education could be integrated into elementary and middle school classrooms and includes the latest research on the benefits of getting young learners out of the classroom more often. There is a strong undergraduate research theme underlying the program that explicitly links teacher action research to the nature of science, as defined by state and national standards. Student teachers are introduced to inquiry tools that allow them to examine their own practice and contribute to an exciting new body of research in education, health and social science.

This Honors in Environmental Education program includes honors enrichment that highlights environmental science themes and environmental education pedagogies directly applicable to Grades K-8. Students will be certified in state and national environmental education curricula, including Project Wild. Coursework and experiences are centered on northern Palm Beach and Martin counties with their impressive range of high quality natural sites and community expertise. In addition to learning how to teach in their own schoolyards, students in the Honors in Environmental Education program learn how to integrate visits to and from community partners, such as local nature centers, gardens, wildlife rehabilitation clinics and parks (city, county, state and national). Whenever possible, student teaching placements will be in Palm Beach or Martin County green schools.

### Eligibility Criteria

1. Students must have been admitted to the College of Education as an Elementary Education major, with a minimum GPA of 3.0;
2. Students must have completed at least 60 credits with at least a 3.0 overall GPA (this eligibility requirement is higher than the 2.5 GPA required for admission to the Elementary Education major);

3. No more than 20 percent of the Elementary Education majors are eligible to be admitted.

### **Selection Criteria**

1. A 500+ word essay describing why the student is interested in integrating environmental education into their teaching career;
2. Must be willing to take the honors section on SCE 4350 on the Jupiter campus;
3. Must be willing and able to travel to potential school-based placements outside of the student's home radius.

### **Standards to Remain in the Program**

1. Maintain a 3.0 GPA in the major;
2. Meet the requirements of honors compacts in SCE 4113, EDG 3324 and student teaching;
3. Take the honors-enriched version of SCE 4350 (Jupiter campus);
4. Attend occasional workshops.

### **Honors Enrichment**

1. An honors compact in SCE 4113, Science Content and Standards for K-6 Teachers, that includes becoming familiar with the Palm Beach County school district Field Research Ranger Program;
2. An honors section of SCE 4350, Principles and Methods: K-9 School Science, typically taught by the environmental education coordinator, with an emphasis on better links to community partners, the use of outdoor classrooms within school grounds and other nature, place and outdoor-based pedagogies;
3. Placement in district green schools during EDG 3324, Effective Teaching Practices, and collaboration with cohort peers and faculty mentoring to take CITI Institutional Research Board training focusing on educational research;
4. A capstone during EDE 4943, Student Teaching-Elementary, or the Accelerated Introduction into Teaching (AIT), where students will work with their coordinating teacher and the honors faculty to develop, implement and communicate a research project related to their environmental education practice. This will include a paper and presentation based on their research.

## **UNDERGRADUATE RESEARCH HONORS PROGRAM: EFFECTIVE INTEGRATION OF EDUCATIONAL IMPACT AND OUTCOMES THROUGH HONORS ELEMENTARY EDUCATION (EIEIO - ELEM HONORS)**

Undergraduate Elementary Education majors who meet eligibility criteria may apply for admission into the Honors-in-the-Major Program in Elementary Education. Selected students will have the opportunity to engage in undergraduate research and inquiry, explore formal discipline-based research practices and

experience mentorship within coursework and in the field.

## **Eligibility Criteria**

1. Student must have been admitted to the College of Education as an Elementary Education major;
2. Student must have completed at least 60 credits with at least a 3.0 overall GPA (this eligibility requirement is higher than the 2.5 GPA required for admission to the Elementary Education major);
3. Student must have a passing score on all sections of the General Knowledge Test;
4. No more than 20 percent of the Elementary Education majors are eligible to be admitted.

## **Selection Criteria**

1. Application essay (statement of purpose), which is due with the application at the end of the sophomore year and must be submitted to the department's designee;
2. Recommendation letter from one College of Education faculty member;
3. Must be willing and able to travel to potential school-based placements in urban environments outside of student's home radius;
4. Must be able to take Honors-in-the-Major research-enhanced courses in the cohort track, which will be located on the Boca Raton campus.

## **Standards to Remain in the Program**

1. Maintain a GPA of 3.5 in upper-division major (after admission with an undergraduate lower-division GPA of 3.0);
2. Enroll in courses with the EIEIO cohort, sequential design;
3. Adhere to the FAU Honor Code and Department of Education Ethics for Teacher Candidates in Education;
4. Participate in peer-mentoring groups and the College of Education Summer Undergraduate Research Fellowship (SURF);

In the event of withdrawal or dismissal from the program, credits earned in courses will be applied to the traditional bachelor's degree in Elementary Education, with no penalty.

## **Honors Enrichment**

1. College of Education SURF participation. Faculty-guided mentorship program with the departments of Curriculum and Instruction and Educational Leadership and Research Methodology. Students attend summer workshops to design the capstone experience research

plan.

2. Three courses enhanced by Academic Service Learning (ASL) in a discipline-specific practicum and internship experience (three semesters). Students apply for ASL credit, track hours and earn service learning experience.
3. Collaboration with cohort peers in discipline-specific action research. Students engage in peer mentoring associated with the Office of Undergraduate Research and Inquiry (OURI) and with graduate students in the College of Education.
4. Interdisciplinary application of educational learning theory and educational research theory to a three semester action research project. Students implement a three semester research project including a small pilot study, full implementation, and analysis and presentation.
5. Mentorship with administration including principals of partnering elementary schools.

### Capstone Experience

Complete an action research project, reviewed by four faculty members and a council of peers, during the revised section of the EIEIO Honors Student Teaching capstone course **and** at least two of the following:

1. Present in the College of Education Undergraduate Research Symposium;
2. Submit to present at the FAU OURI Undergraduate Research Symposium;
3. Apply for publication in the *FAU Undergraduate Research Journal*;
4. Apply for publication in an educational research journal;
5. Participate as an FAU peer mentor with the Office of Undergraduate Research and Inquiry.

In addition to FAU general education lower-division preparation and Education prerequisites (see [College of Education Lower-Division General Preparation Requirements](#)), Elementary Education majors in the EIEIO - ELEM Honors program must take the following Honors-in-the-Major research-enhanced courses:

Introduction to the Teaching Profession	EDF 2005	3
Applied Learning Theory <i>(only offered in the spring semester and must be taken with EDF 3430)</i>	EDF 3210	3
Educational Measurement and Evaluation <i>(only offered in the spring semester and must be taken with EDF 3210)</i>	EDF 3430	3

Effective Teaching Practices 1 <i>(located in designated elementary school campus)</i>	EDG 3323	2
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Effective Teaching Practices <i>(located in designated elementary school campus)</i>	EDG 3324	3
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Student Teaching - Elementary <i>(Broward County zone schools)</i>	EDE 4943	3-9
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(See B.A. or B.A.E. with major in Elementary Education (K-6) with ESOL Endorsement Curriculum Matrix for complete course assessments linked to student learning outcomes.)

## SECONDARY EDUCATION PROGRAMS

### Overview

Secondary Education degree programs are offered in partnership with the Dorothy F. Schmidt College of Arts and Letters and the Charles E. Schmidt College of Science. These programs are Florida Department of Education (DOE) and Council for the Accreditation of Educator Preparation (CAEP) approved. This state and CAEP approval represent the transferability of teaching credentials from state-to-state. Secondary programs currently approved include the following subject areas and grade levels:

English Education 6-12

Mathematics Education 6-12

Science Education (Biology 6-12, Chemistry 6-12, Physics 6-12)

Social Science Education 6-12

The following certification programs are also offered in partnership with the College of Arts and Letters:

Art K-12\*

Music Education K-12

\* To qualify for Florida state and CAEP certification approval for Art K-12, all education requirements must be met.

### Admission Requirements

1. Formal application to the program;
2. Enrollment in an approved baccalaureate or a degree in an approved area;
3. A minimum GPA of 2.5 on a 4.0 scale on the general education component of undergraduate studies, **OR** completion of requirements for a baccalaureate degree with a minimum GPA of 2.5 from any college or university accredited by a regional accrediting institution;
4. Passing scores on all sections of the General Knowledge Test.

## Course Sequence

All Secondary Education majors are required to meet with an academic advisor in the College of Education to review content and education course requirements as listed in the program guides. Upon admittance to the program, students are required to meet with their education and content area faculty advisors. Below is the suggested course sequence.

### Professional Education

Introduction to the Teaching Profession	EDF 2005	3
Applied Learning Theory	EDF 3210	3
Educational Measurement and Evaluation	EDF 3430	3
Introduction to Diversity for Educators	EDF 2085	3
Introduction to Technology for Educators	EME 2040	3
Secondary School Effective Instruction+ ( <i>Security clearance required.</i> )	ESE 3940	3
Content Reading: Middle and Secondary Schools	RED 4335	3
Supervised Literacy Practicum (to be taken with Student Teaching)*	RED 4348	3
Reading Diagnosis and Remediation: Pre-K through Grade 8*	RED 4552	3
Reading Development 2: Grades 3 through 8*	RED 4750	3
Introduction to TESOL*	TSL 4080	3
TESOL Issues and Practices*	TSL 4081	3

\* English majors only

+ Students must be admitted and programmed into the College of Education prior to enrolling in these courses.

### **Student Teaching**

In order to meet the student teaching deadline, a student must be admitted into the Secondary Education Program one full semester prior to student teaching.

The student teaching/internship component requires a separate application. Everyone must complete all courses (education and subject area), the General Knowledge Test and the FTCE (professional education and subject area) before beginning the student teaching/internship component.

### **UNDERGRADUATE RESEARCH HONORS PROGRAM: EFFECTIVE INTEGRATION OF EDUCATIONAL IMPACT AND OUTCOMES THROUGH HONORS SECONDARY EDUCATION (EIEIO - SECONDARY HONORS)**

Undergraduate Secondary Education majors who meet eligibility criteria may apply for admission into the Honors-in-the-Major Program. Selected students will have the opportunity to engage in undergraduate research and inquiry, explore formal discipline-based research practices and experience mentorship within coursework and in the field.

### **Eligibility Criteria**

1. Student must have been admitted to the College of Education as a Secondary Education major.
2. Student must have completed at least 60 credits with at least a 3.0 overall GPA on a 4.0 scale (this eligibility requirement is higher than the 2.5 GPA required for admission to other Secondary majors);
3. Student must have a passing score on all sections of the General Knowledge Test;
4. No more than 20 percent of the Secondary Education majors are eligible to be admitted.

### **Selection Criteria**

1. Application essay (statement of purpose), which is due with the application at the end of the sophomore year and must be submitted to the department's designee; a program coordinator and a committee of four faculty in the program will review applications and track student progression

through the program;

2. Recommendation letter from one College of Education faculty member;
3. Must be willing and able to travel to potential school-based placements in urban environments outside of student's home radius;
4. Must be able to take Honors-in-the-Major research-enhanced courses on the Boca Raton campus.

### **Standards to Remain in the Program**

1. Maintain a GPA of 3.5 in upper-division major (after admission with an undergraduate lower-division GPA of 3.0);
2. Enroll in courses with the EIEIO cohort, sequential design;
3. Adhere to the FAU Honor Code and Department of Education Ethics for Teacher Candidates in Education;

Participate in peer-mentoring groups and the College of Education Summer Undergraduate Research Fellowship (SURF);

In the event of withdrawal or dismissal from the program, credits earned in courses will be applied to the traditional bachelor's degree in Secondary Education, with no penalty.

### **Honors Enrichment**

1. College of Education SURF participation. Faculty-guided mentorship program with the departments of Curriculum and Instruction and Educational Leadership and Research Methodology. Students attend summer workshops to design the capstone experience research plan.
2. Three courses enhanced by Academic Service Learning (ASL) in a discipline-specific practicum and internship experience (three semesters). Students apply for ASL credit, track hours and earn service learning experience.
3. Collaboration with cohort peers in discipline-specific action research. Students engage in peer mentoring associated with the Office of Undergraduate Research and Inquiry (OURI) and with graduate students in the College of Education.

Interdisciplinary application of educational learning theory and educational research theory to a three semester action research project. Students implement a three semester research project including a small pilot study, full implementation, and analysis and presentation.

### **Capstone Experience**

Complete an action research project, reviewed by four faculty members and a council of peers, during the revised section of the EIEIO Honors Student Teaching capstone course, present in the College of Education Undergraduate Research Symposium **and** at least two of the following:

1. Submit to present at the FAU OURI Undergraduate Research Symposium;
2. Apply for publication in the *FAU Undergraduate Research Journal*;
3. Apply for publication in an educational research journal;
4. Participate as an FAU peer mentor with the Office of Undergraduate Research and Inquiry.

In addition to FAU general education lower-division preparation and content area courses offered by the Dorothy F. Schmidt College of Arts and Letters or the Charles E. Schmidt College of Science, Secondary Education majors in the EIEIO - Secondary Honors Program must take the following Honors-in-the-Major research-enhanced courses:

Introduction to the Teaching Profession	EDF 2005	3
Applied Learning Theory	EDF 3210	3
Educational Measurement and Evaluation	EDF 3430	3
Secondary School Effective Instruction	ESE 3940	3
Subject-Specific Student Teaching		6-12

(See Secondary Program, Course Sequence, Curriculum Matrix for complete course assessments linked to student learning outcomes.)

## **DIVERSITY AND GLOBAL STUDIES** **UNDERGRADUATE MINOR**

*(Minimum of 12 credits required)*

This minor is offered by the Department of Curriculum and Instruction in collaboration with the Office of Diversity and Multicultural Affairs in Student Affairs. The minor in Diversity and Global Studies comprises 12 credits and is available to all undergraduate degree-seeking students. It will be conferred upon completion of coursework related to the minor and the completion of a bachelor's degree.

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### **Required Courses (6 credits)**

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The Educated Citizen in a Global Context	EDF 2854	3
Community Engagement for Global Consciousness (Capstone course)	EDF 4802	3

### Elective Courses (6 credits)

Elective courses pertaining to diversity and global studies must be selected in consultation with an academic advisor.		6
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## EARLY CHILDHOOD ENVIRONMENTAL EDUCATION UNDERGRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

This certificate program complements a growing list of academic programs focused on preparing educators and their engagements in the development of environmental education programs in schools and communities. Complementing programs such as the [Bachelor of Arts or Bachelor of Arts in Education with Honors in Environmental Education](#), [Environmental Education Certificate](#) and the [Master's in Environmental Education](#), this certificate program focuses on the preparation of educators and leaders in guiding the development of young children's early environmental literacy skills as well as program development in both formal and non-formal educational settings serving young children and their families. The curriculum's specific focus is on emergent curriculum development and delivery in outdoor natural environments, experiential learning as a significant mode of teaching and learning, whole-child development and scaffolding, children's growth of environmental understanding and ecological identity, and sustainable practices in instruction and programming.

### Curriculum

The certificate program requires 12 credits of coursework, consisting of the following required courses:

Foundations of Early Childhood Environmental Education	EEC 4020	3
Exploring Natural Habitats as a Curriculum for Young Learners	EEC 4237	3
Community Engagement in Early Childhood Environmental Education	EEC 4404	3

*Select one of the following electives*

American Environmental History	AMH 3630	3
Introduction to Biological Anthropology	ANT 2511	3
Introduction to Astronomy	AST 2002	3
Life Science	BSC 1005	2
Life Science Lab	BSC 1005L	1
Biological Principles	BSC 1010	3
Biodiversity	BSC 1011	3
Anatomy and Physiology	BSC 2085	3
Contemporary Chemical Issues	CHM 1020C	3
Chemistry for Health Sciences	CHM 2032	3
General Chemistry 1	CHM 2045	3
Survey of Current Environmental Issues through Service Learning	EDG 4044	3
Civic Engagement through Environmental Service Learning	EDG 4045	3
Creative Arts for Young Children	EEC 4303	3
Effective Practices in Early Childhood Environmental Education	EEC 4322	3
The Blue Planet	ESC 2000	3
Nature: Intersections of Science, Engineering and the Humanities	ETG 2831	3
Environmental Science and Sustainability	EVR 1001	3
Environmental Science and Society	EVR 2017	3
Critical Thinking in Environmental Science	EVS 4021	3
RI: Human-Environment Interactions in South Florida	GEA 4275	3

Biogeography	GEO 4300	3
Water Resources	GEO 4280C	3
Physical Geology/Evolution of the Earth	GLY 2010C	4
The History of the Earth and Life	GLY 2100	3
Coastal and Marine Science	GLY 3730	3
Weather, Climate and Climate Change	MET 2010	3
Food, Nutrition and Health	NUR 3183	3
Marine Science	OCE 4006	3
Evolution	PCB 3674	3
General Physics 1 or General Physics for Engineers 1	PHY 2048	3
College Physics	PHY 2053	4
Physical Science	PSC 2121	3
Principles and Methods: K-9 School Science	SCE 4350	3
Designing the City	URP 2051	3
Sustainable Cities	URP 4403	3
Environmental Planning Methods	URP 4420	3

For other appropriate course electives, contact, [Yash Bhagwanji](#), ECEE Certificate Coordinator.

## **DIVERSITY AND GLOBAL STUDIES** **UNDERGRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

This innovative certificate program comprises 12 credits of coursework that support students' critical consciousness in their education about diversity within a global context. The certificate in Diversity and Global Studies is available to degree-seeking and non-degree-seeking students. It is conferred upon completion of required and elective courses. All courses must be taken at FAU.

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### Required Courses (6 credits)

The Educated Citizen in a Global Context	EDF 2854	3
Community Engagement for Global Consciousness (Capstone course)	EDF 4802	3

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### Elective Courses (6 credits)

Elective courses pertaining to diversity and global studies must be selected in consultation with an academic advisor.		6
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## MASTER'S PROGRAMS

[Link to Specialist's Program/Link to Doctoral Program](#)

General Requirements for all graduate programs include:

1. Graduate application;
2. Official transcripts;
3. Undergraduate cumulative GPA of 3.0;
4. Personal statement;
5. Résumé;
6. Two letters of recommendation that highlight the candidate's academic potential from a previous professor, employer or colleague (optional, at the discretion of each program).

A maximum of one-third of the total graduate credits taken at FAU as a non-degree student may be applied to the degree program, if approved by the advisor. Up to 6 credits of non-degree program transfer courses may be accepted from other universities at the discretion of the advisor and/or committee.

### MASTER OF EDUCATION (M.ED.)

The Master of Education degree is offered with a major in the following areas: [Curriculum and Instruction](#), [Curriculum and Instruction plus K-12 or Secondary Certification \(6-12\)](#), [Educational Psychology](#), [Elementary Education](#), [Elementary Education with ESOL plus Certification](#), [Environmental Education](#), [Instructional Technology](#), [Reading Education](#) and [Secondary Education plus Certification](#). Certificates in [Environmental Education](#), [Instructional Design](#) and [K-12 Online](#)

[Teaching](#) are also available.

**Notes:**

1. The M.Ed. in Reading Education leads to state certification in reading.
2. The M.Ed. for uncertified students seeking initial certification is available in Elementary Education with ESOL plus Certification or Curriculum and Instruction plus Secondary 6-12 Certification.
3. Specific information concerning each M.Ed. K-12 degree program follows.

## **CURRICULUM AND INSTRUCTION**

### **MASTER OF EDUCATION (M.ED.)**

The M.Ed. in Curriculum and Instruction (for certified teachers with a professional or temporary certificate) may be obtained in person in the areas noted below. The program also is offered online with specialization in Multicultural Education, ESOL Education, and Teacher Leadership, and a classroom-based specialization in Early Childhood Education. Students may also earn a certificate in [Multicultural Education](#).

#### **Areas of Concentration**

Art (K-12)

Early Childhood Education

English/Language Arts (6-12)

ESOL Education (K-12) (online available)

Foreign Language (French and Spanish) (K-12)

Mathematics (6-12)

Multicultural Education (K-12) (online available)

Reading (K-12) (does not lead to certification as a reading teacher)

Science Education (Biology, Chemistry and Physics) (6-12)

Social Science (6-12)

Teacher Leadership (K-12) (**Enrollment is currently suspended for this concentration.**)

#### **Note:**

The M.Ed. for uncertified students seeking initial certification is available in Elementary Education plus Certification or Curriculum and Instruction plus Secondary K-12 Certification in the Department of Curriculum and Instruction.

## Admission Requirements

To be admitted to the M.Ed. in Curriculum and Instruction Program, students must complete the graduate application and provide the following documentation showing that they:

1. Have a bachelor's degree from an accredited college or university;
2. Have a professional Florida certificate, have a Letter of Eligibility for temporary certification, or are certifiable in one of the degree areas of specialization in Florida, where applicable;
3. Have an undergraduate GPA of 3.0 or better;-
4. Submit a personal statement specifying the selected area of concentration (if known), reason for applying to the program and professional goals;
5. Submit a professional résumé;
6. Submit two letters of recommendation that highlight the candidate's academic potential from a previous professor, employer or colleague.

<b>Program of Study</b>	<b>36 credits</b>	
<b><i>Core Courses - 12 credits</i></b>		
U.S. Curricular Trends and Issues	EDG 6224	3
Design Components of Curriculum	EDG 6253	3
Program Evaluation in Curriculum and Instruction	EDG 6285	3
<b><i>Select one of the following two courses</i></b>		
Race, Class and Gender in Education	EDF 6637	3 <b>or</b>
Global Perspectives of Curricular Trends Across Nations	EDG 6625	3
<b><i>Research/Statistics - 6 credits</i></b>		
Educational Research	EDF 6481	3
Educational Statistics	STA 6113	3
<b><i>Capstone Course - 3 credits</i></b>		
Action Research in Schools and Communities	EDF 6918	3

***Concentration - 15 credits. Complete 15 credits from one of the following concentrations******Multicultural Education***

Black Perspectives in Education	EDF 6615	3
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Foundations of Global Education	EDF 6800	3
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Foundations of Multicultural Curricula	EDF 6887	3
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Multicultural Education	EDG 5705	3
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Elective*		3
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***TESOL/Bilingual Education***

Multicultural Education	EDG 5705	3
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Curriculum Development in TESOL and Bilingual Education	TSL 5142	3
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Methods of TESOL and Bilingual Education	TSL 5345	3
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Assessment Issues for ESOL and Bilingual Populations	TSL 5440	3
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Elective*		3
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***Early Childhood Education***

Principles and Models of Early Childhood Curriculum	EEC 6236	3
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Creative Arts for Young Children	EEC 6711	3
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Seminar in Early Childhood Education	EEC 6932	3
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Survey and Assessment of Early Childhood Education and Early Childhood Special Education	EEX 5015	3
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Methods in Early Childhood Special Education	EEX 5245	3
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***Teacher Leadership***

Leading Adult and Professional Learning in Schools	ADE 6268	3
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Clinical Evaluation	EDA 6507	3
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Evaluation and Leadership Theory for Educational Leaders	EDA 6508	3
Curriculum Leadership	EDG 6223	3
Documentation and Assessment in Curriculum and Instruction	EDG 6628	3
Electives - 3-15 credits. For concentrations that allow electives, select one course for 3 credits. Students who do not select a concentration would select a total of 15 credits. Elective credits must be at the 5000, 6000 or 7000 level and can come from the College of Education or another college in the University with approval of an advisor.		
<b>Total</b>		<b>36</b>

## MULTICULTURAL EDUCATION GRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

Students may earn a certificate in Multicultural Education by fulfilling the requirements listed below for a total of 15 credits.

### Required Courses (12 credits)

Black Perspectives in Education	EDF 6615	3
Race, Class and Gender in Education	EDF 6637	3
Foundations of Multicultural Curriculum	EDF 6887	3
Action Research in Schools and Communities	EDF 6918	3

### Choose one course (3 credits)

Foundations of Global Education	EDF 6800	3
Multicultural Education	EDG 5705	3
Another course may be used with approval of the advisor.		3

## **CURRICULUM AND INSTRUCTION PLUS K-12 OR SECONDARY CERTIFICATION (6-12) MASTER OF EDUCATION (M.ED.)**

**(This program is on hiatus and currently not accepting students.)**

The master's degree in Curriculum and Instruction plus K-12 or Secondary Certification (6-12) program provides an opportunity for those persons considering a career change to prepare for a new career in teaching and earn a master's degree simultaneously. The program includes professional education and subject area courses leading to a Master in Education as well as initial certification in a specific K-12 or secondary subject area. This program is designed for students who have already completed a bachelor's degree with credits in one of the following subject areas: art, biology, chemistry, English, French, mathematics, physics, social sciences or Spanish. Many content requirements may have been taken as part of the undergraduate degree.

### **Admission Requirements**

To be admitted to the master's degree program in Curriculum and Instruction plus K-12 or Secondary Program

(6-12), students must complete the graduate application and provide documentation showing that they:

1. Have a bachelor's degree from an accredited college or university;
2. Have satisfactory GRE scores on file at FAU that are not more than five years old;
3. Have a 3.0 or better GPA in the last 60 credits of undergraduate work prior to the granting of the bachelor's degree or have minimum GRE scores of 154 (verbal) and 144 (quantitative);
4. Have passing scores on all four sections of the General Knowledge sections of the FTCE. There are no exceptions or waivers to this General Knowledge requirement. All University and departmental admission requirements apply.

Additional admissions requirements exist for international students. Contact the FAU Office of International Students and Scholars and the Graduate College for these requirements.

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### ***Professional Education (24 credits)***

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Introduction to the Teaching Profession	EDF 2005	3
Applied Learning Theory	EDF 3210	3
Educational Measurement and Evaluation	EDF 3430	3

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Introduction to Diversity for Educators	EDF 2085	3
Introduction to Technology for Educators	EME 2040	3
Secondary School Effective Instruction	ESE 3940	3
Content Reading: Middle and Secondary School	RED 4335	3
ESOL Strategies for Content Area Teachers (Students in the English concentration, take TSL 4080 and TSL 4081 instead.)	TSL 4324	3

### *Areas of Concentration*

At least 30 semester hours of specific coursework as required by concentration (see undergraduate program description for detail). No more than half of these hours can be at the undergraduate level.

<b>Grades K-12</b>	<b>Grades 6 - 12</b>
Art	English/Language Arts
Foreign Language (French and Spanish)	Mathematics
	Science (Biology, Chemistry, Physics)
	Social Science

### *6000-Level Content (9 - 12 credits)*

1. All students take one to two methods courses in their concentration area.
2. All students also take two graduate courses in their area of concentration. See the program advisor for approved courses in each area.

### *Curriculum and Instruction Core Courses*

U.S. Curricular Trends and Issues	EDG 6224	3
Design Components of Curriculum	EDG 6253	3

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***Research/Statistics (6 credits)***

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Educational Research	EDF 6481	3
Educational Statistics	STA 6113	3

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***Student Teaching Internship (6-10 credits)***

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Internship*	EDG 6940	6-10
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\* The Internship is a full-time fall or spring semester experience and requires a separate application. Students must complete all courses (education and subject area) and all sections of the FTCE before internship.

## **EDUCATIONAL PSYCHOLOGY**

### **MASTER OF EDUCATION (M.ED.)**

The master's degree in Educational Psychology is a versatile program for all educators, including teachers, administrators, and educational researchers. It allows students to specialize in the application of psychology in educational settings by examining theoretical and applied aspects of learning and cognition, human development, motivation, human personality, and other psychological principles. This program is available in person or fully online.

**Admission Requirements**

To be admitted to the M.Ed. in Educational Psychology, students must meet the following admission standards:

1. Completion of the graduate application online through the Graduate College;
2. Receipt of official transcripts including all undergraduate coursework;
3. A bachelor's degree from a regionally accredited college or university;
4. Have an undergraduate cumulative GPA of 3.0;
5. Personal statement;
6. Résumé;
7. Two letters of recommendation that highlight the candidate's academic potential from a previous professor, employer or colleague (optional, at the discretion of each program).

Additional admissions requirements exist for international students. Contact the FAU Office of International Students and Scholars and the Graduate College for these requirements.

### Progress and Degree Requirements

1. The student must meet all College and University guidelines.
2. The student must maintain an overall grade point average of 3.0 or higher.
3. The student must complete a minimum of 36 credits.
4. The student must complete the following course requirements.

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#### ***Core Courses (21 credits required)***

Educational Psychology	EDF 6229	3
Learning and Cognition in Education	EDF 6142	3
Human Development: Applications for Education	EDF 6113	3
Personality Theories in Education	EDF 6339	3
Motivational Theories in Educational Psychology	EDP 6218	3
Child Development in Educational Psychology	EDF 6126	3
Adolescence and Young Adulthood in Educational Psychology	EDF 6138	3

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#### ***Electives (9 credits required)***

***Choose three of the following pre-approved 3-credit courses or other electives as approved by student's assigned faculty advisor:***

Seminar in Personality and Social Development	DEP 6098	3
Introduction to Qualitative Inquiry	EDA 6415	3
Curriculum: Elementary School	EDE 6205	3

Field Project in Educational Psychology	EDP 6944	3
Senior High School Curriculum	ESE 6215	3
Seminar in Cognition	EXP 6609	3

*Other electives approved by assigned faculty advisor.*

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***Research/Statistics (6 credits required)***

Educational Research	EDF 6481	3
Educational Statistics	STA 6113	3

*(Should be taken prior to or concurrently with EDF 6481.)*

## **ELEMENTARY EDUCATION MASTER OF EDUCATION (M.ED.)**

The Department of Curriculum and Instruction offers a program of study leading to a master's degree in Elementary Education. This program is directed toward currently (K-6) certified and experienced teachers who are pursuing an advanced degree.

### **Admission Requirements**

To be admitted to the M.Ed. in Elementary Education Program, students must complete the graduate application and provide documentation showing that they:

1. Have a bachelor's degree from an accredited college or university;
2. Have an undergraduate cumulative GPA of 3.0;
3. Personal statement;
4. Résumé;
5. Two letters of recommendation that highlight the candidate's academic potential from a previous professor, employer or colleague (optional, at the discretion of each program)

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***Educational Leadership (choose one for 3 credits)***

Law and Policy	EDA 6232	3
Instructional Leadership	EDS 6050	3

***Exceptional Student Education (choose one for 3 credits)***

Survey and Assessment in Early Childhood Education and Early Childhood Special Education	EEX 5015	3
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Individuals with Disabilities	EEX 5051	3
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***Core Courses (15 credits)***

Curriculum: Elementary School	EDE 6205	3
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***Take four of the following courses***

Art Education in Elementary School	ARE 6317	3
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Teaching Health in Elementary School	HSC 5315	3
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Language Arts: Elementary School	LAE 6352	3
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Literature: Elementary School	LAE 6415	3
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Mathematics: Elementary and Middle School	MAE 6151	3
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Developmental Reading	RED 6351	3
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Science: Elementary and Middle School	SCE 6151	3
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Social Studies: Elementary and Middle School	SSE 6151	3
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Curriculum Development in ESOL	TSL 5142	3
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Methods of TESOL and Bilingual Education	TSL 5345	3
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***Research/Statistics (6 credits)***

Educational Research	EDF 6481	3
Educational Statistics <i>(Should be taken prior to or concurrently with EDF 6481.)</i>	STA 6113	3

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### ***Liberal Arts /Education Courses (9 credits at the 6000 level or above)***

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All students must take three courses related to elementary education in the College of Education, the Dorothy F. Schmidt College of Arts and Letters or the Charles E. Schmidt College of Science. Students with temporary certification may choose to take an approved course to fulfill state requirements.

## **ELEMENTARY EDUCATION WITH ESOL PLUS CERTIFICATION MASTER OF EDUCATION (M.ED.)**

The master's degree (M.Ed.) in Elementary Education with ESOL plus Certification Program provides preparation for a new career in teaching. The program is designed for students who already have a bachelor's degree and intend to become elementary school teachers in grades K-6. Upon completion of the CAEP-approved program, which includes student teaching, the student should be eligible for both Florida certification and a master's degree in Elementary Education. Students should be aware that no more than one-third of the credits in this program can be taken as non-degree-seeking before official admission.

### **Admission Requirements**

To be admitted to the M.Ed. in Elementary Education with ESOL plus Certification Program, students must complete the graduate application and provide documentation showing that they:

1. Have a bachelor's degree from an accredited college or university;
2. Have an undergraduate cumulative GPA of 3.0;
3. Personal statement;
4. Résumé;
5. Two letters of recommendation that highlight the candidate's academic potential from a previous professor, employer or colleague (optional, at the discretion of each program).

Additional admissions requirements exist for international students. Contact the FAU Office of

International Students and Scholars and the Graduate College for these requirements.

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**Core Courses - 18-credits**

Child Development in Educational Psychology	EDF 6126	3
Instructional Strategies and Assessment Practices	EDG 6345	3
Foundations in Multicultural Education	EDF 6887	<b>3 or</b>
Multicultural Education	EDG 5705	3
Managing Inclusive Classrooms: Effective Discipline, Curriculum and Behavior Strategies	EDG 6408	3
Methods of Teaching TESOL and Bilingual Education	TSL 5345	3
Curriculum Development in TESOL and Bilingual Education	TSL 5142	3

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***Area of Specialization - 21 credits, taken after Core Courses***

Math: Elementary and Middle School	MAE 6151	3
Developmental Reading	RED 6351	3
Science: Elementary and Middle School	SCE 6151	3
Social Studies: Elementary and Middle School	SSE 6151	3
Remedial Reading	RED 6548	3
Reading Diagnosis	RED 6546	3
Teaching Reading in Secondary and Middle School	RED 6361	3

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**Capstone Experience - 6-9 credits\*\***

Internship	EDG 6940*	3-6
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(Student teaching is in a public school setting five days a week during fall or spring semester.)

\* EDG 6940 is generally not available in the summer term.

\*\* All program courses must be completed prior to student teaching; both professional and subject sections of FTCE must be passed prior to applying to student teaching.

## **ENVIRONMENTAL EDUCATION** **MASTER OF EDUCATION (M.ED.)**

The master's degree in Environmental Education provides a comprehensive graduate program that prepares future professionals in the field of environmental education and enhances the environmental education knowledge and skills of practicing teachers. This university-wide, interdisciplinary curriculum requires a minimum of 36 credits and includes opportunities to apply academic theory to practical experiences in the classroom, as well as onsite at the Pine Jog Environmental Education Center. A graduate certificate in [Environmental Education](#) is also available to complement the master's degree. For information about the master's program or the certificate program, contact Dr. Bryan Nichols, [nicholsb@fau.edu](mailto:nicholsb@fau.edu).

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### **Environmental Education Courses - 12 credits**

*(Department of Curriculum and Instruction)*

Perspectives of Environmental Education	SCE 6345	3
Advanced Methods of Environmental Education	SCE 6344	3
Trends and Issues in Environmental Education	SCE 6644	3
Capstone Study in Environmental Education	SCE 6196	3

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### ***Electives - 12 credits***

*Select four courses (12 credits at the 5000, 6000 or 7000 level from the College of Education or another college in the University with approval of an advisor.*

**General Education Courses (6 credits)***(Department of Curriculum and Instruction)*

Program Evaluation in Curriculum and Instruction	EDG 6285	3
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**Take one of the following courses:**

Global Perspectives of Curricular Trends <b>or</b>	EDG 6625	
Foundations of Global Education	EDF 6800	3

**Statistics/Research Courses - 6 credits***(Department of Educational Leadership & Research Methodology)***Take both of the following courses:**

Educational Statistics (complete prior to or concurrent with EDF 6481)	STA 6113	3
Educational Research (prerequisite or corequisite: STA 6113)	EDF 6481	3

**Admission Requirements**

Admission to the master's degree in Environmental Education requires submission of the graduate application form. Information pertaining to the process is available at [www.fau.edu/graduate](http://www.fau.edu/graduate). Students may complete the actual graduate application [here](#). In addition, in order to be considered for the degree program, students must submit the following documentation:

1. Official transcripts of all undergraduate coursework;
2. Have an undergraduate cumulative GPA of 3.0;
3. Personal statement;
4. Résumé;
5. Two letters of recommendation that highlight the candidate's academic potential from a previous professor, employer or colleague (optional, at the discretion of each program).

**ENVIRONMENTAL EDUCATION**

## GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

This graduate certificate may appeal to education, science and communications professionals interested in teaching in, about, and for the environment. To accommodate working professionals, courses are held in the evening and online. Advanced Methods in Environmental Education (SCE 6344) meets on select spring Saturdays and takes students on visits to a range of sub-tropical environmental education sites in Palm Beach and Martin counties, including parks, beaches, nature centers and one or more wildlife rehabilitators. Each of the four courses, a total of 12 credits, may count toward a master's degree in Environmental Education; the rest of the master's degree requirements may be completed online or in person. For students building their networks, certificate classes provide an opportunity to meet and interact with a passionate and inspiring group of education professionals.

### Required Courses - 12 credits

<i>Course</i>	<i>Number</i>	<i>Cr.</i>	<i>Location</i>	<i>Offered</i>
Perspectives of Environmental Education	SCE 6345	3	FAU Jupiter	Fall evenings
Science: Elementary and Middle School	SCE 6151	3	FAU Jupiter	Spring evenings
Trends and Issues in Environmental Education	SCE 6644	3	Online	Fall evenings
Advanced Methods of Environmental Education	SCE 6344	3	Various	Eight spring Saturdays

## INSTRUCTIONAL TECHNOLOGY MASTER OF EDUCATION (M.ED.)

The master's degree in Instructional Technology provides students with the necessary background to enable them to utilize, implement and maintain modern technology in the field of education and training. The program requires a minimum of 36 credits and includes coursework in research and statistics, software programming, instructional design and distance learning. This program is available in person or fully online.

## Admission Requirements

To be admitted to the M.Ed. in Instructional technology, students must meet the following admission standards:

1. Completion of the graduate application online through the Graduate College;
2. Receipt of official transcripts including all undergraduate coursework;
3. A bachelor's degree from a regionally accredited college or university;
4. Have an undergraduate cumulative GPA of 3.0;
5. Personal statement;
6. Résumé;
7. Two letters of recommendation that highlight the candidate's academic potential from a previous professor, employer or colleague (optional, at the discretion of each program).

Additional admissions requirements exist for international students. Contact the FAU Office of International Students and Scholars and the Graduate College for these requirements.

## Progress and Degree Requirements

1. The student must meet all College and University guidelines.
2. Completion of all required coursework listed below (except EDE 6205 or ESE 6215 and an additional elective) prior to placement in EME 6945.
3. The student must maintain an overall grade point average of 3.0 or higher.
4. The student must complete a minimum of 36 credits.
5. The student must complete the following course requirements.

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### Core Courses -12

Instructional Design	EME 6601	3
Organization and Management Learning Technologies	EME 6716	3
Models of Learning and Instruction	EME 6051	3
Distance Education in Theory and Practice	EME 6458	3

### Research and Statistics - 6 credits

Educational Research (Prerequisite or corequisite to STA 6113.)	EDF 6481	3
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Educational Statistics	STA 6113	3
<b>Select one track - 9 credits</b>		
<i><b>Instructional Design Track - 9 credits</b></i>		
Instructional Program Development	EDG 6255	3
Self-Regulated Learning Systems	EME 6209	3
Courseware Design	EME 6415	3
<i><b>Technology Educational Leader Track - 9 credits</b></i>		
Digital Literacy for Global Educators	EME 6426	3
Technological and Theoretical Foundations of Learning	EME 6623	3
Authentic, Standards-Based Assessment for 21st Century Learners	EME 6816	3
<b>Electives - 9 credits (choose three of the following courses)</b>		
Educational Psychology	EDF 6229	3
Instructional Program Development	EDG 6255	3
Curriculum: Elementary School	EDE 6205	3
Senior High School Curriculum	ESE 6215	3
Self-Regulated Learning Systems	EME 6209	3
Courseware Design	EME 6415	3
Digital Literacy for Global Educators	EME 6426	3
K-12 Online Teaching Foundations	EME 6456	3
Technological and Theoretical Foundations of Learning	EME 6623	3

Authentic, Standards-Based Assessment for 21st Century Learners	EME 6816	3
Field Experience in Educational Technology	EME 6945	3
Special Topics	EDG 6937	3
Directed Independent Study	EDF 6905	3
Master's Thesis	EDF 6971	3

## **INSTRUCTIONAL DESIGN** **GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

This online certificate program is designed to prepare professionals to design, develop and deliver instructional materials and programs while utilizing a variety of learning technologies. It provides students with the theoretical knowledge and practical skills needed to design instructional activities for a diversity of learners and learning environments. The online coursework emphasizes active learning and provides opportunities for practical experience with relevant instructional principles, tools and technologies.

### **Required Courses - 12 credits**

Models of Learning and Instruction (fall)	EME 6051	3
Instructional Design (spring)	EME 6601	3
Distance Education in Theory and Practice (spring)	EME 6458	3
Self-Regulated Learning Systems (summer)	EME 6209	3

*All courses are offered online in the terms noted.*

## **K-12 ONLINE TEACHING** **GRADUATE CERTIFICATE**

*(Minimum of 15 credits required)*

The K-12 Online Teaching Certificate is designed to prepare K-12 educators to design, manage and

deliver meaningful online learning experiences for their students. The certificate provides students with the theoretical knowledge and practical skills needed to successfully teach in online K-12 learning environments while utilizing a variety of learning technologies. The coursework in this fully online program emphasizes active learning and provides the opportunities for practical experience with relevant instructional principles, tools and technologies. The K-12 Online Teaching Certificate complements the Master of Education in Instructional Technology degree.

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### Required Courses - 15 credits

Digital Literacy for Global Educators	EME 6426	3
K-12 Online Teaching Foundations	EME 6456	3
Distance Learning Theory and Practice	EME 6458	3
Technological and Theoretical Foundations of Learning	EME 6623	3
Authentic, Standards-Based Assessment for 21st Century Learners	EME 6816	3

## READING EDUCATION

### MASTER OF EDUCATION (M.ED.)

The M.Ed. in Reading Education leads to state certification as a reading teacher. This program is directed toward currently certified and/or experienced teachers who are pursuing an advanced degree and seeking reading certification.

#### Admission Requirements

To be admitted to the M.Ed. in Reading Program, students must complete the graduate application and provide the same documentation as for the first M.Ed. program described in this section.

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### Required Reading Courses (18 credits)

Developmental Reading	RED 6351	3
Reading Diagnosis (prerequisite RED 6351)	RED 6546	3
Remedial Reading (prerequisite RED 6546)	RED 6351	3
Reading Practicum (prerequisite RED 6548)	RED 6836	3

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*The following two courses have no prerequisite requirements and may be taken during any semester of the student's master's degree course of study.*

Teaching Reading in Secondary and Middle School	RED 6361	3
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Trends and Issues in Reading Education	RED 6656	3
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### Education Electives

Choose one for 3 credits

Design Components of Curriculum	EDG 6253 <b>or</b>	3
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Measurement	EDF 6432* <b>or</b>	3
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Instructional Strategies and Assessment Practices	EDG 6345	3
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### Research Core - 6 credits

Educational Research	EDF 6481	3
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Educational Statistics	STA 6113**	3
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### Electives - 9 credits

Electives may be taken in the College of Education, College of Arts and Letters and/or College of Science.

**Note:** Linguistics and Reading, LIN 5745 (3 credits), is recommended but not required.

\* Required if course in measurement has not been taken previously.

\*\* May be taken prior to or concurrently with EDF 6481.

### Degree Requirements

To be eligible for graduation, students must complete all program courses and pass the Florida Teachers Certification Exam for Reading Education (K-12).

## **SECONDARY EDUCATION PLUS CERTIFICATION**

### **MASTER OF EDUCATION (M.ED.)**

**Art Certification Concentration**

**Biology Certification Concentration**

**Chemistry Certification Concentration**

**English/ESOL Certification Concentration**

**Mathematics Certification Concentration**

**Physics Certification Concentration**

**Social Science Certification Concentration**

The M.Ed. in Secondary Education plus Certification is designed for students who want to be excellent school teachers and who already have a bachelor's degree with credits in one of the following areas: art, biology, chemistry, English, mathematics, physics or social sciences. Upon completion of this program, which includes student teaching, the student is eligible for Florida professional certification in their specific area. An advisor is assigned to each student accepted into the program.

#### **Admission Requirements**

To be admitted to the M.Ed. in Secondary Education plus Certification Program, students must complete the graduate application and provide documentation showing that they:

1. Have a bachelor's degree from an accredited college or university;
2. Have an undergraduate cumulative GPA of 3.0;
3. Personal statement;
4. Résumé;
5. Two letters of recommendation that highlight the candidate's academic potential from a previous professor, employer or colleague (optional, at the discretion of each program).

#### **Progress and Degree Requirements**

1. The student must meet all College and University guidelines.
2. Completion of all required coursework and all required professional examinations prior to placement in final internship.
3. The student must maintain an overall grade point average of 3.0 or higher.
4. The student must complete a minimum of 36 credits (39 credits for English concentration/specialization).

This program is approved by the Florida Department of Education and the Council for the

Accreditation of Teacher Education (CAEP). This state and CAEP approval represents the transferability of the student's teaching credentials from state to state.

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### Core Courses - 27 credits

Educational Psychology	EDF 6229	3 <b>or</b>
Adolescent Development and Young Adulthood Psychology	EDF 6136	3
Foundations of Multicultural Curricula	EDF 6887	3 <b>or</b>
Multicultural Education	EDG 5705	3
Instructional Strategies and Assessment Practices	EDG 6345	3
Managing Inclusive Classrooms and Effective Discipline, Curriculum and Behavior Strategies	EDG 6408	3
Reading Diagnosis	RED 6546	3
Remedial Reading	RED 6548	3
Teaching Reading in Secondary and Middle School	RED 6361	3
Curriculum Development in TESOL and Bilingual Education	TSL 5142	3
Methods of Teaching TESOL and Bilingual Education	TSL 5345	3
<b>Special Methods - 3 credits</b>		
Select one course (3 credits from the following)		
Art Education in Secondary School	ARE 6342	3
Developmental Reading	RED 6351	3
Teaching Mathematics: Middle and High School	MAE 6155	3
Science: Elementary and Middle School	SCE 6151	3
Social Studies: Elementary and Middle School	SSE 6151	3

## Capstone Experience - 6-9 credits

Reading Practicum	RED 6836	3
Internship	EDG 6940	3-6
<b>Total</b>		<b>36-39</b>

## CURRICULUM AND INSTRUCTION SPECIALIST IN EDUCATION (ED.S.)

The Education Specialist Degree (Ed.S.) in Curriculum and Instruction is designed for students who wish to continue graduate studies beyond the master's (M.Ed.) degree but do not desire the Doctor of Philosophy degree (Ph.D.), which requires additional courses and a research dissertation. The Education Specialist Degree requires a minimum of 33 credits above the M.Ed. degree. The degree must be completed within seven years from the date a student is admitted to the Ed.S. degree program. A student can take no more than one-third of the total credits in this program as a non-degree student before being officially admitted to the program. The Ed.S. degree requires 33 credits.

### Admission Requirements

To be considered for admission to the Ed.S. in Curriculum and Instruction Program, students must complete the graduate application and provide documentation that they have:

1. A master's degree from a regionally accredited college or university;
2. A personal statement that describes the applicant's research interests such as their professional trajectory and the anticipated benefit of a specialist degree in Curriculum and Instruction.
3. An overall grade point average of at least 3.25 or better on all graduate work attempted;
4. Two signed letters of recommendation on professional letterhead that address applicant's academic skills and scholarly potential from professors and/or supervisors.

Additional admission requirements exist for International Students. Contact the FAU Office of International Students and Scholars and the Graduate College for these requirements.

Applications are not reviewed until all documents are received.

### Program of Studies

**33 credits**

### *Core Courses - 12 credits*

*Select at least one course from each of the three areas listed below.*

***Curriculum***

Instructional Policies and the Teaching Profession	EDF 7917	3
Design Components in Curriculum	EDG 6253	3
Program Evaluation in Curriculum and Instruction	EDG 6285	3
Documentation and Assessment in Curriculum and Instruction	EDG 6628	3
Curriculum Theory	EDG 7221	3
Curriculum Implementation for School Improvement	EDG 7251	3
Principles and Models of Early Childhood Education	EEC 6236	3
Exploring Natural Habitats as Curriculum for Young Learners	EEC 6239	3
Creative Arts for Young Children	EEC 6711	3
Curriculum Development in TESOL and Bilingual Education	TSL 5142	3

***Foundations***

Foundations of Multicultural Curricula	EDF 6887	3
Curriculum Implementation for School Improvement	EDF 7251	3
Seminar in Early Childhood Education	EEC 6932	3
Theories of TESOL and Bilingual Education	TSL 6642	3

***Social Contexts***

Race, Class and Gender in Education	EDF 6637	3
Foundations of Global Education	EDF 6800	3
Seminar in Early Childhood Education	EEC 6932	3

Language Policy and Planning in Education	TSL 6700	3
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***Research and Evaluation - 6 credits***

Action Research in Schools and Communities	EDF 6918	3
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Select one of the following three courses

Introduction to Qualitative Inquiry	EDA 6415	3
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Critical Foundations of Educational Inquiry	EDF 7578	3
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Advanced Statistics	STA 7114	3
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***Areas of Concentration - 12 credits***

Select 12 credits from the College of Education or another college in the University with approval of an advisor. All courses must be at the 6000 or 7000 level.

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***Capstone - 3 credits***

Praxis in Curriculum and Instruction	EDG 7918	3
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<b>Total</b>		<b>33</b>
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***Areas of Concentration (12 credits at the 6000 level or above)***

The area of concentration is developed in consultation with the advisor. Areas of concentration may be organized around students' FDOE letter of eligibility or professional certification, a specific program area (e.g., Early Childhood Education) or a certificate (e.g., Multicultural Certificate). Additionally, an individualized interest (e.g., Media Literacy: Curriculum Design), may be developed in consultation with the advisor; however, these individualized areas of interest will not be listed on the plan of study or transcript as a unique area of concentration.

**Areas of Concentration**

Art (K-12)

Early Childhood Education

English/Language Arts (6-12)

ESOL Education (K-12)

Foreign Language (French and Spanish) (K-12)

Mathematics (6-12)

Multicultural Education (K-12)

Reading (K-12) (does not lead to certification as a reading teacher

Science Education (Biology, Chemistry and Physics) (6-12)

Social Science (6-12)

### ***Capstone Experience (EDG 7918, Praxis in Curriculum and Instruction, 3 credits)***

The Capstone Experience, implemented at the end of the Ed.S. program, draws on a community or school-based independent study field experience designed by the Ed.S. student and advisor. The capstone culminates in a manuscript to submit for publication or a poster/paper presentation at a conference.

## **CURRICULUM AND INSTRUCTION DOCTOR OF PHILOSOPHY (PH.D.)**

The Doctor of Philosophy (Ph.D.) in Curriculum and Instruction degree provides a theoretical and practical course of study in curriculum and instruction. The program is designed for teachers, curriculum coordinators, university academics and other professional educators. It enables students to develop a theoretical and conceptual framework for studying teaching and learning and also encourages professional educators to develop knowledge and practice in their own fields of specialization. The Ph.D. degree requires 66 credits.

The Ph.D. culminates in a dissertation focused on a particular question and area of investigation that interests the doctoral candidate and benefits the profession. Doctoral candidates have opportunities to participate with faculty on research, in teaching and in professional activities, including publishing and conference presentations. A student can take no more than 17 credits in this program as a non-degree student before being officially admitted; those credits are subject to approval by a program advisor. Doctoral candidates are admitted during fall semesters only. Applications are due February 1 for program initiation in the fall term.

### **Admission Requirements**

To be considered for admission to the doctoral program in Curriculum and Instruction, students must complete the graduate application and provide the following documentation of their preparation for doctoral-level work:

1. Send in official transcripts of all undergraduate and graduate coursework to the Graduate College at FAU indicating the courses taken and noting completion of a bachelor's and a master's degree from a

regionally/nationally accredited college or university.

2. Have a grade point average (GPA) of 3.00 or better in the last 60 semester hours of undergraduate work and a GPA of 3.25 or better in a completed master's degree program. Students may apply to the program with a GPA of less than 3.00 (undergraduate) or 3.25 (graduate) but they must address the score in their professional statement.
3. Provide two letters of recommendation from supervisors and/or professors. Preference is given to recommendation letters which speak to a candidate's (a) academic research ability, (b) potential for doctoral studies, (c) ability to write, and (d) preparation for rigor of doctoral program.
4. A professional statement describing career goals, research interests, reasons for wanting to enter the C&I program, and identifying potential faculty members in the department with whom the student would like to work. Students with lower than stipulated GPA scores or areas of weakness in their undergraduate and/or graduate transcripts must also address this information in their professional statement.
5. A curriculum vitae (CV) or resume.
6. Upon successful submission and referral of the application to the department, the department will invite applicants to engage in a pre-interview writing task to support their deliberation of the application. Selected applicants will then be invited to an interview with department faculty. Applicants will be asked to complete a 45- minute writing task after the interview.
7. Additional requirements for international students may apply. Please refer to the FAU Graduate College for more information email: [graduatecollege@fau.edu](mailto:graduatecollege@fau.edu)

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## Program of Studies

**Minimum of 66 credits**

### *Core Courses - 12 credits*

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Trends in Analyzing Instructional Practices

EDF 7758

3

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Instructional Policies and the Teaching Profession

EDF 7917

3

*(take this course after EDF 7758)*

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Curriculum Theory

EDG 7221

3

*(take this course in the first or second semester)*

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Foundations of Curriculum Theory

EDG 7938

3

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Research in Curriculum and Instruction

EDG 7944

3

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### *Initial Research Courses - 6 credits*

Introduction to Qualitative Inquiry	EDA 6415	3
Advanced Statistics	STA 7114	3
<i>Area of Specialization/Electives - 21 credits at the 6000 level or above. Select 21 credits from the College of Education or another college in the University with approval of an advisor.</i>		
<i>Advanced Research Courses - up to 12 credits, 9 minimum</i>		
Advanced Qualitative Analysis	EDA 7416	3
Advanced Educational Research	EDF 7482	3
Critical Foundations to Educational Inquiry	EDF 7578	3
Directed Independent Study (may be taken multiple times)	EDF 7906	1-5
<i>Dissertation - 15 credits (registration over multiple terms for a total of 15 credits)</i>	EDG 7980	1-15
<b>Total</b>		<b>66</b>

## TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES (TESOL) ENDORSEMENT PROGRAM

### ESOL Certification for Foreign Language Majors

Students completing Foreign Language Certification may add ESOL Endorsement by completing the department's state-approved, five-course Add-On ESOL Endorsement.

The Department of Curriculum and Instruction offers a program leading to TESOL (Teaching English to Speakers of Other Languages) endorsement. Teachers must hold a valid teaching certificate in the State of Florida in order to qualify for the TESOL endorsement.

The following courses are required in the TESOL endorsement program:

#### **For elementary, English and foreign language teachers**

Multicultural Education	EDG 5705	3
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Applied Linguistics and TESOL	TSL 4251	3
Curriculum Development in TESOL and Bilingual Education	TSL 5142	3
Methods of TESOL and Bilingual Education	TSL 5345	3
Assessment Issues for English for ESOL and Bilingual Populations	TSL 5440	3
<b>For other secondary teachers (not English)</b>		
ESOL Strategies for Content Area Teachers	TSL 4324	3

## **TEACHER LEADERSHIP GRADUATE CERTIFICATE**

*(Minimum of 15 credits required)*

This innovative certificate program, offered by the departments of Curriculum and Instruction and Educational Leadership and Research Methodology, is designed for teacher leaders, leaders of teachers and aspiring leaders seeking collaboration, expertise and skill as coordinators, coaches, team leaders, department chairs, professional development facilitators and more. Teacher leaders explore tools and approaches to mentoring, assessment and data analysis to meet the needs of all students, while working with people from diverse backgrounds in school and district settings. Teacher leaders gain valuable practice regarding how to build and support culturally responsive classrooms and schools and develop plans for ongoing authentic peer coaching and in-classroom support in their schools. Courses are designed to address specific national standards for teacher leadership.

This program is offered entirely online. The five courses are offered in a rotation during the fall, spring and summer semesters and can be completed in one year or three semesters. Of the five courses, three are from the Department of Educational Leadership and Research Methodology (EDLRM) and two are from the Department of Curriculum and Instruction (CAI).

### **Required Courses (15 credits)**

Leading Adult and Professional Learning in Schools (EDLRM)	ADE 6268	3
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Clinical Evaluation (EDLRM)	EDA 6507	3
Evaluation and Leadership Theory for Educational Leaders (EDLRM)	EDA 6508	3
Curriculum Leadership (CAI)	EDG 6223	3
Documentation and Assessment in Curriculum and Instruction (CAI)	EDG 6628	3

## EDUCATIONAL LEADERSHIP AND RESEARCH METHODOLOGY

### Faculty:

Shockley, R. E., Chair; Barakat, M.; Bogotch, I.; Bloom, J.; Bryan, V.; DeDonno, M.; Dennett, S.; Floyd, D.; Hardman, J.; Krzemienski, J.; Lieberman, M.; Maslin-Ostrowski, P.; Mays, T.; Morris, J. D.; Mountford, M. L.; Reyes-Guerra, D.; Salinas, C.; Shepherd, D.; Vasquez, M.; Warshaw, J.; Watlington, E.

Educational Leadership and Research Methodology offers three degree programs: the Master of Education, the Specialist in Education and the Doctor of Philosophy. Also offered are an [undergraduate minor in Leadership Studies](#) and a [graduate certificate in Teacher Leadership](#).

### Vision

We strive for a transparent, caring and ethical environment that cultivates educational leadership pioneers who through integrity, social justice and knowledge, shape a better world that promotes human dignity.

### Mission

The Department of Educational Leadership and Research Methodology at Florida Atlantic University is a community of scholars engaged in programs: Adult and Community Education, Higher Education Leadership, School Leaders, and Research Methodology. We focus on the preparation and support of practitioners, leaders and researchers in Florida, the nation and the international community through courses, undergraduate and graduate programs, professional learning and community service.

### Values

With values, we strive to align words and actions.

Integrity - We strive to act with honesty, transparency and respect.

Learning Community - We strive to be an evolving community of learners grounded in collegiality, collaboration and mentorship.

Social Justice, Diversity, Equity and Inclusion - We strive to promote a society where individuals and cultures are valued, where all have equitable opportunities and where all inhabit an inclusive environment that is safe physically, emotionally and socially.

Innovative Action - We strive, at both an individual and systemic level, to engage continuously in discovery, reflection and the creation and application of knowledge.

Excellence - We strive for quality in everything we do individually and collectively.

### **Program Concentrations**

***Adult and Community Educational Leaders*** —prepares individuals for leadership positions in educational programs for adults in a wide variety of settings: business and industry, health and social service agencies and public and private schools. The program of study is organized around four domains: professional attitudes; historical, social and philosophical context; adult learning and development; and organization and administration of adult programs. Additional areas of study are offered in adult education, college teaching, community education, human resource development and technology.

***Higher Education Leaders*** —prepares individuals in leadership positions in community colleges, state colleges, agencies, public and private organizations and all facets of post-secondary education. The program is appropriate for those aspiring to or currently holding leadership positions in public and private institutions of higher education. Areas of study are community college and state college leaders, student affairs leadership, instructional leadership and foundations of higher education. The program of study is organized around three domains: historical, philosophical and social context; institutional mission; and management.

***School Leaders (K-12)*** —prepares public and private elementary, middle school, secondary, community school and district-level administrators to meet the challenges of today's schools. The program of study is organized around three domains: teaching and learning, management and schools

in context. It encompasses all facets of educational leadership including management, law and school and instructional improvement. The requirements for Florida Level I Certification in Educational Leadership can be met through the master's degree program or the Florida Principal Certification Program.

### **Admission Requirements**

The following items should be submitted to the Graduate College for consideration for admission to a program in the Department of Educational Leadership and Research Methodology:

1. FAU graduate application;
2. Official transcripts from all institutions.

Submit the following information to the Department of Educational Leadership and Research Methodology:

1. An essay that identifies your career goals and how the program you are planning to pursue will enable you to meet these goals;
2. A professional résumé;
3. Letters of professional reference: Two for the master's and specialist's programs and three for the doctoral program;
4. A sponsor commitment form from a school principal who is willing to sponsor the student for three semesters of internship (only for School Leaders K-12 students pursuing certification).

[Link to Master's Programs](#)

[Link to Certification Programs](#)

[Link to Teacher Leadership Certificate](#)

[Link to Specialist's Programs](#)

[Link to Doctoral Programs](#)

## **LEADERSHIP STUDIES UNDERGRADUATE MINOR**

*(Minimum of 16 credits required)*

The minor in Leadership Studies enables students to complement any major with a focus in leadership obtained through foundational courses in the Higher Education Leadership Program and interdisciplinary courses. The minor is available to all FAU degree-seeking undergraduate students.

Offered through the Higher Education Leadership Program and the Leadership Education and Development (LEAD) Office within Student Affairs, the minor includes 16 credits. In consultation with an advisor, students map out a program of study that includes 7 credits of core coursework and 9 credits of electives. The minor is awarded upon successful completion of the coursework and completion of the bachelor's degree.

For more information about this minor, click [here](#).

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### **Required Core Courses - 7 credits**

Introduction to Leadership	LDR 2010	1
Theories of Leadership	LDR 4104	3
Capstone Seminar on Leadership	LDR 4951	3

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### **Elective Categories - 9 credits**

#### ***Self-Awareness as a Leader Courses***

*Choose one of the following*

Learning Strategies and Human Development (Leadership Learning Community)	SLS 1503	2
Leadership and Social Change	LDR 3216	3
Media Literacy and Leadership	LDR 4276	3
Ethics and Power in Leadership	LDR 4204	3

#### ***Leadership and Teams Courses***

*Choose one of the following*

Leadership in the Fraternal Movement	LDR 3214	3
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Introduction to Field Leadership	LDR 4250	3
Facilitation and Group Development	LDR 4366	3
<i>College of Business course selections:</i>		
Introduction to Management and Organizational Behavior	MAN 3025	3
Leadership, Supervisory Skills, and Team Development	MAN 4046	3
Entrepreneurship	ENT 4024	3
Special Topics (Leadership and Sustainment)	MAN 4930	3
<i>Dorothy F. Schmidt College of Arts and Letters selections:</i>		
Leadership and Communication	SPC 4443	3
Strategic Communication	COM 4150	3
<b><i>Leading Our World Courses</i></b> <i>Choose one of the following</i>		
Contemporary Issues in Leadership	LDR 3115	3
<i>College of Business course selections:</i>		
Cross-Cultural Human Relations and Negotiations	MAN 3611	3
<i>College of Engineering and Computer Science course selection:</i>		
Sustainability Leadership for Engineers	EGN 4070	3
<i>Military Science course selections:</i>		
Individual Leadership Studies	MSL 2101	2
Leadership and Problem Solving	MSL 3201	3
Leadership and Management	MSL 4301	3

## EDUCATIONAL LEADERSHIP MASTER OF EDUCATION (M.ED.)

### Adult and Community Educational Leaders Concentration

### Higher Education Leaders Concentration

### School Leaders (K-12) Concentration

### Admission Requirements

1. Bachelor's degree from a regionally accredited college or university;
2. Achieve a minimum undergraduate GPA of 2.5 in upper-division courses.

### Adult and Community Educational Leaders Concentration

The Adult and Community Leadership concentration focuses on sustainability and is available in person or fully online. The program is designed to provide learning, training and practical experience that foster personal development and action for change in the human and natural worlds. Students learn skills that leaders need to work in fields such as education, nonprofit agencies, corporations and community government.

<b>Degree Requirements</b>	<b>36 credits</b>	
<b>Leadership Foundation</b>	<b>9 credits</b>	
Leadership 1: Adult Learning and Assessment	ADE 6381	3
Leadership 2: Theories and Assessment	EDS 6100	3
Leadership 3: Administrative Processes	EDA 6103	3
<b><i>Educational Foundation</i></b>	<b><i>6 credits</i></b>	
Educational Statistics	STA 6113	3
Educational Research	EDF 6481	3
<b><i>Professional Knowledge</i></b>	<b><i>12 credits</i></b>	
Adult and Community Education in a Changing Society	ADE 5185	3

Program and Curriculum Development for Adults	ADE 6184	3
Workplace Learning and Development	ADE 6387	3
Seminar in Adult/Community Education	ADE 6930	3
<b><i>Sustainability Core</i></b>	<b><i>9 credits</i></b>	
Grant Writing and Program Management for Adult and Community Nonprofit Organizations	ADE 6285	3
Sustainability Leadership for ACE Entrepreneurs and Change Agents	ADE 6695	3
Assessment, Planning and Sustainability with Geospatial Technologies	ADE 6774	3

### Higher Education Leaders Concentration

The Higher Education Leadership concentration is designed for individuals who want to prepare for entry-level and mid-level leadership and management positions in colleges and universities. This concentration is available in person or fully online.

<b><i>Degree Requirements</i></b>	<b><i>36 credits</i></b>	
<b><i>Leadership Foundation</i></b>	<b><i>9 credits</i></b>	
Leadership 1: Adult Learning and Assessment	ADE 6381	3 <b>or</b>
Student Development Theory	EDH 6040	3
Leadership 2: Theories and Assessment	EDS 6100	3
Leadership 3: Administrative Processes	EDA 6103	3
<b><i>Research and Technology Foundation</i></b>	<b><i>6 credits</i></b>	
Educational Research	EDF 6481	3
Educational Statistics	STA 6113	3
<b><i>Professional Knowledge</i></b>	<b><i>18 credits</i></b>	
Introduction to Higher Education	EDH 6051	3

History and Philosophy of Higher Education	EDH 6065	3
Organization and Administration of Higher Education	EDH 6635	3
<b><i>Select three courses</i></b>	<b><i>9 credits</i></b>	
Student Development Theory	EDH 6040	3
Student Affairs Leadership	EDH 6045	3
International Comparative Higher Education	EDH 6058	3
Community College Curriculum	EDH 6215	3
Improvement of Instruction in Colleges	EDH 6305	3
Contemporary Issues in Student Affairs	EDH 6367	3
Special Topics in Higher Education	EDH 6931	3
Internship/Exchange	EDH 6941	3
<b><i>Experiential Component</i></b>	<b><i>3 credits</i></b>	
<b><i>Select one course</i></b>		
Directed Independent Study	EDA 6905	1-3
Directed Independent Study	EDA 7905	1-3
Field Project 1	EDA 7943	3
Field Project 2	EDA 7944	3
Internship/Exchange	EDH 6941	3

### **School Leaders (K-12) Concentration**

The K-12 School Leaders concentration prepares educators aspiring to be teacher leaders and assistant principals and meet the challenges of today's public and private educational institutions. This concentration is available in person or fully online. Developed in cooperation with Florida public school districts, the program of study is built on the four major domains that the ELRM requires for leadership learning: leadership foundations, research foundations, professional knowledge and experiential learning. To fulfill the requirements of the master's degree program, students take

coursework aligned to the knowledge, skills and dispositions needed to be a school leader; program-provided seminars; and task-specific internship courses with curricula built to practice assistant principal-level activities in school-based clinical experiences.

Admission requirements for this program include three years of successful teaching experience and a sponsor commitment form from a school principal who is willing to sponsor and coach the student for three semesters of internship.

In addition to the coursework found in the table below, students are required to attend weekly non-credit learning seminars in the first and last semesters of the program, as well as complete non-credit online modules centered on school law.

Completion of this program, which includes passing the Florida Educational Leadership Exam (FELE), leads to Florida Educational Leadership Certification (Level I), which qualifies an individual to serve as a public school assistant principal or principal in the State of Florida (depending on individual district requirements). In addition to engaging students in world-class learning, the program incorporates FELE competencies and Skills. The program is also aligned with the Professional Standards for Educational Leaders (PSELS) and National Educational Leadership Preparation (NELP) Program Standards - Building Level, which align with the Council for the Accreditation of Educator Preparation (CAEP) accreditation and program review. Students who complete this program are prepared to sit for the FELE examination and must pass the exam in order to graduate. Florida ESOL requirements must also be satisfied prior to graduation.

<b><i>Degree Requirements</i></b>	<b><i>42 credits</i></b>	
<b><i>Leadership Foundation</i></b>	<b><i>9 credits</i></b>	
Leadership 1: Adult Learning and Assessment	ADE 6381	3
Leadership 2: Theories and Assessment	EDS 6100	3
Leadership 3: Administrative Processes	EDA 6103	3
<b><i>Research and Technology Foundation</i></b>	<b><i>6 credits</i></b>	
Educational Statistics	STA 6113	3
Educational Research	EDF 6481	3

<b><i>Professional Knowledge</i></b>	<b><i>18 credits</i></b>	
Leadership for Social Justice	EDA 6191	3
School Operations	EDA 6207	3
Systems and Community	EDA 6300	3
Policy and Politics	EDF 6786	3
Instructional Leadership 1: Role of the Leader in Continuous School Improvement	EDS 6050	3
Instructional Leadership 2: Role of the Leader in Improvement of Student Learning	EDS 6052	3
<b><i>Experiential Component</i></b>	<b><i>9 credits</i></b>	
Internship 1: Fall	EDA 6945	3
Internship 2: Spring	EDA 6946	3
Internship 3: Summer	EDA 6947	3

## **FLORIDA CERTIFICATION IN ADMINISTRATION OF ADULT EDUCATION PROGRAM**

The department offers all of the requirements for obtaining Florida Certification in Administration of Adult Education through any of the four plans approved by the state (Administrative Rule 6A-4.008).

### **Degree Requirements**

**Plan One** - 36-39 credits. Master's degree or higher in administration of adult education. See department listing for requirements.

### ***Plans Two and Four - 6 credits (add-on to master's or professional certificate in K-12 administration)***

Organization and Administration of Adult and Community Education	ADE 6265	3
Principles of adult education or adult		3

education curriculum, supervision or  
methods and materials

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***Plan Three - 18 credits (add-on to any master's degree)***

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School Administration		6
Organization and Administration of Adult and Community Education	ADE 6265	3
Basic school supervision or supervision of adult education		3
Curriculum		3
Program and Curriculum Development for Adults	ADE 6184	3

### **Florida Principal Certification Program**

The K-12 School Leadership Certification Program prepares educational leaders to meet the challenges of today's public and private educational institutions. The professional knowledge base for the K-12 School Leadership certification program is organized around three domains: leadership foundations, professional knowledge and the experiential component.

Admission requirements for this program include three years of successful teaching experience and a sponsor commitment form from a school principal who is willing to sponsor and coach the student for three semesters of internship. In addition to the coursework found in the table below, students are required to attend weekly non-credit learning seminars in the first and last semesters of the program, as well as complete non-credit online modules centered on school law.

Completion of this program includes passing the Florida Educational Leadership Exam (FELE) and leads to Florida Educational Leadership Certification (Level 1), which qualifies an individual to serve as a public school assistant principal or principal in the state of Florida (depending on individual district requirements). In addition to engaging students in world-class learning, the program incorporates FELE Competencies and Skills. The program is also aligned with the Professional Standards for Educational Leaders (PSEL) and the National Educational Leadership Preparation (NELP) Program Standards – Building Level, which align with the Council for the Accreditation of Educator Preparation (CAEP) accreditation and program review. Students who complete this program are prepared to sit for the FELE examination and must pass the exam in order to complete. Florida ESOL requirements must also be satisfied prior to completion.

<b><i>Program Requirements</i></b>	<b><i>36 credits</i></b>	
<b><i>Leadership Foundation</i></b>	<b><i>9 credits</i></b>	
Leadership 1: Adult Learning and Assessment	ADE 6381	3
Leadership 2: Theories and Assessment	EDS 6100	3
Leadership 3: Administrative Processes	EDA 6103	3
<b><i>Professional Knowledge</i></b>	<b><i>18 credits</i></b>	
Instructional Leadership 1: Role of the Leader in Continuous School Improvement	EDS 6050	3
School Operations	EDA 6207	3
Policy and Politics	EDF 6786	3
Systems and Community	EDA 6300	3
Instructional Leadership 2: Role of the Leader in Improvement of Student Learning	EDS 6052	3
Leadership for Social Justice	EDA 6191	3
<b><i>Experiential Component</i></b>	<b><i>9 credits</i></b>	
Internship 1: Fall	EDA 6945	3
Internship 2: Spring	EDA 6946	3
Internship 3: Summer	EDA 6947	3

## **EDUCATIONAL LEADERSHIP SPECIALIST IN EDUCATION (ED.S.)**

**Adult and Community Educational Leaders Concentration**  
**School Leaders (K-12) Concentration (with Certification)**  
**School Leaders (K-12) Advanced Concentration (no Certification)**

The specialist's degree is designed for individuals who want to further specialize in educational leadership beyond the master's degree. The master's level leadership core courses are prerequisites to

completion of the specialist's degree.

## Admission Requirements

1. Master's degree from an accredited college or university;
2. Meet the following admission criterion: Achieve a minimum GPA of 3.0 in a master's program.
3. A sponsor commitment form from a school principal who is willing to sponsor the student for three semesters of internship (only for School Leaders K-12 students pursuing certification);
4. Résumé;
5. Statement of personal goals;
6. Two letters of recommendation.

## Adult and Community Educational Leaders Concentration

The Adult/Community Educational Specialist concentration serves individuals preparing for leadership positions in education programs for adults in a wide variety of settings: universities and community/state colleges, business and industry, health and social service agencies and public and private schools. The foundational knowledge base includes the basic tenets and principles of leadership. Leaders must develop well-rounded leadership skills, a capacity to envision the future and be able to find opportunities within and outside of their organization for the benefit of those they lead. The professional knowledge base includes the technical knowledge, specialized skills and ethical standards used to function in the professional adult education workplace.

The program is designed for individuals who want to further specialize in adult and community education beyond a master's degree. The four major domains of this program of study include: professional attitudes; historical, philosophical and social context; adult learning and development; and organization and administration of adult programs. Completion of this program meets the requirements for State of Florida certification in adult education (not K-12) administration for those meeting the other requirements: three years of teaching and a professional certificate (State of FL Administrative Rule 6A-4.008).

<b><i>Degree Requirements</i></b>	<b><i>51 credits</i></b>	
<b><i>Leadership Foundation</i></b>	<b><i>9 credits</i></b>	
Leadership 1: Adult Learning and Assessment	ADE 6381	3
Leadership 2: Theories and Assessment	EDS 6100	3

Leadership 3: Administrative Processes	EDA 6103	3
<b><i>Research</i></b>	<b><i>9 credits</i></b>	
Educational Statistics	STA 6113	3
Educational Research	EDF 6481	3
Introduction to Qualitative Inquiry	EDA 6415	3
<b><i>Professional Knowledge</i></b>	<b><i>15 credits</i></b>	
Adult and Community Education in a Changing Society	ADE 5185	3
Organization and Administration of Adult-Community Education	ADE 6265	3
Program and Curriculum Development for Adults	ADE 6184	3
Seminar in Adult/Community Education	ADE 6930	3
Advanced Seminar in Adult/Community Education	ADE 7935	3
<b><i>Electives</i></b>	<b><i>9 credits</i></b>	
<i>Select three courses (9 credits) of related coursework from one of the areas of specialization.</i>		
<b><i>Adult and Community Education</i></b>		
Aging Considerations and Programs	ADE 6194	3
Systems and Community	EDA 6300	3
Sustainability Leadership for ACE Entrepreneurs and Change Agents	ADE 6695	3
Assessment, Planning and Sustainability with Geospatial Technologies	ADE 6774	3
<b><i>College Teaching and Technology</i></b>		
Community College Curriculum	EDH 6215	3
History and Philosophy of Higher Education	EDH 6065	3

Improvement of Instruction in Colleges	EDH 6305	3
Models of Learning and Instruction	EME 6051	3
Self-Regulated Learning Systems	EME 6209	3
Instructional Design	EME 6601	3
<b><i>Human Resource and Career Education</i></b>		
Workplace Learning and Development	ADE 6387	3
Human Resources Management	MAN 6156	3
Organizational Behavior	MAN 6245	3
Organization and Administrative Behavior	PAD 6106	3
Public Policy and Nonprofit Organizations	PAD 6143	3
Human Resource Management for Nonprofits	PAD 6166	3
<b><i>Experiential Component</i></b>	<b><i>9 credits</i></b>	
<i>Select from the following for a total of 9 credits</i>		
Internship/Exchange	EDH 6941	3
Directed Independent Study	EDA 7905	1-3
Field Project 1	EDA 7943	3-6
Field Project 2	EDA 7944	3-6

### **School Leaders (K-12) Concentration (with certification)**

The K-12 School Leadership Specialist with Certification concentration is for educators aspiring to be teacher leaders and assistant principals and meet the challenges of today's public and private educational institutions. The program is designed for individuals who want to further specialize in education and school leadership beyond a master's degree and who do not have an M.Ed. in School Leadership. Developed in cooperation with Florida public school districts, the program of study is built on the four major domains that the ELRM requires for leadership learning: leadership foundations, research foundations, professional knowledge and experiential learning. To fulfill the requirements of the specialist degree program, students take coursework aligned to the knowledge, skills and

dispositions needed to be a school leader; program-provided seminars; and task-specific internship courses with curricula built to practice assistant principal-level activities in school-based clinical experiences.

Admission requirements for this program include three years of successful teaching experience and a sponsor commitment form from a school principal who is willing to sponsor and coach the student for three semesters of internship.

In addition to the coursework found in the table below, students are required to attend weekly non-credit learning seminars in the first and last semesters of the program, as well as complete non-credit online modules centered on school law.

Completion of this program, which includes passing the Florida Educational Leadership Exam (FELE), leads to Florida Educational Leadership Certification (Level I). This qualifies an individual to serve as a public school assistant principal or principal in the State of Florida (depending on individual district requirements). In addition to engaging students in world-class learning, the program incorporates FELE Competencies and Skills. The program is also aligned with the Professional Standards for Educational Leaders (PSELS) and National Educational Leadership Preparation (NELP) Program Standards - Building Level, which align with the Council for the Accreditation of Educator Preparation (CAEP) accreditation and program review. Students who complete this program are prepared to sit for the FELE examination and must pass the exam in order to graduate. Florida ESOL requirements must also be satisfied prior to graduation.

<b><i>Degree Requirements</i></b>	<b><i>48 credits</i></b>	
<b><i>Leadership Foundation</i></b>	<b><i>9 credits</i></b>	
Leadership 1: Adult Learning and Assessment	ADE 6381	3
Leadership 2: Theories and Assessment	EDS 6100	3
Leadership 3: Administrative Processes	EDA 6103	3
<b><i>Research and Technology Foundation</i></b>	<b><i>9 credits</i></b>	
Educational Statistics	STA 6113	3
Educational Research	EDF 6481	3

Introduction to Qualitative Inquiry	EDA 6415	3
<b><i>Professional Knowledge</i></b>	<b><i>18 credits</i></b>	
Systems and Community	EDA 6300	3
School Operations	EDA 6207	3
Policy and Politics	EDF 6786	3
Instructional Leadership 1: Role of the Leader in Continuous School Improvement	EDS 6050	3
Instructional Leadership 2: Role of the Leader in Improvement of Student Learning	EDS 6052	3
Leadership for Social Justice	EDA 6191	3
<b><i>Experiential Component</i></b>	<b><i>12 credits</i></b>	
Internship 1: Fall	EDA 6945	3
Internship 2: Spring	EDA 6946	3
Internship 3: Summer	EDA 6947	3
Field Project 1	EDA 7943	3

### **School Leaders (K-12) Advanced Concentration (no certification)**

The K-12 School Leadership Specialist Advanced program prepares school leaders to meet the leadership challenges of today's public and private educational institutions. The program is designed for those who want to further specialize in education and school leadership beyond a master's degree. It is built on the four major domains that the ELRM requires for learning: leadership foundations, research foundations, professional knowledge and experiential learning.

The leadership foundational knowledge base includes the basic tenets and principles of leadership. Leaders must develop leadership skills, a capacity to envision the future and be able to find opportunities within and outside of their organization for the benefit of those they lead. The Specialist Advanced program is centered on a school leadership professional knowledge base including technical knowledge, specialized skills and ethical standards. It includes advanced research methodology courses in both quantitative and qualitative methods so that these leaders can engage in and understand

research. It also includes experiential learning courses that bring theory to practice in real settings. It is designed for those who practice and intend to continuously engage in research, scholarship and leadership.

Unlike the School Leaders Specialist program with certification, this program does not contain the set of coursework leading to Florida Educational Leadership Level I certification. The Specialist Advanced program is seen as a terminal degree with a unique set of required courses. Students must pass a Comprehensive Exam for program completion that consists of a formal testing experience. All formal writing is to be completed in APA format, latest edition.

<b><i>Degree Requirements</i></b>	<b><i>57 credits</i></b>	
<b><i>Leadership Foundation</i></b>	<b><i>12 credits</i></b>	
Seminar in School Administration	EDA 7930	3
Seminar in School Law	EDA 7235	3
Leadership 5: Reframing Educational Organizations	EDA 7106	3
Leadership 6: Seminar in Leadership	EDA 7931	3
<b><i>Research Foundation</i></b>	<b><i>15 credits</i></b>	
Introduction to Qualitative Inquiry	EDA 6415	3
Advanced Statistics	STA 7114	3
Advanced Leadership Externship 1, 2 or 3	EDA 7948	3
Measurement	EDF 6432	3
Advanced Qualitative Inquiry	EDA 7416	3
<b><i>Professional Knowledge</i></b>	<b><i>9 credits</i></b>	
School Improvement	EDA 6062	3
The Context of Educational Administration	EDA 7061	3
Ethics and Policy Alternatives	EDA 7069	3
<b><i>Elective Professional Knowledge</i></b>	<b><i>9 credits</i></b>	

*9 doctoral-level graduate credits are to be taken with advisor's approval*

<b><i>Experiential Component</i></b>	<b><i>12 credits</i></b>	
Administrative Externship - 1, 2 or 3	EDA 6925	3
Field Project 1	EDA 7943	3
Field Project 2	EDA 7944	3
Directed Independent Study	EDA 7905	1-3

***Prerequisite Coursework (not part of degree program, but allowable for degree application process)***

ADE 6381, EDA 6103, EDF 6481, EDS 6100, STA 6113

## **EDUCATIONAL LEADERSHIP DOCTOR OF PHILOSOPHY (PH.D.)**

### **Adult and Community Educational Leaders Concentration Higher Education Leaders Concentration School Leaders (K-12) Concentration**

The doctoral degree is designed for individuals who seek the highest credential their discipline offers for personal and/or career growth. The degree is seen as a terminal degree with a unique set of required courses and experiences. Doctoral programs are designed to provide a broad set of experiences that allow leaders to bring many different perspectives to bear on the organizational problems and opportunities that confront them in practice. The program assumes that educational leaders will be more effective when they are able to: 1) apply information and concepts into practice; 2) see the organization as a whole and understand how various parts of the organization relate to and affect each other; 3) discern meaning in, and establish relationships between, events and fragments of information that appear to be discrete and unrelated; and 4) learn through a community of practitioners model in which participants engage real problems and opportunities in a collegial learning team approach. Doctoral students must meet the leadership core prerequisites.

### **Admission Requirements**

Admission to the doctoral program is competitive. Enrollment is limited and the number of candidates

accepted is determined annually. Applicants who meet the following minimum criteria will be placed into a candidate selection pool:

1. Master's degree from an accredited college or university; and
2. Achieve a minimum GPA of 3.0 in a master's program from an accredited college or university.

### **Selection Process**

The department's doctoral admissions committee will review all evidence of high promise found in the applicant's admissions documents, including but not limited to: grade trends, work experience, accomplishments and promotions, letters of reference and attainment in rigorous courses. Following the document review, selected applicants will be interviewed by the doctoral admissions committee and provide a writing sample. The committee will then recommend candidates for acceptance and notify them of the decisions.

All required admissions documents must be submitted by March 1 for fall admittance. The applicant pool will be reviewed in May of each year. Depending on enrollment, the department may open the doctoral program for admittance at other times during the year. Students should consult the department for additional admission dates.

### **Acceptance to Candidacy**

Admission to the doctoral program does not constitute admission to candidacy for the degree. In order to be admitted to candidacy for the doctoral degree by the department, the student must:

1. Have an approved Program of Study on file with the Graduate College;
2. Pass the qualifying examinations and be recommended for candidacy by the faculty;
3. Have dissertation prospectus/concept paper approved by program faculty;
4. Have a chair and doctoral committee formed; and
5. Complete the required research, leadership and knowledge courses necessary to advance to the dissertation phase.

### **Adult and Community Educational Leaders Concentration**

The Adult/Community Educational Leadership concentration serves individuals preparing for leadership positions in education programs for adults in a wide variety of settings: universities and community/state colleges, business and industry, health and social service agencies and public and private schools.

The program assumes that educational leaders will be more effective when they are able to 1) apply

information and concepts to practice, 2) see the organization as a whole and understand how various parts of the organization relate to and affect each other, 3) discern meaning in, and establish relationships between, events and bits of information that appear to be discrete and unrelated, and 4) learn through a community of practitioners model where participants engage real problems and opportunities in a collegial learning team approach.

The program is designed for individuals who want to further specialize in education and school leadership beyond a master's or specialist degree. Completion of this program of study meets the requirements for State of Florida certification in adult education (not K-12) administration for those meeting the other requirements: three years of teaching and a professional certificate (State of FL Administrative Rule 6A-4.008).

<b><i>Degree Requirements</i></b>	<b><i>Minimum of 80 credits</i></b>	
<b><i>Leadership Foundation</i></b>	<b><i>6 credits</i></b>	
Leadership 5: Reframing Educational Organizations	EDA 7106	3
Leadership 6: Seminar in Leadership	EDA 7931	3
<b><i>Research and Technology Foundation</i></b>	<b><i>12 credits</i></b>	
Advanced Research (Literature Review)	EDA 7912	3
Advanced Statistics	STA 7114	3
Advanced Educational Research	EDF 7482	3
Introduction to Qualitative Inquiry	EDA 6415	3
<b><i>Professional Knowledge</i></b>	<b><i>21 credits</i></b>	
Adult and Community Education in a Changing Society	ADE 5185	3
Organization and Administration of Adult-Community Education	ADE 6265	3
Program and Curriculum Development for Adults	ADE 6184	3
Seminar in Adult/Community Education	ADE 6930	3
Directed Independent Study	ADE 7905	3

Advanced Seminar in Adult/Community Education	ADE 7935	6
<b><i>Electives</i></b>	<b><i>9 credits</i></b>	
<i>Select three courses from the following</i>		
Aging Considerations and Programs	ADE 6194	3
Grant Writing and Program Management for Adult and Community Nonprofit Organizations	ADE 6285	3
Workplace Learning and Development	ADE 6387	3
Sustainability Leadership for ACE Entrepreneurs and Change Agents	ADE 6695	3
Assessment, Planning and Sustainability with Geospatial Technologies	ADE 6774	3
Special Topics	EDA 5931	3
Systems and Community	EDA 6300	3
Instructional Program Development	EDG 6255	3
History and Philosophy of Higher Education	EDH 6065	3
Community College Curriculum	EDH 6215	3
Improvement of Instruction in Colleges	EDH 6305	3
Models of Learning and Instruction	EME 6051	3
Self-Regulated Learning Systems	EME 6209	3
Instructional Design	EME 6601	
Organizational Behavior	MAN 6245	3
<i>Students may also select other 5000, 6000 or 7000 level courses from within the department or the College of Education or any other college in the University with the approval of an advisor.</i>		
<b><i>Experiential Component</i></b>	<b><i>12 credits</i></b>	

Directed Independent Study	EDA 6905	1-3
Administrative Externship 1, 2, or 3 ( <i>can be completed over multiple terms</i> )	EDA 6925	6
Internship/Exchange	EDH 6941	6
Directed Independent Study ( <i>conference, international study, grantsmanship or writing for publication</i> )	EDA 7905	1-3
Field Project 1	EDA 7943	3-6
Field Project 2	EDA 7944	3-6
Internship	EDA 7940	3
<b><i>Dissertation</i></b>	<b><i>20 credits</i></b>	
Dissertation ( <i>registration over multiple terms</i> )	EDA 7980	1-15
<b><i>Prerequisite Coursework (not part of degree program, but allowable for degree application process)</i></b>		
Leadership 1: Adult Learning and Assessment	ADE 6381	3
Leadership 2: Theories and Assessment	EDS 6100	3
Leadership 3: Administrative Processes	EDA 6103	3

### **Higher Education Leaders Concentration**

The Higher Education Leaders concentration is designed for individuals aspiring to, or currently holding, leadership positions in institutions of higher education. The program prepares individuals for leadership positions in community colleges, state colleges, universities, agencies and proprietary colleges and universities. Emphasis is on higher education leadership focusing on core missions of teaching, research and service.

#### ***Degree Requirements***

***Minimum of 84 credits***

#### ***Leadership Foundations***

***15 credits***

Leadership 1: Adult Learning and Assessment	ADE 6381	3 or
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Student Development Theory	EDH 6040	3
Leadership 2: Theories and Assessment	EDS 6100	3
Leadership 3: Administrative Processes	EDA 6103	3 or
Special Topics in Higher Education	EDH 6931	3 or
Doctoral Special Topics in Higher Education	EDH 7932	3
Leadership 5: Reframing Educational Organizations	EDA 7106	3
Leadership 6: Seminar in Leadership	EDA 7931	3
<b><i>Research Foundations</i></b>	<b><i>18 credits</i></b>	
Educational Statistics	STA 6113	3
Introducton to Qualitative Inquiry	EDA 6415	3
Advanced Qualitative Inquiry (prerequisite: EDA 6415)	EDA 7416	3
Advanced Statistics (prerequisite STA 6113)	STA 7114	3
Advanced Research (Literature Review)	EDA 7912	3
Advanced Educational Research	EDF 7482	3
<b><i>Professional Knowledge</i></b>	<b><i>24 credits</i></b>	
History and Philosophy of Higher Education	EDH 6065	3
Organization and Administration of Higher Education	EDH 6635	3
Legal Issues in Higher Education	EDH 7405	3
Higher Education Business and Finance	EDH 7505	3
Higher Education Doctoral Seminar	EDH 7935	3
<i>Select three courses (9 credits) from the following.</i>		
Advanced Qualitative Inquiry	EDA 7416	3
Student Development Theory	EDH 6040	3

Student Affairs Leadership	EDH 6045	3
International Comparative Higher Education	EDH 6058	3
Community College Curriculum	EDH 6215	3
Improvement of Instruction in Colleges	EDH 6305	3
Contemporary Issues in Student Affairs	EDH 6367	3
Social Justice in Higher Education	EDH 6085	3
Special Topics in Higher Education	EDH 6931	3
Doctoral Special Topics in Higher Education	EDH 7932	3
<b><i>Experiential Component</i></b>	<b><i>12 credits</i></b>	
Directed Independent Study	EDA 6905	1-3
Directed Independent Study	EDA 7905	1-3
Field Project 1	EDA 7943	3
Field Project 2	EDA 7944	3
Internship	EDA 7940	3
Special Topics in Higher Education	EDH 6931	3
Doctoral Special Topics in Higher Education	EDH 7932	3
<b><i>Dissertation (up to 9 credits of dissertation seminars)</i></b>	<b><i>15 credits</i></b>	
Dissertation Seminar 1, 2, 3	EDH 7932	3-9
Dissertation ( <i>registration over multiple terms</i> )	EDA 7980	1-15

### **School Leaders (K-12) Concentration**

The K-12 School Leadership concentration prepares aspiring school leaders to meet the challenges of today's public and private educational institutions. The program assumes that educational leaders will be more effective when they are able to 1) apply information and concepts to practice, 2) see the organization as a whole and understand how various parts of the organization relate to and affect each

other, 3) discern meaning in, and establish relationships between, events and fragments of information that appear to be discrete and unrelated, and 4) learn through a community of practitioners model where participants engage real problems and opportunities in a collegial learning team approach.

The program is designed for individuals who want to further specialize in education and school leadership beyond a master's or specialist degree. Students successfully completing this program of study will have mastered the subject matter needed for the profession and understand the need to engage in lifelong learning to maintain effectiveness in a changing environment. In cooperation with Florida public school districts, the program of study includes leadership theory, research, professional knowledge and school-based clinical experiences. Doctoral students must meet the leadership core prerequisites and engage in courses specifically designed for the doctoral level.

<b><i>Degree Requirements</i></b>	<b><i>Minimum of 80 credits</i></b>	
<b><i>Leadership Foundation</i></b>	<b><i>6 credits</i></b>	
Leadership 5: Reframing Educational Organizations	EDA 7106	3
Leadership 6: Seminar in Leadership	EDA 7931	3
<b><i>Research and Technology Foundation</i></b>	<b><i>15 credits</i></b>	
Introduction to Qualitative Inquiry	EDA 6415	3
Advanced Qualitative Inquiry	EDA 7416	3
Introduction to Modes of Inquiry for Educational Leadership	EDA 7421	3
Advanced Statistics	STA 7114	3
Advanced Research (Literature Review)	EDA 7912	3
Advanced Educational Research	EDF 7482	3
<b><i>Professional Knowledge</i></b>	<b><i>18 credits</i></b>	
School Improvement	EDA 6062	3
The Context of Educational Administration	EDA 7061	3
Ethics and Policy Alternatives	EDA 7069	3

Educational Leadership Foundations	EDA 7196	3
Seminar in School Administration ( <i>may be taken multiple times and applicable to Electives category</i> )	EDA 7930	3
<b><i>Electives</i></b>	<b><i>9 credits</i></b>	
<i>Students must complete 9 credits of advisor-approved electives, such as the examples below.</i>		
Seminar: Apprenticeship in Educational Leadership Research	EDA 7935C	3
Seminar in Educational Leadership Research: Contemporary Problems of Practice	EDA 7936C	3
Seminar: Multiple Frameworks of Educational Leadership Research	EDA 7937C	3
Seminar: Demystifying Complex Research Questions	EDA 7938C	3
Seminar in Theory, Policy and Practice: Implications for Research in Educational Leadership	EDA 7939C	3
<b><i>Experiential Component</i></b>	<b><i>12 credits</i></b>	
Advanced Leadership Externship 1, 2 or 3	EDA 7948	3-6
<i>Students must complete 6 credits from the following courses. All courses listed can be taken more than once to fulfill this requirement.</i>		
Directed Independent Study	EDA 6905	3
Directed Independent Study	EDA 7905	3
Field Project 1	EDA 7943	3-6
Field Project 2	EDA 7944	3-6
<b><i>Dissertation</i></b>	<b><i>20 credits, minimum</i></b>	
Advanced Research Seminar in Educational Leadership for School Leaders ( <i>can be taken multiple times and count toward the 20 required credits of EDA 7980</i> )	EDA 7918	3

Dissertation (registration over multiple terms)	EDA 7980	1-15
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***Prerequisite Coursework (not part of degree program, but allowable for degree application process)***

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Leadership 1: Adult Learning and Assessment	ADE 6381	3
Leadership 2: Theories and Assessment	EDS 6100	3
Leadership 3: Administrative Processes	EDA 6103	3

## SPECIAL EDUCATION

### Faculty:

Peluso, P., Interim Chair; Darling, S.; Dukes, C.; Finnegan, L.; Forgan, J. W.; Miller, K.; Ramasamy, R.; Scott, J.

### Mission Statement

The mission of the Department of Special Education is to provide leadership in our local, state, national and international communities in the areas of teaching, research and service. Faculty and department efforts promote research-based practices that reflect changing societal needs of people with disabilities, their families and the professionals and organizations who work with them. This is accomplished by bringing faculty, students and members of our various communities together to improve the quality of education for all members of an increasingly diverse, technological, inclusive and global society.

The department offers baccalaureate and master's degrees in this discipline, several teaching specializations and endorsements and the Doctor of Philosophy degree. Students enrolled in the bachelor's program in Exceptional Student Education may apply for the [Honoring Outstanding Owl Teachers \(HOOT\) Honors Program](#). The department also offers a [Bachelor of Early Care and Education](#) with the Department of Curriculum and Instruction. Program requirements support the CAEP conceptual framework of producing professionals who are informed, ethical and capable in their roles as teachers and reflective decision-makers. In addition the department offers certificate programs for students with intellectual and developmental disabilities through the [Academy for Community Inclusion](#).

### Security Clearance

Students registering for courses requiring field experience **MUST** go through a security clearance process. This process requires students to be fingerprinted and, depending on the school district, to participate in a drug screening to be approved for security clearance. A processing fee payable to the appropriate school district is required. It is strongly recommended that students complete this process once they are admitted to the University.

For detailed information visit the College of Education Student Services [website](#). Information will also be provided in courses with field placement requirements.

[Link to Academy for Community Inclusion Certificates](#)

[Link to Master's Program](#)

[Link to Doctoral Program](#)

## **EXCEPTIONAL STUDENT EDUCATION (ESOL ENDORSEMENT AVAILABLE)**

### **BACHELOR OF ARTS (B.A.)**

### **BACHELOR OF ARTS IN EDUCATION (B.A.E.)**

The undergraduate program in Exceptional Student Education prepares students to teach individuals with mild learning and behavioral disabilities as well as individuals with moderate to severe disabilities.

#### **Admission Requirements**

All students seeking admission to the undergraduate program in Exceptional Student Education must first meet the University's general upper-division admission requirements. In addition, each applicant must:

1. Have a minimum GPA of 2.5 on a 4.0 scale on the general education component of undergraduate studies OR have completed requirements for a baccalaureate degree with a minimum GPA of 2.5 from any college or university accredited by a regional accrediting institution;
2. Present passing scores on all sections of the General Knowledge Test;
3. Have a recommendation for admission to the program by the Department of Special Education.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the Intellectual Foundations Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally

accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Program of Studies**

All ESE courses are offered in a prescribed sequence with specific prerequisites. Students should be programmed as soon as possible to receive appropriate advising. **Students must be admitted and programmed prior to the spring semester of their junior year.**

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### **Course Requirements**

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#### ***Prerequisite***

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Disability and Society or RI: Disability and Society	EEX 2091	3
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#### ***Courses outside the Special Education Department***

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Language Arts and Literature: Birth through Grade 8	LAE 4353	3
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Educational Measurement and Evaluation	EDF 3430	3
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Education in a Multicultural Society	EDF 3610	3
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Applied Learning Theory	EDF 3210	3
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Introduction to Theories and Practices of TESOL	TSL 4080	3
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Principles and Methods: K-9 School Math	MAE 4350	3
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TESOL Issues and Practices	TSL 4081	3
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Reading Diagnosis and Remediation: Pre-K through Grade 8	RED 4552	3
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#### ***ESE Core Courses***

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Overview of Programs for Students with Exceptionalities	EEX 4050	3
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Language and Speech Disorders	EEX 4101	3
Assessment of Exceptional Individuals*	EEX 4221	3
Reading Instruction in Special Education*	EEX 4250	3
Instructional Practices for Students with Moderate/Severe Disabilities	EEX 4472	3
Practicum 1: Students with Moderate/Severe Disabilities+	EEX 4842	1-3
Behavior Change Strategies	EEX 4601	3
Instructional Practices for Students with Mild Disabilities	EEX 4066	3
Practicum 2: Students with Mild Disabilities++	EEX 4843	1-3
Classroom Management	EEX 4604	3
Collaboration with Professionals and Families	EEX 4751	2
Developing Individual Education Programs	EEX 4932	1
Special Education Technology	EEX 4763	3
Student Teaching: Exceptional Student Education	EEX 4946	4-9

**Note:** EDF 2005, Introduction to the Teaching Profession; EDF 2085, Introduction to Diversity for Educators; and EME 2040, Introduction to Technology for Educators, or community or state college equivalents, are program requirements.

\* Students must be officially programmed by an ESE faculty member prior to taking these courses in the ESE sequence.

+ *Requirements for admission to EEX 4842:*

1. Applications are distributed during the spring semester before Practicum 1.
2. Students must have an overall GPA of at least 2.5 to be placed in any field-based experience.
3. Students must be enrolled in EEX 4601 and EEX 4472.

++ *Requirements for admission to EEX 4843:*

1. Applications are distributed during EEX 4601, Behavior Change Strategies, the summer before practicum.
2. Students must have an overall GPA of at least 2.5 to be placed in any field-based experience.
3. Students must be enrolled in EEX 4066 and EEX 4604.

*In addition to coursework, students in the undergraduate ESE program also:*

1. Demonstrate competence in standards established by the Council for Exceptional Children;
2. Demonstrate competence in Florida Educator Accomplished Practices and the corresponding College of Education Behavioral Indicators;
3. Demonstrate competence in the Florida ESOL standards;
4. Pass the FTCE professional and subject-area tests prior to completing student teaching and graduation.

## **HONORING OUTSTANDING OWL TEACHERS (HOOT) HONORS PROGRAM**

The Department of Special Education offers the *HOOT Honors* Program for students enrolled in the bachelor's degree in ESE. HOOT provides undergraduate students of high ability and commitment the opportunity to explore the broad social contexts of their future profession and culminates in an honors designation on the students' transcripts. Undergraduates who participate in the HOOT program:

1. Obtain scholarly and practical experiences that expand traditional special education teaching roles;
2. Gain enhanced opportunities to learn outside of coursework;
3. Form mentoring relationships with experienced faculty and future educators; and
4. Expand their experience providing interventions to children, adolescents and adults with disabilities.

### **Admissions Requirements**

Admission to HOOT requires that students:

1. Enter no later than spring of the junior year;
2. Are fully admitted and programmed in the ESE program;
3. Maintain a 3.7 cumulative GPA; and
4. Submit an application form, personal statement, academic writing sample, completed/signed ESE program sheet and a letter of recommendation from their ESE faculty advisor.

## Program Requirements

Students in the program will:

1. Participate in at least one *Honors Enrichment Option* per semester for at least three semesters;
2. Enroll in 1-2 credits of the senior Honors Seminar in ESE; and
3. Complete an *Honors Compact* during their student-teaching semester.

For more information or to obtain an application, please contact program coordinator Dr. Sharon M. Darling, [sdarlin4@fau.edu](mailto:sdarlin4@fau.edu), or visit the [website](#) .

## EARLY CARE AND EDUCATION

### BACHELOR OF EARLY CARE AND EDUCATION (B.E.C.E.)

The Bachelor of Early Care and Education (B.E.C.E.) is a joint program offered by the Department of Curriculum and Instruction and the Department of Special Education. The B.E.C.E. is designed to prepare teachers and related personnel for employment in the fields of child care and children's services for young children from birth to age five. The program is offered at the Boca Raton campus.

### Admissions Requirements

Students enrolling in the B.E.C.E. may exhibit a range of prior levels of preparation. Generally, all students are required to have completed 60 credits of lower-division coursework. This could include the A.A. or A.S. degree in Early Childhood Education determined by articulation agreements with community or state colleges.

All students seeking admission to the B.E.C.E. must meet the University's admission requirements. In addition, each applicant must:

1. Have a minimum GPA of 2.5 on a 4.0 scale on lower-division undergraduate coursework for a total of 60 credits;
2. Be programmed for admission to the B.E.C.E. by a faculty advisor from the Department of Special Education or the Department of Curriculum and Instruction.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the Intellectual Foundations Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally

accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Course Requirements**

As a joint program of two FAU departments, the B.E.C.E. is made up of coursework, field experiences and advisement from both departments. In addition, a careful review of student transcripts will guide advising decisions.

All students are required to take seven Early Childhood core courses (21 credits) and two Reading Courses (6 credits). All students must complete General Education requirements (36 credits), either from an associate's degree program or as non-restricted elective courses in the B.E.C.E. General Education courses include six credits in each of the following areas: Math, English Composition, Science, Social Studies, Humanities and General Education (electives). Gordon Rule/WAC courses, Math and English composition, are included in the General Education Requirements. If foreign language courses have not been completed previously, they must be taken as part of the non-restricted electives.

Additionally, students enrolled in the B.E.C.E. will complete 18-21 or more credits of upper-division elective courses in education and related disciplines, which will be determined in consultation with an advisor. A list of recommended electives will be provided for all advisors and students.

### **Sequence of Course Requirements**

Required Early Childhood core courses are offered in a prescribed sequence with specific prerequisites beginning in each fall semester. The sequence of courses requires a minimum of four semesters, including a minimum of one summer term, to complete. Students should be programmed as soon as possible to receive appropriate advising.

A summary of the 120-credit program follows:

### **Transfer Credits – 60 credits**

Determined through Articulation Agreements with community or state colleges. Early Childhood and General Education Courses can transfer as a 60-credit block for students having completed A.A. or

A.S. degrees in Early Childhood. Students transferring the A.S. degree may need additional coursework to satisfy the FAU lower-division General Education core.

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### **FAU Early Childhood Core Courses – 21 credits**

Typical/Atypical Child Development, Birth – Age 8	EEX 3201	3
Assessment of All Young Children	EEX 3226	3
Designing and Implementing a Blended Curriculum: Birth to Age Eight	EEC 3214	3
Language Development and Intervention in Young Children	EEX 4112	3
Building Family, Community and School Partnerships	EEX 3754	2
Positive Behavior Supports in Inclusive Early Childhood Settings	EEX 3606	3
Blended Early Childhood Methods: Birth – 5	EEC 4313	4

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### **FAU Reading and COE Courses – 12 credits**

Language Arts and Literature, Birth – Grade 8	LAE 4353	3
Reading Development I: Birth – Grade 3	RED 4308	3
Educational Measurement and Evaluation	EDF 3430	3
Introduction to Theories and Practices of TESOL	TSL 4080	3

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### **B.E.C.E. Open Electives - 15 credits**

These courses should be selected in consultation with B.E.C.E. advisor.

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### **B.E.C.E. Program Electives - 12 credits**

These courses should be selected in consultation with B.E.C.E. advisor.

### **Graduation Requirements**

B.E.C.E. graduation requirements are consistent with FAU and College of Education standards. Each candidate for graduation must:

1. Earn a minimum of 120 credits in academic courses acceptable toward the degree;
2. Earn a minimum of 45 of these credits at the upper division;
3. Earn the last 30 upper-division credits in residence at FAU;
4. Earn at least 75 percent of all upper-division credits from FAU in the departments of Curriculum and Instruction and/or Special Education, or other departments in the College of Education;
5. Satisfy Gordon Rule/Writing Across Curriculum requirements;
6. Fulfill all admissions, program and course requirements;
7. Earn a "C" or better in all Education courses and a "C-" or better in all other non-Education courses, maintaining a 2.5 GPA upon graduation;
8. Fulfill the FAU foreign language requirement;
9. Submit a completed Application for Graduation form.

### **Accreditation Standards for the B.E.C.E.**

The B.E.C.E. represents the highest professional standards promulgated by the National Association for the Education of Young Children and the Council for Exceptional Children Division of Early Childhood. All course syllabi include standards delineated by the Florida Department of Education's Educator Accomplished Practices and the FAU College of Education's corresponding Behavioral Indicators. Students must demonstrate competence on all critical assignments embedded in Early Childhood Core Courses and Reading Courses.

## **ACADEMY FOR COMMUNITY INCLUSION**

The FAU Academy for Community Inclusion is a college program for high school graduates who have been diagnosed with intellectual and developmental disabilities. The program allows students to earn certificates in Supported Employment, Supported Community Access and Supported Community Living. These certificates are offered in an inclusive college environment on the FAU Jupiter campus. The program allows students to participate in college activities, clubs and organizations that are available to all FAU students.

### **Admission Requirements**

Eligible students are high school graduates who have earned a standard diploma or a special diploma.

### **Certificate Requirements**

Each certificate program—Supported Employment, Supported Community Access and Supported Community Living — requires 20 credits of coursework including unique Academy courses, regular University courses and approved electives. All students, regardless of their certificate, take the three

prerequisite courses listed below in addition to the 20 credits. Specific certificate requirements follow the prerequisites:

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### **Prerequisite Courses for the Three Certificates**

Increasing Personal Effectiveness	SLS 1200	2
Career Exploration	SLS 1304	2
Learning with Technology 1	SLS 1570	2

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### **Supported Employment Certificate (20 credits)**

Getting Around the Community	SLS 1266	2
Professional Career Development	SLS 1305	2
Business Technology for Community Living	SLS 1392	2
Employability Skills	SLS 1350	2
Workplace Relationships	SLS 1354	2
Professional Portfolio	SLS 2340	2
Career Seminar	SLS 2930	2
Career Internship	SLS 2943	2
Electives <i>(Two classes, one must be outside the Academy. Choose electives from list below.)</i>		4

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### **Supported Community Access Certificate (20 credits)**

Community Citizenship	ISS 1121	2
Personal Development	SLS 1201	2
Recreation and Leisure Skills	SLS 1224	2
Social Skills	SLS 1251	2
Diverse Communities	SLS 1281	2

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Be Safe, Stay Safe	SLS 1601	2
Community Resources	SLS 1603	2
Life Planning	SLS 2225	2
Electives <i>(Two classes, one must be outside the Academy. Choose electives from list below.)</i>		4
<b>Supported Community Living Certificate (20 credits)</b>		
First Aid and CPR	HSC 2400	2
Reading for Life	REA 1105	2
Residential Experience	SLS 1250	2
Learning with Technology 2	SLS 1571	2
Living with Roommates	SLS 1602	2
Personal Finance for Community Living	SLS 1605	2
Personal Well-Being	SLS 2222	2
Effective Living	SLS 2604	2
Electives <i>(Two classes, one must be outside the Academy. Choose electives from list below.)</i>		4
<b>Electives</b>		
Emergency Preparation	FFP 1801	2
College Experience	SLS 1102	2
World of Work	SLS 1321	2
Critical Thinking	SLS 1505	2
Service Learning	SLS 1940	2
Emotional and Behavioral Control	SLS 2202	2
Self-Monitoring of Performance and Attention	SLS 2212	2

## **SPECIAL EDUCATION**

### **MASTER OF EDUCATION (M.ED.)**

This fully online master's program, totaling 36-39-credits, provides students with the knowledge and skills for working with students with disabilities. Full-time students may complete this degree program within 16-24 months. The intensive, fast-track special education coursework is designed to allow teachers, administrators or related field personnel to concentrate their program in Applied Behavior Analysis (ABA), Autism Spectrum Disorders (ASD), Early Childhood Special Education (ECSE), or as a Special Education Intervention Specialist (SEIS). Students have the option of seeking teacher certification/endorsement in: ASD, ESE K-12, Pre-K Disabilities; Early Intervention Infant Toddler Developmental Specialist training (ITDS); or preparation for the Board-Certified Behavior Analyst (BCBA) exam.

#### **Admission Requirements**

1. The student must meet College and University requirements.
2. An undergraduate Grade Point Average (GPA) of at least 3.0 or one letter of recommendation from an employer in an education-related field or current/former university instructor.
3. Personal statement not exceeding three double-spaced pages, indicating applicant's reasons for pursuing a master's degree and career goals.

#### **Degree Requirements**

1. The student must meet College and University requirements.
2. The student must earn grades of "B" or higher in all Special Education courses in the program and will be required to repeat any course in which a grade of less than "B" is earned. (A course can be repeated only once.)
3. The student must complete a minimum of 36 credits in the program.

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### **M.Ed. in Special Education with concentration in Applied Behavior Analysis (ABA) - 36-39 credits**

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#### ***Department Core Courses - 15 credits***

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Enhancing Collaborations between School, Communities and Families of Students with Special Needs	EEX 5622	3
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Assessing Students with Disabilities	EEX 6225	3
Program Evaluation of Special Education Programs, Supports and Services	EEX 6320	3
Instructional Design in Special Education	EEX 6480	3
Special Education Leadership, Policy and Ethics	EEX 6515	3
<b><i>Optional 1-3 credits</i></b>		
Field Project in Special Education	EEX 6942	3 or
Master's Thesis	EEX 6971	1-3
<b><i>Concentration: Applied Behavior Analysis - 21 credits</i></b>		
Advanced Applied Behavior Analysis	EEX 5612	3
Behavior Change and Management Strategies	EEX 6602	3
Behavior Analytic Teaching	EEX 6609	3
Behavior Assessment and Intervention Selection	EEX 6615	3
Behavior Analytic Supervision and Management	EEX 6626	3
Ethics in Applied Behavior Analysis	EEX 6747	3
Advanced Behavior Analysis	EEX 7618	3
<b>M.Ed. in Special Education with concentration in Autism Spectrum Disorders (ASD) - 36-39 credits</b>		
<b><i>College Core Courses - 6 credits</i></b>		
Educational Research	EDF 6481	3
Educational Statistics	STA 6113	3
<b><i>Department Core Courses - 15 credits</i></b>		
Enhancing Collaborations between School, Communities and Families of Students with Special Needs	EEX 5622	3

Assessing Students with Disabilities	EEX 6225	3
Program Evaluation of Special Education Programs, Supports and Services	EEX 6320	3
Instructional Design in Special Education	EEX 6480	3
Special Education Leadership, Policy and Ethics	EEX 6515	3
<b><i>Optional 1-3 credits</i></b>		
Field Project in Special Education	EEX 6942	3 or
Master's Thesis	EEX 6971	1-3
<b><i>Concentration: Autism Spectrum Disorders - 15 credits</i></b>		
Applied Behavior Analysis	EEX 5612	3
Nature and Characteristics of Autism Spectrum Disorders	EEX 6095	3
Diagnosis, Assessment and Instructional Decision Making for Students with Autism Spectrum Disorders	EEX 6210	3
Intervention for Social, Communication, Academic and Functional Skills for Students with Autism Spectrum Disorders	EEX 6298	3
Behavior Change and Management Strategies	EEX 6602	3
<b>M.Ed. in Special Education with concentration in Early Childhood Special Education (ECSE) - 36-39 credits</b>		
<b><i>College Core Courses - 6 credits</i></b>		
Educational Research	EDF 6481	3
Educational Statistics	STA 6113	3
<b><i>Department Core Courses - 15 credits</i></b>		
Enhancing Collaborations between School, Communities and Families of Students with Special Needs	EEX 5622	3

Assessing Students with Disabilities	EEX 6225	3
Program Evaluation of Special Education Programs, Services and Support	EEX 6320	3
Instructional Design in Special Education	EEX 6480	3
Special Education Leadership, Policy and Ethics	EEX 6515	3
<b><i>Optional 1-3 credits</i></b>		
Field Project in Special Education	EEX 6942	3 or
Master's Thesis	EEX 6971	1-3
<b><i>Concentration: Early Childhood Special Education - 15 credits</i></b>		
Survey and Assessment in Early Childhood Special Education	EEX 5015	3
Atypical Development Early Childhood Exceptional Student Education	EEX 5017	3
Methods in Early Childhood Special Education	EEX 5245	3
Family and Community Resources in Early Childhood Special Education	EEX 5755	3
Early Intervention Services	EEX 6707	3
<b>M.Ed. in Special Education with concentration in Special Education Intervention Specialist (SEIS) - 36-39 credits</b>		
<b><i>College Core Courses - 6 credits</i></b>		
Educational Research	EDF 6481	3
Educational Statistics	STA 6113	3
<b><i>Department Core Courses - 15 credits</i></b>		
Enhancing Collaborations between School, Communities and Families of Students with Special Needs	EEX 5622	3

Assessing Students with Disabilities	EEX 6225	3
Program Evaluation of Special Education Programs, Services and Support	EEX 6320	3
Instructional Design in Special Education	EEX 6480	3
Special Education Leadership, Policy and Ethics	EEX 6515	3
<b><i>Optional 1-3 credits</i></b>		
Field Project in Special Education	EEX 6942	3 or
Master's Thesis	EEX 6971	1-3
<b><i>Concentration: Special Education Intervention Specialist - 15 credits</i></b>		
Seminar in Special Education	EEX 6027	3
Cognitive and Meta-Cognitive Learning Strategies	EEX 6259	3
Mathematics Remediation and Intervention for Students with Disabilities	EEX 6290	3
Literacy Remediation and Intervention for Students with Disabilities	EEX 6292	3
Behavior Analytic Teaching	EEX 6609	3

## SPECIAL EDUCATION

### DOCTOR OF PHILOSOPHY (PH.D.)

#### Admission Requirements

1. The student must have a master's degree from an approved college or university.
2. The student must have a grade point average and Graduate Record Examination scores as follows:
  - a. An average of 3.5 or higher in all graduate work taken;
  - b. Minimum GRE scores of 148 (verbal), 144 (quantitative) and 3 (analytical writing).
3. The student must have completed at least three years of full-time experience working with individuals with disabilities.
4. Each applicant for admission to the Doctor of Philosophy (Ph.D.) degree in Special Education must be approved for admission by the department. This recommendation will in part be based

upon an interview and a writing sample.

### **Admission to Candidacy**

Admission to the doctoral program does not constitute admission to candidacy for the degree.

Admission to candidacy for the doctoral degree has the following requirements:

1. The student must have selected a dissertation chair and doctoral dissertation committee.
2. The student must have had a formal program of studies prepared in cooperation with the principle professor (advisor) and maintained continuous annual enrollment.
3. The student must have completed all doctoral program coursework (excluding dissertation), internship and residency requirements.
4. The student must have passed the doctoral comprehensive examination. This examination will be given at or near completion of the coursework in the student's program.
5. The student must have completed **d** Form 8-Admission to Candidacy for the Doctoral Degree with the Graduate College.

### **Degree Requirements**

The minimum requirements for the degree are:

1. The student must have completed the following course requirements:
  - a. Area I Special Education Core (12 credits);
  - b. Area II Specialization (12 credits);
  - c. Area III Statistics and Research (18-21 credits);
  - d. Area IV Doctoral Seminar in Special Education (taken three times) (2-credit seminar taken three times, 6 credits total);
  - e. Area V Internship and Residency (6 credits); and
  - f. Area VI Dissertation (12 credits minium).
2. The student must have successfully completed the department's annual evaluation process each spring while in the program;
  - a. The student must have a successful defense of the dissertation;
  - b. The student must complete 72 credits beyond the bachelor's degree. This includes the **66-72**-credit minimum to satisfy doctoral degree requirements.
  - c. The student must be recommended by the faculty of the department and the College for the degree.

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### **Degree Requirements - minimum of 69 credits**

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***Area I Special Education Core Courses - 12 credits***

Contemporary Trends in Special Education	EEX 7025	3
Historical, Theoretical and Legal Foundations of Special Education	EEX 7026	3
Grant Writing	EEX 7526	3
Teaching and Learning for Individuals with Disabilities	EEX 7866	3

***Area II Specializations - 12 credits***

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*Students choose 12 credits at the 5000, 6000 or 7000 level, 9 of which must be within the Department of Special Education to create an area of specialization.*

***Area III Statistics and Research - 18-21 credits***

Advanced Educational Research**	EDF 7482	3
Advanced Educational Statistics	STA 7114	3
Electives in Quantitative or Qualitative Methods**		9

*Students select three courses; the department highly recommends EEX 7618, Advanced Applied Behavior Analysis as one of the three.*

***Area IV Doctoral Seminars in Special Education - 6 credits***

<i>Two-credit seminars taken three times. Topics such as Course Development and College Teaching; Triad of Professional Activities in Higher Education; and Professional Dissemination</i>		6
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***Area V Internship and Residency - 6 credits***

Doctoral Internship in Special Education	EEX 7945	3
Doctoral Residency in Special Education	EEX 7982	3

***Area VI Dissertation - 12 credits (minimum)***

Dissertation ( <i>Dissertation must be completed across a minimum of two semesters, fall and spring only, a maximum</i>	EEX 7980	1-12
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*of 6 credits within a semester)*

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**Total**

**66-72**

*(does not include additional credits from master's program)*

[Link to Course Descriptions for the College of Education](#)





# UNIVERSITY CATALOG

## SUB MENU



### ACADEMIC PROGRAMS

[Interdisciplinary Programs](#)

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### GENERAL INFORMATION

### COURSE DESCRIPTIONS

## COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

- [Bachelor's Program Information](#)
- [Combined Program Information](#)
- [Master's Program Information](#)
- [Interdisciplinary Minor and Certificates](#)
- [Doctoral Program Information](#)
- [Academic Environment](#)

## Departments

- [Civil, Environmental and Geomatics Engineering](#)
- [Electrical Engineering and Computer Science](#)
- [Ocean and Mechanical Engineering](#)

[Link to Course Descriptions for the College of Engineering and Computer Science](#)

**Accreditation:** Baccalaureate degree programs in Civil, Computer, Electrical, Geomatics, Mechanical and Ocean Engineering are accredited by the Engineering Accreditation Commission (EAC) of ABET. The baccalaureate program in Computer Science is accredited by the Computing Accreditation Commission (CAC) of ABET.

The College of Engineering and Computer Science offers undergraduate degree programs in Civil Engineering, Computer Engineering, Computer Science, Electrical Engineering, Environmental Engineering, Geomatics Engineering, Mechanical Engineering and Ocean Engineering. Also available are minors in Computer Science and Geomatics Engineering, certificates in Data Science and Surveying and Mapping, and a minor and certificate in Cybersecurity. The College recently launched an [Honors in the Major program](#) focusing on leadership, innovation and entrepreneurship within the engineering and computer science curriculum.

Graduate programs are offered to qualified persons who have sufficient and satisfactory undergraduate preparation. Master's degrees (with or without thesis) and Ph.D. degrees are offered in Computer Engineering, Computer Science, Electrical Engineering, Mechanical Engineering, Ocean Engineering and Transportation and Environmental Engineering. Master's degrees are also offered in Artificial Intelligence, Biomedical Engineering, Civil Engineering, Data Science and Analytics, and Information Technology and Management. Certificates in Artificial Intelligence, [Big Data Analytics](#), Biomedical Engineering, Corrosion, [Cyber Security](#), [Energy Resilience](#), [Professional Energy Resilience](#), Offshore Engineering, Transportation Engineering, and [Transportation, Logistics and Supply Chain Management](#) are also available.

Combined Bachelor of Science to Master of Science degree programs are offered in all of the College's departments. Among the programs' advantages, students may count a maximum of 9 credits in approved graduate-level courses toward both the B.S. and M.S. degrees.

For highly motivated undergraduate students, the B.S. to Ph.D. program, an option in all of the

College's doctoral programs, may be desirable. See admission and degree requirements later in this section. Course offerings, admission and degree requirements are given in the individual program descriptions that follow. Additional information is available from the respective departments or from the College of Engineering and Computer Science website at [www.eng.fau.edu](http://www.eng.fau.edu).

## BACHELOR'S DEGREE PROGRAM INFORMATION

### **General Studies Degree Program**

The University offers a Bachelor of General Studies (B.G.S.) degree program that allows students to design a plan of study to meet their personal interests and career goals. The 120-credit program includes 15 credits of upper-division coursework in one discipline, which students select in consultation with an advisor. For more B.G.S. details and degree requirements, please refer to the [Degree Programs](#) section of this catalog.

### **Undergraduate Research Certificate**

To recognize undergraduate students' excellence in undergraduate research, the Office of Undergraduate Research and Inquiry (OURI) has established the [Undergraduate Research Certificate](#). Requirements for the Research Certificate include completion of 12 credits of research exposure, skill-building and intensive courses as well as dissemination of the outcomes of students' research and inquiry through a research presentation or exhibition.

### **Math Policies and Math Boot Camp Requirement**

If, during a student's first attempt at a math course, a failing grade is earned or withdrawal from the math course after the drop/add deadline occurs, enrollment in and satisfactory completion of FAU's Math Boot Camp is required before the student is permitted to enroll in a second and final attempt at the math course.

Engineering and computer science students are permitted a maximum of two attempts for a single math course, whether at FAU or another institution. If a student withdraws from and/or fails the math course on the second attempt, the student may be required to change their major and leave the College of Engineering and Computer Science.

### **Preprofessional Program**

Entering freshmen and all transfer students in the bachelor of science programs for engineering majors will be admitted directly to the College's preprofessional program as pre-engineering students. The following are required for students to be admitted to their major of choice in the College

of Engineering and Computer Science:

1. Students must meet University admission requirements.
2. In each core course listed below, students must obtain a minimum grade of "C." Advanced placement scores of 4 or above will be given credit for the appropriate course(s). A score of 5 is equivalent to an "A," and a score of "4" is equivalent to a "B."
3. A maximum of two attempts will be allowed for any of the listed courses. Failure to receive a passing grade in the second attempt (including withdrawals) is grounds for denial of admission to an engineering or computer science program.

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### **B.S. in Geomatics Engineering**

Calculus with Analytic Geometry 1 (1)	MAC 2311	4
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### **B.S. in Civil, Computer, Electrical, Environmental, Mechanical and Ocean Engineering**

Calculus with Analytic Geometry 1 (1)	MAC 2311	4
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General Physics for Engineers 1 (2)	PHY 2048	3
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#### **Notes:**

(1) MAC 2311 and MAC 2253 are substitutes.

(2) PHY 2043 and PHY 2048 are substitutes.

The entry-level mathematics requirement for the engineering programs is Calculus with Analytic Geometry 1. Students who are placed in lower-level mathematics courses and who need to maintain full-time status, may have problems finding courses that are accepted in an engineering or computer science program in future semesters. This may delay their entry into a particular engineering or computer science program.

After successfully completing the core courses, students may apply to a particular engineering program. Admission will be based on the student's performance in the core courses. [The Division of Engineering Student Services and Advising](#) is available to assist students in selection of a major field of study and can be reached at 561-297-2780 or [engineering-services@fau.edu](mailto:engineering-services@fau.edu).

Students with engineering degrees from ABET-accredited institutions will be directly admitted to

engineering or computer science programs of their choice.

Students may appeal denial of admission to a major through the academic petition process. For an appeal to have merit, students must explain new academic or personal information as well as extenuating circumstances. The evidence should show a student's case is stronger than the GPA evidence suggests. The faculty coordinator for the preprofessional program will review the petition according to the established College guidelines and make a recommendation to the academic petition committee.

The College of Engineering and Computer Science fully complies with the State of Florida Common Prerequisites for Computer Science and for Engineering. Students transferring from Florida community or state colleges who meet the preprofessional program course requirements will be directly admitted to the particular engineering and computer science program of their choice.

The College of Engineering and Computer Science participates in the Southeast Florida Engineering Education Consortium, a collaborative effort among public colleges and universities in this region. Detailed advising sheets outlining the courses needed at the community or state college and at FAU are available for students transferring from Miami-Dade, Broward, Palm Beach and Indian River colleges. These sheets also provide a useful guide for students transferring from other institutions. Students should contact their community or state college advisor or the FAU department in which they intend to enroll.

### **General Curriculum Notes**

The College recognizes that students may transfer from other schools or programs or may have course numbering system changes. As a result, the College will accept the following as equivalent:

1. MAP 3305, Engineering Mathematics 1 and MAP 2302, Differential Equations.
2. PHY 2044, Physics for Engineers 2 and PHY 2049/2049L, General Physics 2 with Lab.

Students will follow the University catalog for the year in which they began classes. However, students remaining in the program for longer than eight (8) years will be automatically updated to the most recent catalog.

### **Advising/Student Responsibility**

A dedicated group of advisors is responsible for all advising of preprofessional students. As students are accepted into particular engineering programs, each department has experienced advisors who meet with students every term to help ensure they are taking courses in the proper sequence and at a rate consistent with their personal objectives, academic ability and other commitments. Final responsibility

for meeting degree requirements and for fulfillment of course prerequisites rests with the student. All students must meet with their advisor once per year.

### **Engineering Cooperative Education**

The College of Engineering and Computer Science's Cooperative Education program enables qualified students to gain paid, professional work experience in business and industry prior to graduation. Co-op students either alternate periods of full-time work and study or work half time while pursuing their degrees.

The College also sponsors one-semester internships available to students enrolled for a degree within the College. Internships provide an opportunity for students to gain career-related work experience while pursuing their degrees. Internships may be either full time (35-40 hours/week) or part time (20-25 hours/week) and are repeatable.

To learn more about the Cooperative Education and internship programs, students in the College of Engineering and Computer Science should contact the FAU Career Center at 561-297-3533 or refer to its [website](#). All students must be registered with the Center to participate in co-op or internship programs.

### **Engineering Student Services**

[The Division of Engineering Student Services and Advising](#) promotes student success and professional development, encourages excellence and works to make the University experience more meaningful. It provides a single place for students to go for assistance or for referral to others for help. Questions related to admissions, financial aid, advising, student organizations and activities and other student-related matters may be directed to the Division of Engineering Student Services at 561-297-2780 or [engineering-services@fau.edu](mailto:engineering-services@fau.edu).

### **Financial Aid/Student Employment**

Opportunities for financial aid are available to Engineering and Computer Science students. Work opportunities sometimes are available as student assistants in offices and laboratories and on externally sponsored research projects. For more information, contact the Division of Engineering Student Services and Advising at 561-297-2780 or [engineering-services@fau.edu](mailto:engineering-services@fau.edu).

### **Foreign Language Requirement**

All students must satisfy the foreign language requirement for admission to the University.

## HONORS PROGRAM IN ENGINEERING

The Honors Program provides FAU's students in the College of Engineering and Computer Science the opportunity to achieve academic excellence beyond the level of standard coursework. Students interested in pursuing the Honors designation should meet the following eligibility and admission requirements.

### Eligibility Requirements

Engineering and Computer Science students with strong academic records and interest in improving their leadership and innovation skills are encouraged to apply for the Honors Program in Engineering program. Students must meet the following program entry requirements:

1. Junior standing (must have completed 60 credits toward an engineering or computer science major);
2. At the time of application, must have a cumulative GPA of at least 3.25 in the last 60 credits taken at FAU and any other previous institution of higher education;
3. Must not have received a grade lower than a "C" in any college course; and
4. Apply through the Division of Engineering Student Services and [Advising Department](#)

### Program Requirements

1. Preferred to maintain full-time status (excluding summer semesters); however, a one-semester grace period may be given if the student decides to study abroad or has other considerations that preclude full-time status.
2. Must maintain cumulative GPA of 3.25 or better. If a student's overall GPA falls below 3.25, a one-semester grace period may be given for improvement. If the GPA does not recover, the student's honors status will be withdrawn.-
3. Must not receive any grade lower than a "C" in any college course.
4. Must not have any violation of the Code of Academic Integrity.
5. Must participate in at least one general enrichment activity (membership in a student professional organization, attend professional development seminar, other approved activity).
6. Must not receive a grade lower than a "B" in any Honors-in-the-Major course requirement (9 credits of honors-level coursework as approved in consultation with the advisor and the associate dean and capstone with honors compact).
7. Must complete Honors Directed Independent Study (EGN 5908, 3 credits), which will count as the thesis.

8. Must complete a formal Honors application.

### Sample Flight Plan

#### Junior Year Fall Term

Engineering Honors Seminar	EGN 4933	0
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Core Elective 1		1
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#### Junior Year Spring Term

Engineering Honors Seminar	EGN 4933	0
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Core Elective 2		1
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#### Junior Year Summer Term

Engineering Honors Seminar	EGN 4933	0
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Core Elective 3		1
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#### Senior Year Fall Term

Engineering Honors Seminar	EGN 4933	0
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Engineering Capstone Design 1		3
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#### Senior Year Spring Term

Engineering Honors Seminar	EGN 4933	0
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Engineering Capstone Design 2		1
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## COMBINED DEGREE PROGRAM INFORMATION

### B.S. to M.S. Programs

To encourage undergraduates to pursue a graduate education, the College of Engineering and Computer Science offers joint B.S. to M.S. degree programs in its three departments: Civil, Environmental and Geomatics Engineering, Electrical Engineering and Computer Science, and Ocean and Mechanical Engineering. These programs allow students to complete both a bachelor's and a master's degree within

five years. The undergraduate degree programs range from 120 to 127 credits, while the combined degree program includes a minimum of 150 credits. Students admitted after January 1, 2017, may count up to 12 credits of graduate coursework (5000 level or higher) taken as an undergraduate to satisfy both degrees. See academic program requirements.

Students with a cumulative GPA of at least 3.25 at the end of their junior year are eligible to apply to the graduate programs in the departments of Civil, Environmental and Geomatics Engineering and Electrical Engineering and Computer Science. For combined programs in the Department of Ocean and Mechanical Engineering, students with an overall GPA of above 3.0 and a GPA of above 3.25 in the last 60 credits of coursework completed at the time of admission may apply to the graduate programs. The GPA must be maintained until graduation from the B.S. degree.

The GRE is not required for these programs. All other degree requirements apply. See individual departments for the specific program descriptions appearing just before the master's degree programs. The College also offers a combined program leading to an M.S. in [Biomedical Engineering](#) that is available to all B.S. candidates in any major in the College.

### **B.S. to Ph.D. Programs**

The normal path from B.S. degree to Ph.D. degree in the College of Engineering and Computer Science is through the M.S. degree and its associated requirements. The B.S. to Ph.D. Program gives highly qualified students in the College the option of bypassing the M.S. degree and moving to their doctoral research activities more rapidly. B.S. to Ph.D. students will not be required to write an M.S. thesis. Students selecting the B.S. to Ph.D. option who fail to pass the Ph.D. Qualifying/Candidacy examination will be allowed to switch to an M.S. program, complete the degree requirements and receive the M.S. degree. Admission to the B.S. to Ph.D. Program may be granted to students entering or already in a graduate engineering program, including students selected for the joint B.S. to M.S. program. Admission and degree requirements are listed below.

### **Admission Requirements**

#### **Students in the B.S. Program:**

1. Satisfaction of the department's minimum GPA requirement, normally in the 3.2 – 3.3 range, in the last 60 credits of undergraduate coursework;
2. A combined score (verbal and quantitative) of at least 310 on the GRE;
3. A minimum of two letters of recommendation. Where possible these letters should address the student's qualifications for research.

## Students in the M.S. Program at FAU:

1. Satisfaction of the department's minimum GPA requirement, normally in the 3.2 – 3.3 range, in the last 60 credits of undergraduate coursework;
2. A combined score (verbal and quantitative) of at least 310 on the GRE;-
3. A minimum GPA of 3.5 in the graduate program at FAU;
4. Students must apply for the direct path Ph.D. program within the first year of graduate studies. Students who do not satisfy the GRE or GPA requirements stated above must obtain approval from the department and College graduate committees overseeing the graduate program and from the Graduate College before being admitted to the direct path program.

## Degree Requirements

1. Successful completion of the department's doctoral qualifying/candidacy exam. This exam will normally be taken after the student has completed 24 credits of graduate coursework in the department.
2. A minimum of 72 credits beyond the B.S. degree, distributed according to the following conditions:
  - a. A minimum of 42 credits of graduate coursework from which a minimum of 27 credits of coursework must be in the doctorate-granting department (excluding directed independent study credits) and a minimum of 18 credits of 6000-level courses must be completed;
  - b. Except under unusual circumstances, no more than 6 credits are allowed for directed independent study and/or advanced research graduate courses;
  - c. No 4000-level course is allowed toward the degree. Courses taken to make up for the deficiencies will not be counted toward the degree;
  - d. A minimum of 30 dissertation credits.
3. Successful completion and defense of the dissertation.

## MASTER'S DEGREE PROGRAM INFORMATION

(For master's degree programs, the GRE admission requirement is waived through and including fall 2023.)

### Distance Education

Engineering credit courses in support of degree programs and professional development are available

through the [Division of Engineering Student Services and Advising](#) (DESSA) in the following disciplines: Civil Engineering, Computer Engineering, Computer Science, Electrical Engineering, Mechanical Engineering and Ocean Engineering. Students can enroll in one or more courses encompassing the six different disciplines each semester. DESSA provides access to university courses at industry sites and government agencies. The goal of DESSA is to deliver engineering and computer science programs to students any place and any time. For information, contact the DESSA Director, 561-297-3578, or visit DESSA's [website](#).

### **Graduate Summer Internship Program**

The College of Engineering and Computer Science supports a Graduate Summer Internship (GSI) Program through the FAU Career Center. Available to all master's degree students enrolled in the College, this program provides an opportunity to gain career-related, paid work experience during the summer semester. GSI application and placement are handled through the CDC. Interested students should contact the CDC early in the spring semester to establish eligibility and to submit an application packet. For information, call 561-297-3533 or visit its [website](#).

### **Requirements for Students with Bachelor's Degrees in Non-Engineering Disciplines**

Students with bachelor's degrees in non-engineering disciplines may satisfy the undergraduate engineering requirements and earn an M.S. degree in Biomedical Engineering, Computer Science, Computer Engineering, Electrical Engineering, Mechanical Engineering, Ocean Engineering or Civil Engineering. Part-time or full-time study is possible. To receive the M.S. degree in engineering, these students must correct deficiencies in their programs of study by taking, in addition to regular graduate engineering courses, certain undergraduate engineering courses appropriate to the master's degree objective. Four or five such courses are typically required of students with B.S. degrees in science and 10-12 courses for non-science/engineering students. Students may opt for thesis or non-thesis options. The program of study will be individually tailored to each student's academic background, graduate engineering degree objective and relevant experience. It is expected that full-time students with appropriate preparation and background in math, science and engineering will complete the undergraduate courses phase of the program in one year.

Students must satisfy the following eligibility requirements:

1. A cumulative GPA of 3.00.
2. Completion of at least two semesters of college calculus with grades of "B" or better.
3. Satisfaction of departmental minimum GRE score requirements.
4. A letter of recommendation from their potential thesis advisor.

Specific course requirements for each program in the College of Engineering and Computer Science are listed as follows:

### **Electrical Engineering and Computer Science**

The Department of Electrical Engineering and Computer Science requires that each student and an academic advisor work out a customized plan of study based on the student's background and desired graduate area of study. The following remedial coursework represents a maximum plan. It can be shorter if the students have already taken some of the courses or equivalent courses. Students are expected to score a "C" or better in each of the courses and to maintain an average of 3.0 or better for all the remedial courses.

#### **Requirements for science majors:**

1. EEE 3300, Electronics 1;
2. EEL 2161, C for Engineers;
3. EEL 3111, Circuits 1;
4. EEL 3118L, Electronics Laboratory 1;
5. EEL 4656, Analysis of Linear Systems;
6. EEL 3470, Electromagnetic Fields and Waves; or EEL 4510, Introduction to Digital Signal Processing; or EEL 4512C, Principles of Communication Systems; or EEL 4652C, Control Systems 1.

#### **Requirements for non-science majors:**

1. The six requirements listed above;
2. MAC 2281, Calculus for Engineers 1;
3. MAC 2282, Calculus for Engineers 2;
4. PHY 2048, General Physics for Engineers 1;
5. PHY 2044, Physics for Engineers 2.

### **Civil, Environmental and Geomatics Engineering**

The Department of Civil, Environmental and Geomatics Engineering requires the following remedial coursework:

1. EGN 3311, Statics;
2. EGN 3331, Strength of Materials;
3. Two civil and/or environmental engineering courses in the relevant area as determined by the graduate supervisory committee;
4. Any other course dictated by the graduate supervisory committee.

## Ocean and Mechanical Engineering

The Department of Ocean and Mechanical Engineering requires the following remedial coursework. If students have not taken these classes during their undergraduate studies, their case needs to be reviewed by the department graduate committee, which may require them to take prerequisite classes for the graduate program and pass them with a grade of "B" or better:

1. EGN 3311, Statics;
2. EGN 3321, Dynamics;
3. EGN 3331, Strength of Materials;
4. EML 3701, Fluid Mechanics;
5. MAC 2281, Calculus for Engineers 1;
6. MAC 2282, Calculus for Engineers 2;
7. MAC 2313, Calculus with Analytic Geometry 3;
8. MAP 3305, Engineering Mathematics 1; or MAP 2302, Differential Equations 1.

## INTERDISCIPLINARY MINOR AND CERTIFICATES

### BUSINESS GRADUATE MINOR

*(Minimum of 15 credits required)*

A minor in Business is available to students pursuing a non-thesis master's degree who wish to combine technical coursework in engineering or computer science with a sequence of courses designed to provide a broad background in modern business concepts. Thesis students may participate with approval of their major department.

The Business minor is available to students admitted to master's studies in any program in the College of Engineering and Computer Science. It is not available to students with non-degree-seeking status. Requirements for the minor include completion of five graduate-level business courses (3 credits each) from the list below (course descriptions may be found in the [College of Business Course Descriptions section of this catalog](#)):

1. ACG 6027, Financial Accounting Concepts;
2. FIN 6406, Financial Management;
3. ISM 6026, Management of Information Systems and Technology, or QMB 6603, Data Analysis for Managers;

4. Select one of the following courses: MAN 6937, Global Environment of Management; ENT 6196, Biotechnology Business Development; ENT 6016, Venture Creation; or MAN 6296, Leadership and Organizations;
5. MAR 6055, Marketing Functions and Processes.

Some course substitution may be possible for students with prior academic background in one or more of these areas. Additional requirements for master's degrees with a minor in Business are given in the individual program descriptions that follow.

The minor in Business is awarded upon graduation as an integral part of a master's degree program in Engineering or Computer Science; it is not awarded independent of these degrees. Courses taken as part of the Business minor apply toward the prerequisites for many M.B.A. programs but generally cannot be used to satisfy M.B.A. degree requirements.

## **ENERGY RESILIENCE GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The availability of reliable electric power is foundational to the health and safety of citizens as well as the economy. Technology is rapidly providing solutions that increase the efficiency and resiliency of the electrical grid, while renewable energy technologies are providing cleaner sources of electric power. These technological advances are made possible by engineers and scientists with advanced knowledge of the power grid, data analysis techniques and renewable energy extraction. By specializing in these areas, graduate students will be well prepared to contribute to the efficiency and resiliency of the electrical grid as well as renewable power generation.

This 12-credit certificate provides graduate students with knowledge and skills in the concepts and technologies necessary to improve the efficiency and resiliency of energy generation, transmission and distribution.

### **Admission**

The certificate program is open to students with a bachelor's degree in engineering or science and a GPA of at least 3.0. Students must satisfy the prerequisites for each course in the program. The average GPA of all four courses counted in the program must be 3.0 or better.

### **Curriculum**

Select four courses from the list below. Additional graduate courses in energy and power systems may be counted in the certificate program with prior permission of the advisor.

Smart Grid	EEL 6297	3
Energy Engineering	EGN 5735	3
Power System Analysis and Control	EEL 5256	3
Advanced Photovoltaic Power Systems	EEL 6284	3
Solar Energy Engineering	EML 6417C	3
Advanced Energy Conversion Processes and Systems	EML 6451	3
Wind and Ocean Energy Turbines	EML 6455	3
Marine Renewable Energy	EOC 6145	3

## **ENERGY RESILIENCE GRADUATE CERTIFICATE PROFESSIONAL PROGRAM**

*(Minimum of 12 credits required)*

The Professional Energy Resilience certificate is designed specifically for working professionals, allowing professionals to advance their careers with an accelerated graduate program and obtain an advanced degree while continuing to work. This stand-alone certificate is tailored for professionals and alumni with graduate degrees who are looking for specialized knowledge in Energy Resilience. The course offering format includes evenings, weekends and online material. Admission details and degree requirements for this 12-credit certificate are noted above.

## **DOCTORAL DEGREE PROGRAM INFORMATION**

(For doctoral degree programs, the GRE admission requirement is waived through and including fall 2023.)

Doctoral programs through the College of Engineering and Computer Science are available in the following disciplines: Computer Engineering, Computer Science, Electrical Engineering, Mechanical Engineering, Ocean Engineering and [Transportation and Environmental Engineering](#). Details on each

program follow under the department in which each program is housed.

## ACADEMIC ENVIRONMENT

The College of Engineering and Computer Science provides outstanding educational opportunities for students and personnel. With over 75 faculty, almost all with Ph.D. degrees, it is large enough to have a good selection of course offerings and student activities, yet small enough to provide the personal attention of smaller schools.

Each department has unique features and facilities indicated in the individual program descriptions. Each is affiliated with one or more national professional societies, providing students opportunities to engage in industry tours, hear professional speakers, interact and network with engineering and computer science professionals, develop leadership skills and participate in various social activities arranged by these student groups. Each has active programs of research with opportunities for student participation.

Florida Atlantic University is located in a high-tech region of the United States. Close affiliations with business and industry provide students many benefits, including job opportunities before and after graduation.

### College Vision and Mission

The College of Engineering and Computer Science is committed to providing accessible and responsive programs of education and research recognized nationally for their high quality. The College aims to be the institution of choice for regional students, business and industry. As a community of scholars, the College leads by example with vision, inspiration, integrity and a shared sense of purpose. It promotes a stimulating and productive environment of work, study and scholarly inquiry for students, faculty and staff.

Through its programs in engineering and computer science, the College:

1. Educates those who will pioneer the advancement of knowledge and who will be the leaders of tomorrow;
2. Conducts basic and applied research in engineering, computer science and related interdisciplinary areas;
3. Provides service to the engineering and computer science professions, to the State of Florida, to the nation and to the community at large.

## College Goals

The College's goals are results-oriented. As a community of scholars, it will:

1. Encourage young people to consider careers in engineering and computer science by introducing them to these fields while in middle and high school;
2. Prepare graduates in ways that provide them a basis for lifelong personal and professional development and that enable them to exercise leadership and make lasting contributions in their disciplines;
3. Continue on new roads of research and discovery in its existing areas of expertise, in emerging disciplines and in related interdisciplinary areas;
4. Provide the educational resources that working professionals need to keep pace with developments in their field;
5. Magnify its positive impact in serving regional, state, national and global needs by building mutually beneficial linkages with business, industry, state colleges, K-12 programs and schools and other constituencies.

## Educational Objectives

The baccalaureate experience in the Florida Atlantic University College of Engineering and Computer Science provides students with:

1. Preparation for Practice. Graduates will be prepared for entry-level positions in their discipline and for graduate/professional studies.
2. Tools for Creativity. Graduates will experience the creative and design processes and their application to typical engineering situations.
3. Societal Awareness. Graduates will receive the breadth of education necessary to integrate practice in their disciplines with the needs and interests of a diverse modern society.
4. Leadership Skills. Graduates will be prepared for leadership in their disciplines.

## Expected Student Learning Outcomes

The baccalaureate educational objectives will be achieved by ensuring that graduates have:

1. An understanding of professional and ethical responsibility. Graduates will be familiar with the professional and ethical underpinnings of their discipline and with their professional obligation for continuing education and professional development.
2. A working knowledge of fundamentals, engineering tools and experimental methodologies. Graduates will have knowledge of math, science and engineering fundamentals. They will be able

to combine these basics with their knowledge of experimental methodologies and modern engineering tools to identify, formulate and solve engineering problems.

3. An understanding of the social, economic and political contexts in which engineers must function. Graduates will be able to combine their knowledge of the social sciences and humanities with their own personal and professional experiences to demonstrate an understanding of the impact of engineering solutions in an increasingly diverse and technological society.
4. An ability to plan and execute an engineering design to meet an identified need. Graduates will be able to use their knowledge of fundamentals, engineering techniques and tools and project planning and management to design a system, component or process that satisfies constraints and meets an identified need.
5. An ability to function on multidisciplinary teams. Graduates will be able to function effectively on teams using their knowledge of team dynamics, team communication, social norms and conflict management.
6. An ability to communicate effectively. Graduates will be able to communicate their ideas and results to diverse audiences using their knowledge of written, oral and graphic communication.

## CIVIL, ENVIRONMENTAL AND GEOMATICS ENGINEERING

### **Faculty:**

Kaisar, E., Chair; Nagarajan, S., Associate Chair; Abdellatef, M.; Arockiasamy, M.; Bloetscher, F.; Jahandar Lakshaki, M.; Jang, J.; Kan, D.; Liu, Y.; Meeroff, D. E.; Rosson, B.; Sarhang Zadeh, O.; Sobhan K.; Su, H.; Teegavarapu, R; Yong, Y.

### **Affiliated Faculty:**

Gammack-Clark, J.; Roberts, C.; Xie, Z.

### **Adjunct Faculty:**

Goly, A.; Lowiec, M.; Mitrovic, N.; Muniz, A.; Munuswamy, S.; Ortega, J.; Soltani Sobh, A.; Zheng, X.

The Department of Civil, Environmental and Geomatics Engineering offers the following programs of study:

[Link to Bachelor of Science in Civil Engineering \(B.S.C.V.\)](#)

[Link to Bachelor of Science in Environmental Engineering \(B.S.E.V.\)](#)

[Link to Bachelor of Science in Geomatics Engineering \(B.S.G.E.\)](#)

[Link to Combined B.A. or B.S. in Biological and Physical Sciences and Second B.S. to M.S. with Major in Civil Engineering](#)

[Link to Combined B.S.C.V. to M.S. degree program](#)

[Link to Combined B.S.E.V. to M.S. degree program](#)

[Link to Combined B.S.G.E. to M.S. degree program](#)

[Link to Master of Science \(M.S.\) with major in Civil Engineering](#)

[Link to Doctor of Philosophy \(Ph.D.\) in Transportation and Environmental Engineering](#)

[Link to Transportation Engineering Certificate](#)

[Link to Transportation, Logistics and Supply Chain Management Certificate](#)

## **CIVIL ENGINEERING BACHELOR'S PROGRAM**

Civil engineers design the constructed environment that supports our society. From highways and buildings to bridges and water systems, the profession of civil engineering is responsible for much of the world in which we live.

The program of study leading to the Bachelor of Science in Civil Engineering (B.S.C.V.) reflects the breadth of the profession. Students complete coursework in basic science and mathematics, engineering sciences, civil engineering systems and materials, and the major disciplines in civil engineering. Because of the tremendous impact civil engineers have on society, the curriculum also requires students to pursue studies in the social sciences and the humanities.

The B.S.C.V. program is accredited by the Engineering Accreditation Commission of

ABET, <http://www.abet.org>.

## Civil Engineering Educational Objectives and Student Outcomes

The Civil Engineering program strongly supports the educational objectives and learning outcomes of the College of Engineering and Computer Science (see the [Educational Objectives](#) and [Expected Student Learning Outcomes](#) subsections previously listed in this section).

Program Educational Objectives are broad statements that describe the expected accomplishments and professional status of Civil Engineering graduates a few years beyond the baccalaureate degree.

The Civil Engineering program at Florida Atlantic University is dedicated to graduating civil engineers who, within a few years after graduation will:

- A. **Practice civil engineering** within the general areas of structural engineering, transportation engineering, geotechnical engineering and water resources/environmental engineering in the organizations that employ them;
- B. **Advance their knowledge of civil engineering**, both formally and informally, by engaging in lifelong learning experiences including attainment of professional licensure and/or graduate studies;
- C. **Serve as effective professionals** based on strong interpersonal and teamwork skills, an understanding of professional and ethical responsibility and a willingness to take the initiative and seek progressive responsibilities;
- D. **Participate as leaders** in activities that support service to, and/or economic development of, the community, the region, the state and the nation.

The educational objectives of the Bachelor of Science in Civil Engineering program are achieved by ensuring that graduates have the following characteristics or student outcomes:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics;
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors;
3. An ability to communicate effectively with a range of audiences;
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global,

economic, environmental and societal contexts;

5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives;
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions;
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## CIVIL ENGINEERING

### BACHELOR OF SCIENCE IN CIVIL ENGINEERING (B.S.C.V.)

*(Minimum of 128 credits required)*

#### Admission Requirements

All students must meet the minimum admission requirements of the University. Please refer to the [Admissions section](#) of this catalog.

All students must meet the preprofessional requirements listed [above](#) to be accepted in the Civil Engineering program.

#### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) and below.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

#### Degree Requirements

The Bachelor of Science in Civil Engineering degree will be awarded to students who:

1. Meet all general degree requirements of the University;
2. Complete the curriculum for the B.S. in Civil Engineering degree (see below);

3. Take the Fundamentals of Engineering examination (the first of two exams necessary for professional licensure; contact the department for details).

## Curriculum

The Bachelor of Science in Civil Engineering degree requires 128 credits. For credit toward the degree, a grade of "C" or better must be received in each course listed. In addition, all prerequisites for each mathematics, science or engineering course must be completed with a grade of "C" or better before enrollment is permitted. The degree components are listed below.

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### General Education Program

College Writing 1 (1), (2)	ENC 1101	3
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College Writing 2 (1), (2)	ENC 1102	3
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<a href="#">General Education Program: Society and Human Behavior Courses (1), (3)</a>		6
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<a href="#">General Education Program: Global Citizenship Courses (1), (3)</a>		6
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<a href="#">General Education Program: Humanities Courses (1), (3)</a>		6
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### Foundations of Math and Quantitative Reasoning

Calculus with Analytic Geometry 1 (1), (4)	MAC 2311	4
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Calculus with Analytic Geometry 2 (1), (4)	MAC 2312	4
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### Foundations of Science and the Natural World

General Chemistry 1 (1)	CHM 2045	3 <b>and</b>
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General Chemistry Lab 1 (1)	CHM 2045L	1
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General Physics for Engineers 1 (1), (9)	PHY 2048	3 <b>and</b>
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General Physics 1 Lab	PHY 2048L	1
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<b>Total</b>		<b>40</b>
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**Basic Mathematics and Sciences**

Engineering Mathematics 1	MAP 3305	3 or
Differential Equations 1	MAP 2302	3
Statistics Restricted Elective		3
Physical and Natural Science Restricted Elective 1		4
Physical and Natural Science Restricted Elective 2		4
<b>Total</b>		<b>14</b>

Statistics Restricted Elective: Probability and Statistics for Engineers (STA 4032), Stochastic Models for Computer Science (STA 4821), Probability and Statistics 1 (STA 4442) or equivalent.

Physical and Natural Science Restricted Elective 1: includes but is not limited to Physical Geology/Evolution of the Earth with Lab (GLY 2010C), Biological Science with Lab, Earth Science, or equivalent.

Physical and Natural Science Restricted Elective 2: includes but is not limited to Physics for Engineers 2 (PHY 2044) with lab (PHY 2049L), General Chemistry 2 (CHM 2046) with lab (CHM 2046L), or other physical or natural science course approved by the department.

**Engineering Fundamentals**

Engineering Graphics Elective		
Computer-Aided Design	CGN 2327	3 or
Engineering Graphics	EGN 1111C	3
Fundamentals of Engineering	EGN 1002	3
<i>Computer Programming Elective</i>		
Programming 1	COP 2220	3 or
Computer Applications in Engineering 1	EGN 2213	3 or
C for Engineers	EEL 2161	3

Statics	EGN 3311	3
Dynamics	EGN 3321	3
Strength of Materials	EGN 3331	3
Geomatics	SUR 3103	2
Geomatics Lab	SUR 3103L	1
RI: Construction Project Management	CCE 4031	3 <b>or</b>
Civil Engineering Project Management	CCE 5036	3
<b>Total</b>		<b>24</b>

### **Civil Engineering Technical Core**

Soil Mechanics (5)	CEG 3011C	3
Analysis of Structures (5)	CES 3102C	3
Civil Engineering Materials (5)	CGN 3501C	3
Applied Hydraulics (5)	CWR 3201C	3
Environmental Science and Engineering (5)	ENV 3001C	3
Introduction to Transportation Engineering (5)	TTE 3004C	3
<b>Total</b>		<b>18</b>

### **Civil Engineering Design Core. Students must take four courses, one course in each of the four core areas to meet ABET criteria (6)**

#### ***Geotechnical Engineering Design Core (select one)***

Foundation Engineering	CEG 4012	3 <b>or</b>
Ground Improvement Design	CEG 4122	3 <b>or</b>

Pavement Design	CEG 4126	3
<b><i>Structural Engineering Design Core (select one)</i></b>		
Reinforced Concrete Design	CES 4702	3 <b>or</b>
Structural Steel Design	CES 4605	3 <b>or</b>
<b><i>Transportation Engineering Design Core (select one)</i></b>		
Transportation Planning and Logistics (5)	TTE 4005C	3 <b>or</b>
Transportation Operations and Logistics Management	TTE 4105	3 <b>or</b>
Highway Engineering	TTE 4810	3
<b><i>Water Resources Engineering Design Core (select one)</i></b>		
Hydrologic Engineering	CWR 4202	3 <b>or</b>
Stormwater Modeling and Management	CWR 4307	3
<b>Total</b>		<b>12</b>
<b>Additional Engineering Design Core</b>		
RI: Water and Wastewater Treatment Systems	ENV 4514	3 <b>or</b>
Water and Wastewater Treatment	ENV 5510	3
Subdivision Design	SUR 4463	2
<b>Total</b>		<b>5</b>
<b>Capstone Design Core</b>		
RI: Civil, Environmental and Geomatics Engineering Design 1 (2), (5)	CGN 4803C	3

RI: Civil, Environmental and Geomatics Engineering Design 2 (2), (5)	CGN 4804C	3
<b>Total</b>		<b>6</b>
<b>Technical Electives (Select 9 credits from the list)</b>		
Engineering Professional Internship	EGN 3941	0-4
Professional Internship	IDS 3949	0-4
Directed Independent Research in Engineering and Computer Science (8)	EGN 4911	0-3
Directed Independent Research in Engineering and Computer Science	EGN 4915	1-3
<b>Total</b>		<b>9</b>

**Notes:**

1. Contributes to University Core Curriculum requirements.
2. Contributes to Writing Across Curriculum (Gordon Rule) writing requirement.
3. General Education Program courses, totaling 6 credits, must be selected to satisfy Writing Across Curriculum (Gordon Rule) writing requirements.
4. Contributes to Gordon Rule mathematics requirement.
5. Includes a 1-credit laboratory .
6. All design professional core courses contain a communications component (writing or speaking)
7. Grading: S/U.
8. PHY 2048, General Physics 1 (4 credits) is an acceptable substitute, but only 3 credits will apply toward the degree.

**Sample Four-Year Program of Study**

For the sample four-year program of study for the Bachelor of Science in Civil Engineering, refer to the [Curriculum Sheets and Flight Plans](#) by major.

**Minors and Certificate Programs Appropriate for Civil Engineering**

Civil engineering is a uniquely wide-ranging profession. Various departments offer minors and

certificate programs that augment a student's civil engineering education. The faculty encourages students to pursue a minor or certificate, such as:

**Surveying and Mapping certificate program**, highly recommended (Department of Civil, Environmental and Geomatics Engineering)

**Geographic Information Systems certificate program**, highly recommended (Department of Geosciences)

Obtaining a minor or certificate will require the completion of credits beyond the 128 required for the B.S. in Civil Engineering. Contact the department offering the minor or certificate for more details.

### Internships

Civil Engineering students are strongly encouraged to gain practical experience through participation in internship opportunities. However, internships may only substitute for one technical elective with prior approval from the department chair and only if taken for a grade (IDS 3949, Professional Internship or EGN 3941, Engineering Professional Internship). For more information, contact the FAU Career Center at 561-297-3533 or visit its [website](#).

## COMBINED PROGRAMS

### CIVIL ENGINEERING

#### BACHELOR OF SCIENCE IN CIVIL ENGINEERING (B.S.C.V.) TO MASTER OF SCIENCE (M.S.)

#### COMBINED PROGRAM

With an approximate duration of five years, the combined Bachelor of Science in Civil Engineering to Master of Science program provides an attractive way for students to continue their graduate work. The undergraduate degree program is 128 credits, while the combined degree program includes a minimum of 150 credits. Students admitted after January 1, 2017, may count 12 credits of graduate coursework (5000 level or higher) taken as an undergraduate to satisfy both degrees. See specific program requirements.

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

The combined degree program is 150 credits, 120 for the undergraduate degree and 30 for the master's degree. Students complete the undergraduate degree first, taking no more than 12 credits of graduate coursework in their senior year, which will then be counted to satisfy both degrees.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **To be eligible for the joint B.S.C.V./M.S. program, students must:**

1. Have a cumulative GPA of 3.25 or higher (FAU and transfer courses);
2. Have a total institution GPA of 3.25 or higher (FAU courses); and
3. Formally apply to the joint program, completing the admissions process at least one semester prior to beginning the M.S. portion of the program.

## **BIOLOGICAL AND PHYSICAL SCIENCES TO CIVIL, ENVIRONMENTAL OR GEOMATICS ENGINEERING TO CIVIL ENGINEERING BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO SECOND BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

This program is offered in partnership with the Wilkes Honors College. Details for this [combined degree program](#) are listed in the [Wilkes Honors College](#) section.

## **MASTER'S PROGRAM**

### **CIVIL ENGINEERING MASTER OF SCIENCE (M.S)**

The mission of the Master of Science with Major in Civil Engineering program is to meet the advanced civil engineering educational needs of graduates of undergraduate programs, practicing engineers and those non-engineering professionals wishing to redirect their career paths. Graduates of the program possess these attributes or educational outcomes:

1. Ability to apply knowledge in civil engineering and related subjects significantly beyond the baccalaureate level;
2. Ability to communicate ideas and results professionally in written, oral and graphical forms;
3. Ability to independently conduct research or solve a significant practice-oriented design in civil engineering.

These educational outcomes result from successful completion of a well-planned, rigorous set of courses and a major research or design experience.

Students wishing to continue their education but not pursue a formal academic degree are welcome to take graduate courses with the appropriate technical preparation.

### **Admission Requirements**

All students must comply with the College's admission requirements noted under the [Master's Degree Program Information](#) header. Once students meet all College requirements, applications are reviewed on a case-by-case basis. Students are normally admitted to the Master of Science in Civil Engineering program if they meet the following:

1. Possess a baccalaureate degree in Civil Engineering or a closely related engineering field. Students with non-engineering backgrounds are required to take remedial coursework as recommended by the departmental graduate committee. Click [here](#) for additional information.
2. Have achieved a 3.0 (on a 4.0 scale) grade point average in the last 60 credits of undergraduate work;
3. Have demonstrated proficiency in both written and spoken English. Students from non-English-speaking countries are required to take an English language proficiency test and are expected to achieve a minimum TOEFL score of 550 on PBT (paper-based test), 79 on IBT (internet-based test) or 213 on CBT (computer-based test); 6.0 on IELTS; or 100 on Duolingo.
4. Agree to abide by the graduate admission requirements of the University as published in the University Catalog.
5. Distance Learning students must comply with the College of Engineering and Computer Science Distance Education guidelines noted under the [Master's Degree Program Information](#) header above.

## Degree Requirements

The degree of Master of Science with major in Civil Engineering is awarded to the candidate who has:

1. Complied with University graduate policies and regulations;
2. Satisfied the University's graduate degree requirements; and
3. Completed the appropriate Plan of Study for the degree option selected.

## Plan of Study

A Plan of Study is a set of courses and a thesis or project activity chosen and completed in a sequence that meets the needs and interests of the individual student and the degree requirements and other stipulations of the University, College of Engineering and Computer Science and the department. There is no requirement for master's students to be full-time, nor is there an on-campus service requirement. The Plan of Study must be approved by the student's supervisory committee and the department no later than the end of the student's second semester in the program, regardless of the number of credits earned.

## Degree Options

There are two degree options: Master of Science with Major in Civil Engineering with thesis and Master of Science with Major in Civil Engineering, courses only.

### M.S. Civil Engineering with Thesis

*(A total of 30 credits required.)*

1. Requires 6 credits of Master's Thesis, and
2. Requires 24 credits of approved coursework (5000 level or higher) with the following constraints:
  - a. At least half of the total credits shall be designated as 6000-level courses or above;
  - b. At least half of the total credits must be from CEGE courses;
3. Must complete one semester of CGS 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S").

### M.S. Civil Engineering (courses only)

*(A total of 30 credits required.)*

1. Requires 30 credits of approved coursework (5000 level or higher) with the following constraints:
  - a. At least half of the credits included in any master's degree program shall be designated as 6000-level courses.
  - b. At least half of the total credits shall be from CEGE courses.
2. Must complete one semester of CGS 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S").

## Program Concentrations

Areas of concentration include:

- Structural/Geotechnical Engineering
- Transportation/Geomatics Engineering
- Water Resources/Environmental Engineering

Master of Science with Major in Civil Engineering students may complete one concentration, which includes a minimum of two core classes chosen from a list of courses for each concentration. Note: No more than 3 credits of Directed Independent Study may be applied toward the degree. All course selections must be part of an approved plan of study. All Master of Science with Major in Civil Engineering students must complete one semester of a 0-credit graduate seminar course.

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### Structural/Geotechnical Engineering Core

Soil Stabilization and Geosynthetics	CEG 6124
Advanced Structural Analysis	CES 6106
Finite Element Methods in Civil Engineering*	CES 6119
Bridge Design	CES 6325
Structural Dynamics	CES 6585
Prestressed Concrete	CES 6715

\* Introduction to Finite Element Methods, (EGM 5351) is an acceptable substitute.

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### Transportation/Geomatics Engineering Core

Thermal Infrared Remote Sensing	SUR 6387C
Advanced Unmanned Aerial System Mapping	SUR 6502
Intelligent Transportation Systems	TTE 6272
Maritime Freight Operations	TTE 6508
Sustainable Public Transportation	TTE 6651

Highway Engineering	TTE 6815
Transportation System Analysis	TTE 6501
Terrestrial Laser Scanning	CEG 6304C
<b>Water Resources/Environmental Engineering Core</b>	
Open Channel Hydraulics	CWR 6235
Dynamic Hydrology	CWR 6525
Water Resource System Engineering	CWR 6818
Air Pollution and Control	ENV 6115
Water Supply and Treatment	ENV 6418
Wastewater Engineering	ENV 6507
Sustainability and Pollution Prevention	ENV 6932

**Note:** Credits of Directed Independent Study may be applied toward the degree with the approval of the department. All course selections must be part of an approved plan of study. All Master of Science with Major in Civil Engineering students must complete one semester of a 0-credit graduate seminar course.

### **Business Minor**

Students electing to complete a Business minor must follow the College of Engineering and Computer Science guidelines for the [Business minor](#) noted above.

### **Thesis Supervision**

All M.S.C.V. students in the thesis option must select a supervisory committee. The supervisory committee must contain at least three members. The student's advisor will review and approve the student's plan of study. The chair of the committee and at least one of the other members must be chosen from the department faculty with expertise in the area of concentration chosen by the student. The third member may be chosen from the department faculty or from outside the department in accordance with the University guidelines established in the Graduate Governance document. The third

member may be a professional from the practicing engineering community. All members of the committee should have doctoral degrees.

### **The Thesis**

The master's thesis is a comprehensive original work that contributes to the understanding of an engineering problem.

The thesis is presented at an oral defense, the time and date of which must be approved by the supervisory committee. A minimum of two weeks prior to the anticipated defense, the written thesis must be delivered to the supervisory committee in the format described in a document titled, Requirements and Guidelines for Graduate Theses and Dissertations, that is available from the FAU Graduate College.

The supervisory committee determines the format of the defense and, in private consultation at the completion of the oral defense, whether or not the defense was successful and the thesis is acceptable in scope and quality.

Students are expected to provide updates on their progress each semester, both written and oral. A progress report is required to record a satisfactory progress grade for thesis credits. It is expected that, at a minimum, one peer-reviewed paper will be submitted as part of the thesis option. At a minimum, one presentation or poster at a conference is also expected.

### **Non-Thesis Supervision**

M.S.C.V. students in the courses-only option will select a department faculty member with expertise in their chosen area of concentration to be the program supervisor who reviews and approves the student's plan of study.

### **Transfer Credits**

A maximum of 9 credits of graduate-level work earned at FAU as an undergraduate or while in non-degree status at FAU and a maximum of 6 credits transferred from another regionally or nationally accredited institution may be used to satisfy M.S. with Major in Civil Engineering degree requirements subject to the following restrictions:

1. The student must present a transcript identifying the course in which the student earned a grade of "B" or better, along with a catalog/course description.
2. The course must not have been counted toward any other graduate degree awarded or to be awarded to the student.

3. The course is relevant to the student's approved Plan of Study.
4. No credit earned ten or more years before the degree is awarded may be counted toward the M.S. with Major in Civil Engineering degree program. Credits transferred into or applied to the program are considered as earned in the first semester of enrollment.

### **Professional Licensing**

Engineering is a regulated profession, and many civil engineers become licensed Professional Engineers (P.E.) through a process of examination and certification of engineering experience. Since undergraduate experience and training varies considerably among graduate students, students should contact the Florida Board of Professional Engineers for specific information about eligibility to sit for the licensing examinations. Note that completion of a master's degree in Engineering is not sufficient to qualify students from non-engineering backgrounds for licensure in Florida, and such students may not refer to themselves as "engineers" in Florida in accordance with CH 287.055 F.S. Where there are questions, students are asked to contact the Florida Board of Professional Engineers directly. The Florida Board of Professional Engineers' address is:

Florida Board of Professional Engineers

2507 Callaway Road, Suite 200

Tallahassee, Florida 32303-5268

850-521-0500 (Telephone)

850-521-0521 (Fax)

[www.fbpe.org/](http://www.fbpe.org/)

### **Financial Aid**

Full-time students may be considered for a graduate assistantship, which provides part-time employment in the department. Full or partial tuition waivers may also be awarded to graduate assistants. The number of assistantships is limited, and they are awarded on the basis of the technical area of interest, the student's experience and academic record. Interested students should contact the department.-Other financial aid opportunities also may be available through the University. Contact the FAU Financial Aid Office for more information.

### **Civil, Environmental and Geomatics Engineering**

The Department of Civil, Environmental and Geomatics Engineering requires the following remedial coursework for students with non-engineering backgrounds:

1. EGN, Statics;
2. EGN 3331, Strength of Materials;
3. Two civil and/or environmental engineering courses in the relevant area as determined by the

graduate supervisory committee;

4. Any other course dictated by the graduate supervisory committee.

## DOCTORAL PROGRAM

### TRANSPORTATION AND ENVIRONMENTAL ENGINEERING DOCTOR OF PHILOSOPHY (PH.D.)

*(Minimum of 72 credits required)*

(For this degree program, the GRE admission requirement is waived through and including fall 2023.)

The Department of Civil, Environmental and Geomatics Engineering offers a Doctor of Philosophy (Ph.D.) degree focused on urban mobility and environmental/water resources sustainability. This degree provides students with a fundamental and applied research-based education suitable for seeking employment in industry, government or academia.

#### Admission Requirements

Applicants should have a master's degree in Engineering, Science, Urban Planning, Transportation Logistics or Mathematics from an accredited college or university. A student with outstanding scholastic achievement who holds only a baccalaureate degree in Engineering, Science, Urban Planning, Transportation Logistics or Mathematics from an accredited college or university may be admitted directly to this Ph.D. program and be eligible to earn the *Master's en Passant*. Specific requirements for the B.S. to Ph.D. are found [here](#).

Requirements for students with previous degrees in non-engineering disciplines are found [here](#). Additional eligibility requirements are:

1. A cumulative GPA of 3.00;
2. Completion of at least two semesters of college calculus with grades of "B" or better;
3. Satisfaction of departmental minimum GRE score requirements; and
4. A letter of recommendation from their potential graduate advisor.

The Department of Civil, Environmental and Geomatics Engineering requires the following deficiency coursework for students without an engineering bachelor's degree from an accredited program: two fundamental engineering courses in the relevant area, as determined by the dissertation advisor or department graduate committee.

1. Applicants must have a 3.0 GPA (on a 4.0 scale) or better in the last 60 credits of work attempted coursework and must have an official transcript forwarded directly to the FAU Graduate College from each college-level institution attended;
2. Applicants must submit the Graduate Record Examination (GRE) score. The GRE requirement is waived with proof of passing the Fundamentals of Engineering (FE) or Principles and Practice of Engineering (PE) exam. The GRE requirement is waived for applicants who have a previous degree from FAU's College of Engineering and Computer Science;
3. A student from a non-English-speaking country is required to take the Test of English as a Foreign Language (TOEFL) and achieve a score of at least 550 (paper-based) or 213 (computer-based) or 79 (iBT). This requirement may be waived for students who have obtained a prior degree from a U.S. institution;
4. Applicants must submit to the Graduate College at least two letters of recommendation attesting to the student's ability to pursue with distinction a curriculum of advanced study and research in a chosen area;
5. Applicants must abide by the policies and regulations and the graduate admission requirements of the University as outlined in this University Catalog;
6. Conditional admission may be permitted if the above conditions are not met.

## Graduation Requirements

The degree will be conferred on candidates who have fulfilled the following requirements:

1. Completed the curriculum for the Ph.D. in Transportation and Environmental Engineering, which entails:
  - Successful completion of 72 credits of course and dissertation work beyond the baccalaureate degree with a minimum grade of "B" in each course. Up to 30 credits of coursework from an approved master's degree program may be applied;
  - Maintenance of a minimum 3.0 GPA in all coursework attempted for the degree. Failure to maintain a minimum GPA of 3.0 may result in creating an Academic Progression Plan (APP) for the student.

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### Core Courses - two courses for 6 credits

Sustainability and Pollution Prevention	ENV 6932	3
Transportation System Analysis	TTE 6501	3

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### Technical Electives - three courses for 9 credits

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*Select three courses at the 5000 or 6000 level from the Department of Civil, Environmental and Geomatics Engineering. The courses must be approved by the dissertation advisor.*

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### **Other Electives - two courses for 6 credits**

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*Select two courses at the 5000, 6000 or 7000 level from the College of Engineering and Computer Science or other FAU colleges. No more than 3 credits of Directed Independent Study (DIS) or Advanced Research (CGN 7978). The courses must be approved by the dissertation advisor.*

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### **Dissertation (CGN 7980) - 21 credits (minimum) for students entering with a master's degree**

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*Up to 3 credits of graduate internship (EGN 5940) may be used to satisfy the 21-credit dissertation minimum requirement, with approval of the dissertation advisor.*

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### **Graduate Seminar (CGN 5937) - two semesters**

2. Successful completion of a qualifying exam is required upon completion of 15 credits of core and technical elective courses;
3. Successful completion of a dissertation proposal defense is typically required within two semesters after passing the qualifying exam;
4. Prior to the dissertation defense, the student is required to have published or have accepted for publication a refereed research paper in a field of study deemed acceptable by the dissertation committee. A journal article is preferred, but a peer-reviewed conference paper is also acceptable;
5. Successful completion of an oral defense of the written doctoral dissertation based on original research in the student's area of specialization. The Dissertation/Supervisory Committee, the Department Chair and the Graduate College must have approved the dissertation and oral defense;
6. Complied with the University's Graduate Policies and Regulations and satisfied the University's Graduate Degree Requirements.

### **Dissertation/Supervisory Committee**

Upon acceptance into the Ph.D. Program, a student will select an advisor from the department faculty members to serve as chair of the Dissertation/Supervisory Committee. The student's Ph.D.

Dissertation/Supervisory Committee will have a minimum of four members with at least two of them having expertise in the research area. At least two committee members must be from the Department of Civil, Environmental and Geomatics Engineering. One member and/or co-chair of the committee can be from outside the department. Also the committee may include a member from another institution or

industry. The Dissertation/Supervisory Committee shall approve the dissertation proposal, monitor academic progress every semester, evaluate the dissertation defense and approve the final doctoral dissertation document.

### **Qualifying Exam**

Upon successful completion of core and technical elective courses, the student will be required to complete a qualifying examination. The examination is scheduled after the last day of the final examination period and before the end of the fall semester and the spring semester each year. The examination will be in two parts: One covering the core courses and one covering the technical elective subjects. An overall grade of 70 percent on each part of the written examination is passing. Students who score below 70 percent on certain parts of the written examination are given the option of retaking exams on areas in which they scored less than 70 percent. The student must score at least 70 percent in each subject that is retaken. Normally, two failures will result in the student's dismissal from the Ph.D. program. After passing the Qualifying Exam, the student advances to candidacy.

**Proposal Defense:** Within two semesters after successful completion of the Qualifying Exam, the candidate must orally defend the dissertation proposal to the Dissertation/Supervisory Committee for approval. The student should submit a written proposal report to the Dissertation/Supervisory Committee for review prior to the oral presentation.

**Dissertation Defense:** The doctoral dissertation shall be written in the format specified by the Graduate College. The dissertation must be defended orally and represent an original piece of research that advances the body of knowledge in the field. A written dissertation is submitted to the members of the committee who may approve, suggest additional work or reject the dissertation work after the defense.

## **TRANSPORTATION ENGINEERING GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

Transportation engineering is an interdisciplinary field that integrates many aspects of engineering and computer science fundamentals, quantitative methods, and technology innovations associated with traffic operations, safety, intelligent transportation, supply chain and management. This is a practice-oriented program designed to assist engineers, planners, researchers and technical professionals in the launch or development of their careers in the transportation field.

### **Admission**

The graduate certificate in Transportation Engineering is open to all prospective students and industry professionals who hold a bachelor's degree in Engineering or a related field. Prospective students must have a 3.0 GPA to ensure equivalency to graduate standing. Students enrolled in this certificate program are classified as non-degree-seeking students. Credits earned by non-degree students in this program may be applied later to a master of science degree program, if students choose to pursue such a degree. Only up to one third of the non-degree credits with a grade of "B" or higher can be counted toward a graduate degree.

### Curriculum

Students must complete four courses from the following list or the equivalent with a minimum of a 3.0 GPA.

Intelligent Transportation Systems	TTE 6272	3
Transportation System Analysis	TTE 6501	3
Transportation and Supply Chain Systems	TTE 6507	3
Maritime Freight Operations	TTE 6508	3
Highway Engineering	TTE 6815	3

## TRANSPORTATION, LOGISTICS AND SUPPLY CHAIN MANAGEMENT GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

To provide students with the knowledge necessary in this age of connected supply chains, the Department of Information Technology and Operations Management (ITOM) in the College of Business and the Department of Civil, Environmental and Geomatics Engineering (CEGE) in the College of Engineering and Computer Science offer a jointly designed certificate in Transportation, Logistics and Supply Chain Management. This 12-credit certificate permits graduate students to expand their knowledge on the technical skills of transportation engineering and the analytical business decision-making skills of supply chain management. Details for this certificate program can be found in the [Interdisciplinary Programs](#) section of the catalog.

### Admission

This certificate program is open to students who have a bachelor's degree in business or engineering or

in a related field and a GPA of at least 3.0. Students must satisfy the prerequisites for each course in the program.

## Curriculum

All four required courses must be completed with a GPA of 3.0 or better. All course materials are in English; all international students must demonstrate proficiency in English to enter the program.

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### Required Courses by Department

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#### ITOM Department

*(select two from the list, one of which must be MAN 6596)*

Operations Management	MAN 6501	3
Project Management	MAN 6581	3
Supply Chain Management	MAN 6596	3

#### CEGE Department

*(select two from the list)*

Transportation System Analysis	TTE 6501	3
Transportation and Supply Chain Systems	TTE 6507	3
Maritime Freight Operations	TTE 6508	3

## ENVIRONMENTAL ENGINEERING BACHELOR'S PROGRAM

Environmental engineers integrate principles of engineering, mathematics, earth science, soil science, life science and materials science with emphasis on the design and development of solutions to environmental challenges, such as improvement of water, air pollution control, safe disposal of wastes and the stewardship of our natural resources.

### Environmental Engineering Educational Objectives and Student Outcomes

The Environmental Engineering program strongly supports the educational objectives and learning outcomes of the College of Engineering and Computer Science (see the [Educational Objectives](#) and [Expected Student Learning Outcomes](#) subsections previously listed in this section).

Program Educational Objectives are broad statements that describe the expected accomplishments and professional status of Environmental Engineering graduates a few years beyond the baccalaureate degree.

The Environmental Engineering program at Florida Atlantic University is dedicated to graduating environmental engineers who, within a few years after graduation will:

- A. **Practice environmental engineering** within the general areas of water and wastewater, air quality, solid and hazardous waste, and groundwater and soils in the organizations that employ them;
- B. **Advance their knowledge of environmental engineering**, both formally and informally, by engaging in lifelong learning experiences including attainment of professional licensure and/or graduate studies;
- C. **Serve as effective professionals** based on strong interpersonal and teamwork skills, an understanding of professional and ethical responsibility and a willingness to take the initiative and seek progressive responsibilities;
- D. **Participate as leaders** in activities that support service to, and/or economic development of, the community, the region, the state and the nation.

The educational objectives of the Bachelor of Science in Environmental Engineering program are achieved by ensuring that graduates have the following characteristics or student outcomes:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics;
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors;
3. An ability to communicate effectively with a range of audiences;
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts;
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives;
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions;
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

[Link to Combined Programs](#)

## ENVIRONMENTAL ENGINEERING

### BACHELOR OF SCIENCE IN ENVIRONMENTAL ENGINEERING (B.S.E.V.)

*(Minimum of 120 credits required)*

#### Admission Requirements

All students must meet the minimum admission requirements of the University. Please refer to the [Admissions section](#) of this catalog.

All students must meet the preprofessional requirements listed [above](#) to be accepted in the Environmental Engineering program.

#### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) and below.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

#### Degree Requirements

The Bachelor of Science in Environmental Engineering degree will be awarded to students who:

1. Meet all general degree requirements of the University;
2. Complete the curriculum for the B.S. in Environmental Engineering degree (see below);
3. Take the Fundamentals of Engineering examination (the first of two exams necessary for professional licensure; contact the department for details).

#### Curriculum

The Bachelor of Science in Environmental Engineering degree requires 120 credits. For credit toward the degree, a grade of "C" or better must be received in each course listed. In addition, all prerequisites

for each mathematics, science or engineering course must be completed with a grade of "C" or better before enrollment is permitted. The degree components are listed below.

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### General Education Program

College Writing 1 (1), (2)	ENC 1101	3
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College Writing 2 (1), (2)	ENC 1102	3
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General Education Program: Society and Human Behavior Courses (1), (3)		6
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General Education Program: Global Citizenship Courses (1), (3)		6
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General Education Program: Humanities Courses (1), (3)		6
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### Foundations of Math and Quantitative Reasoning

Calculus with Analytic Geometry 1 (1), (4)	MAC 2311	4
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Calculus with Analytic Geometry 2 (1), (4)	MAC 2312	4
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### Foundations of Science and the Natural World

General Chemistry 1 <b>or</b> Engineering Chemistry (1)	CHM 2045 <b>or</b> EGN 2095	3 <b>and</b>
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General Chemistry Lab 1 <b>or</b> Engineering Chemistry Lab (1)	CHM 2045L <b>or</b> EGN 2095L	1
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General Physics for Engineers 1 (1), (9)	PHY 2048	3 <b>and</b>
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General Physics 1 Lab	PHY 2048L	1
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<b>Total</b>		<b>40</b>
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### Basic Mathematics and Sciences

General Chemistry 2 (1)	CHM 2046	3 <b>and</b>
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General Chemistry 2 Lab (1)	CHM 2046L	1
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Engineering Mathematics 1	MAP 3305	3 <b>or</b>
Differential Equations	MAP 3302	3
Earth Science Elective (1)		3
Biological Science Elective (1)		4
Statistics Restricted Elective		3
<b>Total</b>		<b>17</b>

Statistics Restricted Elective: Probability and Statistics for Engineers (STA 4032), Stochastic Models for Computer Science (STA 4821), Probability and Statistics 1 (STA 4442) or equivalent.

### Engineering Fundamentals

#### Engineering Graphics Elective

Computer-Aided Design	CGN 2327	3 <b>or</b>
Engineering Graphics	EGN 1111C	3
Fundamentals of Engineering	EGN 1002	3
Computer Programming Elective		
Programming 1	COP 2220	3 <b>or</b>
Computer Applications in Engineering 1	EGN 2213	3 <b>or</b>
C for Engineers	EEL 2161	3
Statics	EGN 3311	3
Strength of Materials	EGN 3331	3
Engineering Thermodynamics	EGN 3343	3
<b>Total</b>		<b>18</b>

**Environmental Engineering Technical Core**

Soil Mechanics (5)	CEG 3011C	3
Applied Hydraulics (5)	CWR 3201C	3
Environmental Science and Engineering (5)	ENV 3001C	3
RI: Environmental Fate and Transport	ENV 4053	3
Introduction to Pollution Prevention and Sustainability	ENV 4072	3
<b>Total</b>		<b>15</b>

**Environmental Engineering Design Core**

Hydrologic Engineering	CWR 4202	3
Air Pollution and Control Systems	ENV 4112	3
Air Pollution Lab	ENV 4112L	1
RI: Solid and Hazardous Waste and Site Remediation	ENV 4341	3
RI: Water and Wastewater Treatment Systems	ENV 4514	3 or
Water and Wastewater Treatment	ENV 5510	3
Subdivision Design	SUR 4463	2
<b>Total</b>		<b>15</b>

**Capstone Design Core**

RI: Civil, Environmental and Geomatics Engineering Design 1 (2), (5), (10)	CGN 4803C	3
RI: Civil, Environmental and Geomatics Engineering	CGN 4804C	3

## Design 2 (2), (5), (11)

<b>Total</b>		<b>6</b>
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**Technical Electives (Select 9 credits from the list) (6)**

Environmental Geochemistry	GLY 4241	3
Hydrogeology	GLY 4822	3
Oceanography	OCE 3008	3
Sustainable Cities	URP 4403	3
Environmental Planning Methods	URP 4420	3
Environment and Disease	ANT 4463	3
Environmental Ethics	PHI 3640	3
Global Environmental Politics and Policies	INR 4350	3
Environmental Economics	ECP 4302	3
Entrepreneurship	ENT 4024	3
Engineering Professional Internship	EGN 3941	0-4
Professional Internship	IDS 3949	0-4
Directed Independent Research in Engineering and Computer Science (8)	EGN 4911	0-3
Directed Independent Research in Engineering and Computer Science	EGN 4915	1-3
<b>Total</b>		<b>9</b>

**Notes:**

1. Contributes to University Core Curriculum requirements.
2. Contributes to Writing Across Curriculum (Gordon Rule) writing requirement.

3. General Education Program courses, totaling 6 credits, must be selected to satisfy Writing Across Curriculum (Gordon Rule) writing requirements.
4. Contributes to Gordon Rule mathematics requirement.
5. Includes a 1-credit laboratory.
6. All design core courses contain a communications component (writing or speaking).
7. Grading: S/U.
8. PHY 2048, General Physics 1 (4 credits) is an acceptable substitute, but only 3 credits will apply toward the degree.
9. Prerequisites are ENV 4514 and SUR 4463.
10. Prerequisite is CGN 4803C.

### **Sample Four-Year Program of Study**

For the sample four-year program of study for the Bachelor of Science in Environmental Engineering, refer to the Curriculum Sheets and Flight Plans by major.

### **Internships**

Environmental Engineering students are strongly encouraged to gain practical experience through participation in internship opportunities. However, internships may only substitute for one environmental engineering technical elective with prior approval from the department chair and only if taken for a grade (IDS 3949, Professional Internship) for a total of three semesters. For more information, contact the FAU Career Center at 561-297-3533 or visit its [website](#).

## **COMBINED PROGRAMS**

### **ENVIRONMENTAL ENGINEERING TO CIVIL ENGINEERING BACHELOR OF SCIENCE IN ENVIRONMENTAL ENGINEERING (B.S.E.V.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

#### **Degree Program**

This program allows Bachelor of Science in Environmental Engineering (B.S.E.V.) students the opportunity to complete the Master of Science (M.S.) with Major in Civil Engineering in less time than the traditional M.S. program. This combined degree program is intended for academically talented students and high achievers. After application and admittance to the M.S. graduate program at the beginning of the senior year, up to 12 credits of approved graduate-level courses may be taken and

counted toward both the B.S.E.V. and the M.S. with Major in Civil Engineering degrees as long as the following criteria are met:

1. The student has met the minimum of 120 credits for the B.S.E.V. degree, and
2. The student has taken a minimum of 30 credits (5000 level or higher) for the M.S. with Major in Civil Engineering.

The combined degree program is 150 credits, 120 for the undergraduate degree and 30 for the master's degree.-Students complete the undergraduate degree first, taking no more than 12 credits of graduate coursework in their senior year, which will then be used to satisfy both degrees.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **To be eligible for the joint B.S.E.V./M.S. program, students must:**

1. Have a cumulative GPA of 3.25 or higher (FAU and transfer courses);
2. Have a total institution GPA of 3.25 or higher (FAU courses); and
3. Formally apply to the joint program, completing the admissions process at least one semester prior to beginning the M.S. portion of the program.

## **BIOLOGICAL AND PHYSICAL SCIENCES TO CIVIL, ENVIRONMENTAL OR GEOMATICS ENGINEERING TO CIVIL ENGINEERING BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO SECOND BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

Details for this [combined degree program](#) are listed in the [Wilkes Honors College](#) section.

## GEOMATICS ENGINEERING BACHELOR'S PROGRAM

The program of study leading to the Bachelor of Science in Geomatics Engineering (B.S.G.E.) deals with designing solutions to measure, map, model, analyze and graphically display the real world. Graduates will explore cutting edge technology in image processing, digital photogrammetry, remote sensing, satellite-based global positioning, geographic information systems, laser scanning and digital mapping.

The B.S.G.E. program is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Students complete coursework in basic science and mathematics, engineering sciences and the main disciplines in geomatics engineering. Because of the major impact geomatics engineers have on society, the curriculum also requires students to complete the General Education [Program](#). This area of study also offers a minor in Geomatics Engineering and a certificate in Surveying and Mapping.

### Geomatics Engineering Educational Objectives

Program Educational Objectives are broad statements that describe the expected accomplishments and professional status of Geomatics Engineering graduates a few years beyond the baccalaureate degree.

The Geomatics Engineering Program at Florida Atlantic University is dedicated to graduating geomatics engineers who, within a few years after graduation will:

- A. **Practice geomatics engineering** within the general areas of boundary and land surveying, geographic information systems (GIS), photogrammetry, remote sensing, mapping, geodesy, and global navigation satellite systems in the organizations that employ them;
- B. **Advance their knowledge of geomatics engineering**, both formally and informally, by engaging in lifelong learning experiences, including attainment of professional licensure and/or graduate studies.
- C. **Serve as effective professionals**, based on strong interpersonal and teamwork skills, an understanding of professional and ethical responsibility, and a willingness to take the initiative and seek progressive responsibilities.
- D. **Participate as leaders** in activities that support service to, and/or economic development of, the community, the region, the state and the nation.

### Geomatics Engineering Student Outcomes

The educational objectives of the Bachelor of Science in Geomatics Engineering program are achieved by ensuring that graduates have the following characteristics or student outcomes:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics;
2. An ability to apply engineering design to produce solutions that meet specific needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors;
3. An ability to communicate effectively with a range of audiences;
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts;
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives;
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions;
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

[Link to Geomatics Engineering Minor](#)

[Link to Surveying and Mapping Certificate](#)

[Link to Combined Programs](#)

## **GEOMATICS ENGINEERING**

### **BACHELOR OF SCIENCE IN GEOMATICS ENGINEERING (B.S.G.E.)**

*(Minimum of 120 credits required)*

#### **Admission Requirements**

All students must meet the minimum admission requirements of the University. Please refer to the [Admissions section](#) of this catalog.

All students must meet the preprofessional requirements listed [above](#) in order to be accepted into the Geomatics Engineering program.

## Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the IGeneral Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Degree Requirements

The Bachelor of Science in Geomatics Engineering degree will be awarded to students who:

1. Meet all general degree requirements of the University;
2. Complete the curriculum for the B.S.G.E. in Geomatics Engineering degree (see below);
3. Take the National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Surveying Examination (the first of two exams necessary for the professional surveyors and mappers license). Contact Geomatics Engineering for details.

## Curriculum

The Bachelor of Science in Geomatics Engineering degree requires 120 credits. For credit toward the degree, a grade of "C" or better must be received in each course listed, except for humanities and social science courses not applied toward Writing Across Curriculum (Gordon Rule) writing requirements. In addition, all prerequisites for each mathematics, science or engineering course must be completed with a grade of "C" or better before enrollment is permitted. The degree components are listed below.

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### General Education Program - 39 credits

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#### Foundations of Written Communication Courses - 6 credits

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College Writing 1 (1), (2)	ENC 1101	3
College Writing 2 (1), (2)	ENC 1102	3

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#### Foundations of Mathematics and Quantitative Reasoning Courses - 6 credits

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Calculus with Analytic Geometry 1 (1), (4)	MAC 2311	4
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Introductory Statistics	STA 2023	3
<b>Foundations of Science and the Natural World Courses - 6 credits</b>		
General Physics for Engineers 1 (1), (8)	PHY 2048 <b>and</b>	3
General Physics 1 Lab	PHY 2048L	1
<b>Students must take one additional course from the list below:</b>		
General Chemistry 1	CHM 2045 <b>and</b>	3
General Chemistry 1 Lab	CHM 2045L	1
Physical Geology/Evolution of the Earth	GLY 2010C	4
<b>Foundations of Society and Human Behavior Courses - 6 credits (1), (3)</b>		
<b>Foundations of Global Citizenship Courses - 6 credits (1), (3)</b>		
<b>Foundations of Humanities Courses - 6 credits (1), (3)</b>		
<b>Total</b>		<b>39</b>
<b>Additional Basic Mathematics and Sciences Electives - 15 credits</b>		
Introduction to Calculus with Applications	MAC 2210 <b>or</b>	4
Calculus with Analytic Geometry 2	MAC 2312	4
<b>Or</b> any mathematics course for which one of the math courses is a direct prerequisite		
Introduction to Physical Geography	GEO 2200C	3
Select 8 credits from the <a href="#">Foundations of Science and the Natural World</a> Group A or B not already taken for credit		8
<b>Business Electives - 3 credits (select one course)</b>		
Principles of Accounting 1	ACG 2021	3

Entrepreneurship	ENT 4024	3
Entrepreneurial Assistance Project	ENT 4934	3
Introduction to Business	GEB 2011	3
Information Systems Fundamentals	ISM 2000	3
Introduction to Management and Organizational Behavior	MAN 3025	3
Principles of Real Estate	REE 3043	3
Engineering Graphics	EGN 1111C	3
<b>Engineering Fundamentals - 15 credits</b>		
Fundamentals of Engineering	EGN 1002	3
Introduction to Mapping and GIS (5)	GIS 3015C <b>or</b>	3
GIS for Civil Engineering Applications	CGN 4321	3
Geomatics	SUR 3103 <b>and</b>	2
Geomatics Lab	SUR 3103L	1
Computer-Aided Design	CGN 2327 <del>or</del>	3
<b>Computer Programming Elective</b>		
Programming 1	COP 2220 <b>or</b>	3
Computer Applications in Engineering 1	EGN 2213 <b>or</b>	3
C for Engineers	EEL 2161	3
<b>Construction Engineering Core - 6 credits</b>		
Engineering and Construction Surveying	SUR 3205	2
Engineering and Construction Surveying Lab	SUR 3205L	1

RI: Construction Project Management	CCE 4031 <b>or</b>	3
Civil Engineering Project Management	CCE 5036	3
Introduction to Transportation Engineering (5)	TTE 3004C	3
<b>Surveying Engineering Core - 12 credits</b>		
Automated Surveying and Mapping	SUR 3141 <b>and</b>	2
Automated Surveying and Mapping Lab	SUR 3141L	1
Measurement Theory and Data Analysis	SUR 3520	3
Cadastral Principles and Legal Aspects	SUR 4403	3
Geodesy and Geodetic Positioning	SUR 4530 <b>and</b>	2
Geodesy and Geodetic Positioning Lab	SUR 4530L	1
<b>Reality Capture Core - 6 credits</b> <i>Select any combination to total 6 credits.</i>		
Introduction to Laser Mapping Technology	CCE 4514C <b>or</b>	3
Terrestrial Laser Scanning	CEG 6304C	3
Digital Photogrammetry Principles and Applications	SUR 4331C <b>or</b>	3
Digital Photogrammetry and Image Interpretation	SUR 6335C	3
Thermal Infrared Remote Sensing and Applications	SUR 4384 <b>or</b>	3
Thermal Infrared Remote Sensing	SUR 6387C	3
<b>Capstone Design - 6 credits</b>		
Subdivision Design	SUR 4463 <b>and</b>	2

Land Subdivision and Platting Lab	SUR 3463L	1
<b>Capstone Elective - Select one</b>		
RI: Civil, Environmental and Geomatics Engineering Design 1	CGN 4803C <b>or</b>	3
RI: Engineering Technology Capstone	ETG 4951	3
<b>Technical Electives - Select 18 credits from the list</b>		
<b>Any approved College of Engineering and Computer Science course 3000-level and above</b>		
Remote Sensing of the Environment (5) (6)	GIS 4035C	3
Principles of Geographic Information Systems (5) (6)	GIS 4043C	3
Digital Image Analysis (5) (6)	GIS 4037C	3
Engineering Professional Internship	EGN 3971	0-4
Directed Independent Research in Engineering and Computer Science (7)	EGN 4911	0-3
Directed Independent Research in Engineering and Computer Science	EGN 4915	1-3
New Venture Launch	ENT 4015	3
Advanced Business Planning	ENT 4114	3
Entrepreneurship Internship	ENT 4940	1-4
Environmental Issues in Atmospheric and Earth Science	ESC 3704	3
Principles of Financial Management	FIN 3403	3
Sea-Level Rise: Impacts and Responses	GEO 3342	3
Quantitative Methods	GEO 4022	3
Spatial Data Analysis	GEO 4167C	3

Water Resources	GEO 4280C	3
Biogeography	GEO 4300	3
Urban Geography	GEO 4602	3
Transportation and Spatial Organization	GEO 4760	3
Introduction to Mapping and GIS	GIS 3015C	3
Digital Image Analysis (5)	GIS 4037C	3
Applications of GIS (5)	GIS 4048C	3
Programming in GIS (5)	GIS 4102C	3
Geovisualization and GIS (5)	GIS 4138C	3
Coastal and Marine Science	GLY 3730	3
Field Methods	GLY 4750C	3
Hydrogeology	GLY 4822	3
Engineering Geology	GLY 4830	3
Introduction to Hydrogeology Modeling and Aquifer Test (5)	GLY 4832C	3
Professional Internship	IDS 3949	0-4
Leadership, Supervisory Skills and Team Development	MAN 4046	3
Marketing Management	MAR 3023	3
Planning Methods	URP 4011	3
City Structure and Change	URP 4055	3
Planning Implementation Strategies	URP 4120	3
Introduction to Visual Planning Technology	URP 4254	3
Plan Making and Design	URP 4343	3

Sustainable Cities	URP 4403	3
Environmental Planning Methods	URP 4420	3
Urban Development Planning Methods	URP 4546	3
Capital Facilities Planning	URP 4730	3
Site Planning	URP 4870	3

### Notes:

1. Contributes to University Core Curriculum requirements.
2. Contributes to Writing Across Curriculum (Gordon Rule) writing requirement.
3. General Education Program courses, totaling 6 credits, must be selected to satisfy Writing Across Curriculum (Gordon Rule) writing requirements.
4. Contributes to Gordon Rule mathematics requirement.
5. Includes a 1-credit laboratory.
6. Students pursuing the [GIS certificate](#) should consider taking these courses.
7. Grading: S/U.
8. PHY 2048, General Physics 1 (4 credits) is an acceptable substitute, but only 3 credits will apply toward the degree.

### Sample Four-Year Program of Study

For the sample four-year program of study for the Bachelor of Science in Geomatics Engineering, refer to the [Curriculum Sheets and Flight Plans](#) by major.

### Minors and Certificate Programs Appropriate for Geomatics Engineering

Various departments offer minors and certificate programs that augment a student's geomatics engineering education. Students are encouraged to pursue a minor or certificate, such as:

***Computer Science Minor*** (Department Electrical Engineering and Computer Science)

***Entrepreneurial Management Minor*** (College of Business)

***Surveying and Mapping Certificate Program*** , highly recommended (Department of Civil, Environmental and Geomatics Engineering)

***Geographic Information Systems Certificate Program*** , highly recommended (Department of

Geosciences)

Obtaining a minor or certificate will require completing credits beyond the 120 required for the B.S.G.E. in Geomatics Engineering. Contact the department offering the minor or certificate for more details.

### Internships

Students are strongly encouraged to gain practical experience through participation in internship opportunities. However, internships may only substitute for one technical elective with prior approval from the department chair and only if taken for a grade.

## GEOMATICS ENGINEERING UNDERGRADUATE MINOR

*(Minimum of 18 credits required)*

Students minoring in Geomatics Engineering will complete a minimum of 18 credits with a grade of "C" or better in each course. Of the 18 credits, a minimum of 15 must be earned at FAU. Selected courses must be checked for the proper requirements. The minor is available to all full-time FAU students pursuing a declared major.

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### Required Courses (3 credits)

Geomatics	SUR 3103	2
Geomatics Lab	SUR 3103L	1

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### Select additional courses from below for a minimum of 15 credits.

Digital Photogrammetry Principles and Applications (2)	SUR 4331C	3
Measurement Theory and Data Adjustments (2)	SUR 3520	3
Automated Surveying and Mapping (2)	SUR 3141	2
Automated Surveying and Mapping Lab (2)	SUR 3141L	1
Subdivision Design	SUR 4463	2

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Land Subdivision and Platting Lab (2)	SUR 3463L	1
Engineering and Construction Surveying (3)	SUR 3205	2
Engineering and Construction Surveying Lab (3)	SUR 3205L	1
Geodesy and Geodetic Positioning (3)	SUR 4530	2
Geodesy and Geodetic Positioning Lab (3)	SUR 4530L	1
Cadastral Principles and Legal Aspects (2)	SUR 4403	3
Principles of Geographic Information System	GIS 4043C	3
Introduction to Laser Mapping Technology	CCE 4514C	3
Any other Surveying or Mapping Technical Elective as determined by the department		3

**Notes:**

(1) Requires knowledge of geometry and trigonometry.

(2) Requires SUR 3103/SUR 3103L, Geomatics and Lab, as prerequisites.

(3) Requires SUR 3103/SUR 3103L, Geomatics and Lab and introductory statistics, as prerequisites.

(4) Requires SUR 3141/SUR 3141L, Automated Surveying and Mapping with Lab, as prerequisites.

## **SURVEYING AND MAPPING UNDERGRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The Department of Civil, Environmental and Geomatics Engineering offers undergraduates a certificate in Surveying and Mapping. Students are entitled to the certificate by completing a minimum of 12 credits of coursework with a grade of "C" or better. Selected courses must be checked for the proper prerequisites. The certificate is open to both degree-seeking and non-degree-seeking students.

### **Required Courses (3 credits)**

Geomatics (1)	SUR 3103	2
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Geomatics Lab (1)	SUR 3103L	1
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**Select additional courses from below for a minimum of 9 credits.**

Digital Photogrammetry Principles and Applications (2)	SUR 4331C	3
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Automated Surveying and Mapping (2)	SUR 3141	2
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Automated Surveying and Mapping Lab (2)	SUR 3141L	1
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Geodesy and Geodetic Positioning (4)	SUR 4530	2
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Geodesy and Geodetic Positioning Lab (4)	SUR 4530L	1
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Measurement Theory and Data Adjustments (3)	SUR 3520	3
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Engineering and Construction Surveying (4)	SUR 3205	2
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Engineering and Construction Surveying Lab (4)	SUR 3205L	1
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Cadastral Principles and Legal Aspects	SUR 4403	3
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Thermal Infrared Remote Sensing and Applications	SUR 4384	3
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Principles of Geographic Information System	GIS 4043C	3
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Introduction to Laser Mapping Technology	CCE 4514C	3
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**Notes:**

(1) Requires knowledge of geometry and trigonometry.

(2) Requires SUR 3103/SUR 3103L, Geomatics and Lab, as prerequisites.

(3) Requires SUR 3103/SUR 3103L, Geomatics and Lab and introductory statistics, as prerequisites.

(4) Requires SUR 3141/SUR 3141L, Automated Surveying and Mapping with Lab, as prerequisites.

## COMBINED PROGRAMS

### GEOMATICS ENGINEERING TO CIVIL ENGINEERING

## BACHELOR OF SCIENCE IN GEOMATICS ENGINEERING (B.S.G.E.) TO MASTER OF SCIENCE (M.S.)

This program allows Bachelor of Science in Geomatics Engineering (B.S.G.E.) students the opportunity to complete the Master of Science (M.S.) with Major in Civil Engineering in less time than the traditional M.S. program. This combined degree program is intended for academically talented students and high achievers. After application and admittance to the M.S. graduate program at the beginning of the senior year, up to 12 credits of approved graduate-level courses may be taken and counted toward both the B.S.G.E. and the M.S. with Major in Civil Engineering degrees as long as the following criteria are met:

1. The student has met the minimum of 120 credits for the B.S.G.E. degree, and
2. The student has taken a minimum of 30 credits (5000 level or higher) for the M.S. with Major in Civil Engineering.

The combined degree program is 150 credits, 120 for the undergraduate degree and 30 for the master's degree. Students complete the undergraduate degree first, taking no more than 12 credits of graduate coursework in their senior year, which will then be used to satisfy both degrees.

### **To be eligible for the joint B.S.G.E./M.S. program, students must:**

1. Have a cumulative GPA of 3.25 or higher (FAU and transfer courses);
2. Have a total institution GPA of 3.25 or higher (FAU courses); and
3. Formally apply to the joint program, completing the admissions process at least one semester prior to beginning the M.S. portion of the program.

## **BIOLOGICAL AND PHYSICAL SCIENCES TO CIVIL, ENVIRONMENTAL OR GEOMATICS ENGINEERING TO CIVIL ENGINEERING BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO SECOND BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

Details for this [combined degree program](#) are listed in the [Wilkes Honors College](#) section.

## ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

### **Faculty:**

Zhuang, H., Chair; Kalva, H., Associate Chair; Aalo, V.; Agarwal, A.; Alhalabi, B. A.; Asghar, W.; Assis, R.; Azarderakhsh, R.; Bagby, J.; Batalama, S.; Bullard, L. A.; Cardei, I. E.; Cardei, M.; Cooper, R. B.; Emeritus; DeGiorgio, M.; Erdol, N.; Fernandez, E. B.; Furht, B.; Gazourian, M. G., Emeritus.; Ghoraani, B.; Groff, D.; Hallstrom, J.; Hsu, S. C., Emeritus; Huang, S.; Ilyas, M.; Khoshgoftaar, T. M.; Larrondo-Petrie, M.; Liu, F. H.; Mahgoub, I.; Marcovitz, A., Emeritus; Marques, O.; Messenger, R. A., Emeritus; Neelakanta, P.; Ni, Z.; Nojournian, M.; Pados, D.; Pandya, A. S.; Pavlovic, M.; Peterson, V.; Raviv, D.; Rhodes, W., Emeritus; Roth, Z.; Shankar, R.; Sklivanitis, G.; Solomon, M. K., Emeritus; Sorgente, T.; Taebi, S.; Tang, Y.; Ungvichian, V., Emeritus; Wang, D.; Yang, K.; Zhong, X.; Zhu, X.; Zilouchian, A.

The Department of Electrical Engineering and Computer Science offers programs in Biomedical Engineering, Computer Engineering, Computer Science, Data Science and Analytics, and Electrical Engineering. Specifically, the department offers undergraduate programs of study leading to the degrees of Bachelor of Arts in Computer Science (B.A.C.S.), Bachelor of Science with major in Data Science and Analytics, Bachelor of Science in Computer Science (B.S.C.S.), Bachelor of Science in Computer Engineering (B.S.C.E.), and Bachelor of Science in Electrical Engineering (B.S.E.E.). Minors in Artificial Intelligence and Computer Science are also available, as well as a certificate in Artificial Intelligence. A [Data Science certificate](#) program, designed jointly by the departments of Electrical Engineering and Computer Science and Mathematics and Statistics, provides an in-depth study of the methods to manage, analyze and extract knowledge from data. A [minor and certificate in Cybersecurity](#), designed jointly by the departments of Electrical Engineering and Computer Science, Information Technology and Operations Management in the College of Business and Mathematics and Statistics in the College of Science, offer three unique tracks, each focused on a particular area of cybersecurity.

In the graduate area, the department offers a Master of Science (M.S.) with major in Biomedical Engineering, Master of Science (M.S.) with major in [Artificial Intelligence](#) with thesis, Master of Science (M.S.) with major in Artificial Intelligence without thesis, Master of Science with major in Computer Engineering with thesis, Master of Science with major in Computer Engineering without thesis, Master of Science with major in Computer Science with thesis, Master of Science with major in Computer Science without thesis, [Master of Science with Major in Data Science and Analytics](#), and Master of Science with major in Electrical Engineering. A certificate in Biomedical Engineering is also available, as well as a minor and certificate in Artificial Intelligence.

Prospective doctoral students may choose from a Doctor of Philosophy (Ph.D.) with major in Computer Engineering, Doctor of Philosophy (Ph.D.) with major in Computer Science and Doctor of Philosophy

with major in Electrical Engineering (Ph.D.).

To encourage undergraduates to pursue a graduate education, the department offers a number of combined programs, including a B.S.C.E. to M.S. degree program in Computer Engineering, a B.S.C.S. to M.S. degree program in Computer Science, a B.S.E.E. to M.S. degree program, and a combined program leading to an M.S. in Biomedical Engineering that is offered to B.S. candidates in any College of Engineering and Computer Science major. These programs permit students to complete both a bachelor's and a master's degree within five years.

For students interested in combining the broad systems orientation provided in the Bachelor of Science in Electrical Engineering (B.S.E.E.) with focus in Computer Engineering, the department offers the five-year B.S.E.E./M.S.Cp.E. (Master of Science in Computer Engineering). Program details are listed in the Electrical Engineering section under Combined Programs.

Below, the Computer Science and Computer Engineering programs are described first, followed by the Electrical Engineering program and the Biomedical Engineering program.

[Link to Biomedical Engineering Programs](#)

[Link to Electrical Engineering Programs](#)

[Link to Information Technology and Management Program](#)

### **Cooperative Education Program**

Cooperative Education is a unique educational program in which students integrate classroom study with a period of paid, supervised work experience related to their academic major. At FAU, the Co-Op program is a structured learning situation in which students apply concepts learned in the classroom to "real world" work environments. The program is available on an optional basis to all students in accordance with the description shown in the [Student Services and Activities](#) section of this catalog. Students in the College of Engineering and Computer Science must meet the following requirements:

1. Students who wish to participate in the Co-Op program in the College of Engineering and Computer Science should contact the [Division of Engineering Student Services and Advising \(DESSA\)](#).
2. The College of Engineering and Computer Science Co-Op program operates on a part-time basis, 20 hours per week, no more, no less. In this program, the work is specifically tied to the student's field/major and must be secured through the [FAU Career Center](#).
3. The College of Engineering and Computer Science Co-Op program is geared primarily toward

students who enter as freshmen, as opposed to transfer students. As a result, incoming freshmen cohorts receive primacy with respect to assignments. Specific major requirements are found in the [College of Engineering and Computer Science Co-Op Program Manual](#).

4. The grade will be reported on the transcript as pass or fail.

To learn more about the Co-Op program students in the College of Engineering and Computer Science should contact the [Career Development Center](#).

## COMPUTER SCIENCE AND COMPUTER ENGINEERING

### **Mission Statement**

The common mission of the Computer Science and Computer Engineering Programs is:

1. To produce graduates with a strong grasp of fundamentals of computer science and computer engineering, knowledge in technical specialty areas and an appreciation of the power of collaborative effort applied to problem solving.
2. To offer courses and programs that stimulate innovation and enhance the ability of graduates to achieve high levels of professional development and to succeed in a competitive marketplace.
3. To conduct research in selected areas and to integrate research results with teaching activities.
4. To provide service to the profession and community and forge strategic alliances with other professions.

[Link to Artificial Intelligence Minor](#)

[Link to Computer Science Minor](#)

[Link to Artificial Intelligence Certificate](#)

[Link to Artificial Intelligence \(AI\) for Cybersecurity Certificate](#)

[Link to Cybersecurity Minor and Certificate](#)

[Link to Data Science Certificate](#)

[Link to Combined Programs](#)

[Link to Master's Programs](#)

[Link to Artificial Intelligence Graduate Certificate](#)

[Link to Big Data Analytics Graduate Certificate](#)

[Link to Cyber Security Graduate Certificate](#)

[Link to Doctoral Programs](#)

## BACHELOR'S PROGRAMS

### **Educational Objectives and Outcomes for the Bachelor's Programs**

#### ***Computer Science***

Graduates of the baccalaureate program in Computer Science are prepared for careers with software companies, developing applications or systems software, or with companies developing software in a scientific or engineering environment.

The degree focuses on the software aspects of computing by building on a set of core courses in areas such as algorithms, machine organization, programming language concepts, theory, computer systems and software engineering.

Based on the Educational Objectives of the College of Engineering and Computer Science, the department has established the following student learning outcomes for the baccalaureate program in Computer Science. Graduates of the program will have an ability to:

1. Analyze a complex computing problem and apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member of leader of a team engaged in activities appropriate to the program's discipline.

6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

The Bachelor of Science degree program in Computer Science is accredited by the Computing Accreditation Commission of ABET.

### ***Computer Engineering***

Graduates of the baccalaureate program in Computer Engineering are prepared for careers in the computer industry as well as with companies that integrate computers into more complex products.

The degree focuses on the system and hardware aspects and the interaction of hardware with software by building on courses in microprocessors, computer design and design automation on the one hand, and on data structures and algorithms, operating systems and software engineering on the other.

Based on the Educational Objectives of the College of Engineering and Computer Science, the department has established the following student learning outcomes for the baccalaureate program in Computer Engineering. Graduates will have:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics.
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

While undergraduate students make some use of University computing facilities, the department has its own facilities that are available for undergraduates and are used for assignments in many courses. A PC-based lab provides students with hands-on experience in logic design, peripheral interfacing and software design for microprocessors. Undergraduates use the department's network of UNIX and PC workstations for coursework in areas such as programming, software development using advanced

tools, artificial intelligence, simulation and graphics.

The Bachelor of Science in Computer Engineering program is accredited by the Engineering Accreditation Commission of ABET.

[Link to Bachelor of Science in Computer Engineering](#)

[Link to Bachelor of Science in Computer Science](#)

[Link to Professional Bachelor of Arts in Computer Science](#)

[Link to Bachelor of Science with Major in Data Science and Analytics](#)

## COMPUTER SCIENCE

### BACHELOR OF ARTS IN COMPUTER SCIENCE (B.A.C.S.)

*(Minimum of 120 credits required)*

#### **Admission Requirements**

All students must meet the minimum admission requirements of the University. Please refer to the [Admissions](#) section of this catalog.

The Bachelor of Arts in Computer Science (B.A.C.S.) with Major in Computer Science is intended for students interested in software development. The program prepares students for a career in the field of Computer Science with focus on software development. The B.A. in Computer Science is accredited by the Southern Association of Colleges and Schools Commission on Colleges, but unlike FAU's B.S. in Computer Science, it is not accredited by the Engineering Accreditation Commission of ABET.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through an Associate in Arts (A.A.) degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not listed with the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Degree Requirements

The minimum number of credits required for the Bachelor of Arts in Computer Science (B.A.C.S.) degree is 120 credits. This degree will be awarded to students who satisfy all admission and degree requirements for the department.

Students entering FAU with fewer than 30 credits must satisfy the course requirements specified in the catalog section, [Degree Requirements](#). Students entering FAU with more than 30 credits (transfer students) must see the undergraduate advisor for an evaluation of courses taken at another school. The general education requirements are satisfied normally if a student has an Associate in Arts (A.A.) degree from a Florida community or state college.

Students must complete 36 credits of *B.A.C.S.* courses and 21 credits of *Computer Science Electives* with a grade of "C" or better.

**Pass/Fail Grades:** Courses taken as pass/fail are not accepted for Computer Science students.

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### Specific Degree Requirements

#### General Education

Foundations of Written Communication	6
Foundations of Society and Human Behavior	6
Foundations of Global Citizenship	6
Foundations of Humanities	6
Foundations of Science and the Natural World	6
<b>Subtotal</b>	<b>30</b>

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#### *Mathematics*

Methods of Calculus	MAC 2233	3
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Introductory Statistics	STA 2023	3
<b>Subtotal</b>		<b>6</b>
<b><i>B.A.C.S. Courses</i></b>		
Introduction to Artificial Intelligence	CAP 4630	3
Introduction to Data Science and Analytics	CAP 4773	3
Computer Logic Design	CDA 3203	3
Introduction to Software Design	CEN 3062C	3
Principles of Software Engineering	CEN 4010	3
Foundations of Cybersecurity	CNT 4403	3
Introduction to Programming in Python	COP 3035C	3
Data Structures and Algorithm Analysis with Python	COP 3410C	3
Introduction to Database Structures	COP 3540	3
Introduction to Web Programming	COP 3834	3
Foundations of Computing	COT 2000C	3
Design and Analysis of Algorithms	COT 4400	3
<b>Subtotal</b>		<b>36</b>
<b>Computer Science Electives</b>	<b>21</b>	
Free Electives	27	
<b>Total</b>	<b>120</b>	

### Computer Science Electives

All students must take 21 credits of approved elective courses. Certain 3000- and 4000-level courses

offered by the Electrical Engineering and Computer Science Department may be used as Computer Science electives. Certain 5000- or 6000-level courses offered by the Electrical Engineering and Computer Science Department may be taken as Computer Science electives. Students must see an advisor for a current list of elective courses. Students seeking a specialty may consider taking electives in areas of study such as internet technology, software engineering, artificial intelligence and machine learning, and cybersecurity.

Topics in Computer Science and Engineering	COT 4930	1-3
Topics in Computer Science	COT 5930	1-3

Students are permitted to take no more than the equivalent of one course (3 credits) of the following three courses as a Computer Science elective.

Professional Internship	IDS 3949	0-4
Directed Independent Study	COT 4900	1-3
Directed Independent Research in Engineering and Computer Science	EGN 4915	1-3

### **Professional Internship**

Students must have completed COP 3410C, Data Structures and Algorithm Analysis with Python, with a minimum grade of "C" before becoming eligible to register for a professional internship. Approval through the Career Center is required prior to enrollment.

### **Directed Independent Study and Directed Independent Research**

Students must have completed COP 3410C, Data Structures and Algorithm Analysis with Python, with a minimum grade of "C" before becoming eligible to register for directed independent study or directed independent research.

## **SECOND BACHELOR'S B.A.C.S. DEGREE**

This program is for those individuals with a degree in another discipline who are seeking a Bachelor of Arts in Computer Science degree at FAU.

## Admission Requirements

Students seeking a bachelor's degree or graduate degree in another discipline must satisfy all admission requirements of the first B.A.C.S. at FAU.

## Degree Requirements

The minimum number of FAU credits needed to earn a second bachelor's degree (B.A.C.S.) is 30 credits at the 3000 level or higher.

1. Students must have completed 36 credits of core courses in the B.A.C.S. program. Each course must be completed with a minimum grade of "C."
2. Students must have completed 6 credits of Computer Science electives. Each course must be completed with a minimum grade of "C."
3. Students must have completed the math prerequisites necessary to take the core and elective courses in the program.

## COMPUTER SCIENCE

### BACHELOR OF SCIENCE IN COMPUTER SCIENCE (B.S.C.S.)

*(Minimum of 120 credits required)*

## Admission Requirements

All students must meet the minimum admission requirements of the University. Please refer to the [Admissions section](#) of this catalog.

All students must meet the preprofessional requirements listed [above](#) in order to be accepted into the Computer Science program.

## Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not listed with the Florida Statewide Course Numbering System that will be used to satisfy

requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Degree Requirements

The minimum number of credits required for the Bachelor of Science in Computer Science (B.S.C.S.) degree is 120 credits. All courses that count toward the degree must be completed with a grade of "C" or better. This degree will be awarded to students who satisfy all admission and degree requirements for the department. Items below are referenced in the table following the list. This degree program is available in person and fully online.

1. Students entering FAU with fewer than 30 credits must satisfy the course requirements specified in the catalog section, [Degree Requirements](#). Students entering FAU with more than 30 credits (transfer students) must see the undergraduate advisor for an evaluation of courses taken at another school. The general education requirements are satisfied normally if a student has an Associate in Arts (A.A.) degree from a Florida community or state college.
2. At least one course must have a laboratory component.

**Pass/Fail Grades:** Courses taken as pass/fail are not accepted for Computer Science students.

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### Program Summary

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General Education	24
Mathematics	11
Science	7
Common Core	27
Computer Science - Computer Engineering Core	15
Computer Science Core	12
Semi-Core Group 1	3
Semi-Core Group 2	3
Electives	18

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<b>Total</b>	<b>120</b>
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***General Education***

Foundations of Written Communication	6
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Foundations of Society and Human Behavior	6
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Foundations of Global Citizenship	6
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Foundations of Humanities	6
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<b>Subtotal</b>	<b>24</b>
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***Mathematics***

Calculus with Analytic Geometry 1	MAC 2311	4
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Calculus with Analytic Geometry 2	MAC 2312	4
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Matrix Theory	MAS 2103	3
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<b>Subtotal</b>		<b>11</b>
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***Science***

*(Select two 3-credit courses and a lab or a 3-credit course and a 4-credit course)*

Biological Principles	BSC 1010	3
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Biological Principles Lab	BSC 1010L	1
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General Chemistry 1	CHM 2045	3
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General Chemistry 1 Lab	CHM 2045L	1
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General Physics for Engineers 1	PHY 2048	3
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General Physics Lab 1	PHY 2048L	1
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Physics for Engineers 2	PHY 2044	3
General Physics Lab 2	PHY 2049L	1
Physical Geology/Evolution of the Earth	GLY 2010C	4
<b>Subtotal</b>		<b>7</b>

### Core Courses

All students must take the following core courses, which total 51 credits.

#### *Common Core*

Introduction to Data Science and Analytics	CAP 4773	3
Computer Logic Design	CDA 3203	3
Computer Architecture	CDA 4102	3
Introduction to Programming in Python	COP 3035C	3
Systems Programming with C++	COP 3275C	3
Foundations of Computing*	COT 2000C	3
RI: Engineering Design 1	EGN 4950C	3
RI: Engineering Design 2	EGN 4952C	3
Stochastic Models for Computer Science**	STA 4821	3
<b>Subtotal</b>		<b>27</b>

\* MAD 2104 may be substituted for COT 2000C.

\*\* EEE 4541 may be substituted for STA 4821.

#### **Computer Science - Computer Engineering Core**

Introduction to Software Design	CEN 3062C	3
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Principles of Software Engineering	CEN 4010	3
Communication Networks	CNT 4007	3
Data Structures and Algorithm Analysis	COP 3530C	3
Computer Operating Systems	COP 4610	3
<b>Subtotal</b>		<b>15</b>

### *Computer Science Core*

Introduction to Database Structures	COP 3540	3
Principles of Programming Languages	COP 4020	3
Design and Analysis of Algorithms	COT 4400	3
Theory of Computation	COT 4420	3
<b>Subtotal</b>		<b>12</b>

### **Semi-Core Courses**

All students must take 3 credits from each of the two Semi-Core groups for a total of 6 Semi-Core credits.

### *Computer Science Semi-Core Group 1 (Select one course)*

Introduction to Deep Learning	CAP 4613	3
Introduction to Artificial Intelligence	CAP 4630	3
Introduction to Data Mining and Machine Learning	CAP 4770	3
<b>Subtotal</b>		<b>3</b>

### *Computer Science Semi-Core Group 2 (Select one course)*

Applied Cryptography and Security	CIS 4634	3
Foundations of Cybersecurity	CNT 4403	3
Network and Data Security	CNT 4411	3
<b>Subtotal</b>		<b>3</b>

### Electives

All students must take 18 credits of approved elective courses. Certain 3000- and 4000-level courses offered by the Electrical Engineering and Computer Science Department may be taken as Computer Science electives. Certain 5000- or 6000-level courses offered by the Electrical Engineering and Computer Science Department may be taken as Computer Science electives. Students must see an advisor for a current list of approved elective courses.

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### *Computer Science Electives* **18**

Students seeking a specialty may consider taking electives in areas of study, such as internet technology, software engineering, artificial intelligence and machine learning and cybersecurity.

*Students are permitted to take no more than the equivalent of one course (3 credits) of the following three courses as a Computer Science elective.*

Directed Independent Study	COT 4900	1-3
Professional Internship	IDS 3949	0-4
Directed Independent Research in Engineering and Computer Science	EGN 4915	1-3

### Professional Internship

Students must have completed COP 3530C, Data Structures and Algorithm Analysis, with a minimum grade of "C" before becoming eligible to register for a professional internship. Approval through the Career Center is required prior to enrollment.

### Directed Independent Study and Directed Independent Research in Engineering and Computer Science

Students must have completed COP 3530C, Data Structures and Algorithm Analysis, with a minimum

grade of "C" before becoming eligible to register for directed independent study or directed independent research.

Students must make sure that they have the necessary minimum of 120 credits for graduation.

### **Sample Four-Year Program of Study**

For the sample four-year program of study for the Bachelor of Science with Major in Computer Engineering, refer to the [Curriculum Sheets and Flight Plans](#) by major.

## **SECOND BACHELOR'S B.S.C.S. DEGREE**

This program is for those individuals with a degree in another discipline who are seeking a Bachelor of Science in Computer Science degree at FAU.

### **Admission Requirements**

Students seeking a bachelor's degree or graduate degree in another discipline must satisfy all admission requirements of the first bachelor's degree in Computer Science at FAU.

### **Degree Requirements**

1. Earn a minimum of 30 credits in residence at FAU, at the 3000 level or higher, beyond those required for the first degree. Students earning two degrees simultaneously (a dual degree) must earn at least 150 credits.
2. Earn at least 75 percent of all upper-division credits required for the major from FAU.
3. Students must have completed at least 15 credits in mathematics including discrete mathematics with mathematical rigor at least equivalent to introductory calculus. Each course must be completed with a minimum grade of "C."
4. Students must have completed at least 6 credits (or equivalent) in natural science coursework intended for science and engineering majors. At least one course must have a laboratory component. Each course must be completed with a minimum grade of "C."
5. Students must complete 54 credits of core courses listed in the Computer Science degree program. Each course must be completed with a minimum grade of "C."

## **COMPUTER SCIENCE UNDERGRADUATE MINOR**

*(Minimum of 15 credits required)*

The minor in Computer Science is available to all FAU undergraduates who are not majoring in Computer Science or Computer Engineering. This minor requires completion of five courses (15 credits) with a minimum grade of "C." Students must ensure that they have completed the prerequisites for the selected courses.

Introduction to Software Design*	CEN 3062C	3
Data Structures and Algorithm Analysis with Python	COP 3410C	3
Select three upper-division courses from the Electives table.		9
<b>Total**</b>		<b>15</b>

### Elective Courses\*\*\*

Applied Machine Learning and Data Mining	CAP 4612	3
Introduction to Deep Learning	CAP 4613	3
Introduction to Artificial Intelligence	CAP 4630	3
Introduction to Data Mining and Machine Learning	CAP 4770	3
Introduction to Data Science and Analytics	CAP 4773	3
Principles of Software Engineering	CEN 4010	3
Introduction to Database Structures	COP 3540	3
Introduction to Web Programming	COP 3834	3
Systems Programming with C++	COP 3275C	3
Python Programming	COP 4045	3
Object-Oriented Design and Programming	COP 4331	3
Computer Operating Systems	COP 4610	3
Advanced Database Systems	COP 4703	3
Design and Analysis of Algorithms	COT 4400	3

\* Requires prerequisite: COP 3035C with minimum grade of "C"

\*\* At least 75 percent of credits earned must be from FAU.

\*\*\* See program advisor for a complete list of elective courses.

Acknowledgment of a minor in Computer Science is official upon successful completion of an FAU degree program.

## COMPUTER ENGINEERING

### BACHELOR OF SCIENCE IN COMPUTER ENGINEERING (B.S.C.E.)

*(Minimum of 123 credits required)*

#### Admission Requirements

All students must meet the minimum admission requirements of the University. Please refer to the [Admissions section](#) of this catalog.

All students must meet the preprofessional requirements listed [above](#) in order to be accepted into the Computer Engineering program.

#### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) and below.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

#### General Degree Requirements

The minimum number of credits required for the Bachelor of Science in Computer Engineering (B.S.C.E.) degree is 123 credits. All courses that count toward the degree must be completed with a

grade of "C" or better. This degree will be awarded to students who meet all admission and degree requirements of the department and the University. Notes below are referred to in the tables following the list.

**Notes:**

Students entering FAU with fewer than 30 credits must satisfy the course requirements specified in the catalog section, [Degree Requirements](#). Students entering FAU with more than 30 credits (transfer students) must see the undergraduate advisor for an evaluation of courses taken at another school. The general education requirements are normally satisfied if a student has an Associate in Arts (A.A.) degree from a Florida community or state college. Once students earn beyond 30 credits, they must substitute EGN 1002, Fundamentals of Engineering, with a computer engineering elective.

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**Program Summary**

General Education	24
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Mathematics	15
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Science	9
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<b><i>Common Core</i></b>	27
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Computer Science - Computer Engineering Core	15
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Computer Engineering - Electrical Engineering Core	18
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Computer Engineering Core	3
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Semi-Core Group	3
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Electives	9
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<b>Total</b>	<b>123</b>
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***General Education***

Foundations of Written Communication	6
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Foundations of Society and Human Behavior	6
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Foundations of Global Citizenship	6
Foundations of Humanities	6
<b>Subtotal</b>	<b>24</b>

### *Mathematics*

Calculus with Analytic Geometry 1	MAC 2311	4
Calculus with Analytic Geometry 2	MAC 2312	4
Calculus with Analytic Geometry 3	MAC 2313	4
Engineering Math 1	MAP 3305	3
<b>Subtotal</b>		<b>15</b>

### *Science*

General Physics for Engineers 1	PHY 2048	4
General Physics Lab 1	PHY 2048L	1
Physics for Engineers 2	PHY 2044	3
General Physics Lab 2	PHY 2049L	1
<b>Subtotal</b>		<b>9</b>

### **Core Courses**

All students must take the following core courses, which total 60 credits.

#### *Common Core*

Introduction to Data Science and Analytics	CAP 4773	3
Computer Logic Design	CDA 3203	3
Computer Architecture	CDA 4102	3

Introduction to Programming in Python	COP 3035C	3
Systems Programming with C++	COP 3275C	3
Foundations of Computing*	COT 2000C	3
Stochastic Processes and Random Signals**	EEE 4541	3
RI: Engineering Design 1	EGN 4950C	3
RI: Engineering Design 2	EGN 4952C	3
<b>Subtotal</b>		<b>27</b>

\* MAD 2104 may be substituted for COT 2000C.

\*\* STA 4821 may be substituted for EEE 4541.

### *Computer Science - Computer Engineering Core*

Introduction to Software Design	CEN 3062C	3
Principles of Software Engineering	CEN 4010	3
Communication Networks	CNT 4007	3
Data Structures and Algorithm Analysis	COP 3530C	3
Computer Operating Systems	COP 4610	3
<b>Subtotal</b>		<b>15</b>

### *Computer Engineering - Electrical Engineering Core*

Design of Digital Systems and Lab	CDA 4240C	3
Electronics 1	EEE 3300	3
Circuits 1	EEL 3111	3

Electronics Laboratory 1	EEL 3118L	3
Signals and Digital Filter Design	EEL 3502	3
Fundamentals of Engineering	EGN 1002	3
<b>Subtotal</b>		<b>18</b>

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### *Computer Engineering Core*

Introduction to Embedded System Design	CDA 4630	3
<b>Subtotal</b>		<b>3</b>

### **Semi-Core Courses**

All students must take 3 credits from the Semi-Core Group.

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### *Computer Engineering Semi-Core Group (Select one course)*

Introduction to VLSI Design	CDA 4210	3
Hardware Security	CDA 4323	3
Electronics 2 and Lab	EEE 4361C	3
<b>Subtotal</b>		<b>3</b>

### **Electives**

All students must take 9 credits of approved elective courses. Certain 3000- and 4000-level courses offered by the Electrical Engineering and Computer Science Department may be taken as Computer Engineering electives. Certain 5000- or 6000-level courses offered by the Electrical Engineering and Computer Science Department may be taken as Computer Engineering electives. Students must see an advisor for a current list of approved elective courses.

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### *Computer Engineering Electives* **9**

*Students are permitted to take no more than the equivalent of one course (3 credits) of the following three courses as a Computer Engineering elective.*

Professional Internship	IDS 3949	0-4
Directed Independent Study	COT 4900	1-3
Directed Independent Research in Engineering and Computer Science	EGN 4915	1-3

### Professional Internship

Students must have completed COP 3530C, Data Structures and Algorithm Analysis, with a minimum grade of "C" before becoming eligible to register for a professional internship. Approval through the Career Center is required prior to enrollment.

### Directed Independent Study and Directed Independent Research

Students must have completed COP 3530C, Data Structures and Algorithm Analysis, with a minimum grade of "C" before becoming eligible to register for directed independent study or directed independent research.

### Sample Four-Year Program of Study

For the sample four-year program of study for the Bachelor of Science in Computer Engineering, refer to the [Curriculum Sheets and Flight Plans](#) by major.

## SECOND BACHELOR'S B.S.C.E. DEGREE

This program is for those individuals with a degree in another discipline who are seeking a Bachelor of Science in Computer Engineering degree at FAU.

### Admission Requirements

Students seeking a bachelor's degree or graduate degree in another discipline must satisfy all admission requirements of the first bachelor's degree in Computer Engineering at FAU.

### Degree Requirements

1. Earn a minimum of 30 credits in residence at FAU, at the 3000 level or higher, beyond those required for the first degree. Students earning two degrees simultaneously (a dual degree) must earn at least 150 credits.
2. Earn at least 75 percent of all upper-division credits required for the major from FAU.

- Students must have completed at least 15 credits in mathematics, 9 credits in science and ~~63~~ 60 credits in core courses listed in the Computer Engineering degree program. Each course must be completed with a minimum grade of "C."

### **Undergraduate Transfer Students**

Prior to the academic advising session, course syllabi need to be submitted to the Undergraduate Academic Advisor for evaluation of possible transfer credits. Course descriptions can be provided by submitting an undergraduate catalog from the post-secondary institution attended, submitting course descriptions from an online catalog (requires that the post-secondary institution web address be at the bottom of each page), or providing course syllabi. The Academic Advisor evaluation needs to be performed even if a student has an evaluation by an approved agency.

## **DATA SCIENCE AND ANALYTICS BACHELOR OF SCIENCE (B.S.)**

### **Data Science in Business Concentration**

### **Data Science and Engineering Concentration**

### **Data Science in the Natural Sciences Concentration**

The Bachelor of Science with Major in Data Science and Analytics (BSDSA) program is a multi-college, interdisciplinary program administered jointly by the Department of Mathematics and Statistics in the Charles E. Schmidt College of Science, the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science, the Department of Information Technology and Operations Management (ITOM) in the College of Business, the Department of Political Science in the Dorothy F. Schmidt College of Arts and Letters and the School of Criminology and Criminal Justice in the College of Social Work and Criminal Justice. For details about this program, see the [Interdisciplinary Programs](#) section of this catalog.

## **ARTIFICIAL INTELLIGENCE UNDERGRADUATE MINOR**

*(Minimum of 15 credits required)*

The minor in Artificial Intelligence (AI) is open to all undergraduate students at Florida Atlantic University. The minor is awarded upon graduation from an undergraduate program at FAU; it is not awarded independently of any degree program. Requirements for the minor include completion of five courses (15 credits) with a minimum grade of "C." This minor requires five courses that have not been

counted in any other minor or certificate program within the College of Engineering and Computer Science.

The minor has two tracks: an Applications track and a Development track. The Applications track is open to students with no prior programming experience, but who are interested in learning programming and how to use the tools and algorithms of AI. The Development track is intended for students proficient in programming who will develop new algorithms and mechanisms in AI. Students in both tracks are expected to have completed a statistics course.

Students must ensure that they have the prerequisites for the selected courses. Students cannot apply for both the Minor in AI and the Certificate in AI.

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### **Applications Track - 15 credits**

(Not open to undergraduate students in the Department of Electrical Engineering and Computer Science.)

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#### ***Core Courses - 9 credits***

Computer Programming and Data Literacy for Everyone	COP 1031C	3 <b>or</b>
Introduction to Programming in Python	COP 3035	3
Applications of Artificial Intelligence	CAP 2603	3
Applied Machine Learning and Data Mining	CAP 4612	3

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#### ***Elective Courses - 6 credits - Select two courses from the Electives Table***

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### **Development Track - 15 credits**

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#### ***Core Courses - 9 credits***

Data Structures and Algorithm Analysis with Python	COP 3410	3 <b>or</b>
Data Structures and Algorithm Analysis	COP 3530	3
Introduction to Artificial Intelligence	CAP 4630	3

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***One of the following three courses***

Introduction to Deep Learning	CAP 4613	3
Introduction to Data Mining and Machine Learning	CAP 4770	3
Introduction to Data Science and Analytics	CAP 4773	3

***Elective Courses - 6 credits - Select two courses from the Electives Table*****Electives Table - Additional courses may be used as electives with prior approval from advisor**

Tools for Data Science	CAP 2751	3
Introduction to Deep Learning	CAP 4613	3
Trustworthy Artificial Intelligence	CAP 4623	3
Introduction to Artificial Intelligence	CAP 4630	3
Introduction to Data Mining and Machine Learning	CAP 4770	3
Introduction to Data Science and Analytics	CAP 4773	3
Artificial Intelligence for Social Good	CCJ 3071	3
Special Topics (i.e., Robotic Applications)	EEL 4930	3

## ARTIFICIAL INTELLIGENCE UNDERGRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

Over the past years, there has been dramatic progress in the rise of Artificial Intelligence (AI) and its use in the development of systems that can reason and respond to increasingly complex situations. AI is everywhere, and the changes enabled by this technology have just begun. AI is transforming every segment of American industry. It is making agriculture more precise and efficient, revealing new medical technologies, and bringing the prospect of autonomous transportation and advanced

manufacturing closer to reality. To become competitive, companies and corporations will have to embrace AI to some extent. These technological innovations are made possible by engineers and scientists with knowledge and expertise in the latest advancements in the field of AI. This 15-credit certificate provides students with knowledge and skills in the concepts, technologies and applications of artificial intelligence.

### Admissions

The program is open to students with any background. Students are expected to satisfy the prerequisite courses required for each course in the certificate curriculum. All five courses must be completed with a minimum grade of "C." This certificate requires five course that have not been counted in any other minor or certificate within the College of Engineering and Computer Science.

### Curriculum

The certificate has two tracks: an Applications track and a Development track. The Applications track is open to students with no prior programming experience, but who are interested in learning programming and how to use the tools and algorithms of AI. The Development track is intended for students proficient in programming who will develop new algorithms and mechanisms in AI. Students in both tracks are expected to have completed a statistics course.

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#### Applications Track - 15 credits

(Not open to undergraduate students in the Department of Electrical Engineering and Computer Science.)

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#### *Core Courses - 9 credits*

Computer Programming and Data Literacy for Everyone	COP 1031C	3 <b>or</b>
Introduction to Programming in Python	COP 3035	3
Applications of Artificial Intelligence	CAP 2603	3
Tools for Data Science	CAP 2751	3 <b>or</b>
Applied Machine Learning and Data Mining	CAP 4612	3

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#### *Elective Courses - 6 credits - Select two courses from the Electives Table*

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**Development Track - 15 credits*****Core Courses - 9 credits***

Data Structures and Algorithm Analysis with Python	COP 3410	3 <b>or</b>
Data Structures and Algorithm Analysis	COP 3530	3
Introduction to Artificial Intelligence	CAP 4630	3

***One of the following three courses***

Introduction to Deep Learning	CAP 4613	3
Introduction to Data Mining and Machine Learning	CAP 4770	3
Introduction to Data Science and Analytics	CAP 4773	3

***Elective Courses - 6 credits - Select two courses from the Electives Table*****Electives Table - Additional courses may be used as electives with prior approval from advisor**

Tools for Data Science	CAP 2751	3
Introduction to Deep Learning	CAP 4613	3
Trustworthy Artificial Intelligence	CAP 4623	3
Introduction to Artificial Intelligence	CAP 4630	3
Introduction to Data Mining and Machine Learning	CAP 4770	3
Introduction to Data Science and Analytics	CAP 4773	3
Artificial Intelligence for Social Good	CCJ 3071	3
Special Topics (i.e., Robotic Applications)	EEL 4930	3

**ARTIFICIAL INTELLIGENCE (AI) FOR CYBERSECURITY  
UNDERGRADUATE CERTIFICATE***(Minimum of 12 credits required)*

## Introduction

Cybersecurity involves studying methods, tools, mathematical principles and operational practices to safeguard the integrity of information, systems, and networks. Artificial Intelligence, leveraging its capacity to process extensive datasets, detect patterns, and dynamically respond to emerging threats in real-time, emerges as an indispensable tool for enhancing the security of information infrastructures, system functionalities, network architectures and cryptographic protocols.

This program aims to equip students with knowledge and tools that leverage AI technologies to develop more robust and efficient cybersecurity solutions, allowing for proactive identification and response to cyber threats.

The program has two tracks, one offered by the Department of Electrical Engineering & Computer Science in the College of Engineering and Computer Science. The other one is offered by the Department of Mathematics and Statistics in the College of Science.

## Computer Science Track

The Department of Electrical Engineering and Computer Science offers the AI for Cybersecurity Certificate with a track in Computer Science (CS). This 12-credit certificate program allows students to expand their knowledge and skills to meet the needs of the cybersecurity field in the AI era. The certificate is available to degree-seeking students, non-degree students and working professionals.

The CS track certificate will be granted to a student who completes four 3-credit courses as follows: two core courses, one 3-credit course from the cybersecurity elective list and one 3-credit course from the AI elective course list.

## Admission

Open to students who satisfy the prerequisites required for each course in the program with the grade C or better. All four courses in the certificate must be completed with the grade C or better. All course materials are in English.

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### Required Core Courses

Artificial Intelligence for Cybersecurity	CAI 4802	3
Foundations of Cybersecurity	CNT 4403	3

**Cybersecurity Elective Courses. Select one from the approved course list. Additional courses may be used as substitutions with prior approval of the department.**

Trustworthy Artificial Intelligence	CAP 4623	3
Introduction to Cryptographic Engineering	CDA 4321	3
Applied Cryptography and Security	CIS 4634	3
Network and Data Security	CNT 4411	3

**Artificial Intelligence Elective Courses. Select one from the approved course list. Additional courses may be used as substitutions with prior approval of the department.**

Introduction to Deep Learning	CAP 4613	3
Introduction to Artificial Intelligence	CAP 4630	3
Introduction to Data Mining and Machine Learning	CAP 4770	3

### Mathematics Track

The Department of Mathematics and Statistics offers the AI for Cybersecurity Certificate with a track in Mathematics (Math). This 12-credit certificate program allows students to expand their knowledge and skills to meet the needs of the cybersecurity field in the AI era. The certificate is available to degree-seeking students, non-degree students and working professionals.

The Math track certificate will be granted to a student who completes four 3-credit courses as follows: one core course in AI, one core course in cryptography, and two 3-credit courses from the elective list.

### Admission

Open to students who satisfy the prerequisites required for each course in the program with the grade C or better. All four courses in the certificate must be completed with the grade C or better. All course materials are in English.

### Required Cryptography Course

Cryptography and Information Security	CIS 4362	3
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### Required Artificial Intelligence Course

Artificial Intelligence for Cybersecurity	CAI 4802	3
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### Choose two Elective Courses

Introduction to Data Science and Analytics	CAP 4773	3
Introduction to Data Science	CAP 5768	3
Post-Quantum Cryptography	MAD 4475	3
Cryptography of Blockchain	MAD 4776	3
Introduction to Coding Theory	MAD 4605	3
Mathematics for Cybersecurity	MAP 4190	3
Mathematics for Cryptography	MAS 4206	3
Computational Statistics	STA 3100	3
Probability and Statistics for Engineers	STA 4032	3 or
Probability and Statistics 1	STA 4442	3

## **CYBERSECURITY**

### **UNDERGRADUATE MINOR**

### **UNDERGRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

Cybersecurity is the study of methods to ensure information and system security. Industry and government need an educated workforce to serve as information and systems security analysts, security and network administrators and more. Due their extensive expertise and facilities, the departments of Information Technology and Operations Management (in the College of Business), Electrical Engineering and Computer Science (In the College of Engineering and Computer Science) and Mathematics and Statistics (in the College of Science) have jointly designed the Cybersecurity Minor and Certificate. Three tracks, each requiring 12 credits, constitute the minor and certificate: Information Technology (IT), Computer Science (CS) and Mathematical Sciences (MS). Details for this certificate program can be found in the [Interdisciplinary Programs](#) section of this catalog.

## **DATA SCIENCE**

### **UNDERGRADUATE CERTIFICATE**

*(Minimum of 15 credits required)*

Data Science is the study of methods to manage, analyze and extract knowledge from data. Industry and government need an educated workforce with the necessary expertise to make use of the enormous volumes of data available to them. Due to their extensive expertise and facilities, the departments of Mathematics and Statistics and Electrical Engineering and Computer Science have jointly designed the Data Science certificate. This 15-credit certificate program has two tracks: Mathematical Sciences (MathSci) and Computer Science and Analytics (CS). The Data Science certificate draws the 15 credits from Computer Science, Mathematics and Statistics. Details for this certificate program can be found in the [Interdisciplinary Programs](#) section of this catalog.

## COMBINED PROGRAMS

### COMPUTER ENGINEERING

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING (B.S.C.E.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM

### COMPUTER SCIENCE

BACHELOR OF SCIENCE IN COMPUTER SCIENCE (B.S.C.S.) TO MASTER OF  
SCIENCE (M.S.)  
COMBINED PROGRAM

The department offers a combined Bachelor of Science in Computer Engineering (B.S.C.E.) to Master of Science (M.S.) program. In the computer science area, it offers a combined Bachelor of Science in Computer Science (B.S.C.S.) to Master of Science (M.S.) degree program. The bachelor's degrees and the master's degrees must be in the same area. Students in either combined program may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees as long as the combined program totals a minimum of 150 credits:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

With an approximate duration of five years, these combined programs provide attractive ways for students to continue their graduate work. Students complete the undergraduate program first.

## Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Admission Requirements

To be eligible for the joint programs, computer science and computer engineering students should:

1. Have a cumulative GPA of 3.25 or better at the end of their junior year; and
2. Formally apply to one of the joint programs, completing the admissions process at least one semester prior to the beginning of the M.S. portion of their program.

Once admitted to the program of their choice, students begin taking graduate courses (5000 level or higher) in their senior year that would apply to both the bachelor's and master's degree programs. Students in the joint programs must maintain continuous enrollment to remain in good standing. Students must also meet all the degree requirements of the graduate program they have chosen, including core courses and prerequisites. Those students who complete the M.S. degree program within one year after completing their B.S.C.E. or B.S.C.S. degree program will be presented with a certificate of recognition.

**COMPUTER ENGINEERING TO ARTIFICIAL INTELLIGENCE**  
**BACHELOR OF SCIENCE IN COMPUTER ENGINEERING (B.S.C.E.) TO**  
**MASTER OF SCIENCE (M.S.)**  
**COMBINED PROGRAM**

**COMPUTER SCIENCE TO ARTIFICIAL INTELLIGENCE**  
**BACHELOR OF SCIENCE IN COMPUTER SCIENCE (B.S.C.S.) TO MASTER OF**  
**SCIENCE (M.S.)**  
**COMBINED PROGRAM**

The department offers a combined Bachelor of Science in Computer Engineering (B.S.C.E.) or Bachelor of Science in Computer Science (B.S.C.S.) to Master of Science in Artificial Intelligence (M.S.A.I.) program. Students in either combined program may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees as long as the combined program totals a minimum of 150 credits:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

With an approximate duration of five years, these combined programs provide attractive ways for students to continue their graduate work. Students complete the undergraduate program first.

Prerequisite coursework for transfer students and admission requirements for these combined programs are the same as for the [B.S.C.E or B.S.C.S. to M.S. degree programs](#) noted above.

## **ELECTRICAL ENGINEERING TO ARTIFICIAL INTELLIGENCE BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (B.S.E.E.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

## **ELECTRICAL ENGINEERING TO COMPUTER ENGINEERING BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (B.S.E.E.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

The department offers a Bachelor of Science in Electrical Engineering/Master of Science in Artificial Intelligence degree program and a Bachelor of Science in Electrical Engineering/Master of Science in Computer Engineering degree program. [Program details](#) are listed in the Electrical Engineering section under Combined Programs.

## **BIOLOGICAL AND PHYSICAL SCIENCES TO ANY OF THE MASTER'S PROGRAMS IN ELECTRICAL ENGINEERING AND COMPUTER SCIENCE BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAMS**

The B.A. or B.S. degree is completed at the [Wilkes Honors College](#) (WHC), and students then receive their bachelor's degree from WHC. Students complete their master's degree work in one of seven majors in the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science (COECS) and receive their master's degree from COECS.

These combined programs are offered in partnership with the Wilkes Honors College:

B.A. or B.S. with Major in Biological and Physical Sciences to M.S. with Major in [Artificial Intelligence](#)

B.A. or B.S. with Major in Biological and Physical Sciences to M.S. with Major in [Biomedical Engineering](#)

B.A. or B.S. with Major in Biological and Physical Sciences to M.S. with Major in [Computer Engineering](#)

B.A. or B.S. with Major in Biological and Physical Sciences to M.S. with Major in [Computer Science](#)

B.A. or B.S. with Major in Biological and Physical Sciences to M.S. with Major in [Electrical Engineering](#)

B.A. or B.S. with Major in Biological and Physical Sciences to M.S. with Major in [Information Technology and Management with Advanced Information Technology Concentration](#)

B.A. or B.S. with Major in Biological and Physical Sciences to M.S. with Major in [Information Technology and Management with Computer Science Data Analytics Concentration](#)

Details for each combined program are listed in the [Wilkes Honors College](#) section.

## **COMPUTER ENGINEERING TO INFORMATION TECHNOLOGY AND MANAGEMENT**

### **BACHELOR OF SCIENCE IN COMPUTER ENGINEERING (B.S.C.E.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

**Advanced Information Technology Concentration (M.S.)**

**Computer Science Data Analytics Concentration (M.S.)**

**COMPUTER SCIENCE TO INFORMATION TECHNOLOGY AND MANAGEMENT  
BACHELOR OF ARTS IN COMPUTER SCIENCE (B.A.C.S.) OR BACHELOR OF  
SCIENCE  
IN COMPUTER SCIENCE (B.S.C.S.) TO MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM**

**Advanced Information Technology Concentration (M.S.)**

**Computer Science Data Analytics Concentration (M.S.)**

**ELECTRICAL ENGINEERING TO INFORMATION TECHNOLOGY AND  
MANAGEMENT**

**BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (B.S.E.E.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM**

**Advanced Information Technology Concentration (M.S.)**

**Computer Science Data Analytics Concentration (M.S.)**

The department of Electrical Engineering and Computer Science offers a combined B.A.C.S. or B.S.C.S. in Computer Science or B.S.C.E. in Computer Engineering or B.S.E.E. in Electrical Engineering to M.S. in Information Technology and Management: Advanced Information Technology or Computer Science Data Analytics concentrations degree program.

Students may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees, see Table below. These graduate courses replace the technical elective courses in the bachelor's program. The proposed combined program does not increase the number of credits in the undergraduate degree.

All combined programs total a minimum of 150 credits as detailed:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

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**Graduate courses to be counted toward both the bachelor's and master's degree programs.  
Alternative courses may be used with prior approval of the graduate advisor.**

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*M.S. in Information Technology and Management: Advanced Information Technology or*

***Computer Science Data Analytics concentrations***

Introduction to Data Science	CAP 5768	3
Information Retrieval	CAP 6776	3
Software Engineering	CEN 5035	3
Theory and Implementation of Database Systems	COP 6731	3

These combined programs provides an attractive way for students to continue their graduate work. Students complete the undergraduate program first. The combined program can be completed in approximately five years.

**Admission Requirements**

The GRE is not required for this combined program. To be eligible for the combined program, baccalaureate students should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the bachelor's degree.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the master's portion of their program.

Students in the combined program must maintain continuous enrollment to remain in good standing.

**Degree Requirements**

To be eligible for the combined bachelor to master program, students must fulfill the following requirements:

1. Complete all of the requirements for the B.A.C.S. or B.S.C.S. in Computer Science or the B.S.C.E. in Computer Engineering or the B.S.E.E. in Electrical Engineering and other requirements stipulated by the University and College
2. Complete all of the requirements for the M.S. in Information Technology and Management: Advanced Information Technology or Computer Science Data Analytics concentrations, with either the thesis or non-thesis option.

**DATA SCIENCE AND ANALYTICS**  
**BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.)**

## COMBINED PROGRAM

### Data Science and Engineering Concentration (B.S.)

## DATA SCIENCE AND ANALYTICS TO ARTIFICIAL INTELLIGENCE BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

### Data Science and Engineering Concentration (B.S.)

## DATA SCIENCE AND ANALYTICS TO INFORMATION TECHNOLOGY AND MANAGEMENT BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

### Data Science and Engineering Concentration (B.S.)

### Advanced Information Technology Concentration (M.S.)

### Computer Science Data Analytics Concentration (M.S.)

The department of Electrical Engineering and Computer Science offers a combined B.S. in Data Science and Analytics: Data Science and Engineering concentration to M.S. in Artificial Intelligence or M.S. in Data Science and Analytics: Data Science and Engineering concentration or M.S. in Information Technology and Management: Advanced Information Technology or Computer Science Data Analytics concentrations degree program.

Students may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees, see Table below. These graduate courses replace the general elective courses in the bachelor's program. The proposed combined program does not increase the number of credits in the undergraduate degree.

All combined programs total a minimum of 150 credits as detailed:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

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**Graduate courses to be counted toward both the bachelor's and master's degree programs.  
Alternative courses may be used with prior approval of the graduate advisor.**

***M.S. in Artificial Intelligence***

Computational Foundations of Artificial Intelligence	CAP 5625	3
Introduction to Data Science	CAP 5768	3
Data Mining and Machine Learning	CAP 6673	3
Information Retrieval	CAP 6776	3

***M.S. in Data Science and Analytics: Data Science and Engineering concentration***

Introduction to Neural Networks	CAP 5615	3
Introduction to Data Science	CAP 5768	3
Data Mining and Machine Learning	CAP 6673	3
Information Retrieval	CAP 6776	3

***M.S. in Information Technology and Management: Advanced Information Technology or Computer Science Data Analytics concentrations***

Introduction to Data Science	CAP 5768	3
Information Retrieval	CAP 6776	3
Software Engineering	CEN 5035	3
Theory and Implementation of Database Systems	COP 6731	3

These combined programs provide an attractive way for students to continue their graduate work. Students complete the undergraduate program first. The combined program can be completed in approximately five years.

**Admission Requirements**

The GRE is not required for this combined program. To be eligible for the combined program, baccalaureate students should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the bachelor's degree.

2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the master's portion of their program.

Students in the combined program must maintain continuous enrollment to remain in good standing.

## **Degree Requirements**

To be eligible for the combined bachelor to master program, students must fulfill the following requirements:

1. Complete all of the requirements for the B.S. in Data Science and Analytics: Data Science and Engineering concentration program and other requirements stipulated by the University and College
2. Complete all of the requirements for the M.S. in Artificial Intelligence program, on either the thesis or non-thesis option, or complete requirements for the M.S. in Data Science and Analytics: Data Science and Engineering concentration or complete requirements for the M.S. in Information Technology and Management: Advanced Information Technology or Computer Science Data Analytics concentrations.

## **NURSING TO ARTIFICIAL INTELLIGENCE**

### **BACHELOR OF SCIENCE IN NURSING (B.S.N.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

## **NURSING TO BIOMEDICAL ENGINEERING**

### **BACHELOR OF SCIENCE IN NURSING (B.S.N.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

The Christine E. Lynn College of Nursing and the College of Engineering and Computer Science (COECS) offer a combined Bachelor of Science in Nursing (B.S.N.) and Master of Science (M.S.) with Major in [Artificial Intelligence](#) or [Biomedical Engineering](#) degree program.

The B.S.N. degree program is completed and received from the Christine E. Lynn College of Nursing. Students then complete the M.S. in Artificial Intelligence or Biomedical Engineering in the Department of Electrical Engineering and Computer Science and receive the M.S. degree from the COECS. Details can be found in the [Christine E. Lynn College of Nursing](#) section of this catalog.

## **COMPUTER ENGINEERING**

### **BACHELOR OF SCIENCE IN COMPUTER ENGINEERING (B.S.C.E.) TO DOCTOR OF PHILOSOPHY (PH.D.)**

## COMBINED PROGRAM

The Department of Electrical Engineering and Computer Science offers a combined Bachelor of Science in Computer Engineering (B.S.C.E.) to Ph.D. with major in Computer Engineering degree program.

Students may count up to 12 credits of graduate coursework (5000 level or higher) offered by the EECS Department toward both their B.S.C.E. and Ph.D. degrees. These graduate courses will replace elective and semi-core courses in the bachelor's program. The program does not increase the number of credits in the undergraduate degree.

The combined program totals a minimum of 195 credits, provided that :

1. The student has met the minimum 123 credits for the bachelor's degree; and
2. The student has taken a minimum of 72 credits in 5000 level or higher courses for the Ph.D. program.

This combined program provides an attractive way for students to continue their graduate work. Students complete the undergraduate program first.

### Admission Requirements

The GRE requirement is waived for this combined program.

1. To be eligible to apply for the combined program, students must have a cumulative FAU GPA of 3.5 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.5 must be maintained until the completion of the bachelor's degree.
2. Formally apply to the combined program after the junior year (90 credits or more of coursework completed). The application must include one reference letter.
3. Must be admitted into the combined program at least one semester prior to the beginning of the Ph.D. portion of the program.

Students in the combined program must maintain continuous enrollment to remain in good standing.

### Degree Requirements

To be eligible for the combined bachelor to Ph.D. program, students must fulfill the following requirements:

1. Completion of the requirements for the B.S.C.E. program and other requirements stipulated by the University and College.
2. Completion of all requirements for the Ph.D. in with major in Computer Engineering degree

program.

## COMPUTER SCIENCE

### BACHELOR OF SCIENCE IN COMPUTER SCIENCE (B.S.C.S.) TO DOCTOR OF PHILOSOPHY (PH.D.) COMBINED PROGRAM

The Department of Electrical Engineering and Computer Science offers a combined Bachelor of Science in Computer Science (B.S.C.S.) to Ph.D. with major in Computer Science degree program.

Students may count up to 12 credits of graduate coursework (5000 level or higher) offered by the EECS Department toward both their B.S.C.S. and Ph.D. degrees. These graduate courses will replace elective courses in the bachelor's program. The program does not increase the number of credits in the undergraduate degree.

The combined program totals a minimum of 192 credits, provided that:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 72 credits in 5000 level or higher courses for the Ph.D. program.

This combined program provides an attractive way for students to continue their graduate work. Students complete the undergraduate program first.

#### Admission Requirements

The GRE requirement is waived for this combined program.

1. To be eligible to apply for the combined program, students must have a cumulative FAU GPA of 3.5 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.5 must be maintained until the completion of the bachelor's degree.
2. Formally apply to the combined program after the junior year (90 credits or more of coursework completed). The application must include one reference letter.
3. Must be admitted into the combined program at least one semester prior to the beginning of the Ph.D. portion of the program.

Students in the combined program must maintain continuous enrollment to remain in good standing.

#### Degree Requirements

To be eligible for the combined bachelor to Ph.D. program, students must fulfill the following

requirements:

1. Completion of the requirements for the B.S.C.S. program and other requirements stipulated by the University and College.
2. Completion of all requirements for the Ph.D. with major in Computer Science degree program.

## MASTER'S PROGRAMS

[Link to Master of Science with Major in Artificial Intelligence](#)

[Link to Professional Master of Science with Major in Artificial Intelligence](#)

[Link to Artificial Intelligence Minor](#)

[Link to Master of Science with Major in Computer Engineering](#)

[Link to Master of Science with Major in Computer Science](#)

[Link to Professional Master of Science with Major in Computer Science](#)

[Link to Internet Engineering Graduate Specialty](#)

[Link to Software Engineering Graduate Specialty](#)

[Link to Master of Science with Major in Computer Science with Focus in Internet and Web Technologies](#)

[Link to Master of Science with Major in Computer Science or Computer Engineering with a Business Minor](#)

[Link to Master of Science with Major in Data Science and Analytics](#)

[Link to Master of Science with Major in Information Technology and Management](#)

[Link to Professional Master of Science with Major in Information Technology and Management](#)

[Link to Graduate Certificates](#)

## **ARTIFICIAL INTELLIGENCE MASTER OF SCIENCE (M.S.)**

The Master of Science (M.S.) with Major in Artificial Intelligence provides a comprehensive curriculum, consisting of foundation and theory of artificial intelligence and elements of computer vision, data analytics and algorithms, knowledge management and reasoning, machine learning and applications. Both thesis and non-thesis options of the M.S. in Artificial Intelligence require a minimum of 30 credits. The thesis option consists of a minimum of 24 coursework credits and 6 thesis credits.

With approval of the advisor, substitution can sometimes be made among similar courses. See the Department of Electrical and Computer Science [website](#) for updates.

### **Admission Requirements**

Applicants for admission to the master's program are approved by the University upon the recommendation of the department. All applicants must submit with their applications the official transcripts from previous institutions attended. Applications for admission are evaluated on an individual basis. At a minimum, applicants are expected to meet the following requirements.

1. Have obtained a bachelor's degree from an accredited institution. Students are expected to have taken Calculus 1 or Methods of Calculus and a statistics course, to be proficient in programming, and to be knowledgeable in data structures and algorithm analysis. Students can gain this knowledge through undergraduate classes or learn it through work experience. The admissions committee will evaluate the application holistically to determine applicant suitability using several factors, such as academic performance, GPA, background and experience. The admission committee may assign remedial courses on a case-by-case basis. In some cases, prerequisite courses may be taken after admission to the graduate program.
2. At least a 3.0 (of a 4.0 maximum) GPA in the last 60 credits attempted prior to graduation; and
3. International students from non-English-speaking countries must be proficient in written and spoken English as evidenced by a score of at least 500 (paper-based test) or 213 (computer-based test) or 79 (Internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing System (IELTS).

### **Submission of Plan of Study**

Students are required to submit a Plan of Study when they have completed between 9 and 15 credits of

coursework with a minimum cumulative GPA of 3.0. All courses must be approved by the student's advisor. A student may not register for thesis credits prior to submitting a Plan of Study.

## Degree Requirements

The M.S. in Artificial Intelligence program offers both thesis and non-thesis options. Both options require a minimum of 30 credits, as specified in the table.

Students must satisfy all of the University graduate requirements. In addition, the following requirements must be met. The coursework credits must satisfy the following constraints:

1. No more than 3 credits of directed independent study may be taken.
2. No course can be counted toward the degree that is more than 10 years old at the time the degree is awarded.
3. At least one-half of the credits must be at the 6000 level or above.
4. The student must have a GPA of 3.0 (out of 4.0) or better.
5. All courses in the degree program must be completed with a grade of "C" or better.

## Transfer Credits

Any transfer credits toward the requirements for an M.S. in Artificial Intelligence must be approved by the department, the College and the University. The transfer credits must correspond to equivalent requirements and performance levels expected for the degree. Normally no more than 6 credits of coursework (that have not been applied to a degree) can be transferred from another institution.

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### Core Courses (6 credits)

Students in both thesis and non-thesis options complete the Core Courses. Select two courses from the following three courses.

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Computational Foundations of Artificial Intelligence	CAP 5625
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Artificial Intelligence	CAP 6635
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Data Mining and Machine Learning	CAP 6673
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### Thesis Option (30 credits)

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Master's Thesis - Artificial Intelligence (may be taken over multiple terms)	CAP 6974	6
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In addition to the Core Courses and the Thesis credits, students complete six elective courses

(18 credits) with the following constraints: Two AI electives. Minimum of 3 credits of 6000-level courses and maximum of 3 credits of Directed Independent Study, COT 6900 or COT 6905.

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### **Non-Thesis Option (30 credits)**

In addition to the Core Courses, students complete eight elective courses (24 credits) with the following constraints: Four AI electives. Minimum of 9 credits of 6000-level courses and maximum of 3 credits of Directed Independent Study, COT 6900 or COT 6905.

#### **AI Electives**

Select 12 credits for Non-Thesis option and 6 credits for Thesis option.

#### ***Computer Vision***

Foundations of Vision	CAP 6411
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Computer Vision	CAP 6415
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Machine Learning for Computer Vision	CAP 6618
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Visual Information Retrieval	COP 6728
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#### ***Data Analytics and Algorithms***

Computational Foundations of Artificial Intelligence	CAP 5625
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Introduction to Data Science	CAP 5768
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Social Networks and Big Data Analytics	CAP 6315
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Data Mining for Bioinformatics	CAP 6546
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Artificial Intelligence	CAP 6635
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Computer Performance Modeling	CEN 6405
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Analysis of Algorithms	COT 6405
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Randomized Algorithms	COT 6446
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#### ***Knowledge Management and Reasoning***

Natural Language Processing	CAP 6640
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Information Retrieval	CAP 6776
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Web Mining	CAP 6777
Semantic Web Programming	COP 5859
<b><i>Machine Learning</i></b>	
Introduction to Neural Networks	CAP 5615
Evolutionary Computing	CAP 6512
Sparse Learning	CAP 6617
Deep Learning	CAP 6619
Reinforcement Learning	CAP 6629
Data Mining and Machine Learning	CAP 6673
Advanced Data Mining and Machine Learning	CAP 6778
<b><i>Applications</i></b>	
Artificial Intelligence in Medicine and Healthcare	CAP 6683
Computational Advertising and Real-Time Data Analytics	CAP 6807
Robotic Applications	EEL 5661

***EECS Electives:*** *Select four courses from the graduate courses offered by the EECS department. Course substitution is allowed with the prior approval of the advisor.*

## **ARTIFICIAL INTELLIGENCE MASTER OF SCIENCE (M.S.) PROFESSIONAL PROGRAM**

(For this degree program, the GRE admission requirement is waived through and including fall 2023.)

The Professional Master of Science with major in Artificial Intelligence is a new self-supporting program designed for working professionals. It allows professionals to advance their careers with an accelerated graduate program and obtain an advanced degree while continuing to work. The course offering format includes evenings, weekends and online material. The program requires 30 credits.

Admissions requirements are the same as specified above for the M.S. in Artificial Intelligence, and degree requirements are the same as noted above for the non-thesis option. To apply or for more information, visit the [Electrical Engineering and Computer Science website](#) or call 561-297-3855.

## **ARTIFICIAL INTELLIGENCE GRADUATE MINOR**

*(Minimum of 12 credits required)*

The minor in Artificial Intelligence (AI) is open to all graduate students at Florida Atlantic University (FAU) who are not majoring in AI. The minor is awarded upon graduation from a graduate program at FAU; it is awarded in conjunction with graduate degrees.

Requirements for the minor include completion of four graduate-level courses with a minimum grade of "B." These four courses cannot be counted toward any other minor or certificate.

The minor has two tracks: Development and Applications. The Development track is intended for students proficient in programming and who will develop new algorithms and mechanisms in AI. The Applications track is open to students who have introductory programming skills and are interested in learning how to use the tools and algorithms of AI. Students in both tracks should have completed a statistics course.

Students must ensure that they have the necessary prerequisites for the selected courses. Students cannot apply for both the minor in AI and the certificate in AI.

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### **Development Track (12 credits)**

*Required courses (6 credits); select two courses from the following*

Computational Foundations of Artificial Intelligence	CAP 5625	3
Artificial Intelligence	CAP 6635	3
Data Mining and Machine Learning	CAP 6673	3

*Elective courses (6 credits); select two courses from the Elective Table*

### **Applications Track (12 credits)**

(Not open to graduate students in the Department of Electrical Engineering and Computer Science, except for students in the M.S. with Major in Information Technology and Management (MSITM))

***Required courses (6 credits); select two courses from the following***

Computational Foundations of Artificial Intelligence	CAP 5625	3
Applied Machine Learning	CAP 6610	3
Data Mining and Machine Learning	CAP 6673	3

***Elective courses (6 credits); select two courses from the Elective Table*****Elective Table**

*Select two courses from this list. Additional courses may be used as electives with prior approval from the advisor.*

***Applications***

Artificial Intelligence in Medicine and Healthcare	CAP 6683	3
Computational Advertising and Real-Time Data Analytics	CAP 6807	3
Robotic Applications	EEL 5661	3
Industrial Automation	EIN 5603C	3
Intelligent Underwater Vehicles	EOC 6663	3
Intelligent Transportation Systems	TTE 6272	3

***Data Analytics and Algorithms***

Introduction to Data Science	CAP 5768	3
Social Networks and Big Data Analytics	CAP 6315	3
Data Mining for Bioinformatics	CAP 6546	3
Computer Performance Modeling	CEN 6405	3
Design and Analysis for Engineering Data	CGN 5716	3

***Knowledge Management and Reasoning***

Natural Language Processing	CAP 6640	3
Information Retrieval	CAP 6776	3
Web Mining	CAP 6777	3
Semantic Web Programming	COP 5859	3
<b><i>Machine/Deep Learning</i></b>		
Introduction to Neural Networks	CAP 5615	3
Evolutionary Computing	CAP 6512	3
Sparse Learning	CAP 6617	3
Deep Learning	CAP 6619	3
Reinforcement Learning	CAP 6629	3
Advanced Data Mining and Machine Learning	CAP 6778	3
<b><i>Vision</i></b>		
Foundation of Vision	CAP 6411	3
Computer Vision	CAP 6415	3
Machine Learning for Computer Vision	CAP 6618	3
Vision Information Retrieval	COP 6728	3

## **COMPUTER ENGINEERING MASTER OF SCIENCE (M.S.)**

The non-thesis option for this degree requires a minimum of 30 credits. The thesis option requires a minimum of 30 credits, including 6 credits of thesis.

### **Admission Requirements**

Applications for admission to the master's program are approved by the University upon the recommendation of the department. All applicants must submit with their applications the official transcripts from previous institutions attended. Applications for admission are evaluated on an

individual basis. As a minimum, applicants are expected to meet the following requirements.

1. Students are expected to have a bachelor's degree in engineering or a related field. Applicants with different backgrounds are expected to have taken Calculus 2 and a statistics course, to be proficient in programming, and to be knowledgeable in the topics of microprocessor systems, computer architecture or CAD-based computer design, electronics or VLSI, data structures and algorithm analysis. The admission committee will evaluate the application holistically to determine the applicant's suitability using several factors, such as academic performance, GPA, background and experience. The admission committee may assign remedial courses on a case-by-case basis. In some cases, prerequisite courses may be taken after admission to the graduate program;
2. At least a 3.0 (of a 4.0 maximum) GPA in the last 60 credits attempted prior to graduation; and
3. International students from non-English-speaking countries must be proficient in written and spoken English as evidenced by a score of at least 500 (paper-based test) or 213 (computer-based test) or 79 (Internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing System (IELTS).

### **Submission of Plan of Study**

Students are required to submit a Plan of Study when they have completed between 9 and 15 credits of coursework with a minimum cumulative GPA of 3.0. All courses must be approved by the student's advisor. A student may not register for thesis credits prior to submitting a Plan of Study.

### **Degree Requirements**

Students must satisfy all of the University graduate requirements. In addition, the following specific degree requirements apply, depending on the choice of degree programs.

### **Thesis Option (30 credits)**

1. Requires 6 credits of orally defended written thesis. The M.S. committee is chaired by the student's thesis advisor. The chair of the committee must be a graduate faculty member from the Department of Electrical Engineering and Computer Science.
2. Requires 24 credits of approved coursework with the following constraints:
  - a. A minimum of 3 credits from computer architecture and design (graduate course prefix CDA), a minimum of 3 credits from software and programming (graduate course prefix COP or CEN) and a minimum of 3 credits from systems and applications (graduate course prefix CAP, CIS, CNT or EEL).
  - b. A minimum of 12 credits in Computer Engineering, Computer Science and Electrical Engineering courses.

- c. No more than 3 credits of directed independent study may be taken
  - d. No course can be counted toward the degree that is more than 10 years old at the time the degree is awarded.
  - e. No 4000-level course is allowed toward the degree. Courses taken to make up for the deficiencies will not be counted toward the degree.
3. At least one-half of the credits must be at the 6000 level or above.
  4. Must have a GPA of 3.0 (out of 4.0) or better.
  5. All courses in the degree program must be completed with a grade of "C" or better.
  6. Must complete one semester of CGS 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S").

### **Non-Thesis Option (30 credits)**

1. Requires 30 credits of approved coursework with the following constraints:
  - a. A minimum of 3 credits from computer architecture and design (graduate course prefix CDA), a minimum of 3 credits from software and programming (graduate course prefix COP or CEN) and a minimum of 3 credits from systems and applications (graduate course prefix CAP, CIS, CNT or EEL).
  - b. A minimum of 18 credits in Computer Engineering, Computer Science and Electrical Engineering courses.
  - c. No more than 3 credits of directed independent study may be taken.
  - d. No course can be counted toward the degree that is more than 10 years old at the time the degree is awarded.
  - e. No 4000-level course is allowed toward the degree. Courses taken to make up for the deficiencies will not be counted toward the degree.
2. At least one-half of the credits must be at the 6000 level or above.
3. Must have a GPA of 3.0 (out of 4.0) or better.
4. All courses in the degree program must be completed with a grade of "C" or better.
5. Must complete one semester of CGS 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S").

### **Transfer Credits**

Any transfer credits toward the requirements for a master's degree in Computer Engineering must be approved by the department, the College and the University. The transfer credits must correspond to equivalent requirements and performance levels expected for the degree. Normally, no more than 6 credits of coursework (that have not been applied to a degree) can be transferred from another institution.

## COMPUTER SCIENCE

### MASTER OF SCIENCE (M.S.)

The non-thesis option for this degree requires a minimum of 30 credits. The thesis option requires a minimum of 30 credits, including 6 credits of thesis.

#### Admission Requirements

Applicants for admission to the master's program are approved by the University upon the recommendation of the department. All applicants must submit with their applications the official transcripts from previous institutions attended. Applications for admission are evaluated on an individual basis. As a minimum, applicants are expected to meet the following requirements. Students with non-engineering bachelor's degrees, click [here](#) for additional requirements.

1. Students are expected to have a bachelor's degree in computer science or a related field. Applicants with different backgrounds are encouraged to apply. Students are expected to have taken Calculus 2 and a statistics course, to be proficient in programming, and to be knowledgeable in the topics of data structures and algorithm design and analysis, operating systems and computer architecture. The admission committee will evaluate the application holistically to determine the applicant's suitability using several factors, such as academic performance, GPA, background and experience. The admission committee may assign remedial courses on a case-by-case basis. In some cases, prerequisite courses may be taken after admission to the graduate program;
2. At least a 3.0 (of a 4.0 minimum) GPA in the last 60 credits attempted prior to graduation; and
3. International students from non-English-speaking countries must be proficient in written and spoken English as evidenced by a score of at least 500 (paper-based test) or 213 (computer-based test) or 79 (Internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing System (IELTS).

#### Submission of Plan of Study

Students are required to submit a Plan of Study when they have completed between 9 and 15 credits of coursework with a minimum cumulative GPA of 3.0. All courses must be approved by the student's advisor. A student may not register for thesis credits prior to submitting a Plan of Study.

#### Degree Requirements

Students must satisfy all of the University graduate requirements. In addition, the following specific degree requirements apply, depending on the choice of degree programs.

**Thesis Option (30 credits)**

1. Requires 6 credits of orally defended written thesis. The M.S. committee is chaired by the student's thesis advisor. The chair of the committee must be a graduate faculty member from the Department of Electrical Engineering and Computer Science.
2. Requires 24 credits of approved coursework with the following constraints:
  - a. A minimum of 3 credits from theory and algorithm (graduate course prefix COT), a minimum of 3 credits from software and programming (graduate course prefix COP or CEN) and a minimum of 3 credits from systems and applications (graduate course prefix CAP, CIS, CNT or CDA). Special Topics courses (COT 5930, COT 6930, CEN 5931, CEN 6930) and directed independent study courses (COT 6900, COT 6905) may be counted only with prior approval of the advisor.
  - b. A minimum of 12 credits in Computer Science and Engineering courses.
  - c. No more than 3 credits of directed independent study may be taken.
  - d. No course can be counted toward the degree that is more than 10 years old at the time the degree is awarded.
  - e. No 4000-level course is allowed toward the degree. Courses taken to make up for the deficiencies will not be counted toward the degree.
3. At least one-half of the credits must be at the 6000 level or above.
4. Must have a GPA of 3.0 (out of 4.0) or better.
5. All courses in the degree program must be completed with a grade of "C" or better.
6. Must complete one semester of CGS 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S").

**Non-Thesis Option (30 credits)**

1. Requires 30 credits of approved coursework with the following constraints:
  - a. A minimum of 3 credits from theory and algorithm (graduate course prefix COT), a minimum of 3 credits from software and programming (graduate course prefix COP or CEN) and a minimum of 3 credits from systems and applications (graduate course prefix CAP, CIS, CNT or CDA). Special Topics courses (COT 5930, COT 6930, CEN 5931, CEN 6930) and directed independent study courses (COT 6900, COT 6905) may be counted only with prior approval of the advisor.
  - b. A minimum of 18 credits in Computer Science and Engineering courses.
  - c. No more than 3 credits of directed independent study may be taken.
  - d. No course can be counted toward the degree that is more than 10 years old at the time the degree is awarded.

- e. No 4000-level course is allowed toward the degree. Courses taken to make up for the deficiencies will not be counted toward the degree.
2. At least one-half of the credits must be at the 6000 level or above.
3. Must have a GPA of 3.0 (out of 4.0) or better.
4. All courses in the degree program must be completed with a grade of "C" or better.
5. Must complete one semester of CGS 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S").

### **Transfer Credits**

Any transfer credits toward the requirements for a master's degree in Computer Science must be approved by the department, the College and the University. The transfer credits must correspond to equivalent requirements and performance levels expected for the degree. Normally no more than 6 credits of coursework (that have not been applied to a degree) can be transferred from another institution.

## **COMPUTER SCIENCE MASTER OF SCIENCE (M.S.) PROFESSIONAL PROGRAM**

The M.S. in Computer Science Professional Program is designed specifically for working professionals. Professionals will be able to advance their careers with an accelerated graduate program and obtain an advanced degree while continuing to work in their professional careers. The course offering format includes evenings, weekends and online material using Canvas. This degree requires 30 graduate credits. The duration of each course is four weeks. Students will be able to complete the program in one year. Only the non-thesis option is available.

### **Admission Requirements**

To qualify for unconditional or full acceptance into the M.S. in Computer Science Professional Program, applicants are required to meet all the admission requirements for the M.S. with major in Computer Science program.

Conditional admission may be available under extraordinary circumstances for applicants who show high promise to successfully complete the program and who have received a master's degree from a regionally accredited institution, but who fall short of the GPA and/or the GRE requirement. In these cases, the admissions committee for the Professional M.S. in Computer Science will review the application carefully and consider all aspects including, but not limited to, grade trends, mature work experience, work accomplishment and promotion, type and rigor of undergraduate and master's degree

programs, references and letters of recommendation.

## **Degree Requirements**

Degree requirements are the same as specified for the non-thesis option for the M.S. degree in Computer Science noted above. Students in the Professional M.S. degree in Computer Science program are exempt from the requirement to complete one semester of CGS 5937, Graduate Seminar (0 credits).

## **Program Fees**

The M.S. in Computer Science Professional Program is a full-service, all-inclusive program. The fees cover all program costs including tuition, course materials and graduation activities. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>.

## **Application Process and More Information**

To apply or receive more information about this program, visit the Electrical Engineering and Computer Science [website](#) or call 561-297-3855.

## **Internet Engineering Graduate Specialty**

### **An Option in Computer Science or Computer Engineering**

## **Prerequisites**

Same as for master's degree in Computer Science or master's degree in Computer Engineering.

## **Degree Requirements for Non-Thesis Option**

Requires a minimum of 30 credits as follows:

1. Same requirements as specified in degree requirements for non-thesis option for master's degree with major in Computer Engineering or master's degree with major in Computer Science;
2. At least four elective courses (12 credits) selected from a group of Internet-based courses that include (a) Internet software, (b) Internet networking and (c) Internet technologies, as specified by academic advisor.

## **Degree Requirements for Thesis Option**

Requires a minimum of 30 credits as follows:

1. Same requirements as specified in degree requirements for non-thesis option for master's degree with major in Computer Engineering or master's degree with major in Computer Science;
2. At least three elective courses (9 credits) selected from a group of Internet-based courses that

include (a) Internet software, (b) Internet networking and (c) Internet technologies, as specified by academic advisor;

3. A minimum of 6 credits of thesis work.

## **Software Engineering Graduate Specialty An Option in Computer Science**

### **Prerequisites**

Same as non-thesis programs plus:

Principles of Software Engineering (CEN 4010)

Introduction to Object-Oriented Design and Programming (COP 4331)

Students who have not had COP 4331 may take COP 5339 to satisfy this requirement.

### **Group 1 Fundamentals**

Courses in this group emphasize general fundamentals of software engineering. Included in this group are courses in object-oriented methods, software testing and requirements engineering.

### **Group 2 Development**

Courses in this group address specific issues and techniques more closely related to actual software development. Included in this group are courses in user-interface design, CASE, formal methods and advanced object-oriented topics.

### **Group 3 Quantitative and Experimental**

Courses in this group deal with quantitative and experimental approaches. Included in this group are courses in the areas of reliability, metrics and modeling.

For specific course numbers that belong to the above three groups, consult an advisor in the department.

Thesis option students must take at least six of the above software engineering courses, two from each group.

Non-thesis-option students must take at least eight of the above software engineering courses, at least two from each group. Appropriate special topics courses may also be used to meet these requirements

with approval of the student's advisor.

### Other Electives

Thesis option students: Two other 5000-level or 6000-level Computer Science and Computer Engineering courses and 6 credits of COT 6970 (Thesis). No 4000-level course is counted toward the degree.

Non-thesis-option students: Three other 5000-level or 6000-level Computer Science and Computer Engineering courses.

All students must complete at least one-half of their credits at the 6000 level.

### Internet and Web Technologies Focus An Option in Computer Science

This M.S. program is designed specifically for working professionals. Students attend formal classes for two Saturdays per month for 11 months. The remaining instruction is delivered through the latest distance-learning technologies, including FAU's Canvas system.

The program requires the 11 FAU courses below, totaling 33 credits categorized as software, networking and applications. Special review modules can be arranged for students who lack the required prerequisites. Admission requirements and prerequisites are the same as for the master's degree with major in Computer Science.

Multimedia Systems	CAP 6010
Data Mining and Machine Learning	CAP 6673
Computer Networks	CNT 5008
Mobile Computing	CNT 6517
Computer Data Security	CIS 6370
Theory and Implementation of Database Systems	COP 6731
Wireless Networks	EEL 6591
Social Networks and Big Data Analytics	CAP 6315

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Queueing Theory	MAP 6264
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Topics in Computer Science (Topics include Web Services, Web Project Development, Network Programming)	COT 5930
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Topics in Computer Science (Topics include Advanced Internet Engineering, Ad Hoc Networks, Video Communications)	COT 6930
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For fees and other details, contact the department at 561-297-3855 or visit the Electrical Engineering and Computer Science [website](#).

## **COMPUTER SCIENCE OR COMPUTER ENGINEERING MASTER OF SCIENCE (M.S.) WITH A BUSINESS MINOR**

Those students electing to receive a minor in Business must complete 36 credits, of which 21 are to be from the Computer Science and Engineering courses described in this section of the catalog and 15 are to be from the courses approved by the College of Business for the [Business minor](#). Such students will have to satisfy the prerequisite and core requirements of the appropriate degree program of the department. In addition, students should also satisfy the University requirements for graduate programs. For more information, students should consult their faculty advisor.

## **ARTIFICIAL INTELLIGENCE MASTER OF SCIENCE (M.S.) WITH A BUSINESS MINOR**

Those students electing to receive a minor in Business must complete 36 credits, of which 21 are to be from the Artificial Intelligence courses described in this section of the catalog and 15 are to be from the courses approved by the College of Business for the [Business minor](#). Such students will have to satisfy the prerequisite and core requirements of the appropriate degree program of the department. In addition, students should also satisfy the University requirements for graduate programs. For more information, students should consult their faculty advisor.

## **BIOMEDICAL ENGINEERING**

### **MASTER OF SCIENCE (M.S.) WITH A BUSINESS MINOR**

Those students electing to receive a minor in Business must complete 36 credits, of which 21 are to be from the Biomedical Engineering courses described in this section of the catalog and 15 are to be from the courses approved by the College of Business for the [Business minor](#). Such students will have to satisfy the prerequisite and core requirements of the appropriate degree program of the department. In addition, students should also satisfy the University requirements for graduate programs. For more information, students should consult their faculty advisor.

## **DATA SCIENCE AND ANALYTICS**

### **MASTER OF SCIENCE (M.S.)**

**Data Science via Scientific Inquiry Concentration**

**Data Science and Engineering Concentration**

**Data Science in Business Concentration**

**Data Science in Society Concentration**

(For this degree program, the GRE admission requirement is waived through and including fall 2023.)

The [Master of Science with Major in Data Science and Analytics](#) (MSDSA) is a multi-college interdisciplinary program jointly administered by the Department of Mathematics and Statistics in the Charles E. Schmidt College of Science, the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science, the Department of Information Technology and Operations Management (ITOM) in the College of Business and the Department of Political Science in the Dorothy F. Schmidt College of Arts and Letters. The program aims to prepare students with essential skill sets needed to analyze small, fast, big, massive and complex data. To allow for maximum flexibility in career aspirations, students may select from four concentrations:

- Data Science via Scientific Inquiry Concentration, Department of Mathematics and Statistics.
- Data Science and Engineering Concentration, Department of Electrical Engineering and Computer Science.
- Data Science in Business Concentration, Department of Information Technology and Operations Management.
- Data Science in Society Concentration, Department of Political Science.

For more information about the Master of Science with Major in Data Science and Analytics degree

program, see the [Interdisciplinary Programs](#) section of this catalog.

## INFORMATION TECHNOLOGY AND MANAGEMENT MASTER OF SCIENCE (M.S.)

The [Master of Science with Major in Information Technology and Management \(MSITM\)](#) is jointly offered by the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science and the Department of Information Technology and Operations Management (ITOM) in the College of Business. Designed for highly motivated individuals with computing and/or managerial backgrounds, the program aims to prepare students for a management career in the area of information technology in organizations. To allow for maximum flexibility in career aspirations, students can select from **five** concentrations: Advanced Information Technology, emphasizing the technical aspect of organizational IT systems; Information Technology Management, focusing on the management issues of IT in organizations; Computer Science Data Analytics; Cybersecurity; and Business Analytics. Details of this program can be found in the [Interdisciplinary Programs](#) section of this catalog.

## INFORMATION TECHNOLOGY AND MANAGEMENT MASTER OF SCIENCE (M.S.) PROFESSIONAL PROGRAM

Details for the [Professional Master of Science with Major in Information Technology and Management](#) are also described in the [Interdisciplinary Programs](#) section of the catalog.

The Electrical Engineering and Computer Science department offers several certificate programs. Each certificate requires at least four courses (12 credits), which cannot be counted in any other certificate program in the College of Engineering and Computer Science.

## ARTIFICIAL INTELLIGENCE GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

Over the past years, there has been dramatic progress in the rise of artificial intelligence (AI) and its use in the development of systems that can reason and respond to increasingly complex situations. AI is everywhere and the changes enabled by this technology have just begun. AI is transforming every

segment of American industry. It is making agriculture more precise and efficient, revealing new medical technologies and bringing the prospect of autonomous transportation and advanced manufacturing closer to reality. To become competitive, companies and corporations will have to embrace AI to some extent. These technological innovations are made possible by engineers and scientists with knowledge and expertise in the latest advancements in the field of AI. This 12-credit certificate provides graduate students with knowledge and skills in the concepts, technologies and applications of artificial intelligence.

### Admissions

This certificate program is open to students with a bachelor's degree in any academic area and who are not majoring in Artificial Intelligence. Students must satisfy the prerequisites for each course in the program. The average GPA of all four courses counted in the program must be 3.0 or better. This certificate requires four courses that have not been counted in any other minor or certificate program within the College of Engineering and Computer Science.

### Curriculum

The certificate has two tracks: a Development track and an Applications track. The Development track is intended for students proficient in programming who will develop new algorithms and mechanisms in artificial intelligence. The Applications track is open to students who have introductory programming skills and are interested in learning how to use the tools and algorithms of artificial intelligence. Students in both tracks are expected to have completed a statistics course.

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#### Development Track (12 credits)

##### *Required courses (6 credits); select two courses from the following*

Computational Foundations of Artificial Intelligence	CAP 5625	3
Artificial Intelligence	CAP 6635	3
Data Mining and Machine Learning	CAP 6673	3

##### *Elective courses (6 credits); select two courses from the Elective Table*

#### Applications Track (12 credits)

(Not open to graduate students in the Department of Electrical Engineering and Computer Science, except for students in the M.S. with Major in Information Technology and Management (MSITM))

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##### *Required courses (6 credits); select two courses from the following*

Computational Foundations of Artificial Intelligence	CAP 5625	3
Applied Machine Learning	CAP 6610	3
Data Mining and Machine Learning	CAP 6673	3

*Elective courses (6 credits); select two courses from the Elective Table*

### Elective Table

Select two courses from the list below. Additional courses may be used as electives with prior approval of the advisor.

Introduction to Neural Networks	CAP 5615	3
Introduction to Data Science	CAP 5768	3
Data Mining for Bioinformatics	CAP 6546	3
Sparse Learning	CAP 6617	3
Machine Learning for Computer Vision	CAP 6618	3
Deep Learning	CAP 6619	3
Natural Language Processing	CAP 6640	
Reinforcement Learning	CAP 6629	3
Artificial Intelligence in Medicine and Healthcare	CAP 6683	3
Advanced Data Mining and Machine Learning	CAP 6778	3
Computer Performance Modeling	CEN 6405	3
Robotic Applications	EEL 5661	3
Industrial Automation	EIN 5603C	3
Intelligent Underwater Vehicles	EOC 6663	3
Design and Analysis for Engineering Data	CGN 5716	3
Intelligent Transportation Systems	TTE 6272	3

## **ARTIFICIAL INTELLIGENCE GRADUATE CERTIFICATE PROFESSIONAL PROGRAM**

*(Minimum of 12 credits required)*

The Professional Artificial Intelligence certificate is designed for working professionals to advance their careers with an accelerated graduate program. This is a stand-alone certificate tailored for working professionals and alumni with graduate degrees who are looking for specialized knowledge in Artificial Intelligence. The course offering format includes evenings, weekends and online material. The 12-credit certificate has two tracks: a Development track and an Applications track. Admission details and details for the two tracks are shown above. To apply or for more information, visit the [Electrical Engineering and Computer Science website](#) or call 561-297-3855.

## **BIG DATA ANALYTICS GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The digital age is here to stay. Organizations now own and have access to unfathomable amounts of data. New technologies and efforts are needed to move on to the next phase of the digital revolution - the data revolution. To provide students with the knowledge necessary in this age of Big Data, the Department of Electrical Engineering and Computer Science and the Department of Information Technology and Operations Management (ITOM) have jointly designed the Big Data Analytics graduate certificate. This 12-credit certificate allows graduate students to expand their knowledge and skills in the concepts, technologies, and tools of business intelligence, data analytics and business analytics and be recognized for their achievement. The certificate program has two tracks: Computer Science (CS) and Business (BU). Details for both tracks can be found in the [Interdisciplinary Programs](#) section of this catalog.

## **BIG DATA ANALYTICS GRADUATE CERTIFICATE PROFESSIONAL PROGRAM**

*(Minimum of 12 credits required)*

Details for the [Professional Big Data Analytics Graduate Certificate](#) are also described in the [Interdisciplinary Programs](#) section of the catalog.

## **CYBER SECURITY GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

Cybercrime-related issues especially impact the State of Florida because a significant part of the state's economic development comes from tourism, international banking and high-tech industries. The number of scientists, engineers and experts needed with special skills in cyber security exceeds the number available. The Cyber Security certificate provides opportunities for graduate students to expand their knowledge and skills to meet the needs of the cyber security field. Due to their extensive expertise and facilities, the departments of Electrical Engineering and Computer Science and Mathematics and Statistics have jointly designed the certificate. This 12-credit certificate program has two tracks: Computer Science (CS) and Mathematics (Math). Details for both tracks can be found in the [Interdisciplinary Programs](#) section of this catalog.

## **DOCTORAL PROGRAMS**

### **COMPUTER ENGINEERING OR COMPUTER SCIENCE DOCTOR OF PHILOSOPHY (PH.D.)**

The department offers a program of advanced graduate study leading to a Doctor of Philosophy degree in Computer Engineering and a Doctor of Philosophy degree in Computer Science. The graduate of this program will be able to meet the highest standards of preparation for leadership in the computer science or engineering profession, including research, teaching and leadership in high-technology industry and governmental agencies. A Ph.D. Applicant's Guide is available from the department. These degree programs as well as the concentration below are available in person and fully online.

The Ph.D. in Computer Science program also offers a concentration in [Data Science and Analytics](#). Students in this concentration gain expertise through both coursework and research activity in theoretical and applied data science and analytics. Admission and Degree Requirements are detailed below. Also offered is a concentration in [Cybersecurity](#). Both concentrations are available in person and fully online.

For working professionals seeking to advance their careers, the department offers a [Professional Doctor of Philosophy with Major in Computer Science](#).

### Admission Requirements

Application for admission to doctoral study will be evaluated on an individual basis by the department's graduate programs committee. Usually, the following four criteria must be met:

1. The applicant must submit the Graduate Record Examination (GRE) score and must have a GPA of at least 3.3 (out of 4.0 maximum) in previous graduate work. GRE scores more than five years old are normally not acceptable. The GRE requirement is waived for any student who has an M.S. degree from FAU's Department of Electrical Engineering and Computer Science.
2. The applicant must have a master's degree in Engineering, Computer Science or a related discipline awarded by a recognized institution. Thesis option is preferred. This requirement may be waived under exceptional circumstances (see B.S. to Ph.D. programs earlier in the College of Engineering and Computer Science section of the catalog).
  - a. Applicants to the Ph.D. with Major in Computer Science program are expected to have taken Calculus 2 and a statistics course, to be proficient in programming, and to be knowledgeable in the topics of data structures, algorithm design and analysis, operating systems and computer architecture. The admission committee will evaluate the application holistically to determine applicant suitability using several factors such as academic performance, GPA, GRE scores, background and experience. The admission committee may assign remedial courses on a case-by-case basis. In some cases, prerequisite requirements may be satisfied after admission to the Ph.D. program. In such a case, proficiency in the prerequisite courses must be shown before the student takes dissertation credits.
  - b. Applicants to the Ph.D. with Major in Computer Engineering program are expected to have taken Calculus 2 and a statistics course, to be proficient in programming, and to be knowledgeable in the topics of microprocessor systems, computer architecture or CAD-based computer design, electronics or VLSI, data structures and algorithm analysis. The admission committee will evaluate the application holistically to determine applicant suitability using several factors such as academic performance, GPA, GRE scores, background and experience. The admission committee may assign remedial courses on a case-by-case basis. In some cases, prerequisite requirements may be satisfied after admission to the Ph.D. program. In such a case, proficiency in the prerequisite courses must be shown before the student takes dissertation credits.
3. The applicant must provide two reference letters that address the student's research potential, motivation, relative academic achievement and personality.
4. International students from non-English-speaking countries must be proficient in written and

spoken English as evidenced by a score of at least 500 (paper-based test) or 213 (computer-based test) or 79 (Internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing System (IELTS).

## Candidacy

The candidacy exam is an exam intended to assess whether or not a student is ready to conduct research at the doctoral level and is able to publish in international conferences and journals. The exam must be passed for formal admission into the doctoral program. Students seeking the Ph.D. degree are expected to take the exam after completing 9 credits of their doctoral studies. A student failing the candidacy exam may, upon re-application, take it a second time. Two failures will normally result in the student's dismissal from the Ph.D. program. Specific instructions for applying and taking the Candidacy Examination are detailed on the [EECS website](#).

## Admission to Candidacy

Students should apply for candidacy as soon as they become eligible. To be eligible, a student must:

1. Have passed the Candidacy Exam, and
2. Have maintained a minimum of 3.0 GPA in all courses attempted as a doctoral student.

Students may not register for dissertation credits until their admission to candidacy.

## Degree Requirements

A minimum of 72 graduate credits is required beyond a bachelor's degree. A master's degree in a related field is considered equivalent to 30 credits. A minimum of 18 credits of coursework is required beyond a master's degree. All courses must be approved by the student's advisor. Students lacking proper background may have to take additional courses to make up for the deficiencies. In addition to meeting the course requirement, a doctoral student must pass the Candidacy Examination, complete the dissertation under the supervision of the student's advisor and dissertation committee and pass the oral dissertation examination. Also a written dissertation proposal must be accepted by the dissertation committee at least six months prior to the oral dissertation examination. A doctoral candidate is expected to have at least one research paper published or accepted for publication in a fully refereed conference or journal prior to graduation. The following rules apply to the courses taken (beyond the master's degree):

1. Of the 18 credit minimum of coursework, a minimum of 12 credits must be in Computer Science and Engineering courses (excluding directed independent study credits) and a minimum of 9 credits of 6000-level courses must be completed.

2. No more than 3 credits of directed independent study or advanced research may be used to satisfy the minimum of 18 credits. In that case, the subject matter may not overlap the student's dissertation.
3. A course that is more than 10 years old at the time the degree is awarded cannot be counted toward the degree. This rule does not apply to the courses transferred from the master's degree.
4. No 4000-level course may be counted toward the degree. Courses taken to make up for deficiencies will not be counted toward the degree.
5. Students must register for a minimum of 24 credits of dissertation.
6. Students must have a GPA of 3.0 (out of 4.0 maximum) or better.
7. All courses in the degree programs must be completed with a grade of "C" or better.
8. Must complete two semesters of CGS 5937, Graduate Seminar (0 credits) with grades of Satisfactory ("S").

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### **Graduate Coursework - 18 credits** (for students entering with a master's degree)

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*Minimum of 12 credits from Computer Science and Computer Engineering courses at the 5000, 6000 or 7000 levels (excluding DIS). Minimum of 9 credits at the 6000 level. Maximum of 3 credits of Directed Independent Study or Advanced Research.*

Directed Independent Study-Computer Science	COT 6900 <b>or</b>
Directed Independent Study-Computer Engineering	COT 6905 <b>or</b>
Advanced Research	EGN 69 18

### **Dissertation - 24 credits**

Dissertation - Computer Science (taken over multiple terms)	COT 7980 <b>or</b>
Dissertation - Computer Engineering (taken over multiple terms)	ECM 7980

For students entering with a bachelor's degree, see B.S. to Ph.D. programs earlier in this College of Engineering and Computer Science section.

## **COMPUTER SCIENCE** **DOCTOR OF PHILOSOPHY (PH.D.)**

### **Cybersecurity**

### **Data Science and Analytics Concentration**

Students in the Ph.D. with Major in Computer Science have the option of pursuing a concentration in Cybersecurity.

This major and concentration are available in person and fully online.

### Admission Requirements

Applicants should meet all the admission requirements for the Ph.D. with Major in Computer Science program.

### Degree Requirements

Applicants should meet all the degree requirements for the Ph.D. with Major in Computer Science program. In

addition, the following requirements should be met.

1. Graduate coursework counted for the Ph.D. program must contain at least three graduate courses from the table below. These courses focus on theoretical and/or applied cybersecurity. Additional courses may be approved by the dissertation advisor. Graduate courses completed during the master's degree program may also be used to meet this requirement.
2. The student's Ph.D. dissertation research and scholarship must have a strong emphasis on one or more areas of cybersecurity, including but not limited to, applied and/or theoretical areas.

Cryptographic Engineering	CDA 5326	3
Practical Aspects of Modern Cryptography	CIS 5371	3
Computer Data Security	CIS 6370	3
Distributed Systems Security	CIS 6375	3
Cryptocurrencies and Blockchain Technologies	CIS 6730	3
Secret Sharing Protocols	COT 6427	3
Data Analysis and Modeling for Cybersecurity	CAI 6803	3
Introduction to Cryptology and Information Security	MAD 5474	

### Data Science and Analytics Concentration

Students in the Ph.D. with Major in Computer Science have the option of pursuing a concentration in

Data Science and Analytics. See below for details. This major and concentration are available in person and fully online.

### Admission Requirements

Applicants should meet all the admission requirements for the Ph.D. with Major in Computer Science program.

### Degree Requirements

Applicants should meet all the degree requirements for the Ph.D. with Major in Computer Science program. In addition, the following requirements should be met.

1. Graduate coursework counted for the Ph.D. program must contain at least four graduate courses from the table below. These courses focus on theoretical and/or applied data science and analytics. Additional courses may be approved by the dissertation advisor. Graduate courses completed during the master's degree program may also be used to meet this requirement.
2. The student's Ph.D. dissertation research and scholarship must have a strong emphasis on one or more areas of data science and analytics or, including but not limited to, applied and/or theoretical areas.

Introduction to Neural Networks	CAP 5615	3
Introduction to Data Science	CAP 5768	3
Social Networks and Big Data Analytics	CAP 6315	3
Data Mining for Bioinformatics	CAP 6546	3
Sparse Learning	CAP 6617	3
Machine Learning for Computer Vision	CAP 6618	3
Deep Learning	CAP 6619	3
Artificial Intelligence	CAP 6635	3
Natural Language Processing	CAP 6640	3
Data Mining and Machine Learning	CAP 6673	3
Information Retrieval	CAP 6776	3

Web Mining	CAP 6777	3
Advanced Data Mining and Machine Learning	CAP 6778	3
Computer Performance Modeling	CEN 6405	3

### **Transfer Credits**

Any transfer credits (from other institutions) toward the requirements for the Ph.D. degree must be approved by the department, the College and the University. The transfer credits must correspond to equivalent requirements and performance levels expected for the degree. A maximum of 30 credits can be transferred from a master's degree. In addition to the credits for a master's degree, no more than 6 credits of coursework can be transferred from another institution.

### **Time Limitation**

A Ph.D. student who enters the program with a master's degree has no more than 10 years to complete all requirements for the Ph.D. degree.

### **Dissertation Committee**

Students are encouraged to interact with faculty members of the department to select a dissertation advisor and research area/topic for their dissertation. After a student has passed the Candidacy Examination, a dissertation committee shall be formed to supervise the student's research work. The committee will consist of at least four faculty members who are familiar with the research area, at least three of whom are regular faculty members of the department. At least one member of the committee is recommended to be from outside the department (could also be from another institution or industry), and this member should have an academic or professional level compatible with the rest of the committee. The committee is chaired by the student's dissertation advisor. The chair of the committee must be a faculty member from the Department of Electrical Engineering and Computer Science. Students are expected to work in close cooperation with their dissertation committee and to keep the committee members informed about their progress on a regular basis. The dissertation committee should meet with the student at least once a semester to review the progress of the research work.

### **Dissertation and Oral Defense**

The dissertation must be written in the format specified by the Graduate College. A copy of the dissertation must be submitted to the Graduate College for approval of the dissertation format. Dissertations must be defended orally. A dissertation should be submitted to the members of the dissertation committee for their review at least two weeks before the oral defense. After an oral defense, the members of the dissertation committee vote on acceptance or rejection of the dissertation.

The committee may also suggest that the student do some additional work so as to make the dissertation acceptable. The decision of the dissertation committee will be reported in the form of a satisfactory/unsatisfactory grade for dissertation credits.

## COMPUTER SCIENCE DOCTOR OF PHILOSOPHY (PH.D.) PROFESSIONAL PROGRAM

The Ph.D. in Computer Science Professional Program is designed specifically for working professionals. Professionals will be able to advance their careers with an accelerated graduate program and obtain an advanced degree while continuing to work. The Professional program is available only for students who have a master's degree in Engineering, Computer Science or a related discipline awarded by a regionally accredited institution. A minimum of 72 graduate credits is required beyond a bachelor's degree. Since a master's degree in a related field is considered equivalent to 30 credits, students in this program must complete at least 42 credits distributed as follows: 18 credits of graduate coursework and 24 credits of dissertation work.

Students must select one of the following options:

1. Professional Ph.D. in Computer Science, or
2. Professional Ph.D. in Computer Science, Data Science and Analytics Concentration

The course offering format includes evenings, weekends and online material using Canvas. Each course duration is four weeks or one of the FAU mini semesters. Students are expected to complete the program in three years.

### Admission Requirements

To qualify for unconditional or full acceptance into the Ph.D. in Computer Science Professional Program, applicants are required to meet all the admission requirements for the Ph.D. with major in Computer Science program.

Conditional admission may be available under extraordinary circumstances for applicants who show high promise to successfully complete the program and who have received a master's degree from a regionally accredited institution, but who fall short of the GPA and/or the GRE requirement. In these cases, the admissions committee for the Professional Ph.D. in Computer Science will review the application carefully and consider all aspects including, but not limited to, grade trends, mature work experience, work accomplishment and promotion, type and rigor of undergraduate and master's degree programs, references and letters of recommendation.

## Degree Requirements

Degree requirements are the same as those specified in the degree requirements for the Doctor of Philosophy in Computer Science, the option where students have already completed the master's degree.

Students pursuing the Data Science and Analytics concentration must complete the same concentration requirements as in the traditional program.

Students in the Professional Ph.D. degree in Computer Science program are exempt from the requirement to complete two semesters of CGS 5937, Graduate Seminar (0 credits).

## Program Fees

The Ph.D. in Computer Science Professional Program is a full-service, all-inclusive program. The fees cover all program costs including tuition, text books, course materials and graduation activities. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>.

## Application Process and More Information

To apply or receive more information about this program, visit the Computer & Electrical Engineering and Computer Science [website](#) or call 561-297-3855.

## NEUROSCIENCE

### DOCTOR OF PHILOSOPHY (PH.D.)

This doctoral program in Neuroscience is a multi-college, multi-institute interdisciplinary degree program organized in partnership with the FAU Brain Institute. Graduate-level instruction is provided by faculty in multiple departments located in the Charles E. Schmidt College of Science, the Charles Schmidt College of Medicine, the College of Engineering and Computer Science, the College of Education and the Harriet L. Wilkes Honors College. Affiliated faculty from the Max Planck Florida Institute for Neuroscience and Scripps Research Florida also participate in the program. The program aims to equip students with the advanced conceptual and technical skills needed to forge productive, neuroscience-oriented careers in industry, academia and government. Specific details for this doctoral program appear in the [Interdisciplinary Programs](#) section of this catalog.

## ELECTRICAL ENGINEERING

[Link to Combined Programs](#)

[Link to Master's Programs](#)

[Link to Doctoral Program](#)

## BACHELOR'S PROGRAM

### **Mission Statement**

The mission of the undergraduate program in Electrical Engineering is to offer an E.E. program of study that augments the liberal education expected of all FAU undergraduates and imparts a basic understanding of electrical engineering built on a foundation of physical science, mathematics, computing and technology.

### **Educational Objectives and Outcomes**

The educational objectives of the Electrical Engineering undergraduate program are to enable graduates who, within a few years after graduation, will:

- A. Be successful in understanding, formulating, analyzing and solving a variety of electrical engineering problems;
- B. Be successful in designing a variety of engineering systems, products or experiments;
- C. Be successful in careers and/or graduate study in engineering or other areas such as business, medicine and law;
- D. Have the ability to assume leadership and entrepreneurial positions;
- E. Successfully function and communicate effectively, both individually and in multidisciplinary teams;
- F. Understand the importance of lifelong learning, ethics and professional accountability.

The Bachelor of Science degree program in Electrical Engineering is accredited by the Engineering Accreditation Commission of ABET.

The educational objectives of the Electrical Engineering program are achieved by ensuring that graduates have the following characteristics or student outcomes:

1. An ability to identify, formulate and solve complex engineering problems by applying principles

of engineering, science and mathematics.

2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors.
3. An ability to communicate effectively with a range of audiences.
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## **ELECTRICAL ENGINEERING**

### **BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (B.S.E.E.)**

*(Minimum of 123 credits required)*

#### **Admission Requirements**

All students must meet the minimum admission requirements of the University. Please refer to the [Admissions section](#) of this catalog.

All students must meet the preprofessional requirements listed [above](#) in order to be accepted into the Electrical Engineering program.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog

course description and a copy of the syllabus for assessment.

## General Degree Requirements

The minimum number of credits required for the Bachelor of Science in Electrical Engineering (B.S.E.E.) degree is 123 credits. All courses that count toward the degree must be completed with grades of "C" or better. The Bachelor of Science in Electrical Engineering degree will be awarded to students who meet all admission and degree requirements of the department and the University. Notes below are referenced in the tables following the list.

### Notes:

Students entering FAU with less than 30 credits must satisfy the course requirements specified in the catalog section, [Degree Requirements](#). Students entering FAU with more than 30 credits (transfer students) must see the undergraduate advisor for an evaluation of courses taken at another school. The general education requirements are normally satisfied if a student has an Associate in Arts (A.A.) degree from a Florida community or state college. Once students earn beyond 30 credits, they must substitute EGN 1002, Fundamentals of Engineering, with an electrical engineering elective.

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### Program Summary

General Education	24
Mathematics	15
Science	9
Common Core	27
Computer Engineering - Electrical Engineering Core	18
Electrical Engineering Core	9
Semi-Core Group 1	3
Semi-Core Group 2	6
Electives	12
<b>Total</b>	<b>123</b>

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### *General Education*

Foundations of Written Communication	6
Foundations of Society and Human Behavior	6
Foundations of Global Citizenship	6
Foundations of Humanities	6
<b>Subtotal</b>	<b>24</b>

### *Mathematics*

Calculus with Analytic Geometry 1	MAC 2311	4
Calculus with Analytic Geometry 2	MAC 2312	4
Calculus with Analytic Geometry 3	MAC 2313	4
Engineering Mathematics 1	MAP 3305	3
<b>Subtotal</b>		<b>15</b>

### *Science*

Physics for Engineers 2	PHY 2044	3
General Physics for Engineers 1	PHY 2048	4
General Physics Lab 1	PHY 2048L	1
General Physics Lab 2	PHY 2049L	1
<b>Subtotal</b>		<b>9</b>

### **Core Courses**

All students must take the following core courses, which total 51 credits.

### *Common Core*

Introduction to Data Science and Analytics	CAP 4773	3
Computer Logic Design	CDA 3203	3
Computer Architecture	CDA 4102	3
Systems Programming with C++***	COP 3275C	3
Introduction to Programming in Python	COP 3035C	3
Foundations of Computing*	COT 2000C	3
Stochastic Processes and Random Signals**	EEE 4541	3
RI: Engineering Design 1	EGN 4950C	3
RI: Engineering Design 2	EGN 4952C	3
<b>Subtotal</b>		<b>27</b>

\* MAD 2104 may be substituted for COT 2000C.

\*\* STA 4821 may be substituted for EEE 4541.

\*\*\*May be used as an elective for a minor in Computer Science.

### ***Computer Engineering - Electrical Engineering Core***

Design of Digital Systems and Lab	CDA 4240C	3
Electronics 1	EEE 3300	3
Circuits 1	EEL 3111	3
Electronics Laboratory 1	EEL 3118L	3
Signals and Digital Filter Design	EEL 3502	3
Fundamentals of Engineering	EGN 1002	3
<b>Subtotal</b>		<b>18</b>

### ***Electrical Engineering Core***

Electronics 2 and Lab	EEE 4361C	3
Principles of Communication Systems	EEL 4512C	3
Control Systems 1	EEL 4652C	3
<b>Subtotal</b>		<b>9</b>

### Semi-Core Courses

All students must take 3 credits from Semi-Core Group 1 and 9 credits from Semi-Core Group 2.

#### *Electrical Engineering Semi-Core Group 1 (Select one course)*

Electric Power Systems	EEL 4216	3
Electrical Machines	EEL 4220	3
<b>Subtotal</b>		<b>3</b>

#### *Electrical Engineering Semi-Core Group 2 (Select two courses)*

Electronics 3 and Lab	EEE 4362C	3
Introduction to Digital Signal Processing	EEE 4510	3
Electromagnetic Fields and Waves	EEL 3470	3
Photovoltaic Power Systems	EEL 4281	3
Digital Communication Systems	EEL 4522	3
Introduction to Wireless Communication Systems	EEL 4580	3
<b>Subtotal</b>		<b>6</b>

### Electives

All students must take 6 credits of technical electives and 6 credits of Electrical Engineering electives. Certain 3000- and 4000-level courses offered by the Electrical Engineering and Computer Science Department may be used as a technical or Electrical Engineering elective. In addition, any two

Computer Science courses listed in the Computer Science minor program may be used as technical electives. Certain 5000- or 6000-level courses offered by the Electrical Engineering and Computer Science Department may be taken as technical electives or Electrical Engineering electives. Students must see an advisor for a current list of approved elective courses.

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<b>Electrical Engineering Electives</b>	<b>6</b>
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<b>Technical Electives</b>	<b>6</b>
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Students are permitted to take no more than the equivalent of one course (3 credits) of the following three courses as an Electrical Engineering elective.

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Professional Internship	IDS 3949	0-4
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Directed Independent Study	EEL 4905	1-3
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Directed Independent Research in Engineering and Computer Science	EGN 4915	1-3
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### **Professional Internship**

Students must have completed EEE 3300, Electronics 1 and EEL 3118L, Electronics 1 Lab with a minimum grade of "C" before becoming eligible to register for a professional internship. Approval through the Career Center is required prior to enrollment.

### **Directed Independent Study**

Students must have completed EEE 4361C, Electronics 2 and Lab, with a minimum grade of "C" before being eligible to register for directed independent study or directed independent research.

### **Sample Four-Year Program of Study**

For the sample four-year program of study for the Bachelor of Science in Electrical Engineering, refer to the [Curriculum Sheets and Flight Plans](#) by major.

### **Second Bachelor's Degree**

This program is for those individuals with a degree in another discipline who are seeking a Bachelor of Science in Electrical Engineering degree at FAU.

### **Admission Requirements**

Students seeking a bachelor's degree or graduate degree in another discipline must satisfy all admission requirements of the first bachelor's degree in Electrical Engineering at FAU.

## Degree Requirements

1. Earn a minimum of 30 credits in residence at FAU, at the 3000 level or higher, beyond those required for the first degree. Students earning two degrees simultaneously (a dual degree) must earn at least 150 credits.
2. Earn at least 75 percent of all upper-division credits required for the major from FAU.
3. Students must have completed 15 credits in mathematics, 9 credits in science and **54** credits in core courses listed in the Electrical Engineering degree program. Each course must be completed with a minimum grade of "C."

## Undergraduate Transfer Students

Prior to the academic advising session, course syllabi need to be submitted to the Undergraduate Academic Advisor for evaluation of possible transfer credits. Course descriptions can be provided by submitting an undergraduate catalog from the post-secondary institution attended, submitting course descriptions from an online catalog (requires that the post-secondary institution web address be at the bottom of each page) or by providing course syllabi. The Academic Advisor evaluation needs to be performed even if a student has an evaluation by an approved agency.

# COMBINED PROGRAMS

## ELECTRICAL ENGINEERING

### BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (B.S.E.E.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

This program enables qualified FAU undergraduate EE students to obtain both their B.S.E.E. and M.S. degrees in approximately five years by allowing up to 12 credits of approved graduate coursework (5000 level or higher) to apply toward both degrees as long as the combined program totals a minimum of 150 credits:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

This essentially takes away approximately one semester of coursework and offers an attractive option

for enthusiastic students planning for their graduate education. Students who have a cumulative GPA of 3.25 or better after completing 96 credits toward the B.S.E.E. are eligible for admission to the program. Students complete the undergraduate degree first.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Program Process**

1. Eligible students apply to the department for acceptance into the program during the term in which they will complete 96 credits toward their B.S.E.E. degree.
2. Eligible students take courses in their senior year that will apply to both their B.S.E.E. and M.S. degrees.
3. Students participating in this program may opt for the thesis or non-thesis option in their M.S. degree.
4. Students planning for the thesis option need a letter of recommendation from their potential thesis advisor.
5. Students must be admitted to the joint B.S.E.E./M.S. program at least one semester prior to the start of their M.S. degree program.
6. Students who are successful in completing their M.S. degree within one year will be presented a certificate of recognition.

### **Degree Requirements**

Students participating in this program must satisfy the degree requirements for a B.S.E.E. and M.S. as outlined in this catalog.

## **ELECTRICAL ENGINEERING TO ARTIFICIAL INTELLIGENCE**

## BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (B.S.E.E.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

The department offers a combined Bachelor of Science in Electrical Engineering (B.S.E.E.) to Master of Science in Artificial Intelligence (M.S.) program. Students in this combined program may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees as long as the combined program totals a minimum of 150 credits:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

With an approximate duration of five years, these combined programs provide attractive ways for students to continue their graduate work. Students complete the undergraduate program first.

Prerequisite coursework for transfer students and admission requirements for this combined programs are the same as for the [B.S.C.E or B.S.C.S. to M.S. degree programs](#) noted above.

### Degree Requirements

The following specific technical elective courses must be taken as part of the requirements for the B.S.E.E. degree.

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#### Technical Electives (6 credits required)

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Programming 2	COP 3014	3
Data Structures and Algorithm Analysis	COP 3530	3

## ELECTRICAL ENGINEERING TO COMPUTER ENGINEERING BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (B.S.E.E.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

The B.S.E.E./M.S.Cp.E. program is intended for students who wish to take advantage of the broader systems orientation of the B.S.E.E. degree and then specialize in Computer Engineering. Selection of specific technical elective courses in the B.S.E.E. program qualifies the graduate to enter the M.S.Cp.E. program with no deficiencies, provided that the GPA and other computer engineering admission

requirements are met. Up to 12 credits of approved graduate coursework (5000 level or higher) can apply toward both degrees as long as the combined program totals a minimum of 150 credits:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000-level of higher courses for the master's program.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college university, or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Degree Requirements**

The following specific technical elective and semi-core courses must be taken as part of the requirements for the B.S.E.E. degree in order to enter the B.S.E.E. to M.S. with Major in Computer Engineering Degree Program.

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#### **Technical Electives (6 credits required)**

Programming 2	COP 3014	3
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Data Structures and Algorithm Analysis	COP 3530	3
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#### **Electrical Engineering Semi-Core (6 credits required)**

Introduction to Embedded System Design	CDA 4630	3
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Communication Networks	CNT 4007	3
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## **ELECTRICAL ENGINEERING TO INFORMATION TECHNOLOGY AND MANAGEMENT**

## BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (B.S.E.E.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

**Advanced Information Technology Concentration (M.S.)**

**Computer Science Data Analytics Concentration (M.S.)**

For details about this combined program, click [here](#).

## ELECTRICAL ENGINEERING

## BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING (B.S.E.E.) TO DOCTOR OF PHILOSOPHY (PH.D.) COMBINED PROGRAM

The Department of Electrical Engineering and Computer Science offers a combined Bachelor of Science in Electrical Engineering (B.S.E.E.) to Ph.D. with major in Electrical Engineering degree program.

Students may count up to 12 credits of graduate coursework (5000 level or higher) offered by the EECS Department toward both their B.S.E.E. and Ph.D. degrees. These graduate courses will replace elective courses in the bachelor's program. The program does not increase the number of credits in the undergraduate degree.

The combined program totals a minimum of 195 credits, provided that:

1. The student has met the minimum 123 credits for the bachelor's degree; and
2. The student has taken a minimum of 72 credits in 5000 level or higher courses for the Ph.D. program.

This combined program provides an attractive way for students to continue their graduate work. Students complete the undergraduate program first.

### Admission Requirements

The GRE requirement is waived for this combined program.

1. To be eligible to apply for the combined program, students must have a cumulative FAU GPA of 3.5 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.5 must be maintained until the completion of the bachelor's degree.
2. Formally apply to the combined program after the junior year (90 credits or more of coursework

completed). The application must include one reference letter.

3. Must be admitted into the combined program at least one semester prior to the beginning of the Ph.D. portion of the program.

Students in the combined program must maintain continuous enrollment to remain in good standing.

## Degree Requirements

To be eligible for the combined bachelor to Ph.D. program, students must fulfill the following requirements:

1. Completion of the requirements for the B.S.E.E. program and other requirements stipulated by the University and College.
2. Completion of all requirements for the Ph.D. with major in Electrical Engineering degree program.

## MASTER'S PROGRAMS

### ELECTRICAL ENGINEERING MASTER OF SCIENCE (M.S.)

The department offers thesis and non-thesis options at the master's level. Students may specialize in several areas: telecommunications; digital signal processing; systems and robotics, including control systems and machine vision; electromagnetics and RF, antennas, microwave systems, EMC/EMI and HF RF circuit design; alternative energy systems, including photovoltaic and fuel cell systems; bioengineering; neural networks; and optics and photonics. The Master of Science with major in Electrical Engineering is available in person and fully online.

### Admission Requirements

All applicants must submit official transcripts from all previous postsecondary institutions attended. Applicants for admission will be evaluated on an individual basis and must satisfy the following requirements. Students with non-engineering bachelor's degrees, click [here](#) for additional requirements.

1. International students from non-English-speaking countries must be proficient in written and spoken English as evidenced by a score of at least 500 (paper-based test) or 213 (computer-based test) or 79 (Internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing System (IELTS).
2. A baccalaureate degree in Engineering, Natural Science or Mathematics;\*
3. A minimum GPA of 3.0 (of a possible 4.0 maximum) in the last 60 credits of undergraduate work.

\* Students whose backgrounds are not in electrical or computer engineering should expect to take additional coursework to satisfy deficiencies.

### **Admission to Candidacy**

Graduate students are required to submit a Plan of Study when they have completed between 9 and 15 credits of coursework with a minimum cumulative GPA of 3.0. A student may not register for thesis credits prior to approval of a submitted Plan of Study.

### **Degree Requirements**

Students must satisfy all of the University graduate requirements. In addition, the following specific degree requirements apply, depending on the choice of degree program:

#### **Thesis Option (30 credits)**

1. Requires 6 credits of orally defended written thesis. The M.S. committee is chaired by the student's thesis advisor. The chair of the committee must be a graduate faculty member from the Department of Electrical Engineering and Computer Science.
2. Requires 24 credits of approved coursework with the following constraints:
  - a. Minimum of 12 credits in EE courses;
  - b. No 4000-level course may be counted toward the degree;
  - c. A 3-credit course with math prefix or one of the following courses: EEL 5613, Modern Control; EEE 5502, Digital Processing of Signals; EEL 6482, Electromagnetic Theory 1; EOC 5172, Mathematical Methods in Ocean Engineering 1.
3. At least one-half of the credits must be at the 6000 level or above.
4. Must complete one semester of CGS 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S").

**Note:** No more than 3 credits of directed independent study may be applied toward the master's degree.

#### **Non-Thesis Option (30 credits)**

1. Requires 30 credits of approved coursework with the following constraints:
  - a. No 4000-level course is allowed toward the degree. Courses taken to make up for the deficiencies will not be counted toward the degree;
  - b. A 3-credit course with math prefix or one of the following courses: EEL 5613, Modern Control; EEE 5502, Digital Processing of Signals; EEL 6482, Electromagnetic Theory 1; EOC 5172, Mathematical Methods in Ocean Engineering 1;
  - c. A minimum of 18 credits must be completed in EE.

2. At least one-half of the credits must be at the 6000 level or above.
3. Must complete one semester of CGS 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S").

**Note:** No more than 3 credits of directed independent study may be applied toward the master's degree.

### Deficiency Requirements

From the following list of deficiency EE courses, students must take two mandatory courses and at least two courses from the list following the mandatory courses.

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#### Mandatory courses

Electronics Laboratory 1	EEL 3118L
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Signals and Digital Filter Design	EEL 3502
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#### Choose at least two courses from the list

Introduction to Embedded Systems Design	CDA 4630
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Electronics 2 and Lab	EEE 4361C
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Stochastic Processes and Random Signals	EEE 4541
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Electromagnetic Fields and Waves	EEL 3470
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Electric Power Systems	EEL 4216
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Electrical Machines	EEL 4220
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Principles of Communication Systems	EEL 4512C
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Control Systems 1	EEL 4652C
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An insufficient number of the above courses will be considered a deficiency. Students are expected to take the necessary deficient courses during their course program as an extra load beyond the regular graduate coursework.

Students with engineering technology degrees are expected to first satisfy the FAU EE undergraduate graduation requirements before being admitted to the graduate program.

## ELECTRICAL ENGINEERING MASTER OF SCIENCE (M.S.) WITH A BUSINESS MINOR

Those students electing to receive a minor in Business must complete 36 credits, of which 21 are to be from the Electrical Engineering courses described in this section of the catalog and 15 are to be from the courses approved by the College of Business for the [Business minor](#). Such students will have to satisfy the prerequisite and core requirements of the appropriate degree program of the department. In addition, students should also satisfy the University requirements for graduate programs. For more information, students should consult their faculty advisor.

## DOCTORAL PROGRAMS

### ELECTRICAL ENGINEERING DOCTOR OF PHILOSOPHY (PH.D.)

The department offers a program of advanced graduate study leading to a Doctor of Philosophy degree in Electrical Engineering. This degree program is available in person and fully online. Students in the Ph.D. with Major in Electrical Engineering program have the option of pursuing a concentration in [Neuroengineering](#).

#### **Admission Requirements**

Applicants for admission to doctoral study will be evaluated on an individual basis by the departmental graduate admissions committee. As a rule, the applicant must have:

1. At least a 3.3 (of a possible 4.0 maximum) grade point average in the last 60 credits attempted in the relevant field;
2. Submission of the Graduate Record Examination (GRE) score is required. GRE scores more than five years old are normally not acceptable. The GRE requirement is waived for any student who has an M.S. degree without thesis from FAU's Department of Electrical Engineering and Computer Science;-
3. A master's degree in Engineering or a related discipline awarded by a recognized institution (thesis options are preferred);
4. Two reference forms that document the applicant's research potential, motivation, relative academic achievement and personality;
5. International students from non-English-speaking countries must be proficient in written and spoken English as evidenced by a score of at least 500 (paper-based test) or 213 (computer-based

test) or 79 (Internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing System (IELTS).

Applicants are expected to have taken the following prerequisite courses (or equivalents) before pursuing the Ph.D. degree. In some cases, prerequisite requirements may be satisfied after admission to the Ph.D. program. In such a case, proficiency in the prerequisite courses must be shown before the student takes dissertation credits.

From the following list of deficiency EE courses, students must take two mandatory courses and at least two courses from the list following the mandatory courses.

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### **Mandatory courses**

Electronics Laboratory 1	EEL 3118L
Signals and Digital Filter Design	EEL 3502

### **Choose at least two courses from the list**

Introduction to Embedded Systems Design	CDA 4630
Electronics 2 and Lab	EEE 4361C
Stochastic Processes and Random Signals	EEE 4541
Electromagnetic Fields and Waves	EEL 3470
Electric Power Systems	EEL 4216
Electrical Machines	EEL 4220
Principles of Communication Systems	EEL 4512C
Controls Systems 1	EEL 4652C

### **Candidacy Exam**

The candidacy exam is an exam intended to assess whether or not a student is ready to conduct research at the doctoral level and is able to publish in international conferences and journals. The exam must be passed for formal admission into the doctoral program. Students seeking the Ph.D. degree are expected to take the exam after completing 9 credits of their doctoral studies. A student failing the candidacy

exam may, upon re-application, take it a second time. Two failures will normally result in the student's dismissal from the Ph.D. program. Specific instructions for applying and taking the Candidacy Examination are detailed on the EECS [website](#).

### **Admission to Candidacy**

To be considered for the doctoral candidacy:

1. The student must pass the Candidacy Examination (CE) administered by the department.
2. Following successful completion of the CE, the student must find a qualified faculty member in the department willing to chair the doctoral (dissertation) committee. The dissertation committee chair will then consult with the student to form the complete committee. Working with this dissertation committee chair, the student must complete the official Admission to Candidacy application along with the approved Plan of Study.

Candidacy approval will be based on:

1. The academic record of the student;
2. An approved (tentative) dissertation topic.

A student may not register for dissertation credit until the application for candidacy has been approved.

### **Degree Requirements**

1. A minimum total of 72 credits is required beyond the bachelor's degree level. A master's degree in a related field is considered equivalent to 30 credits. Students must take a minimum of 18 credits of graduate coursework beyond the master's degree and a minimum of 24 dissertation credits.
2. Of the 18-credit minimum of coursework, a minimum of 12 credits must be Electrical Engineering courses (excluding directed independent study credits) and a minimum of 9 credits of 6000-level must be completed.
3. No more than 3 credits of directed independent study or advanced research may be used to satisfy the minimum of 18 credits. In that case, the subject matter may not overlap the student's dissertation.
4. No 4000-level course may be counted toward the degree. Courses taken to make up for deficiencies will not be counted toward the degree.
5. Specific Focus Area coursework will be required.
6. At least 6 credits in courses with math prefix are required as part of coursework beyond the bachelor's degree. These may include EEL 5613, Modern Control; EEE 5502, Digital Processing of Signals; EEL 6482, Electromagnetic Theory 1; EOC 5172, Mathematical Methods in Ocean

## Engineering 1.

7. Must complete two semesters of CGS 5937, Graduate Seminar (0 credits) with grades of Satisfactory ("S").
8. A written dissertation proposal must be accepted by the dissertation committee, at least six months prior to defending the dissertation.
9. When the candidate submits the Application for Graduation, he/she must indicate the following as a check list: (a) Date of QE taken and candidacy filed; (b) Date of dissertation proposal presented and approved by the Ph.D. Committee and (c) Status of the Plan of Study.
10. Draft copy of the dissertation must be submitted for review by the Ph.D. Committee at least 15 days prior to the date of defending the dissertation. And the dissertation must be completed and orally defended.

It is expected that all doctoral candidates have at least one research paper published or accepted for publication in a fully refereed conference or journal prior to graduation. A patent relevant to the Ph.D. research topic/dissertation as approved by the U.S. Patent Office with an assigned number can substitute for the journal or conference publication requirement.

### **Transfer Credits**

Any transfer credit toward requirements for the Ph.D. program must be approved by the department and the University. A maximum of 30 credits (which may include credits taken toward the master's degree with no more than 6 credits for the M.S. thesis) can be transferred into the student's program of study.

### **Time Limitation**

A Ph.D. student who enters the program with a master's degree has no more than 10 years to complete all requirements for the Ph.D. degree.

### **Dissertation Committee**

Students are encouraged to interact with faculty members of the department to select a dissertation advisor and research area/topic for their dissertation. After a student has passed the candidacy exam, a dissertation committee shall be formed to supervise the student's research work. The committee should consist of at least four faculty members who are familiar with the research area, three of whom are regular faculty members of the department. At least one member of the committee is recommended to be from outside the department (could be from another institution or industry), and this member should have an academic or professional level compatible with the rest of the committee. The committee is chaired by the student's dissertation advisor. The chair of the committee must be a faculty

member from the Department of Electrical Engineering and Computer Science. Students are expected to work in close cooperation with their dissertation committee and keep the committee members informed about their progress on a regular basis. The dissertation committee should meet with the student at least once a semester to review the progress of the research work.

### **Dissertation and Oral Defense**

The dissertation must be written in the format specified by the Graduate College. A copy of the dissertation must be submitted to the Graduate College for approval of the dissertation format. Dissertations must be defended orally. A dissertation should be submitted to the members of the dissertation committee for their review at least two weeks before the oral defense. After an oral defense, the members of the committee vote on acceptance or rejection of the dissertation. The committee may also suggest that the student do additional work to make the dissertation acceptable. The decision of the dissertation committee is reported in the form of a satisfactory/unsatisfactory grade for dissertation credits.

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### **Graduate Coursework - 18 credits** (for students entering with a master's degree)

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Select 18 credits at the 5000, 6000 or 7000 levels. Minimum of 12 credits in Electrical Engineering (excluding DIS). Maximum of 3 credits of Directed Independent Study or Advanced Research.

Directed Independent Study	EEL 6905 <b>or</b>
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Advanced Research	EGN 6918
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### **Dissertation - 24 credits**

Dissertation (taken over multiple terms)	EEL 7980
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For students entering with a bachelor's degree, see B.S. to Ph.D. programs earlier in this College of Engineering and Computer Science section.

### **Math Requirement - 6 credits**

Select one course from the following

Digital Processing of Signals	EEE 5502	3
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Modern Control	EEL 5613	3
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Control Systems 2	EEL 5654	3
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Electromagnetic Theory 1	EEL 6482	3
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Detection Theory	EEL 6537	3
Special Topics in Electrical Engineering	EEL 6935	1-4
Mathematical Methods in Ocean Engineering 1	EOC 5172	3
Queueing Theory	MAP 6264	3

## **ELECTRICAL ENGINEERING**

### **DOCTOR OF PHILOSOPHY (PH.D.)**

#### **Neuroengineering Concentration**

##### **Admission Requirements**

Applicants should meet all the admission requirements for the Ph.D. with Major in Electrical Engineering program.

##### **Degree Requirements**

Applicants should meet all the degree requirements for the Ph.D. with Major in Electrical Engineering program. In addition, the following requirements should be met.

1. Graduate coursework counted for the Ph.D. program must contain at least three graduate courses from the table below. These courses focus on theoretical and/or applied neuroengineering. Additional courses may be approved by the dissertation advisor. Graduate courses completed during the master's degree program may also be used to meet this requirement.
2. The student's Ph.D. dissertation research and scholarship must have a strong emphasis on one or more areas of neuroengineering, including but not limited to applied and/or theoretical areas.

#### **Engineering and Computer Science Courses**

Introduction to Biomedical Engineering	BME 5000	3
Biosystems Modeling and Control	BME 5742	3
Biomaterials	BME 6105	3
Stem Cell Engineering	BME 6324	3

Tissue Engineering	BME 6334	3
Neural Engineering	BME 6390	3
Advanced Topics in Microfluidics and BioMEMS	BME 6585	3
Computational Modeling of Biological Neural Networks	BME 6718	3
Bioinformatics: Biomedical Perspectives	BME 6762	3
Introduction to Neural Networks	CAP 5615	3
Artificial Intelligence	CAP 6635	3
Data Mining and Machine Learning	CAP 6673	3
Biosignal Processing	EEE 5286	3
Nanobiotechnology	EEE 5425	3
Robotic Applications	EEL 5661	3
Information Theory	EEL 6532	3
Neural Complex and Artificial Neural Networks	EEL 6819	3
<b>Science Courses</b>		
Cognitive Neuroscience	ISC 5665	3
Computational Neuroscience	ISC 6460	3
Neurophysiology	PCB 6835C	3
Cellular and Molecular Neuroscience	PSB 6345	3
Systems and Integrative Neuroscience	PSB 6346	3

## BIOMEDICAL ENGINEERING

### Faculty:

Agaarwal, A.; Asghar, W.; Assis, R.; DeGiorgio, M.; Du, S.; Engeberg, E.; Ghoraani, B.; Hashemi, J.; Kang, Y.; Pavlovic, M.; Ranji, M.; Pashaie, R.; Shankar, R.; Yi., P.; Zhi, H.

Biomedical Engineering stands at the intersection of the revolution taking place in advanced medical treatments as a result of applying the principles and practice of the engineering and computer science disciplines to the biological, biomedical and medical sciences. Biomedical Engineering is a broad and emerging field that impacts drug delivery, surgery, diagnosis, prevention and treatment. Students successfully completing the Master of Science with major in Biomedical engineering program will be prepared for professional careers in businesses related to medical diagnostics, prosthetic devices and neural and other implants; the pharmaceutical and biotechnology industries; and consulting in health-related fields, as well as other positions in industry, commerce, education and government. Students will also be prepared to continue their formal education at the Ph.D. level in a variety of science and engineering disciplines and at the M.D. level in certain cases. The Master of Science with major in Biomedical Engineering is available in person and fully online.

[Link to Combined Bachelor of Science in Biomedical Engineering \(B.S.B.M.E.\)](#)

[Link to Master of Science in Biomedical Engineering](#)

## **BIOMEDICAL ENGINEERING BACHELOR OF SCIENCE**

*(Minimum of 120 credits required)*

The program of study leading to the Bachelor of Science in Biomedical Engineering (B.S.B.M.E.) reflects the breadth of the profession. Students complete coursework in basic science and mathematics, engineering sciences and engineering systems and materials. The major includes five areas of focus: 1. Biomaterials and Tissue Engineering; 2. Smart Health Systems; 3. Biorobotics; 4. Bioinformatics; and 5. Nursing Technologist. The Biomedical Engineering program is the first to offer the Nursing Technologist track and an interface with the artificial intelligence center that will add benefits to the Biorobotics and Smart Health Systems focus areas.

### **Biomedical Engineering Educational Objectives and Student Outcomes**

The Biomedical Engineering program strongly supports the educational objectives and learning outcomes of the College of Engineering and Computer Science (see the [Educational Objectives](#) and [Expected Student Learning Outcomes](#) subsections previously listed in this section).

Program Educational Objectives are broad statements that describe the expected accomplishments and professional status of Biomedical Engineering graduates a few years beyond the baccalaureate degree.

The Biomedical Engineering program at Florida Atlantic University is dedicated to graduating

engineers who, within a few years after graduation will:

1. **Practice biomedical engineering** within the general areas of biomaterials and tissue engineering, bio-robotics, bioinformatics, nursing technology and smart health systems in the organizations that employ them;
2. **Advance their knowledge of biomedical engineering**, both formally and informally, by engaging in lifelong learning experiences including attainment of professional licensure and/or graduate studies;
3. **Serve as effective professionals** based on strong interpersonal and teamwork skills, an understanding of professional and ethical responsibility and a willingness to take the initiative and seek progressive responsibilities; and
4. **Participate as leaders** in activities that support service to, and/or economic development of, the community, the region, the state and the nation.

The educational objectives of the Bachelor of Science in Biomedical Engineering program are achieved by ensuring that graduates have the following characteristics or student outcomes:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics;
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors;
3. An ability to communicate effectively with a range of audiences;
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts;
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives;
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions; and
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

### Admission Requirements

All students must meet the minimum admission requirements of the University. Please refer to the [Admissions](#)

section of this catalog. All students must meet the preprofessional requirements listed above to be accepted in the B.S.B.M.E. program.

## Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the Transition Guides and below.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Degree Requirements

The Bachelor of Science in Biomedical Engineering degree will be awarded to students who:

1. Meet all general degree requirements of the University.
2. Complete the curriculum for the B.S. in Biomedical Engineering degree (see below).

## Curriculum

The Bachelor of Science in Biomedical Engineering degree requires 120 credits. For credit toward the degree, a grade of "C" or better must be received in each course listed. In addition, all prerequisites for each mathematics, science or engineering course must be completed with a grade of "C" or better before enrollment is permitted. The degree components are listed below.

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### General Education Program

College Writing 1 (2,3)	ENC 1101	3
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College Writing 2 (2,3)	ENC 1102	3
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<a href="#">General Education Program: Society and Human Behavior Courses</a>		6
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<a href="#">General Education Program: Global Citizenship Courses</a>		6
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<a href="#">General Education Program: Humanities Courses</a>		6
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**Foundations of Math and Quantitative Reasoning**

Calculus with Analytic Geometry 1 (1,4)	MAC 2311	4
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Calculus with Analytic Geometry 2 (1,4)	MAC 2312	4
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**Foundations of Science and the Natural World**

General Chemistry 1 (1,5)	CHM 2045	<b>3 and</b>
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General Chemistry 1 Lab	CHM 2045L	1
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General Physics for Engineers 1 (1,5,7)	PHY 2048	<b>3 and</b>
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General Physics 1 Laboratory	PHY 2048L	1
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<b>Total</b>		<b>40</b>
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**Basic Mathematics and Science**

Statistics Restricted Elective		3
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Engineering Mathematics 1	MAP 3305	<b>3 or</b>
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Differential Equations 1	MAP 2302	3
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Bioprinciples 1 (5)	BSC 1010	<b>3 and</b>
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Bioprinciples Lab	BSC 1010L	1
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General Chemistry 2 (5)	CHM 2046	<b>3 and</b>
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General Chemistry 2 Lab	CHM 2046L	1
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Organic Chemistry 1	CHM 2210	3
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Organic Chemistry 2	CHM 2211	3
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Biochemistry 1	BCH 3033	<b>3 and</b>
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Anatomy and Physiology 1	BSC 2085	<b>3 and</b>
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Anatomy and Physiology 1 Lab	BSC 2085L	1
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Genetics	PCB 3063	4
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**Total****33**

Statistics Restricted Elective: Probability and Statistics for Engineers (STA 4032), Stochastic Models for Computer Science (STA 4821), Probability and Statistics 1 (STA 4442), Introduction to Biostatistics (STA 3173) or equivalent.

Total above is 74, leaving 46 credits of Engineering courses to comply with ABET criteria.

**Engineering Fundamentals**

Fundamentals of Engineering	EGN 1002	3
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***Engineering Graphics Elective***

Computer Aided Design	CGN 2327	3 or
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Engineering Graphics	EGN 1111C	3
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<b>Total</b>		<b>6</b>
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**Basic Engineering**

Introduction to Programming in Python	COP 3035	3
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Statics	EGN 3311	3
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Dynamics	EGN 3321	3
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Circuits 1	EEL 3111	3
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Introduction to Biomedical Engineering	BME 5000	3
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<b>Total</b>		<b>15</b>
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***For the Bioimaging, Bioinformatics or Smart Health Track, as a prerequisite:***

Data Structures and Algorithms Analysis	COP 3410	3 or
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***For the Biorobotics or Biomaterials and Tissue Engineering Tracks, as a prerequisite:***

Engineering Thermodynamics	EGN 3343	3
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<b>Total</b>		<b>3</b>
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### Capstone Design Core

RI: Engineering Design 1 (5)	EGN 4950C	3
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RI: Engineering Design 2 (5)	EGN 4952C	3
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<b>Total</b>		<b>6</b>
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### Choose two Focus Areas for a total of 12 credits, 6 from each area

#### *Biomaterials and Tissue Engineering Focus Area - Choose two courses from the list*

Neural Engineering	BME 4361	3
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Nanotechnology	BME 4571	3 or
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Introduction to Nanotechnology	BME 4574	3
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<b>Total</b>		<b>6</b>
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#### *Biorobotics Focus Area - Choose two courses from the list*

Introduction to Microfluidics d BioMEMS	BME 4561	3
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Electro-Mechanical Devices	EGM 4045	3
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Introduction to Robotics	EML 4800	3
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<b>Total</b>		<b>6</b>
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#### *Bioimaging / Nursing Technologies Focus Area - Choose two courses from the list*

Introduction to Biosignal Processing	BME 4509	3
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Introduction to Bioimaging	BME 4536	3
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Signal and Digital Filter Design	EEL 3502	3
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<b>Total</b>		<b>6</b>
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#### *Bioinformatics Focus Area - Take the following two courses*

Computational Genomics	CAP 4511	3
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Algorithms for Bioinformatics	CAP 4543	3
<b>Total</b>		<b>6</b>
<i>Smart Health Systems Focus Area - Choose two courses from the list</i>		
Introduction to Deep Learning	CAP 4613	3
Introduction to Artificial Intelligence	CAP 4630	3
Introduction to Data Mining and Machine Learning	CAP 4770	3
<b>Total</b>		<b>6</b>
<i>Technical Electives - Choose 3 credits from the list</i>		
Professional Internship	IDS 3949	0-4 <b>or</b>
Engineering Professional Internship	EGN 3941	0-4
Directed Independent Research in Engineering and Computer Science (6)	EGN 4915	1-3
For pre-med students, choose biology lab and organic chemistry lab for 3 credits		
<b>Total</b>		<b>3</b>
<b>Total Program</b>		<b>120</b>

**Notes:**

1. Contributes to University Core Curriculum.
2. Contributes to Writing Across Curriculum (Gordon Rule) writing.
3. General Education Program courses, totaling 6 credits, must be selected to satisfy Writing Across Curriculum (Gordon Rule) writing requirements.
4. Contributes to Gordon Rule mathematics.
5. Includes a 1-credit laboratory.
6. Grading: S/U.
7. PHY 2048, General Physics for Engineers 1 (4 credits) is an acceptable substitute, but only 3 credits will apply toward the degree.

**Internships**

Biomedical Engineering students are strongly encouraged to gain practical experience through

participation in internship opportunities. However, internships require prior approval from the department and coordinated with the Career Center (EGN 3941, Engineering Professional Internship). For more information, contact the FAU Career Center at 561-297-3533 or visit [www.fau.edu/cdc](http://www.fau.edu/cdc).

## **ANY MAJOR IN THE COLLEGE (B.S.) TO BIOMEDICAL ENGINEERING BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

Bachelor of Science candidates in any College of Engineering and Computer Science program with a cumulative GPA of at least 3.25 at the end of their junior year are eligible to apply to the combined program, which allows students to complete their bachelor's, as well as a master's in Biomedical Engineering, within approximately five years. After application and admittance to the graduate program at the beginning of their senior year, up to 12 credits of approved graduate-level courses (5000 level or higher) may be taken and counted toward both the B.S. and M.S. degrees as long as the combined program totals a minimum of 150 credits:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

Students must retain a cumulative GPA of 3.25 by the time of graduation. Thesis and Non-Thesis options are available. See below for master's program admission and degree requirements.

## **BIOMEDICAL ENGINEERING MASTER OF SCIENCE (M.S.)**

### **Admission Requirements**

All applicants must submit official transcripts from all previous postsecondary institutions attended. Applicants for admission will be evaluated on an individual basis and must satisfy the following requirements. Students with non-engineering bachelor's degrees, click [here](#) for additional requirements.

1. International students from non-English-speaking countries must be proficient in written and spoken English as evidenced by a score of at least 500 (paper-based test) or 213 (computer-based test) or 79 (Internet-based test) on the Test of English as a Foreign Language (TOEFL) or a score of at least 6.0 on the International English Language Testing System (IELTS);
2. A baccalaureate degree in Biology, Chemistry, Physics, Computer Science or Engineering with a mathematics background through Calculus 2 or calculus with basic differential equations.\*

3. A minimum GPA of 3.0 (of a possible 4.0 maximum) in Science, Mathematics and Engineering courses;

\* Students whose backgrounds are not in the disciplines noted should expect to take additional coursework.

### **Submission of Plan of Study**

Graduate students are required to submit a Plan of Study when they have completed between 9 and 15 credits of coursework with a minimum cumulative GPA of 3.0. A student may not register for thesis credits prior to submitting a Plan of Study.

### **Degree Requirements**

Students must satisfy all of the University graduate requirements. In addition, the following specific degree requirements apply, depending on the choice of degree program:

#### **Thesis Option (30 credits)**

1. Requires 6 credits of orally defended thesis. The M.S. committee is chaired by the student's thesis advisor. The chair of the committee must be a graduate faculty member from any department within the College of Engineering and Computer Science.
2. Requires 24 credits of approved graduate coursework (5000 level or higher) of which 12 credits are program core courses and the remaining 12 credits are approved elective courses offered by the College of Engineering and Computer Science and the Charles E. Schmidt College of Science.
3. No 4000-level course is allowed toward the degree. Courses taken to make up for deficiencies will not be counted toward the degree.
4. Must complete one semester of CGS 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S").

**Note:** No more than 3 credits of directed independent study may be applied toward the master's degree with thesis option.

#### **Non-Thesis Option (30 credits )**

1. Requires 30 credits of approved coursework of which 12 credits are program core courses and the remaining 18 credits are approved elective courses offered by the College of Engineering and Computer Science and the Charles E. Schmidt College of Science.
2. No 4000-level course is allowed toward the degree. Courses taken to make up for deficiencies will not be counted toward the degree.
3. Must complete one semester of CGS 5937, Graduate Seminar (0 credits) with grade of

Satisfactory ("S").

**Note:** No more than 3 credits of directed independent study may be applied toward the master's degree non-thesis option.

### Deficiency Requirements in the M.S. in Biomedical Engineering Program

It is expected that students successfully complete a course in Genetics or Molecular Genetics (PCB 4522 or PCB 3063 at FAU or equivalent) at any time during their MSBE studies. The lack of this course will be considered a deficiency. Students are expected to take the necessary course during their course program as an extra load beyond the regular graduate coursework. A genetics course must be completed prior to enrollment into the Special Topics (Advanced Biotechnology Lab) core course.

Students who have had no computer programming coursework during their B.S. studies are required to take any undergraduate programming course (such as COP 2220, Programming 1, to satisfy this deficiency. The requirement must be satisfied prior to taking any of the following core courses: BME 5742, Biosystems Modeling and Control or BME 6762, Bioinformatics: Biomedical Engineering Perspectives.

Furthermore, an advisor's approval is required for students not having the required mathematics background.

### Program Core Courses (12 credits)

Introduction to Biomedical Engineering	BME 5000
Biosystems Modeling and Control	BME 5742
Bioinformatics: Biomedical Perspectives	BME 6762 <b>or</b>
Data Mining and Machine Learning	CAP 6673
Laboratory Methods in Biotechnology	BSC 6408L

### Deficiency Requirements (not counted in the total program credits)

Genetics	PCB 3063
Introduction to Programming in Python	COP 3035

### Bioinformatics Concentration

As part of the Biomedical Engineering master's program, students may pursue the Bioinformatics concentration option. To accomplish this, the following two courses must be taken to count as Biomedical Engineering, Computer Science and Engineering electives.

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### **Bioinformatics Concentration Core Courses - 6 credits**

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Data Structures and Algorithms for Bioinformatics	CAP 5548
Introduction to Data Science	CAP 5768

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Students in the Bioinformatics concentration must also take at least three courses from the following table to count as Biomedical Engineering, Computer Science and Engineering electives. Additional courses may be used as replacements to the listed courses with prior approval of the department.

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### **Bioinformatics Concentration Semi-Core Courses - 9 credits**

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Algorithms in Bioinformatics	BME 6765
Computational Genomics	CAP 6517
Databases for Bioinformatics	CAP 6547
Artificial Intelligence in Medicine and Healthcare	CAP 6683
Data-Driven Engineering	CAP 6805

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Bioinformatics concentration students take either an additional Biomedical Engineering, Computer Science or Engineering course or a free elective to fulfill the requirements of the Biomedical Engineering master's program.

### **Electives**

**Thesis Option** (12 credits of elective courses as follows):

At least 9 credits from the Advising Sheet list of Engineering and Computer Science or Science Biomedical Engineering courses (such as Tissue Engineering, Stem Cell Engineering, Biomaterials, Introduction to Microfluidics and BioMEMS, Introduction to Robotics, NanoBiotechnology, Robotic Applications and Orthopedic Biomechanics, Medical Imaging, Bio-Signal Processing and Bioinformatics).

Up to 3 elective credits of approved Engineering and Computer Science or Science coursework may be added (courses such as Digital Signal Processing, Digital Image Processing, Machine Learning and Artificial Intelligence, Modern Control, Advanced Database Systems, Nanotechnology, Cellular and Molecular Neuroscience, Systems and Integrative Neuroscience or a directed independent study course).

**Non-Thesis Option** (18 credits of elective courses as follows):

At least 9 credits from the Advising Sheet of Engineering and Computer Science or Science Biomedical Engineering courses (such as Tissue Engineering, Stem Cell Engineering, Biomaterials, Introduction to Microfluidics and BioMEMS, Introduction to Robotics, NanoBiotechnology, Robotic Applications and Orthopedic Biomechanics, Medical Imaging, Bio-Signal Processing and Bioinformatics).

Up to 9 elective credits of approved Engineering and Computer Science or Science coursework may be added (courses such as Digital Signal Processing, Digital Image Processing, Machine Learning and Artificial Intelligence, Modern Control, Advanced Database Systems, Nanotechnology, Cellular and Molecular Neuroscience, Systems and Integrative Neuroscience, Immunology, Biology of Cancer, or an additional directed independent study course).

Up to 6 elective credits may be free elective courses (not included on the Biomedical Engineering Advising Sheet) subject to approval of the Biomedical Engineering Program Advisor.

## **BIOMEDICAL ENGINEERING GRADUATE CERTIFICATE**

*(Minimum of 15 credits required)*

The College offers a graduate non-degree-seeking certificate in Biomedical Engineering. This certificate program is a practice-oriented, part-time graduate program designed to assist engineers, scientists, technical professionals and qualified senior undergraduates in the launch and/or development of their careers and to provide the technical expertise needed in the rapidly changing business, government and industrial environments.

### **Program Highlights**

This is a 15-credit graduate non-degree-seeking certificate program focused on the application of engineering and computer science principles to biotechnology, bioinformatics and biosystems. It is designed for engineers and scientists working in the biotechnology, pharmaceutical, health care, drug

discovery, biomedical, medical instrumentation and allied sectors.

### **Admission Requirements**

The applicant must satisfy the following criteria:

1. A bachelor's degree in biology, chemistry, physics or engineering with a mathematics background through Calculus 2 or calculus with basic differential equations. Qualified senior undergraduates may be accepted into the graduate certificate program with appropriate committee recommendation;
2. GPA of 3.0 in science, mathematics and engineering courses;
3. No GRE scores are necessary. Student transcripts should demonstrate competency in science, mathematics and engineering coursework.

### **Certificate Requirements**

1. PCB 3063, Genetics, (or an equivalent course) as a deficiency requirement with a minimum grade of "C";
2. Biomedical Engineering courses (9 credits) such as Introduction to Biomedical Engineering, Biosystems Modeling and Control, Bioinformatics: Biomedical Engineering Perspectives, Tissue Engineering, Stem Cell Engineering, Biomaterials, Introduction to Microfluidics and BioMEMS, Introduction to Robotics, NanoBiotechnology, Robotic Applications and Orthopedic Biomechanics, Medical Imaging and Bio-Signal Processing;
3. Science courses (6 credits) relevant to Biomedical Engineering such as Special Topics (Advanced Biotechnology Lab), Bioinformatics, Cellular and Molecular Neuroscience, and Systems and Integrative Neuroscience;
4. The grade point average of the above 15 credits must be 3.0 or better;
5. All courses must be at the 5000 and 6000 levels.

## **OCEAN AND MECHANICAL ENGINEERING**

### **Faculty:**

Beaujean, P. P. J.; Chair; Abtahi, H.; An, P.; Cai, G. Q.; Carlsson, L. A.; Curet, O.; Davidson, J. B., Emeritus; Dhanak, M.; Du, S. E.; Elishakoff, I.; Engeberg, E. D.; Hartley, C. S., Emeritus; Hartt, W. H., Emeritus; Hashemi, J.; Jurewicz, J. T., Emeritus; Kang, Y.; Kim, M.; LeBlanc, L. L., Emeritus; Lin, Y. K., Emeritus; Mahfuz, H.; Masory, O.; Merk, V.; Moslemian, D.; Nayak, A.; Presuel-Moreno, F.; Salivar, G. C.; Schock, S.; Stevens, K. K., Emeritus; Su, T. C.; Tennant, J. S., Emeritus; Tsai, C. T.; VanZwieten, J.; Verma, S.

The Department of Ocean and Mechanical Engineering offers programs of study leading to the following degrees:

**Ocean Engineering:** Bachelor of Science in Ocean Engineering (B.S.O.E.), Master of Science (M.S.) with major in Ocean Engineering (thesis and non-thesis options), Master of Science (M.S.) with major in Ocean Engineering and minor in Business, and Doctor of Philosophy (Ph.D.) with major in Ocean Engineering.

**Mechanical Engineering:** Bachelor of Science in Mechanical Engineering (B.S.M.E.), Master of Science (M.S.) with major in Mechanical Engineering (thesis and non-thesis options), Master of Science (M.S.) with major in Mechanical Engineering and minor in Business, Master of Science (M.S.) with major in Mechanical Engineering and minor in Engineering Management, and Doctor of Philosophy (Ph.D.) with major in Mechanical Engineering.

To encourage undergraduates to pursue a graduate education, the department also offers [joint B.S.O.E. to M.S.](#) and [joint B.S.M.E. to M.S.](#) degree programs that permit students to complete both a bachelor's and a master's degree within five years. A [B.S.M.E. to M.S. in Artificial Intelligence](#) combined program is also available. Two additional combined degree programs, [B.A. or B.S. in Biological and Physical Sciences to M.S. in Ocean or Mechanical Engineering](#), are offered in partnership with the [Wilkes Honors College](#).

[Link to Mechanical Engineering Programs](#)

## OCEAN ENGINEERING

[Link to Certificate Programs, Undergraduate](#)

[Link to Combined Programs](#)

[Link to Master's Program](#)

[Link to Aerospace Engineering Graduate Certificate](#)

[Link to Corrosion Graduate Certificate](#)

[Link to Offshore Engineering Graduate Certificate](#)

[Link to Doctoral Program](#)

## BACHELOR'S PROGRAM

### **OCEAN ENGINEERING** **BACHELOR OF SCIENCE (B.S.)**

*(Minimum of 127 credits required)*

The Ocean Engineering program provides a comprehensive, practical curriculum in science and engineering that prepares the student to perform engineering tasks in the ocean environment. Graduates of this program are prepared for professional positions in industry and government or for graduate studies in engineering. At the lower-division level, the program requires a firm foundation in English composition and grammar, mathematics and chemistry, plus courses in the social sciences and arts and humanities to give the student a balanced educational background for the engineering profession. This coursework is provided in the pre-engineering or pre-ocean engineering (university parallel) programs of community or state colleges and the lower-division pre-engineering programs of most universities.

The Ocean Engineering program includes integrated courses encompassing the basic engineering sciences and mathematics, study of the ocean environment and its relationship to other sciences and engineering, processing of ocean engineering data, the engineering design of components and systems for use in the ocean and the application of these elements to the solution of engineering problems connected with work in or on the ocean and in developing the resources of the oceans.

Emphasis is placed on the solution of engineering problems related to the ocean in such areas as underwater acoustics, marine vehicles, environmental engineering, fluid mechanics, structures and materials. An optional Cooperative Work Study program that provides practical experience in industry or government laboratories is available to students who qualify.

Engineering design is an important part of the program, including a significant design experience. Seniors complete the final year of their program in an oceanside environment at SeaTech, the department's Institute for Ocean and Systems Engineering on the Dania Beach campus.

The Ocean Engineering program at FAU was designated a "State University System Program of Distinction" by the Board of Regents in October 1974. The designation was one of the five originally made throughout the entire state system. Founded in 1965 as the first such undergraduate program in

the nation, the Ocean Engineering program at FAU is still one of the largest in the country.

### **Mission Statement and Program Goal**

The Ocean Engineering program's mission is to provide an outstanding ocean engineering program for learning and research and to prepare individuals to meet national and international engineering challenges in the ocean environment.

The goal of the program is to develop and offer a comprehensive and broad curriculum in science and engineering that prepares a student to, upon graduation, effectively perform engineering tasks in the ocean environment or to successfully pursue higher studies and research in engineering.

### **Ocean Engineering Program Educational Objectives**

Graduates of the Ocean Engineering baccalaureate program at the Florida Atlantic University, within a few years after graduation, will:

1. Demonstrate the ability to carry out engineering tasks in the multidisciplinary field of ocean engineering;
2. Make meaningful contributions in terms of design, development and integration of engineering systems, particularly for applications in the ocean environment;
3. Pursue further study for the graduate degree and/or participate in professional societies;
4. Develop and exhibit leadership qualities in their engineering work;
5. Understand various complexities and issues of the contemporary society and make professional contributions in the larger and long-term interest of the society.

### **Educational Outcomes for Student Performance**

The program will meet the above objectives by establishing the following educational outcomes for student performance. At the time of graduation, the students will attain the following:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics;
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors;
3. An ability to communicate effectively with a range of audiences;
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts;
5. An ability to function effectively on a team whose members together provide leadership, create a

collaborative and inclusive environment, establish goals, plan tasks and meet objectives;

6. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions;
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

### **Academic Advising**

It is an Ocean Engineering program requirement that all students, including incoming freshmen, meet with their Ocean Engineering academic advisor every semester prior to registering for classes.

### **Admission and Degree Requirements**

All students must meet the minimum admission requirements of the University. Please refer to the [Admissions section](#) of this catalog.

All students must meet the preprofessional requirements listed [above](#) in order to be accepted into the Ocean Engineering program.

Transfer students who have an A.A. degree are expected to have completed the following course requirements (deficiencies may be taken at FAU); see the [Degree Requirements](#) section of this catalog for the required minimum grades.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Graduation Requirements**

1. Students who enter Florida Atlantic University as freshmen must meet all baccalaureate degree requirements of the University, including the [General Education Program requirements](#). Students who transfer to FAU with 30 or more accepted credits must meet all baccalaureate degree

requirements of the University, including the [General Education](#) and [Gordon Rule requirements](#).

- Students must maintain an overall 2.0 grade point average in all courses. A grade of "C" or better must be received in all engineering, mathematics, chemistry and physics courses required for the degree. A grade of "C" or better means a grade of "C" or "C+" and excludes a grade of "C-." Courses taken as pass/fail will not be accepted for any required Ocean Engineering courses.

A subsequent course may not be taken if a required grade of "C" or better is not earned in the prerequisite course. With appropriate justification, a prerequisite waiver may be granted by the Ocean Engineering petitions committee. Prerequisite and corequisite courses must be taken in the proper sequence.

- Students must satisfy the following curriculum requirements; however, since the curriculum is subject to revision, students should check with the Ocean Engineering program for the latest requirements.

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### Ocean Engineering Core

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C for Engineers	EEL 2161	3
Electro-Mechanical Devices	EGM 4045	3
Fundamentals of Engineering	EGN 1002	3
Statics	EGN 3311	3
Dynamics	EGN 3321	3
Strength of Materials	EGN 3331	3
Engineering Thermodynamics	EGN 3343	3
Engineering Materials 1	EGN 3365	3
Vibration Synthesis and Analysis	EGN 4323	3
Dynamic Systems	EGN 4432	3
Fabrication of OE Systems	EOC 2801	1
Ocean Engineering Fluid Mechanics	EOC 3123	4

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Ocean Engineering Lab	EOC 3130L	3
Materials 1 – Marine Topics	EOC 3213	1
Acoustics for Ocean Engineers	EOC 3306	3
Structural Analysis	EOC 3410C	3
Ocean Thermal Systems	EOC 4193	3
Ocean Wave Mechanics	EOC 4422	3
Ocean and Environmental Data Analysis	EOC 4631C	3
RI: Ocean Engineering Systems Control and Design	EOC 4804	3
RI: Ocean Engineering Systems Control and Design Laboratory	EOC 4804L	4

***Choose one of the following four junior elective courses:***

Innovative Sensing and Actuation Technology	EGN 4670C	3
Directed Independent Research in Engineering and Computer Science	EGN 4915	3
Finite Element Analysis for Engineering Design	EGM 4350	3
Professional Internship	IDS 3949	3

***Choose two of the following four courses:***

Ocean Structures	EOC 4412	3
Ship Hydrodynamics	EOC 4124	3
Underwater Acoustics	EOC 4307C	3
Marine Materials and Corrosion	EOC 4201C	3

**Non-Engineering Core**

*(grade of "C" or higher required)*

Engineering Graphics	EGN 1111C	3
Oceanography	OCE 3008	3

The courses during the last year of study are taught at the SeaTech campus in Dania Beach. Students may not deviate from either the courses defined or the sequence of courses defined for the Ocean Engineering curriculum. In exceptional cases, deviations may be approved in advance by petition to the Ocean Engineering petitions committee. Courses taken in violation of this policy cannot be counted toward the Bachelor of Science in Ocean Engineering degree.

### Internship Programs

Internships are available at marine industries and naval research laboratories. Although an internship is not a requirement of the Bachelor of Science in Ocean Engineering degree program, students are strongly encouraged to make use of this opportunity and complete an internship prior to their senior year. For information, students should contact their Ocean Engineering academic advisor.

### Sample Four-Year Program of Study for Bachelor of Science in Ocean Engineering

#### First Year, Fall (14 credits)

College Writing 1*	ENC 1101	3
General Chemistry 1	CHM 2045	3
General Chemistry 1 Lab	CHM 2045L	1
Calculus with Analytic Geometry 1	MAC 2311	4
Fundamentals of Engineering	EGN 1002	3

#### First Year, Spring (14 credits)

College Writing 2*	ENC 1102	3
Oceanography	OCE 3008	3
General Physics for Engineers 1	PHY 2048	3
General Physics 1 Lab	PHY 2048L	1

Calculus with Analytic Geometry 2	MAC 2312	4
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**First Year, Summer (7 credits)**

Calculus with Analytic Geometry 3	MAC 2313	4
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Foundations of Humanities course		3
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**Second Year, Fall (13 credits)**

Engineering Math 1	MAP 3305	3
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Physics for Engineers 2	PHY 2044	3
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General Physics 2 Lab	PHY 2049L	1
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Statics	EGN 3311	3
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C for Engineers	EEL 2161	3
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**Second Year, Spring ( 15 credits)**

Engineering Graphics***	EGN 1111C	3
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Dynamics	EGN 3321	3
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Strength of Materials	EGN 3331	3
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Engineering Thermodynamics	EGN 3343	3
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Ocean Engineering Lab	EOC 3130L	3
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**Second Year, Summer (6 credits)**

Electro-Mechanical Devices	EGM 4045	3
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Foundations of Humanities course*		3
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**Third Year, Fall (13 credits)**

Engineering Materials 1	EGN 3365	3
Vibrations Synthesis and Analysis	EGN 4323	3
Ocean Engineering Fluid Mechanics	EOC 3123	4
<a href="#">Foundations of Global Citizenship course*</a>		3

**Third Year, Spring (13 credits)**

Dynamic Systems	EGN 4322	3
Fabrication of Ocean Engineering Systems	EOC 2801	1
Acoustics for Ocean Engineers	EOC 3306	3
Structural Analysis	EOC 3410C	3
Ship Hydrodynamics	EOC 4124	3 <b>or</b>
Marine Materials and Corrosion	EOC 4201C	3

**Third Year, Summer (6 credits)**

<a href="#">Foundations of Global Citizenship course</a>	3
<a href="#">Foundations of Society and Human Behavior course</a>	3

**Fourth Year, Fall (13 credits)**

Materials 1 - Marine Topics	EOC 3213	1
Ocean Thermal Systems	EOC 4193	3
Ocean Wave Mechanics	EOC 4422	3

Ocean and Environmental Data Analysis	EOC 4631C	3
RI: Ocean Engineering Systems Control and Design	EOC 4804	3
<b>Fourth Year, Spring (13 credits)</b>		
Finite Element Analysis for Engineering Design	EGM 4350	3 <b>or</b>
Innovative Sensing and Actuation Technologies	EGN 4670C	3 <b>or</b>
Professional Internship	IDS 3949	3 <b>or</b>
Directed Independent Research in Engineering and Computer Science	EGN 4915	3
Underwater Acoustics****	EOC 4307C	3 <b>or</b>
Ocean Structures****	EOC 4412	3
RI: Ocean Engineering Systems Control and Design Laboratory	EOC 4804L	4
<b>Foundations of Society and Human Behavior course</b>		3
<b>Total</b>		<b>127</b>

\* WAC (Gordon Rule) course.

\*\* Engineering Graphics should typically be taken at FAU.

\*\*\* Choose one courses from these two courses.

\*\*\*\* Choose two courses from these four senior elective courses.

## CERTIFICATE PROGRAMS

### AEROSPACE ENGINEERING UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The undergraduate certificate in Aerospace Engineering, offered by the Ocean and Mechanical Engineering Department, is designed to combine broad engineering disciplines with knowledge of engineering principles specific to aerospace engineering. This 15-credit program supports students wishing to work in aerospace companies and government agencies, such as the National Aeronautics and Space Administration.

## Curriculum

To earn this certificate, a student must successfully complete the following 15 credits:

**1. Three courses (9 credits) in the field of aerospace engineering:**

Aerodynamics	EAS 4101	3
Flight Dynamics	EAS 4105	3
Principles of Turbomachinery	EML 4401	3 <b>or</b>
Turbomachinery	EML 6402	3

**2. A faculty-mentored design/research project with elements of aerospace engineering (3 credits), carried out either as part of:**

RI: Design Project	EML 4551	3 <b>or</b>
Directed Independent Research in Engineering and Computer Science	EGN 4915	3

**3. One course (3 credits) from the following:**

Finite Element Analysis for Engineering Design	EGM 4350	3
Engineering Materials 1	EGN 3365	3
Dynamic Systems	EGN 4432	3
Fluid Mechanics	EML 3701	3
Applied Thermal-Fluid Systems	EML 4127	3
Machine Design	EML 4500	3

## BIOMEDICAL ENGINEERING UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The undergraduate certificate in Biomedical Engineering, offered by the Ocean and Mechanical Engineering Department, is designed to integrate broad engineering disciplines with interdisciplinary knowledge of science and healthcare specific to biomedical engineering. The main mission of this 15-credit program is to educate and prepare students in the fields of biomedical engineering, science and healthcare such that they can be placed in the best medical, graduate and industry positions across the globe.

## Curriculum

To earn this certificate, a student must successfully complete the following 15 credits:

1. **Three courses (9 credits) in the field of biomedical engineering:**

Biomaterials	BME 4100	3 <b>or</b>
Biomaterials	BME 6105	3
Introduction to Microfluidics and BioMEMS	BME 4581	3 <b>or</b>
Advanced Topics in Microfluidics and BioMEMS	BME 6585	3
Neural Engineering	BME 4361	3

2. **A faculty-mentored design/research project with elements of biomedical engineering (3 credits), carried out either as part of:**

RI: Design Project	EML 4551	3 <b>or</b>
Directed Independent Research in Engineering and Computer Science	EGN 4915	3

3. **One course (3 credits) from the following:**

Intermediate Strength of Materials	EGM 4523C	3
Engineering Materials 1	EGN 3365	3
Fluid Mechanics	EML 3701	3

## MARINE MATERIALS AND OFFSHORE ENGINEERING UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The undergraduate certificate in Marine Materials and Offshore Engineering, offered by the Ocean and Mechanical Engineering Department, is designed to combine broad engineering disciplines with knowledge of engineering principles specific to materials and structures. This 15-credit program supports the preparation of students to work at ocean engineering/maritime companies and governmental agencies that specialize in marine materials and offshore structures.

To earn this certificate, a student must successfully complete the following:

Strength of Materials	EGN 3331	3
<b>Two courses (6 credits) in the field of engineering materials and structures</b>		
Marine Materials and Corrosion	EOC 4201C	3
Ocean Structures	EOC 4412	3
<b>One course (3 credits) from the following list</b>		
Professional Internship (in a related area)	IDS 3949	3
Finite Element Analysis for Engineering Design	EGM 4350	3
Directed Independent Research in Engineering and Computer Science	EGN 4915	3
Introduction to Ocean Instrumentation	EOC 4620	3 or
Ocean Instrumentation	EOC 6625	3
<b>A faculty-mentored design/research project with elements of marine materials and offshore engineering (3 credits)</b>		
RI: Ocean Engineering Systems Control and Design	EOC 4804	3

## NAVAL ARCHITECTURE UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

This undergraduate certificate in Naval Architecture, offered by the Ocean and Mechanical Engineering Department, is designed to combine broad engineering disciplines with knowledge of engineering principles specific to naval architecture. This 15-credit program supports the preparation of students to work at ocean engineering/maritime companies and governmental agencies that specialize in ship design and naval architecture.

To earn this certificate, a student must successfully complete the following 15 credits:

Ocean Wave Mechanics	EOC 4422	3
<b>Two courses (6 credits) in the field of naval architecture from the following list</b>		
Ship Hydrodynamics	EOC 4124	3 <b>or</b>
Hydrodynamic Aspects of Ship Design	EOC 6515	3
Ocean Structures	EOC 4412	3 <b>or</b>
Offshore Structures	EOC 6431	3
Introduction to Ship Structural Design	EOC 4510	3 <b>or</b>
Ship Structural Design	EOC 6516	3
<b>One course (3 credits) from the following list</b>		
Professional Internship (in a related area)	IDS 3949	3
Finite Element Analysis in Engineering Design	EGM 4350	3
Directed Independent Research in Engineering and Computer Science	EGN 4915	3
Introduction to Ocean Instrumentation	EOC 4620	3 <b>or</b>
Ocean Instrumentation	EOC 6625	3
<b>A faculty-mentored design/research project with elements of naval architecture (3 credits)</b>		
RI: Ocean Engineering Systems Control and Design	EOC 4804	3

## ROBOTICS ENGINEERING

## UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The undergraduate certificate in Robotics Engineering, offered by the Ocean and Mechanical Engineering Department, is designed to combine broad engineering disciplines with knowledge of engineering principles specific to robotics engineering. This 15-credit program supports the preparation of students to work at a broad range of engineering companies.

### Curriculum

To earn this certificate, a student must successfully complete the following 15 credits:

**1. Three courses (9 credits) in the field of robotics engineering:**

Innovative Sensing and Actuation Technologies	EGN 4670C	3
Industrial Automation	EIN 5603C	3
Introduction to Robotics	EML 4800	3
Mechatronics	EML 4804C	3

**2. A faculty-mentored design/research project with elements of robotics engineering (3 credits), carried out either as part of:**

RI: Design Project	EML 4551	3 or
Directed Independent Research in Engineering and Computer Science	EGN 4915	3

**3. One course (3 credits) from the following:**

Engineering Materials 1	EGN 3365	3
Mechanical Control System	EML 4312	3
Machine Design	EML 4500	3

## UNDERWATER ACOUSTICS UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The undergraduate certificate in Underwater Acoustics, offered by the Ocean and Mechanical Engineering Department, is designed to combine broad engineering disciplines with knowledge of engineering principles specific to underwater acoustics. The program supports the preparation of students to work at companies and governmental agencies that specialize in underwater acoustics.

To earn this certificate, a student must successfully complete the following 15 credits:

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**Two courses (6 credits) in the field of underwater acoustics from the following list**

Acoustics for Ocean Engineers	EOC 3306	3
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Underwater Acoustics	EOC 4307C	3 or
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Ocean and Seabed Acoustics	EOC 6312	3
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**One course (3 credits) from the following list**

Ship Hydrodynamics	EOC 4124	3 or
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Hydrodynamic Aspects of Ship Design	EOC 6515	3
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Ocean Structures	EOC 4412	3 or
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Offshore Structures	EOC 6431	3
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**One course (3 credits) from the following list**

Professional Internshp	IDS 3949	3
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Finite Element Analysis in Engineering Design	EGM 4350	3
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Directed Independent Research in Engineering and Computer Science	EGN 4915	3
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Introduction to Ocean Instrumentation	EOC 4620	3 or
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Ocean Instrumentation	EOC 6625	3
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**A faculty-mentored design/research project with elements of underwater acoustics (3 credits)**

RI: Ocean Engineering Systems Control and Design	EOC 4804	3
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## COMBINED PROGRAMS

**BIOLOGICAL AND PHYSICAL SCIENCES TO MECHANICAL ENGINEERING**  
**BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER**  
**OF SCIENCE (M.S.)**  
**COMBINED PROGRAM**

**BIOLOGICAL AND PHYSICAL SCIENCES TO OCEAN ENGINEERING**  
**BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER**  
**OF SCIENCE (M.S.)**  
**COMBINED PROGRAM**

The B.A. or B.S. degree is completed at the [Wilkes Honors College](#) (WHC), and students then receive their bachelor's degree from WHC. Students complete their master's degree work in one of two majors in the Department of Ocean and Mechanical Engineering in the College of Engineering and Computer Science (COECS) and receive their master's degree from COECS.

These combined programs are offered in partnership with the Wilkes Honors College:

B.A. or B.S. with Major in Biological and Physical Sciences to M.S. with Major in [Mechanical Engineering](#)

B.A. or B.S. with Major in Biological and Physical Sciences to M.S. with Major in [Ocean Engineering](#)

Details for each combined program are listed in the [Wilkes Honors College](#) section.

**OCEAN ENGINEERING**  
**BACHELOR OF SCIENCE IN OCEAN ENGINEERING (B.S.O.E.) TO MASTER**  
**OF SCIENCE (M.S.)**  
**COMBINED PROGRAM**

The Department of Ocean and Mechanical Engineering offers a combined Bachelor of Science in Ocean Engineering to Master of Science degree program. For students taking the thesis or non-thesis option, up to 12 credits of graduate coursework (5000 level or higher) in the B.S.O.E. program may be counted for both the B.S.O.E. and M.S. degrees. With an approximate duration of five years, this combined program provides an attractive way for students to continue their graduate work.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Admission Requirements**

To be eligible for the joint B.S.O.E./M.S. program, students should:

1. Have an overall GPA of above 3.0 and a GPA of above 3.25 in the last 60 credits of coursework completed at the time of admission. The GPA must be maintained until graduation from the B.S. degree;
2. Formally apply to the joint program, completing the admissions process at least one semester prior to the beginning of the M.S. portion of their program;
3. Choose either the thesis or non-thesis option for the M.S. part of the program.

Once admitted to the program, students begin taking graduate courses in their senior year that would apply to both the bachelor's and master's degree programs. A maximum of 12 credits of elective courses can be applied to both programs. Students in the joint program must maintain enrollment to remain in good standing. Students must also meet all the degree requirements of the graduate program, including core courses and prerequisites. Those students who complete the M.S. degree program within one year after the completion of their B.S.O.E. degree program will be presented with a certificate of recognition.

## **MASTER'S PROGRAM**

[Link to graduate certificates](#)

The graduate program is structured around a core of courses central to ocean engineering and encompassing the subjects of acoustics, corrosion, physical oceanography, hydrodynamics, advanced mechanics of materials, marine systems and advanced mathematics. This core provides, at an advanced

level, the fundamentals required for engineering work in the ocean environment. Additional courses in the fields of acoustics, hydrodynamics, marine materials, offshore structures, coastal engineering and marine vehicles are offered to enable students to pursue areas of interest. A summer program is offered by the department for graduate students attending on a year-round basis.

### **Financial Aid**

Most full-time graduate students in the department receive financial support, usually in the form of graduate assistantships. Graduate assistants normally work on research projects conducted in the department, and their project work usually serves as a basis for their thesis/dissertation. Teaching Assistantships also may be available.

From time to time, graduate assistants are assigned to help a faculty member conduct a course, but direct teaching assignments are not permitted and regular lecture assignments should not be anticipated. Departures from this rule may be considered only for exceptional students with demonstrated teaching abilities.

Several graduate assistantships are available each year and are awarded on the basis of the technical area of interest, the applicant's experience, overall academic record and letters of recommendation. The current stipends for assistantships are \$17,000 for master's students and \$22,000 for Ph.D. students, after admittance to candidacy, for 12 months of service on a half-time basis, plus tuition costs.

### **Application for Admission**

Students are encouraged to begin their graduate studies in the fall semester. Applications for admission should be initiated about one year in advance of the desired starting date and should be filed as early as possible, preferably in the early fall. Normally notification of admission is given several weeks after receipt of the completed application. Depending upon the student's background, certain preparatory courses may be required to make up for deficiencies before full admission to the program is granted. These courses may be taken at FAU.

Application material for admission to the degree programs in Ocean Engineering can be obtained by:

1. Accessing [www.fau.edu/graduate/](http://www.fau.edu/graduate/)

2. Sending a request to:

Florida Atlantic University

Graduate College, SU 80, Room 101

777 Glades Road, P.O. Box 3091

Boca Raton, Florida 33431-0991

3. Sending a request to:

Graduate Program Administrative Assistant

Department of Ocean and Mechanical Engineering, Bldg. 36, Rm. 182

777 Glades Road, P.O. Box 3091

Boca Raton, Florida 33431-0991

## **OCEAN ENGINEERING MASTER OF SCIENCE (M.S.)**

Three paths to the Master of Science with major in Ocean Engineering are available to graduate students. Students with non-engineering bachelor's degrees, click [here](#) for additional requirements. The Master of Science with major in Ocean Engineering is available in person and fully online.

### **Thesis Option**

The thesis option requires a minimum of 30 credits, including a minimum of 6 thesis credits. At least 15 of the credits must be taken from the Ocean Engineering core course list (see core course requirements section). In addition, 9 credits will be selected in consultation with the student's advisor. At least 15 of the 30 credits must be at the 6000 level. Students electing the thesis option will be required to complete the thesis program, which includes successful defense and completion of the thesis.

### **Non-Thesis Option**

This option requires a minimum of 30 credits. At least 15 of the credits must be taken from the Ocean Engineering core course list (see core course requirements section). In addition, 15 credits will be selected in consultation with the student's advisor. No thesis credits may be counted toward this degree. All 30 credits must be at or above the 5000 level.

### **Master of Science with a Business Minor Option**

A non-thesis option, this program leads to a master's degree along with a minor in Business Administration. It requires a total of 36 credits. At least 15 of the credits must be taken from the Ocean Engineering core course list (see core course requirements section). In addition, 6 credits relating to the student's area of focus in ocean engineering must be selected and 15 credits must be selected from the College of Business approved course list outlined under the [Business Minor](#) heading at the beginning of this College section.

The [Admissions](#) and [Degree Requirements](#) sections of this catalog contain statements of regulations that apply to all graduate students. Of particular interest is the information under the headings Graduate

Admission Regulations and Graduate Degree Requirements. Statements referring to foreign language requirements do not apply to Ocean Engineering students; neither the Master of Science nor the Ph.D. degree requires foreign language proficiency.

## Admission Requirements

Specific admission requirements for Ocean Engineering are more stringent than the general FAU graduate admissions requirements.

A candidate for the master's program in Ocean Engineering must satisfy the following entry requirements:

1. A baccalaureate or equivalent degree in Engineering, Science or Mathematics;
2. A 3.0 (on a 4.0 scale) GPA or better in the last 60 credits of undergraduate work;
3. Must demonstrate proficiency in both written and spoken English. Students from non-English-speaking countries are required to take the Test of English as a Foreign Language (TOEFL) and achieve a score of at least 550 (paper-based) or 213 (computer-based) or 79 (iBT);
4. All students will have a thesis or advisory committee during their studies. For thesis students, their advisor is the chair of the advisory committee. A thesis or advisory committee must be formed before a plan of study can be filed;
5. Students who enter the program without an assistantship will be assigned a mentor by the chair of the graduate committee. Students without an advisor are required to visit at least three faculty members during their first semester requesting to form an advisory committee. A report on the outcome of the faculty visits must be filed with the campus graduate coordinator;
6. Adherence to the policies and regulations and the graduate admission requirements of the University as outlined in this University catalog;
7. Conditional admission may be permitted if the above requirements are not met.

## Degree Requirements

The degree of Master of Science with major in Ocean Engineering will be awarded to candidates who have:

1. Complied with University graduate policies and regulations;
2. Satisfied the University's graduate degree requirements;
3. Satisfactorily completed the appropriate courses of study;
4. Must complete one semester of EML 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S");

***And for the thesis option:***

- Submitted and defended a thesis based on the student's original work in an area of focus.

***And for the non-thesis or minor in business options:***

- At the time of application for degree, students must submit a portfolio to their advisor consisting of four graduate projects from courses in their program of study. The portfolio will be reviewed by the student's supervisory committee.

**Program Options and Core Course Requirements**

Four program options are available to graduate students in Ocean Engineering with either the thesis or non-thesis option. These are shown in a subsequent section.

All graduate students, regardless of option or specialty, must complete the following core courses or must take a satisfactory substitute course of similar content from another university or offer an appropriate substitute consistent with the student's specialty for approval by the supervisory committee by departmental petition.

**Core - 15 credits**

Mathematical Methods in Ocean Engineering 1*	EOC 5172
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Engineering Data Analysis	EOC 6635
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Physical Aspects of Oceanography	OCP 6050
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***In addition, two of the following five courses must be taken:***

Advanced Strength of Materials**	EGM 6533
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Special Topics	EOC 6934
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Advanced Hydrodynamics 1	EOC 6185
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Corrosion 1	EOC 6216C
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Engineering Principles of Acoustics	EOC 6317C
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**Thesis Option - 15 credits*****Thesis - 6 credits***

Master's Thesis (may be taken over multiple terms)	EOC 6971
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***Electives - 9 credits***

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Select 9 credits at the 5000 or 6000 level from the College of Engineering and Computer Science or the College of Science

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**Non-Thesis Option - 15 credits**

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***Electives - 15 credits***

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Select 15 credits at the 5000 or 6000 level from the College of Engineering and Computer Science or the College of Science

\* Students with an advanced mathematics competency may obtain exemption upon entrance to the program for Mathematical Methods in Ocean Engineering 1 (EOC 5172) and/or Mathematical Methods in Ocean Engineering 2 (EOC 6174). These students must demonstrate to their advisor, using course descriptions, that the equivalent of five to six courses beyond calculus, including areas such as differential equations, advanced calculus, matrix theory, complex analysis and probability and statistics have been taken. Approval by the graduate programs committee is also required.

\*\* May be substituted with EOC 6934, Special Topics (Theory of Elasticity)

**Transfer Credits**

A maximum of 9 credits of graduate-level work earned at FAU as an undergraduate or while in non-degree status at FAU and a maximum of 6 credits earned at another recognized institution prior to admission to the Ocean Engineering graduate program may be transferred to a student's degree program subject to the following restrictions:

1. The student must present a transcript identifying the course, in which the student has earned a grade of "B" or better, along with a catalog/course description.
2. The course must not have been counted toward any other graduate or undergraduate degree awarded or to be awarded to the student. An exception exists in the B.S.O.E. to M.S. program where up to 9 credits (5000 level or higher) may be counted for both degrees.
3. The student's advisor and the Ocean and Mechanical Engineering graduate program coordinator, who may seek the advice of other faculty if needed, will decide whether to accept or reject the course credit.

**Recency of Credits**

No credit earned ten or more years before the degree is awarded may be counted toward a graduate degree.

### **Course Load**

All students choosing the thesis option and receiving financial assistance must be full-time students. This requires that they are registered for a minimum of 9 credits in the fall semester, 9 credits in the spring semester and 6 credits in the summer semester. All international students must be registered as full-time students. A maximum of 12 credits may be taken in a semester. In the graduation semester, the student may be allowed to take 1 credit.

### **Supervisory Committee**

All graduate students will be assigned an academic advisor who will assist the student in planning a course schedule for the program and will also approve all course selections, schedules and schedule changes.

By the end of the first semester or at the completion of 9 credits, the student, in consultation with the academic advisor, should make the following selections:

1. A particular program option. If selecting a thesis program, then:
  - a. Chair of the supervisory committee.
  - b. At least two other members for the supervisory committee.

The chair of the supervisory committee, who is normally the student's advisor, and at least two of the other members must be chosen from the Ocean and Mechanical Engineering faculty. Members from outside the department may be chosen for the supervisory committee with the permission of the department chair. The student should obtain the consent of other members to serve on the supervisory committee. Having obtained this permission, the names of the committee members should be submitted to the department chair. The committee acts as a unit to guide the student's degree program.

### **Plan of Study**

Students choosing the thesis option as part of the M.S. program should, as soon as practical after the selection of a supervisory committee, must complete a formal Plan of Study, which will include all course and thesis work that the student expects to complete for the M.S. degree. Students submit their Plans of Study electronically for approval using the MyPOS system.

The Plan of Study must be submitted no later than the end of the second semester. Upon approval of the plan, the student will be admitted to candidacy for the M.S. Degree. The student is required to defend his/her thesis proposal before the end of the third semester.

For students electing the non-thesis option, the Plan of Study must still be completed and submitted to the Graduate College. For both the thesis and non-thesis options, it is required that the admission to candidacy form be completed and submitted at least one semester prior to the semester in which the student expects to graduate.

### **Fast Track Program**

The Department of Ocean and Mechanical Engineering offers an accelerated program option for the Master of Science with major in Ocean Engineering (with thesis) for qualified students who will be supported under research assistantships. The accelerated program allows a student to complete an M.S. degree in 12 months.

The objective of this option is to provide an opportunity for the student to earn a master's degree in one year, which translates into significant reductions in both time and expense, thus allowing the student to enter the workforce sooner, minimizing the financial impact of pursuing an M.S. degree. In order to achieve this goal, the program of study and thesis work must be well defined prior to the student starting the program of study. In addition to the normal requirements, students with an engineering core GPA of 3.5 or better, in conjunction with their prospective graduate studies academic advisor, are invited to submit a letter of intent to the graduate committee for consideration to be admitted into this program. The letter of intent should include an outline of the project and milestones to be reached by the end of each semester. Students admitted into the accelerated option are allowed to take a maximum of 12 credits per semester.

### **Thesis Work and Progress Reviews**

For those students who elect the thesis option, the first step, to be completed by the end of the third semester of full-time enrollment, is the submission of a written thesis proposal to the supervisory committee. This proposal must be approved by the supervisory committee before the student begins extensive work in the selected research area. In the proposal defense, the student presents and defends, as required, the planned research. Each semester after the proposal defense the committee will review the student's progress.

If at any time the progress in the student's research is found to be unsatisfactory, the supervisory committee will report to the department chair, inform the student in writing as to the nature of the difficulties and record the committee's opinion in the student's file. The student will then be given ample opportunity to improve performance and defend the student's position at a further review meeting held at the end of the semester. If no improvement has been demonstrated, the student's future program, including the continuation of stipend and tuition waiver, will be re-evaluated.

A minimum of two weeks prior to the anticipated thesis defense, the written thesis must be delivered to the department in the format described in the Graduate Thesis and Dissertation Guidelines. The guidelines may be obtained from the Graduate College or from the Ocean Engineering program. An announcement stating the thesis topic and time and location of the defense will be provided to all department faculty and to the supervisory committee members one week prior to the scheduled defense. The announcement will also be posted in the department and/or mailed to all Ocean and Mechanical Engineering faculty, staff and students.

### **Unsatisfactory Performance**

A graduate student whose academic performance is deemed unsatisfactory will be denied further registration in the department programs. Unsatisfactory academic performance is defined as failure to maintain a minimum 3.0 GPA in all FAU graduate program courses at the end of the second semester in the program (this would normally be 15 to 18 credits) or after any subsequent semester. Please note that this is more strict than the University requirement. A student who exhibits unsatisfactory performance in the Ocean Engineering graduate program is not precluded from applying to another program in the University. No graduate credit may be earned for courses completed with a "C-," "D+," "D," "D-," "F" or "U" (refer to the [Academic Policies and Regulations section](#) of this catalog), even if grades in other courses bring the average up to a satisfactory level. A student who withdraws from a course after the Drop/Add period may be required to repay any tuition benefits received.

### **Master of Science Course Options**

The following are suggested course sequences for the four Master of Science (M.S.) thesis options. When suggested course(s) are not offered, equivalent course(s) as determined by the student's advisor may be taken. Although some of these program options recommend more than eight courses, students are required to take only eight courses (24 credits) to meet the minimum requirements.

## **Marine Materials and Offshore Structures**

### **An Option in Ocean Engineering**

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#### **First Year, Fall**

Advanced Strength of Materials	EGM 6533
Corrosion 1	EOC 6216C
Engineering Data Analysis	EOC 6635

**First Year, Spring**

Introduction to Finite Element Methods	EGM 5351 <b>or</b>
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Advanced Fracture and Failure Processes 1	EOC 6157
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Mathematical Methods in Ocean Engineering 1	EOC 5172
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Elective	
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**First Year, Summer**

Fracture Mechanics	EML 6239 <b>or</b>
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Master's Thesis	OCE 6971
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Physical Aspects of Oceanography	OCP 6050
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**Second Year, Fall**

Mechanics of Composite Materials	EGM 6562 <b>or</b>
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Special Topics (Theory of Elasticity)	EOC 6934
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Master's Thesis	OCE 6971
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Elective	
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**Additional Courses**

Special Topics, Flow Control (fall semester)	EOC 5934
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Advanced Hydrodynamics 1 (fall semester)	EOC 6185
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Corrosion 2	EOC 6218C
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Offshore Structures (spring semester)	EOC 6431
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Special Topics, Nanostructured Materials	EOC 6934
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## **Ship Design and Underwater Vehicles An Option in Ocean Engineering**

### **First Year, Fall**

Advanced Hydrodynamics 1	EOC 6185
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Engineering Data Analysis	EOC 6635
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Special Topics (Ship Structural Design)	EOC 6934
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### **First Year, Spring**

Mathematical Methods of Ocean Engineering 1	EOC 5172
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Hydrodynamic Aspects of Ship Design	EOC 6515
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Intelligent Underwater Vehicles 1	EOC 6663
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### **First Year, Summer**

Physical Aspects of Oceanography	OCP 6050
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Special Topics	EOC 6934
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### **Second Year, Fall**

Corrosion 1	EOC 6216C
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Special Topics	EOC 6934
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Thesis (6 credits)	OCE 6971
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## Additional Courses

Introduction to Finite Element Method (spring semester)	EGM 5351
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Special Topics (May include Elements of High Speed Marine Vehicles Design)	EOC 6934
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## Hydrodynamics and Physical Oceanography An Option in Ocean Engineering

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### First Year, Fall

Advanced Hydrodynamics 1	EOC 6185
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Engineering Principles of Acoustics	EOC 6317C
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Engineering Data Analysis	EOC 6635
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### First Year, Spring

Mathematical Methods in Ocean Engineering 1	EOC 5172
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Hydrodynamic Aspects of Ship Design	EOC 6515
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### First Year, Summer

Special Topics	EOC 6934
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Physical Aspects of Oceanography	OCP 6050
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### Second Year, Fall

Mathematical Methods in Ocean Engineering 2	EOC 6174
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Master's Thesis

OCE 6971

**Additional Courses**

Turbulent Flow

EOC 6190

Special Topics (Ship Structural Design)

EOC 6934

**Acoustics****An Option in Ocean Engineering****First Year, Fall**

Advanced Hydrodynamics 1

EOC 6185

Engineering Principles of Acoustics

EOC 6317C

Engineering Data Analysis

EOC 6635

**First Year, Spring**

Mathematical Methods in Ocean Engineering 1

EOC 5172

Ocean and Seabed Acoustics

EOC 6312

Advanced Signal Processing

EOC 6630

**First Year, Summer**

Special Topics

EOC 6934 **or**

Master's Thesis

OCE 6971

Physical Aspects of Oceanography

OCP 6050

**Second Year, Fall**

Mathematical Methods in Ocean Engineering 2	EOC 6174
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Master's Thesis	OCE 6971
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**Additional Courses**

Introduction to Finite Element Methods (spring semester)	EGM 5351
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Mechanical Vibrations	EML 6223
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**Business Minor****An Option in Ocean Engineering**

The following is a suggested course sequence for the Master of Science with major in Ocean Engineering, minor in Business. This is a non-thesis option only requiring a total of 36 credits.

**First Year, Fall**

Financial Accounting Concepts	ACG 6027
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Engineering Data Analysis	EOC 6635
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Ocean Engineering Core	
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**First Year, Spring**

Mathematical Methods in Ocean Engineering 1	EOC 5172
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Financial Management	FIN 6406
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Global Environment of Management	MAN 6937 <b>or</b>
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Marketing Functions and Processes	MAR 6055
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**First Year, Summer**


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 Management of Information Systems and  
Technology

ISM 6026

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 Physical Aspects of Oceanography

OCP 6050

**Second Year, Fall**


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 Ocean Engineering Core

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 Ocean Engineering Core
**Second Year, Spring**


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 Ocean Engineering Elective

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 Ocean Engineering Elective
**CERTIFICATE PROGRAMS****AEROSPACE ENGINEERING  
GRADUATE CERTIFICATE***(Minimum of 12 credits required)*

The State of Florida, because of its geographic location, NASA and a large number of aerospace engineering companies in the area will benefit from graduates of this certificate program. The 12-credit program can be completed on campus or online. The certificate requires satisfactory completion of four, 3-credit courses.

**Admission**

The Aerospace Engineering certificate program is open to students who have a B.S. degree in a related field of engineering, a GPA of at least 3.0 or equivalent and have satisfied all the prerequisites for each course in the program. All courses must be completed with a GPA of 3.0 or better. Certificate courses are listed in the table below; additional courses may be approved by the advisor.

**Required Courses (12 credits)*****Core Courses***

Advanced Fluid Dynamics	EML 6716	3
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Special Topics (Principles of Aerodynamics)	EML 6930	3
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***Elective Courses (Select two of the courses below)***

Introduction to Finite Element Methods	EGM 5351	3
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Advanced Strength of Materials	EGM 6533	3
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Mechanics of Composite Materials	EGM 6562	3
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Fracture Mechanics	EML 6239	3
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Advanced Engineering Dynamics	EML 6271	3
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Turbomachinery	EML 6402	3
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Computational Fluid Dynamics	EOC 6189	3
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## **CORROSION GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The State of Florida, because of its geographic location on the Atlantic Ocean and Gulf of Mexico, is especially impacted by corrosion-related issues. However, the number of engineers with special expertise in corrosion or with an advanced degree in corrosion is not on track to satisfy the need for such experts. This online certificate program requires satisfactory completion of four of five 3-credit courses, all of which are already offered online and through the Division of Engineering Distance Education and Career Services (DEDECS).

**Admission**

The Corrosion certificate is open to students who have a B.S. degree in a related field of Engineering, have a GPA of at least 3.0 or equivalent (to ensure equivalency to graduate standing) and have satisfied all the prerequisites required for each course in the program. Four of the five courses listed, including Corrosion 1 and 2, are required for the certificate and must be completed with a GPA of 3.0 or better. All course materials are in English; all international students must demonstrate proficiency in English

to enter the program.

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### Certificate Courses

*(Choose four of the five courses below, including 6216C and 6218C)*

Advanced Fracture and Failure Processes 1	EOC 6157	3
Corrosion 1	EOC 6216C	3
Corrosion 2	EOC 6218C	3
Physical Metallurgy	EOC 6230	3
Offshore Structures	EOC 6431	3

## OFFSHORE ENGINEERING GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

In the United States, there are fewer than ten programs that offer graduate degrees in Ocean Engineering. Recent trends and future needs point to increased demand for Ocean Engineers, particularly in the oil and gas industries, offshore industry and clean energy sectors. This online certificate program fulfills the need for Ocean Engineers with an easily accessible curriculum through the Division of Engineering Distance Education and Career Services (DEDECS).

### Admission

The Offshore Engineering certificate is open to students who have a B.S. degree in a related field of Engineering, have a GPA of at least 3.0 or equivalent (to ensure equivalency to graduate standing) and have satisfied all the prerequisites required for each course in the program. Four of the six courses listed below must be completed with a GPA of 3.0 or better. All course materials are in English; all international students must demonstrate proficiency in English to enter the program.

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### Certificate Courses

*(Choose four of the six courses below)*

Advanced Strength of Materials	EGM 6533	3
Advanced Hydrodynamics 1	EOC 6185	3

Corrosion 1	EOC 6216C	3
Engineering Principles of Acoustics	EOC 6317C	3
Offshore Structures	EOC 6431	3
Hydrodynamic Aspects of Ship Design	EOC 6515	3

## DOCTORAL PROGRAM

### OCEAN ENGINEERING DOCTOR OF PHILOSOPHY (PH.D.)

The degree of Doctor of Philosophy with major in Ocean Engineering is conferred on a candidate by the University upon completion of comprehensive training and in recognition of the candidate's ability to independently and efficiently pursue research in ocean engineering.

The requirements for the degree include performing original research, preparing a dissertation describing this research and systematic advanced studies in engineering and the underlying sciences. This section discusses the details of the degree regulations.

#### Admission Requirements

Applicants must have a master's degree in Engineering, Science or Mathematics from an accredited college or university. A student with outstanding scholastic achievement who holds only a baccalaureate degree may be admitted directly to the Ph.D. program. See later section for requirements.

1. Applicants must have a 3.0 GPA (on a 4.0 scale) or better in the last 60 credits of work attempted and must have an official transcript forwarded directly to the FAU Graduate College from each college-level institution attended;
2. Applicants must submit the Graduate Record Examination (GRE) score. GRE scores more than five years old will not be accepted. The GRE requirement is waived for applicants who have a master of science degree from FAU's Ocean and Mechanical Engineering Department;
3. Applicants must demonstrate proficiency in both written and spoken English. A student from a non-English-speaking country is required to take the Test of English as a Foreign Language (TOEFL) and achieve a score of at least 550 (paper-based) or 213 (computer-based) or 79 (iBT);
4. Applicants must submit to the Graduate College at least two letters of recommendation attesting to the student's ability to pursue with distinction a curriculum of advanced study and research in a

chosen area;

5. Applicants should abide by the policies and regulations and the graduate admission requirements of the University as outlined in this University Catalog;
6. Conditional admission may be permitted if the above conditions are not met.

## Degree Requirements

The degree of Doctor of Philosophy in Ocean Engineering will be conferred on candidates who have fulfilled the following requirements:

1. Completed a minimum of 42 credits of course and dissertation work after the M.S. degree for students transferring 30 credits (72 credits for those admitted to the Ph.D. directly after the B.S. degree). Of the 42 credits, 18 credits must be coursework;
2. Of the 18-credit minimum of coursework, at least 12 credits must be from the Ocean, Mechanical\*, Civil\* or Geomatics\* Engineering programs. No more than 3 credits of directed independent study or Ocean or Mechanical Engineering Research may be used to satisfy the 18-credit minimum;
3. A minimum of 24 dissertation credits. No more than 30 dissertation credits may be counted toward the total credit requirement for the Ph.D. degree. Students admitted to the Ph.D. degree program directly after the B.S. degree program must take a minimum of 30 dissertation credits;
4. Must complete two semesters of EML 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S");
5. A major program of research and advanced studies in ocean engineering;
6. Unless otherwise stated, a minimum of 9 credits in advanced mathematics or equivalent beyond the B.S. degree;
7. Successful completion of General Examination 1, a written comprehensive examination of coursework;
8. Successful completion of General Examination 2, a dissertation proposal defense;
9. Prior to the defense, the student is required to have published or have accepted for publication a refereed research paper in a field of study deemed acceptable by the dissertation committee. A journal article is preferred, but a peer-reviewed conference paper is also acceptable;
10. Submitted and defended a dissertation based on original research in the student's area of specialization. The supervisory committee, the department chair and the Graduate College must have approved the dissertation;
11. Complied with the University's Graduate Policies and Regulations and satisfied the University's Graduate Degree Requirements.

\* Only available for the Sustainable Infrastructure Engineering option.

## Core Course Requirements

All graduate students, regardless of option or specialty, must complete the following core courses or must offer a satisfactory substitute course of similar content from another university or an appropriate substitute consistent with the student's specialty preference for approval by the supervisory committee.

### Core Courses - 15 credits

*Select 9 credits from the following:*

Mathematical Methods in Ocean Engineering 1	EOC 5172
Engineering Data Analysis	EOC 6635
Physical Aspects of Oceanography*	OCP 6050 <b>or</b>
Offshore Structures	EOC 6431

*In addition, two of the following courses must be taken:*

Advanced Hydrodynamics 1	EOC 6185
Corrosion 1	EOC 6216C
Engineering Principles of Acoustics	EOC 6317C
Special Topics	EOC 6934
Advanced Strength of Materials*	EGM 6533 <b>or</b>
Introduction to Finite Element Methods*	EGM 5351 <b>or</b>
Finite Element Methods in Civil Engineering*	CES 6119
Infrastructure Maintenance and Management*	CGN 6616
Special Topics	CGN 6930

### Electives - 3 credits *(for students entering with a master's degree)*

Select 3 credits at the 5000 or 6000 level from the College of Engineering and Computer Science or the College of Science

### Dissertation - 24 credits (minimum) For students entering with a master's degree.

Dissertation <i>(may be taken over multiple terms)</i>	EOC 7980
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\* Only available for the Sustainable Infrastructure Engineering option.

## **Transfer Credits**

The doctoral program may accept for transfer 6 credits beyond the baccalaureate degree from other institutions to the student's degree program upon approval by the department and subject to the following restrictions:

1. The student must present a transcript identifying the course in which the student has earned a grade of "B" or better, along with a catalog/course description;
2. The course must not have been counted toward any other graduate or undergraduate degree awarded or to be awarded to the student;
3. The student's advisor and the Ocean Engineering graduate program committee, who may seek the advice of other faculty if needed, will decide whether to accept or reject the course credit;
4. Obtaining credit for a non-FAU course does not alter the total number of credits required for graduation;

Additional credits consistent with University policy may be considered for transfer subject to the restrictions above, if approved by the student's advisor.

## **Recency of Credits**

No credit earned ten or more years before the degree is awarded may be counted toward a graduate degree.

## **Course Load**

Full-time graduate students are those who register for 9 or more credits during the fall and spring semesters and 6 credits during the summer. Students who wish to register for more than 15 credits for any semester must obtain approval in advance from the Graduate College. All students receiving financial assistance must satisfy these requirements, and all international students must be full-time students. In the graduating semester, the student may be allowed to take 1 credit.

## **Residency Requirements**

Candidates must satisfy the minimum residency requirement for the Ph.D. by completing beyond the master's degree either (1) 18 credits in one calendar year, or (2) 24 credits in no more than two calendar years on the SeaTech or Boca Raton campus of FAU. To satisfy University requirements, two semesters must be full-time, consisting of 9 credits in the spring or fall term and 6 credits in the summer term.

Candidates may be permitted to conduct all or part of their research in the field, in government or industrial laboratories or elsewhere off campus only if adequate staff, dissertation research supervision and facilities, as determined by the department, are available.

### Program Options

Students who wish to specialize in specific Ocean Engineering programs may pursue in-depth studies in the areas of marine materials, offshore structures and corrosion; hydrodynamics and physical oceanography; marine vehicles; acoustics and vibrations, and sustainable infrastructure engineering. Unless otherwise stated, the Ocean Engineering program graduate courses are 3 credits each, and all programs require a minimum of 9 credits in graduate-level mathematics or equivalent.

When suggested elective courses as listed in the following sections are not offered, equivalent courses as determined by the student's supervisory committee may be taken.

### Marine Materials, Offshore Structures and Corrosion An Option in Ocean Engineering

It is suggested that students in the Marine Materials and Corrosion Option take the following courses in addition to the core courses required for all Ocean Engineering Ph.D. students.

Advanced Fracture and Failure Processes 1	EOC 6157
Corrosion 1	EOC 6216C
Corrosion 2	EOC 6218C
Physical Metallurgy	EOC 6230
Special Topics (Theory of Elasticity)	EOC 6934

*Depending on a student's area of thesis research, elective courses may be chosen from, but are not necessarily limited to, the following:*

Advanced Topics in Physical and Theoretical Chemistry	CHM 6581
Introduction to Finite Element Methods	EGM 5351

Advanced Strength of Materials	EGM 6533
Mechanics of Composite Materials	EGM 6562
Fracture Mechanics	EML 6239
Signal Processing	EOC 6630
Special Topics (Nanostructured Materials)	EOC 6934

### **Hydrodynamics and Physical Oceanography An Option in Ocean Engineering**

It is suggested that students in the Hydrodynamics and Physical Oceanography Option take the following courses in addition to the core courses required for all Ocean Engineering Ph.D. students.

Advanced Hydrodynamics 1	EOC 6185
Turbulent Flow	EOC 6190

*Depending on a student's area of focus, the elective courses may be chosen from the following list together with other courses offered by the Ocean Engineering Department:*

Mathematical Methods in Ocean Engineering 2	EOC 6174
Hydrodynamic Aspects of Ship Design	EOC 6515
Special Topics (Ship Structural Design; Flow Control)	EOC 6934

### **Marine Vehicles An Option in Ocean Engineering**

In addition to the core requirements, recommended courses include those below.

Intelligent Underwater Vehicles 1	EOC 6663
Special Topics (Elements of High Speed Marine Vehicles)	EOC 6934

Other courses that may be taken will be determined by the student's area of study.

## Acoustics and Vibrations

### An Option in Ocean Engineering

It is recommended that students in the Acoustics and Vibrations Option take the following courses in addition to the core courses required for all Ocean Engineering Ph.D. students.

Mechanical Vibrations	EML 6223
Advanced Hydrodynamics 1	EOC 6185
Ocean and Seabed Acoustics	EOC 6312
Signal Processing	EOC 6630
Special Topics	EOC 6934

Depending on the student's area of focus, elective courses may be chosen from the courses offered by the department as well as from supporting departments such as Civil Engineering, Computer Engineering, Electrical Engineering, Mathematics, Mechanical Engineering and Physics.

## Sustainable Infrastructure Engineering

### An Option in Ocean Engineering

It is recommended that students in the Sustainable Infrastructure Engineering Option take two more elective courses, as approved by the dissertation advisor, in addition to the [core courses required for all Ocean Engineering Ph.D. students](#). This program requires a minimum of 3 credits in graduate-level mathematics or equivalent.

Depending on the student's area of focus, elective courses may be chosen from the courses offered by the Ocean Engineering as well as from supporting departments such as Civil Engineering, Computer Engineering, Electrical Engineering, Mathematics and Statistics, Mechanical Engineering and Physics.

## Supervisory Committee

In consultation with the student and the advisor, a supervisory committee will be nominated by the department chair, approved by the dean of the College of Engineering and Computer Science and appointed by the Graduate College.

The supervisory committee shall consist of no fewer than four members selected from the Ocean and Mechanical Engineering faculty. Additional members can be from the Ocean and Mechanical

Engineering Department, other departments, other universities or from industry.

The committee will include at least one person selected from the faculty from outside the discipline of the student's major. If the student elects or is required to select a minor, this member of the supervisory committee shall represent the discipline selected as the minor.

The supervisory committee should be appointed as soon as possible after the student has passed General Examination 1 and, in general, no later than the end of the second year of equivalent full-time study. Duties of the supervisory committee include:

1. To ensure that the student is aware of all regulations governing the degree. It should be noted, however, that this does not absolve the student of the responsibility of making inquiries regarding the regulations and procedures;
2. To discuss and approve the proposed course of study, dissertation research project and the student's plans for its execution;
3. To conduct and take part in the General Examination 2. No fewer than four faculty members shall be present for the General Examination 2, which must be given on campus;
4. To meet following General Examination 2 to review the research progress, the expected results and make suggestions for completion of the program;
5. To meet on campus when the dissertation is completed and conduct the final oral examination to assure that the dissertation is original research and a contribution to knowledge. No fewer than four faculty members shall be present with the candidate for this examination, but only members of the official supervisory committee are required to sign the dissertation. The supervisory committee must approve the dissertation;
6. To review the student's dissertation carefully. Before signing, each committee member must be sure that it is free of grammatical, editorial or technical errors.

### **Plan of Study and Admission to Candidacy**

Admission to the doctoral program at FAU does not automatically constitute admission to candidacy for the degree. A Plan of Study for the Ph.D. degree must be submitted to the Graduate College before the end of the second semester of enrollment. Students submit their Plans of Study electronically for approval using the MyPOS system.

The Graduate College will admit a student to candidacy for the Doctor of Philosophy degree after the following conditions have been met:

1. Admission to graduate school to work toward the doctoral degree;

2. Successful completion of the General Examination 1 (Ph.D. Qualifying Exam);
3. Selection of a dissertation faculty advisor and the formation of a supervisory committee;
4. Formulation and submission of a program of study that is approved by the department;
5. Recommendation of the supervisory committee and department chair.

**Note:** Students may not enroll for Ph.D. dissertation credits (EOC 7980) until they have been admitted to candidacy.

Following the successful completion of General Examination 1, the student must complete and submit the form "Admission to Candidacy for the Doctoral Degree (Form 8)." General Examination 1 and submission of admission to candidacy form should be completed at least two semesters before the beginning of the semester in which the degree is to be conferred. A student not admitted to candidacy before the beginning of the fourth academic year of graduate work at the University must petition through the College to the Graduate College for permission to register for additional work.

### **Coursework and Research**

The work for the Ph.D. degree must consist of research and advanced studies in ocean engineering. The student who previously obtained a master's degree will be required to complete a total of 42 credits of course and dissertation work for the Ph.D. At least 12 of the credits must be taken from the Ocean Engineering list of courses and all core course requirements must be satisfied. A minimum of 24 credits of doctoral dissertation research will be required. No more than 30 dissertation credits may be counted toward the 42-credit requirement. The remaining credits may be selected from the listing of OE courses, advanced mathematics courses, elective courses, directed independent study (DIS) or dissertation. A minimum of 9 credits of graduate-level mathematics must be satisfied.

### **B.S. to Ph.D. Program**

A student with outstanding scholastic achievement who holds only a baccalaureate degree (B.S.) may be admitted directly to the Ph.D. program in Ocean Engineering. The student with a B.S. will be required to complete a total of 72 credits of course and dissertation work for the Ph.D. Out of the minimum of 42 credits of graduate coursework, at least 27 of the credits must be taken from the Ocean Engineering list of courses, and all core course requirements must be satisfied. A minimum of 30 credits of doctoral dissertation research will be required. No more than 39 dissertation credits may be counted toward the 72-credit requirement. The remaining credits may be selected from the listing of OE courses, advanced mathematics courses, elective courses, directed independent study (DIS) or EML 6918, Advanced Research. A minimum of 9 credits of graduate-level mathematics must be satisfied.

## General Examination 1

Students entering the Ph.D. program with a master's degree are expected to take the General Examination 1 (Ph.D. Qualifying Examination) after completing their second semester. The primary purpose of General Examination 1 is to evaluate the student's ability, not only to demonstrate a thorough knowledge of Ocean Engineering course material but also to evaluate original thinking. General Examination 1 will be in three parts: Part 1 covers the core courses, Part 2 covers the elective subjects and Part 3 is a pre-proposal that consists of a written paper and an oral examination.

Students with a GPA more than or equal to 3.5 on all courses selected for the General Exam 1 (with a GPA more than or equal to 3.3 [B+] in each class) are exempt from Part 1 and Part 2. (These students will be required to take a written examination only for those topics with a GPA of 3.0 [B grade] or below.) For non-exempt students (i.e., GPA less than 3.5), Part 1 will consist of an exam on the three core courses, which will be four hours in duration and will require four problems to be answered. Part 2 (electives exam) will be a three-hour exam and will require one problem from each elective to be answered. A new set of examinations will be prepared and questions and problems from previous examinations are not available to students. It is expected that the examination on the elective courses will focus on the student's area of specialization.

All Ph.D. graduate students need to prepare a pre-proposal (Part 3). The pre-proposal (or different name) will consist of an oral presentation and a written paper based on several articles selected by a committee (including the advisor). The student will identify knowledge gap(s) and complete a literature review (with guidance from the advisor). During the presentation, questions will be limited to those that help demonstrate knowledge important to the research topic/area.

An overall grade of 70 percent on Part 1 and Part 2 of General Examination 1 and a passing grade in the pre-proposal constitutes successfully completing General Examination 1. If the student fails any of the parts, the student will have one more opportunity to successfully pass the exam. The student must score 70 percent in each subject that is retaken. Alternatively the student may retake the entire exam when it is next offered. General Examination 1 is scheduled immediately after the last day of the final examination period in the fall semester and in the spring semester each year. The pre-proposal can be defended during the last two months of the semester, including the week after the final exam period, if the advisor indicates the student is ready.

Students who have obtained the M.S. in Ocean Engineering at FAU will be allowed to take General Examination 1 at the end of the first semester, if the student has completed the pre-proposal. Otherwise, General Examination 1 must be taken no later than at the end of the second semester of Ph.D. study. Those admitted to the Ph.D. program directly after the B.S. degree in Ocean Engineering at FAU may

take the examination after completing 24 credits of graduate coursework.

## **General Examination 2**

At an appropriate point in the student's graduate studies, normally within 12 months of passing General Examination 1, the student must complete General Examination 2. This is the dissertation proposal defense, in which students defend the choice of a dissertation topic and answer questions on fundamental issues related to their research. The student must have passed General Examination 1, selected the dissertation topic, formed a supervisory committee and completed a literature survey prior to the dissertation proposal defense.

In General Examination 2, the student should be prepared to demonstrate the ability to perform research on a topic approved by the supervisory committee by presenting a comprehensive literature survey combined with a critical analysis of the state of the art in the particular field. While this examination will be centered around the particular research area, it will not necessarily be limited to that subject. If unsuccessful in the examination, the student may, at the discretion of the department, either remain in the doctoral program and retake the examination at a later date or withdraw from the program. No more than two attempts will be permitted.

## **Dissertation and Progress Reviews**

Following successful completion of the dissertation proposal defense (General Examination 2), the student is expected to engage in an intensive program of coursework and doctoral dissertation based on a major, original research project. During each subsequent semester, the student's supervisory committee will review the progress. If at any time the student's progress in the research is found to be unsatisfactory, the supervisory committee will report to the department chair, inform the student in writing as to the nature of the difficulties and record the committee's opinion in the student's file. The student will then be given ample opportunity to improve performance and defend the student's position at a further review meeting held at the end of the semester. If no improvement has been demonstrated, the student's future program, including the continuation of stipend and tuition waiver, may be reconsidered.

By the beginning of the semester in which the degree is to be conferred, a candidate for the Doctor of Philosophy degree must deliver a draft of the dissertation to the supervisory committee. Not less than two weeks after the submission of the first draft of the dissertation, the candidate is expected to give a seminar covering the results of the research; this seminar will be followed by a dissertation examination by the supervisory committee. The seminar should be given as early as possible, but not later than two months before the degree is to be conferred.

The Ph.D. dissertation final version must be approved by the supervisory committee and department chair and submitted to the dean of the College of Engineering and Computer Science at least one week prior to the due date for submission to the Graduate College. The candidate is responsible for allowing sufficient time for members of the supervisory committee to examine the dissertation. The dissertation must be delivered to the department in the format described in the Graduate Thesis and Dissertation Guidelines. The guidelines may be obtained at the Graduate College or from the Ocean Engineering program.

Upon receiving approval of the Graduate College and following completion of all other University requirements, the degree will be recommended. Application for the degree must be made one semester before the semester of graduation.

### **Unsatisfactory Performance**

A graduate student whose performance is deemed unsatisfactory will be denied further registration in the department programs.

Unsatisfactory performance is defined as failure to maintain a minimum 3.0 GPA in all FAU graduate program courses at the end of the second semester in the program (this should normally constitute 15 to 18 credits) or after any subsequent semester.

Please note that this is more strict than the University requirement. A student who exhibits unsatisfactory scholarship in the Ocean Engineering graduate program is not precluded from applying to another program in the University. No graduate credit may be earned for courses completed with a "C-" or lower even if grades in other courses bring the average to a satisfactory level. A student who withdraws from a course after the Drop/Add period may be required to repay any tuition benefits received.

## **MECHANICAL ENGINEERING**

Mechanical Engineering is the branch of engineering that is most directly and broadly concerned with mechanical systems and their use to control and transform energy for the benefit of humankind.

Mechanical engineering embraces the science and art of the generation, transmission and utilization of thermal and mechanical energy and the design, production and application of devices and systems.

The Department of Ocean and Mechanical Engineering offers programs of study leading to the degrees

of Bachelor of Science in Mechanical Engineering (B.S.M.E.), Master of Science (M.S.) with major in Mechanical Engineering (thesis and non-thesis options), Master of Science (M.S.) with major in Mechanical Engineering and minor in Business, Master of Science (M.S.) with major in Mechanical Engineering and minor in Engineering Management, and Doctor of Philosophy (Ph.D.) with major in Mechanical Engineering.

To encourage undergraduates to pursue a graduate education, the department also offers a [combined B.S.M.E. in Mechanical Engineering to M.S. in Artificial Intelligence](#) degree program and [combined B.S.M.E. to M.S. degree programs](#) that permit a student to complete both a bachelor's and a master's degree within five years. Two combined degree programs, [B.A. or B.S. in Biological and Physical Sciences to M.S. in Ocean or Mechanical Engineering](#), are offered in partnership with the [Wilkes Honors College](#).

### **Mission Statement**

The mission of the Mechanical Engineering program is to provide undergraduate students with the fundamental background necessary for a career in mechanical engineering and for the continuation of their education through postgraduate studies. For graduate students, the department strives to provide the in-depth background necessary for advanced work in mechanical engineering and to continue their education at the doctoral level. All students are prepared to conduct basic and applied research and to provide service to the engineering profession and the community.

### **Educational Objectives**

The faculty has established three educational objectives for graduates as they progress through their careers:

- A. **Career Contribution and Advancement:** Through their ability to solve engineering problems, meaningful design and hands-on experiences, critical thinking skills, and training in teamwork and communication, graduates will make significant contributions to their chosen field and advance professionally in mechanical engineering or allied disciplines.
- B. **Professionalism:** Graduates will act with both professional and social responsibility in their career field, including a commitment to protect both occupational and public health and safety, and apply ethical standards related to the practice of engineering.
- C. **Life-Long Learning:** Graduates will understand that their undergraduate education was just the beginning of their training and will continue to develop their knowledge and skills through progress toward or completion of graduate education, and/or professional development through short courses or seminars, and/or professional certification and/or participation in professional societies.

## **Educational Outcomes for Student Performance**

The program will meet the above objectives by establishing the following educational outcomes for student performance.

At the time of graduation, the students will attain the following:

1. An ability to identify, formulate and solve complex engineering problems by applying principles of engineering, science and mathematics;
2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety and welfare, as well as global, cultural, social, environmental and economic factors;
3. An ability to communicate effectively with a range of audiences;
4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental and societal contexts;
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks and meet objectives;
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data and use engineering judgment to draw conclusions;
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

### ***Upon graduation, graduate students will be able to:***

1. Demonstrate an ability to perform research and/or perform advanced engineering analysis in their area of specialty;
2. Formulate and analyze engineering problems and synthesize and develop appropriate solutions based on fundamental and advanced principles;
3. Design mechanical systems to meet desired specifications using advanced engineering tools and techniques.

### ***Upon graduation, doctoral students will be able to:***

1. Perform original research in their area of specialty;
2. Demonstrate an advanced level of knowledge in mathematics and engineering fundamentals relevant to their discipline;
3. Effectively communicate an advanced technical concept to their peers.

[Link to Combined Programs](#)

[Link to Master's Programs](#)

[Link to Doctoral Program](#)

## BACHELOR'S PROGRAM

### **MECHANICAL ENGINEERING BACHELOR OF SCIENCE (B.S.)**

*(Minimum of 128 credits required)*

Mechanical engineering is an extensive field, and it is necessary for every student to attain considerable knowledge in the mechanical, thermal and material sciences. The program allows for special areas of interest through a sufficient number of technical electives in areas such as mechanical design, energy conservation, controls, environmental control, materials science, computer-aided design and others.

To make a significant contribution to society, both as mechanical engineers and as individuals, students must pursue studies in the humanities and social sciences to better understand their relationship and responsibility to society. The student must develop the ability to apply knowledge to the analysis and solution of significant engineering problems through courses in engineering design.

Because mechanical engineering is such a broad field, the program of study forms an excellent background for professional careers in many fields.

#### **Admission Requirements**

All students must meet the minimum admission requirements of the University. Please refer to the [Admissions section](#) of this catalog.

All students must meet the preprofessional requirements listed [above](#) in order to be accepted into the Mechanical Engineering program.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida

public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) and below.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

Transfer students who have an A.A. degree are expected to have completed the following course requirements (deficiencies may be taken at FAU); see the [Degree Requirements section](#) of this catalog for the required minimum grades.

	<b>Minimum No. of Subject Credits</b>
English Composition	6
Social Science	6
Humanities	6
Calculus (complete sequence)	12
General Physics with Calculus (complete sequence with Lab)	8
Differential Equations	3
Computer Programming	3
General Chemistry (with Lab)	4
Fundamentals of Engineering	3
Graphics	3
Electives	6
<b>Total</b>	<b>60</b>

Electives may include a course in health, speech, additional humanities or additional social science.

Consult an advisor for assistance in selecting the appropriate course(s).

## General Degree Requirements

The Bachelor of Science in Mechanical Engineering degree will be awarded to students who meet the following requirements:

1. Meet all general degree requirements of the University;
2. Attain a grade of "C" or better in each mathematics, science and computers course listed below, in each mechanical engineering core course listed below, in the electrical engineering course listed below, in each Writing Across Curriculum (Gordon Rule) and Gordon Rule computational course and in each of the departmentally approved technical electives below;
3. Satisfy the following specific degree requirements, which total 128 credits.

## Specific Degree Requirements

### *General Education Program\**

Foundations of Written Communication	6
Foundations of Society and Human Behavior	6
Foundations of Global Citizenship	6
Foundations of Humanities	6

\* Four-year students must meet specific course requirements as outlined in the Baccalaureate Degree Requirements subsection in the [Degree Requirements section](#) of this catalog.

### *Mathematics, Science and Computers*

Mathematics (through Calculus)		12
General Physics with Calculus (including Lab)		8
Chemistry (including Lab)		4
Differential Equations		3
Probability & Statistics for Engineers	STA 4032	3
Computer Programming**		3

Computer Applications in Mechanical Engineering 2	EML 4534	3
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Engineering Graphics	EGN 1111C	3
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\*\* Four-year students are to take Computer Applications in Engineering 1, EGN 2213, offered by the Department of Ocean and Mechanical Engineering.

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***Mechanical Engineering Core***

Electro-Mechanical Devices	EGM 4045	3
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Fundamentals of Engineering	EGN 1002	3
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Statics	EGN 3311	3
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Dynamics	EGN 3321	3
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Strength of Materials	EGN 3331	3
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Engineering Thermodynamics	EGN 3343	3
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Engineering Materials 1	EGN 3365	3
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Experimental Methodology	EML 3523C	3
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Fluid Mechanics	EML 3701	3
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Applied Thermal Fluid Engineering	EML 4127	3
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Heat Transfer	EML 4142	3
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Intermediate Strength of Materials	EGM 4523C	3
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Finite Element Analysis for Engineering Design	EGM 4350	3
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Machine Design	EML 4500	3
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RI: Engineering Design	EML 4521C	3
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RI: Design Project	EML 4551	3
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Dynamic Systems	EGN 4432	3
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Mechanical Engineering Lab	EML 4730L	3
Fabrication of Mechanical Engineering Systems	EML 4263C	2

### Electives

9 credits (minimum) of departmentally approved technical electives. Students are required to have one design credit in the technical electives as identified in the approved list in the advising manual.

Directed independent study (DIS) may be used as credit toward one technical elective in the student's program with approval of the faculty advisor and the department chair.

### Sample Four-Year Program of Study for Bachelor of Science in Mechanical Engineering

#### First Year, Fall (14 credits)

College Writing 1*	ENC 1101	3
Calculus with Analytic Geometry 1	MAC 2311	4
General Chemistry 1	CHM 2045	3
General Chemistry 1 Lab	CHM 2045L	1
Fundamentals of Engineering	EGN 1002	3

#### First Year, Spring (14 credits)

College Writing 2* or equivalent	ENC 1102	3
Calculus with Analytic Geometry 2	MAC 2312	4
General Physics for Engineers 1	PHY 2048	3
General Physics 1 Lab	PHY 2048L	1
Foundations of Society and Human Behavior**		3

#### Second Year, Fall (14 credits)

Statics	EGN 3311	3
Calculus with Analytic Geometry 3	MAC 2313	4
Engineering Graphics	EGN 1111C	3
Physics for Engineers 2	PHY 2044	3
General Physics 2 Lab	PHY 2049L	1
<b>Second Year, Spring (15 credits)</b>		
Strength of Materials	EGN 3331	3
Engineering Thermodynamics	EGN 3343	3
Computer Applications in Engineering 1	EGN 2213	3
Engineering Mathematics 1	MAP 3305	3
Foundations of Global Citizenship**		3
<b>Third Year, Fall (15 credits)</b>		
Electro-Mechanical Devices	EGM 4045	3
Intermediate Strength of Materials	EGM 4523C	3
Fluid Mechanics	EML 3701	3
Computer Applications in Mechanical Engineering 2	EML 4534	3
Foundations of Society and Human Behavior**		3
<b>Third Year, Spring (15 credits)</b>		
Dynamics	EGN 3321	3
Heat Transfer	EML 4142	3

Experimental Methodology	EML 3523C	3
Probability and Statistics for Engineers	STA 4032	3
Foundations of Global Citizenship**		3
<b>Third Year, Summer (12 credits)</b>		
Applied Thermal Fluid Engineering	EML 4127	3
Machine Design	EML 4500	3
Engineering Materials 1	EGN 3365	3
Mechanical Engineering Laboratory	EML 4730L	3
<b>Fourth Year, Fall (14 credits)</b>		
Technical Elective		3
Finite Element Analysis for Engineering Design	EGM 4350	3
Fabrication of Mechanical Engineering Systems	EML 4263C	2
RI: Engineering Design	EML 4521C	3
Foundations of Humanities		3
<b>Fourth Year, Spring (15 credits)</b>		
Dynamic Systems	EGN 4432	3
RI: Design Project	EML 4551	3
Technical Electives		6
Foundations of Humanities		3
<b>Total</b>		<b>128</b>

\* Course meets Writing Across Curriculum (Gordon Rule) requirements.

\*\* Courses may be selected from the appropriate portion of the [General Education Program](#).

### Cooperative Education

Students in the Mechanical Engineering program are encouraged to consider gaining practical experience through participation in Cooperative Education. Three, one-semester periods of Cooperative Education (EML 4949) may be substituted for one program technical elective. For information, contact the FAU Career Center, 561-297-3533 or visit its website at [www.fau.edu/cdc](http://www.fau.edu/cdc).

## COMBINED PROGRAMS

### **BIOLOGICAL AND PHYSICAL SCIENCES TO MECHANICAL ENGINEERING BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

The B.A. or B.S. degree is completed at the [Wilkes Honors College](#) (WHC), and students then receive their bachelor's degree from WHC. Students complete their master's degree work in one of two majors in the Department of Ocean and Mechanical Engineering in the College of Engineering and Computer Science (COECS) and receive their master's degree from COECS.

These combined programs are offered in partnership with the Wilkes Honors College:

B.A. or B.S. with Major in Biological and Physical Sciences to M.S. with Major in [Mechanical Engineering](#)

B.A. or B.S. with Major in Biological and Physical Sciences to M.S. with Major in [Ocean Engineering](#)

Details for each combined program are listed in the [Wilkes Honors College](#) section.

### **MECHANICAL ENGINEERING TO ARTIFICIAL INTELLIGENCE BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING (B.S.M.E.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

The College of Engineering and Computer Science (COECS) offers a combined Bachelor of Science in

Mechanical Engineering to Master of Science in Artificial Intelligence degree program. The [Bachelor of Science in Mechanical Engineering](#) degree is completed and received from the Ocean and Mechanical Engineering (OME) department. Students complete the [Master of Science in Artificial Intelligence](#) in the Department of Electrical Engineering and Computer Science.

The bachelor's degree with major in Mechanical Engineering requires a minimum of 128 credits. This combined program requires two extra leveling courses for the M.S. in Artificial Intelligence: COP 3035, Introduction to Programming in Python, and COP 3410, Data Structures and Algorithm Analysis with Python. Students must take the leveling courses at the beginning of the graduate program. The two leveling courses do not qualify for financial aid. The graduate degree requires a minimum of 30 credits at the graduate level. This program does not increase the number of credits in the undergraduate degree.

Students may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees. These graduate courses will replace the technical elective courses in the bachelor's program.

This combined program provides an attractive way for students to continue their graduate work. Students complete the undergraduate program first. The combined program can be completed in approximately five years.

### **Admission Requirements**

The GRE is not required for this combined program. To be eligible for the combined program, baccalaureate students should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the bachelor's degree.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the M.S. portion of their program.

Students in the combined program must maintain continuous enrollment to remain in good standing. Students must also meet all the degree requirements of the graduate program they have chosen, including prerequisite courses.

### **Degree Requirements**

To be eligible for the combined B.S.M.E. in Mechanical Engineering to M.S. in Artificial Intelligence, students must fulfill the following requirements:

1. Completion of the requirements for the [B.S. in Mechanical Engineering](#) program and other

requirements stipulated by the University and College

2. Completion of all requirements for the [M.S. in Artificial Intelligence](#) program, using either the thesis or non- thesis option.

## **MECHANICAL ENGINEERING**

### **BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING (B.S.M.E.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

#### **Thesis Option**

Candidates seeking a combined program leading to both Bachelor of Science in Mechanical Engineering and Master of Science degrees with the thesis option must complete an approved program of at least 30 credits. Out of those 30, 12 credits of graduate coursework (5000 level or higher) will count toward both the bachelor's and master's degrees, as long as the following criteria are met:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

A maximum of 12 credits may then be counted for both the bachelor's and master's programs if the total number of credits exceeds 150.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

#### **Degree Requirements**

Candidates must complete the following:

1. Three core courses (9 credits): EGM 6533, Advanced Strength of Materials; EML 6223, Mechanical Vibrations or EML 6317, Advanced Control Systems; and EML 6716 , Advanced Fluid Dynamics;
2. A math course (3 credits): EOC 5172, Mathematical Methods in Ocean Engineering 1;
3. Four technical electives (12 credits at the 5000 level or higher);
4. Must complete one semester of EML 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S");
5. Up to four courses may be taken while the student is an undergraduate;
6. Before the end of the student's third semester of full-time enrollment, a written thesis proposal must be submitted to the supervisory committee and defended in an oral examination;
7. A master's thesis (6 credits), which must be defended at an oral examination;
8. At least one-half of the credits must be at the 6000 level or above;
9. At least one-half of the credits must be from the list of Mechanical Engineering courses shown in the Engineering and Computer Science Course Descriptions section.

## MECHANICAL ENGINEERING

### BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING (B.S.M.E.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

#### Non-Thesis Option

Candidates seeking a combined program leading to both Bachelor of Science in Mechanical Engineering and Master of Science degrees with the non-thesis option must complete an approved program of at least 30 credits. Out of those 30, 12 credits of coursework (5000 level or higher) will count toward both the bachelor's and master's degrees.

#### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Degree Requirements

Candidates must complete the following:

1. Three core courses (9 credits): EGM 6533, Advanced Strength of Materials; EML 6223, Mechanical Vibrations or EML 6317, Advanced Control Systems; and EML 6716, Advanced Fluid Dynamics;
2. A math course (3 credits): EOC 5172, Mathematical Methods in Ocean Engineering 1;
3. Six technical electives (18 credits);
4. Up to four courses, at the 5000 level or higher, may be taken while the student is an undergraduate;
5. Must complete one semester of EML 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S");
6. At the time of application for degree, students must submit a portfolio to their advisor consisting of four graduate projects from 10 courses in their program of study. The portfolio will be reviewed by the student's supervisory committee;
7. At least one-half of the credits must be at the 6000 level or above;
8. At least one-half of the credits must be from the list of Mechanical Engineering courses shown in the Engineering and Computer Science Course Descriptions section.

## **MECHANICAL ENGINEERING**

### **BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING (B.S.M.E.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

#### **Non-Thesis Option/Business Minor**

Candidates seeking a combined program leading to both Bachelor of Science in Mechanical Engineering and Master of Science degrees with the non-thesis option and with a minor in Business must complete an approved program of at least 36 credits. Out of those 36, 12 credits of coursework (5000 level or higher) will count toward both the bachelor's and master's degrees.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements

(including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Degree Requirements

Candidates must complete the following:

1. Three core courses (9 credits): EGM 6533, Advanced Strength of Materials; EML 6223, Mechanical Vibrations or EML 6317, Advanced Control Systems and EML 6716, Advanced Fluid Dynamics;
2. A math course (3 credits), Mathematical Methods in Ocean Engineering 1;
3. Three technical electives (9 credits) at the 5000 or 6000 level from the list of Mechanical Engineering courses shown in the Engineering and Computer Science Course Descriptions section;
4. Up to four courses at the 5000 level or higher, may be taken while the student is an undergraduate;
5. Must complete one semester of EML 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S");
6. **Five business courses** (15 credits) as described at the beginning of this College of Engineering and Computer Science section;
7. At the time of application for degree, students must submit a portfolio to their advisor consisting of four graduate projects from 12 courses in their program of study. The portfolio will be reviewed by the student's supervisory committee;
8. At least one-half of the credits must be at the 6000 level or above;
9. At least one-half of the credits must be from the list of Mechanical Engineering courses shown in the Engineering and Computer Science Course Descriptions section.

## MASTER'S PROGRAMS

The Master of Science with major in Mechanical Engineering has both thesis and non-thesis options. The thesis option requires a minimum of 24 credits of coursework and a thesis (6 additional credits). The non-thesis option requires a minimum of 33 credits of coursework. The Master of Science program is available in person and fully online. Requirements for the Ph.D. program are described later in this section.

Each student must complete a comprehensive and coordinated Plan of Study requiring depth in one or more of the following areas: mechanical systems, solid body mechanics, fluid mechanics, heat transfer, thermal/fluid systems, helicopter dynamics, materials, manufacturing, controls, robotics and CAD/CAM. The Plan of Study includes all course and thesis work (if the thesis option is chosen) that the student expects to complete for the M.S. degree. Students submit their Plans of Study electronically for approval using the MyPOS system.

### **Admission Requirements**

Usual admission requirements are as follows. Students with non-engineering bachelor's degrees, click [here](#) for additional requirements.

1. A baccalaureate degree in Engineering, Natural Science or Mathematics, but preferably in Mechanical Engineering and from a regionally accredited institution. A student who does not have a background in mechanical engineering should expect to take additional undergraduate mechanical engineering coursework.
2. Demonstrated proficiency in both written and spoken English. A student from a non-English-speaking country is required to take the Test of English as a Foreign Language (TOEFL) exam and achieve a score of at least 550 (CBT-213, iBT-79).
3. At least a 3.0 (of a 4.0 maximum) GPA in the last 60 credits attempted prior to graduation.
4. Petitions for admittance to the program will not be accepted when a student wishes to include more than five courses taken as a non-degree-seeking student.

### **Admission to Candidacy**

A student is eligible to apply for candidacy when:

1. The student has completed a minimum of 9 credits as a graduate student.
2. The student has maintained a minimum GPA of 3.0 in all courses attempted as a graduate student.
3. The student has filed an approved Plan of Study for the degree program.

Students should file for candidacy as soon as they are eligible. Usually, no more than 20 credits of completed work before admission to candidacy will be accepted toward a degree program. A student

should be admitted to candidacy prior to beginning work on thesis.

## **Degree Requirements**

Students must satisfy all of the University graduate requirements.

[Link to Master of Science with Major in Mechanical Engineering Non-thesis Option and Non-thesis Option with a Business Minor](#)

[Link to Master of Science with Major in Mechanical Engineering and Engineering Management Minor](#)

[Link to Master of Science with Major in Mechanical Engineering: Aerospace Engineering Concentration](#)

## **MECHANICAL ENGINEERING MASTER OF SCIENCE (M.S.)**

### **Thesis Option**

*Candidates for the Master of Science degree with the thesis option must complete an approved program of at least 30 credits including:*

1. Three core courses (9 credits): EGM 6533, Advanced Strength of Materials; EML 6223, Mechanical Vibrations or EML 6317, Advanced Control Systems; and EML 6716, Advanced Fluid Dynamics;
2. A math course (3 credits): EOC 5172, Mathematical Methods in Ocean Engineering 1;
3. Four technical electives (12 credits) at the 5000 level or higher;
4. Must complete one semester of EML 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S");
5. Before the end of the student's third semester of full-time enrollment, a written thesis proposal must be submitted to the supervisory committee and defended in an oral examination;
6. A Master's thesis (6 credits), which must be defended at an oral examination;
7. At least one-half of the credits must be at the 6000 level or above;
8. At least one-half of the credits must be from the list of Mechanical Engineering courses shown in the Engineering and Computer Science Course Descriptions section.

## **MECHANICAL ENGINEERING MASTER OF SCIENCE (M.S.)**

## Thesis Option with Aerospace Engineering Concentration

Students in the Master of Science with Major in Mechanical Engineering, thesis option, have the additional option of pursuing a concentration in Aerospace Engineering.

### Admission Requirements

Applicants should meet all the admission requirements for the M.S. with Major in Mechanical Engineering program, thesis option.

### Degree Requirements

Applicants should meet all the degree requirements for the M.S. with Major in Mechanical Engineering program, thesis option. In addition, the following requirements should be met:

1. Graduate coursework counted for the master's degree should include at least three graduate courses with content on theoretical and/or Aerospace Engineering (see table below). Additional courses may be approved by the thesis advisor. Students in this program should choose Advance Controls as a core course.
2. The student's thesis research and scholarship must have a strong emphasis on one or more areas of Aerospace Engineering.

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### Graduate Coursework (9 credits)

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#### *Core Course*

Special Topics (Principles of Aerodynamics)	EML 6930	3
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#### *Elective Courses (Select two of the courses below)*

Introduction to Finite Element Methods	EGM 5351	3
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Fracture Mechanics	EML 6239	3
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Advanced Engineering Dynamics	EML 6271	3
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Turbomachinery	EML 6402	3
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Computational Fluid Dynamics	EOC 6189	3
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## MASTER OF SCIENCE (M.S.)

### Non-Thesis Option and Non-Thesis Option with a Business Minor

*Candidates for the Master of Science degree with the non-thesis option must complete an approved program of at least 30 credits including:*

1. Three core courses (9 credits): EGM 6533, Advanced Strength of Materials; EML 6223, Mechanical Vibrations or EML 6317, Advanced Control Systems; and EML 6716, Advanced Fluid Dynamics;
2. A math course (3 credits): EOC 5172, Mathematical Methods in Ocean Engineering 1;
3. Six technical electives (18 credits) at the 5000 or 6000 level;
4. Must complete one semester of EML 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S");
5. At the time of application for degree, students must submit a portfolio to their advisor consisting of four graduate projects from 10 courses in their program of study. The portfolio will be reviewed by the student's supervisory committee;
6. At least one-half of the credits must be at the 6000 level or above;
7. At least one-half of the credits must be from the list of Mechanical Engineering courses shown in the Engineering and Computer Science Course Descriptions section.

*Candidates for the Master of Science degree with the non-thesis option and a Business minor must complete an approved program of at least 36 credits including:*

1. Three core courses (9 credits): EGM 6533, Advanced Strength of Materials; EML 6223, Mechanical Vibrations or EML 6317, Advanced Control Systems; and EML 6716, Advanced Fluid Dynamics;
2. A math course (3 credits): EOC 5172, Mathematical Methods in Ocean Engineering 1;
3. Three technical elective courses (9 credits) at the 5000 or 6000 level from the list of Mechanical Engineering courses shown in the Engineering and Computer Science Course Descriptions section;-
4. **Five business courses** (15 credits) as described at the beginning of this College of Engineering and Computer Science section under the Business Minor heading;
5. Must complete one semester of EML 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S");
6. At the time of application for degree, students must submit a portfolio to their advisor consisting of four graduate projects from 12 courses in their program of study. The portfolio will be reviewed by the student's supervisory committee;

7. At least one-half of the credits must be at the 6000 level or above;
8. At least one-half of the credits must be from the list of Mechanical Engineering courses shown in the Engineering and Computer Science Course Descriptions section.

## MECHANICAL ENGINEERING

### MASTER OF SCIENCE (M.S.) WITH AN ENGINEERING MANAGEMENT MINOR

This Master of Science degree program with a minor in Engineering Management is a 36-credit program consisting of advanced courses in mechanical engineering as well as courses in the College of Business. Candidates for this program should have an undergraduate degree in Mechanical Engineering with a minimum GPA of 3.0. Submission of the Graduate Record Examination (GRE) is required. GRE scores more than five years old will not be accepted. The GRE requirement is waived for applicants who have a bachelor's degree from FAU's Ocean and Mechanical Engineering Department with a GPA of at least 3.25 over the last 60 credits. Non-English-speaking candidates must have a minimum score of 550 on the TOFEL. Two reference letters and at least two years of professional experience are also required.

***Candidates for the Master of Science degree with Major in Mechanical Engineering and Engineering Management minor must complete an approved program of at least 36 credits including:***

1. Three core courses (9 credits): EGM 6533, Advanced Strength of Materials; EML 6223, Mechanical Vibrations or EML 6317, Advanced Control Systems; and EML 6716, Advanced Fluid Dynamics;
2. A math course (3 credits): EOC 5172, Mathematical Methods in Ocean Engineering 1;
3. Three elective courses (9 credits) from the list of Mechanical Engineering courses shown in the Engineering and Computer Science Course Descriptions section;
4. Must complete one semester of EML 5937, Graduate Seminar (0 credits) with grade of Satisfactory ("S");
5. Three required management courses (9 credits) listed in the table below;
6. Two management elective courses (6 credits) from the table below;
7. At the time of application for degree, students must submit a portfolio to their advisor consisting of four graduate projects from 12 courses in their program of study. The portfolio will be reviewed by the student's supervisory committee;
8. At least one-half of the credits must be at the 6000 level or above;
9. At least one-half of the credits must be from the list of Mechanical Engineering courses shown in

the Engineering and Computer Science Course Descriptions section.

### Required Management Courses (9 credits)

Organizational Behavior	MAN 6245	3
Operations Management	MAN 6501	3
Project Management	MAN 6526	3

### Management Elective Courses (6 credits)

Select two courses from the list:

Entrepreneurship, Creativity and Innovation	MAN 6299	3
Project Management	MAN 6526	3
Cross-Cultural Management and Human Resources	MAN 6609	3
International Business Operations	MAN 6614	3
Entrepreneurial Consulting Project	MAN 6806	1-4
Seminar in Entrepreneurship/Venture Management	MAN 6875	3
Global Environment of Management	MAN 6937	3

## DOCTORAL PROGRAM

### MECHANICAL ENGINEERING DOCTOR OF PHILOSOPHY (PH.D.)

The degree of Doctor of Philosophy with major in Mechanical Engineering is conferred by the University primarily in recognition of a demonstrated ability for independent and original research in the discipline. This ability must be supported by a comprehensive and coordinated plan of advanced study designed to provide a strong background in the fundamentals of mechanical engineering and related areas. Students in the Ph.D. with Major in Mechanical Engineering have the option of pursuing a concentration in [Aerospace Engineering](#) or [Neuroengineering](#).

## Admission Requirements

Minimum requirements for admission to doctoral studies in mechanical engineering are as follows:

1. A master's degree in engineering or a related field from a recognized institution;
2. A GPA of 3.0 or better in the last 60 credits of work attempted;
3. Submission of the Graduate Record Examination (GRE) score is required. GRE scores more than five years old will not be accepted. The GRE requirement is waived for applicants who have a master of science degree from FAU's Ocean and Mechanical Engineering Department;
4. Demonstrated proficiency in both written and spoken English. A student from a non-English-speaking country is required to take the test of English as a Foreign Language (TOEFL) and achieve a score of at least 550 (CBT-213, iBT-79);
5. Three letters of reference attesting to the student's potential for graduate studies in mechanical engineering;
6. Approval for admission by the Department of Ocean and Mechanical Engineering. Usually, an applicant admitted will have a strong record of achievement that exceeds the minimum requirements. Approval for admission by the department will be based on an evaluation of the student's record in terms of likelihood of success in the Ph.D. program.

Admission to doctoral studies does not constitute admission to candidacy for the degree.

## Admission to Doctoral Status

Admission to doctoral status is granted after students have:

1. Successfully completed General Examination 1;
2. Been accepted by a department faculty member willing to serve as their dissertation advisor;
3. Had their Plan of Study approved by their advisor, by the department graduate coordinator and by the Graduate College.

A Plan of Study for the Ph.D. degree must be submitted to the Graduate College before the end of the second semester of enrollment. Students submit their Plans of Study electronically for approval using the MyPOSsystem.

## Admission to Candidacy

Admission to candidacy requires formulation of a supervisory committee approved by the department graduate coordinator as well as successful completion of General Examination 1.

## Degree Requirements

A central requirement for the Ph.D. degree in Mechanical Engineering is submission and defense of a

dissertation based upon original research in an area of focus acceptable to the student's supervisory committee. The completed dissertation must be approved by the committee, the department chair and the Graduate College. A minimum of 72 graduate credits is required beyond a bachelor's degree. A master's degree in a related field is considered equivalent to 30 credits. Additional requirements are:

1. A minimum of 42 credits of coursework beyond the baccalaureate degree, or a minimum of 18 credits beyond the master of science degree;
2. No more than 3 credits of directed independent study or EML 6918, Advanced Research may be used to satisfy the minimum 18 credits of coursework;
3. A minimum of 12 credits must be in Mechanical Engineering courses, including **at least** two of the following three core courses. In addition a graduate-level Engineering Mathematics course is required, which may include, but not limited to, EOC 5172, Mathematical Methods in Ocean Engineering 1 or PHZ 5115, Mathematical Physics.

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**Core Courses (select two of the following three courses)**

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Advanced Strength of Materials	EGM 6533	3
Advanced Fluid Dynamics	EML 6716	3
Mechanical Vibrations	EML 6223 <b>or</b>	3
Advanced Control Systems	EML 6317	3

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**Mathematics**

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One Engineering Mathematics course, graduate level

4. Must complete two semesters of EML 37, Graduate Seminar (0 credits) with grade of Satisfactory ("S");
5. Doctoral thesis research of at least 24 credits for students entering with a master's degree and at least 30 credits for students entering with a bachelor's degree;
6. Successful completion of General Examination 1;
7. Successful completion of General Examination 2;
8. Prior to the defense, the student is required to have published or have accepted for publication a refereed research paper in a field of study deemed acceptable by the dissertation committee. A journal article is preferred, but a peer-reviewed conference paper is also acceptable;
9. Submitted and defended a dissertation based on original research in the student's area of

specialization. The supervisory committee, the department chair and the Graduate College must have approved the dissertation;

10. Satisfaction of all University regulations and requirements for the Ph.D. degree;
11. **General Examination 1:** Students entering the Ph.D. program with an M.S. degree are expected to take the General Examination 1 (Ph.D. Qualifying Examination) after completing their second semester. The primary purpose of General Examination 1 is to evaluate the student's ability, not only to demonstrate a thorough knowledge of Mechanical Engineering course material but also to evaluate original thinking. The General Examination 1 will be in four parts: Part 1 covers the three core courses (note that an elective course can be treated as a core course), Part 2 covers two other elective course subjects, Part 3 covers Mathematics, and Part 4 is a pre-proposal that consists of a written paper and an oral examination. Students with a GPA more than or equal to 3.5 on all courses selected for General Exam 1 (with all classes more than or equal to 3.3 [B+]) are exempt from Part 1, Part 2 and Part 3. (These students will need to take a written examination only for topics with a 3.0 GPA [B grade] or below.) For non-exempt students (i.e., GPA less than 3.5): Part 1, the exam on the core courses, will be three hours in duration and will require three problems to be answered. Part 2, the electives exam, will be a one-hour exam and will require one problem from two elective courses to be answered. Part 3, the exam on Engineering Mathematics, will be a two-hour exam and the student must answer two problems. A new set of examinations will be prepared and questions and problems from previous examinations are not available to students. It is expected that the examination on the elective courses will focus on the student's area of specialization;

All Ph.D. graduate students need to prepare a pre-proposal (Part 4). The pre-proposal will consist of an oral presentation and written paper based on several articles selected by a committee (including the advisor). The student will identify knowledge gap(s) and complete a literature review (with guidance of the advisor). During the presentation, questions will be limited to those that help demonstrate knowledge important to the research topic/area;

An overall grade of 70 percent on Part 1, Part 2 and Part 3 of the General Examination 1 and a passing grade in the pre-proposal constitutes successfully completing General Examination 1. If the student fails any of the parts, the student will have one more opportunity to successfully pass the exam. The student must score 70 percent in each subject that is retaken. Alternatively, the student may retake the entire exam when it is next offered. General Examination 1 is scheduled immediately after the last day of the final examination period in the fall semester and in the spring semester each year. The pre-proposal can be defended during the last two months of the semester, including the week after the final exams period, if the advisor indicates that the student is ready;

12. Students who have obtained the M.S. in Mechanical Engineering at FAU will be allowed to take General Examination 1 at the end of the first semester, if the student has completed the pre-proposal. Otherwise, General Examination 1 must be taken no later than the end of the second semester of Ph.D. study. Those admitted to the Ph.D. program directly after the B.S. degree may take the examination after completing 24 credits of graduate coursework;
13. **General Examination 2:** At an appropriate point in the student's graduate studies, normally within 12 months of passing General Exam 1, the student must complete General Examination 2. This is the dissertation proposal defense, in which students defend the choice of a dissertation topic and answer a series of questions on fundamental issues related to their research topic. Students must have passed General Examination 1, selected the dissertation topic, formed a supervisory committee and completed a literature survey prior to the dissertation proposal defense;

In General Examination 2, students should be prepared to demonstrate the ability to perform research on a topic approved by the supervisory committee by presenting a comprehensive literature survey combined with a critical analysis of the state of the art in the particular field. While this examination will be centered around the particular research area, it will not necessarily be limited to that subject. If unsuccessful in the examination, the student may, at the discretion of the department, either remain in the doctoral program and retake the examination at a later date or withdraw from the program. No more than two attempts will be permitted.

### **Transfer Credits**

A maximum of 6 credits beyond the master's degree can be transferred into the student's program of study.

### **Time Limits**

No credit that is more than 10 years old at the time a graduate degree is awarded may be counted toward that degree at Florida Atlantic University. In addition, the final examination must be completed within five calendar years of the admission to candidacy, otherwise the Qualifying Examination must be repeated.

### **Residency Requirement**

Students are required to spend two semesters of full-time study beyond the master's degree in residence at Florida Atlantic University.

## **MECHANICAL ENGINEERING DOCTOR OF PHILOSOPHY (PH.D.)**

## Aerospace Engineering Concentration

Students in the Doctor of Philosophy with Major in Mechanical Engineering program have the option of pursuing a concentration in Aerospace Engineering.

### Admission Requirements

Applicants should meet all the admission requirements for the Ph.D. with Major in Mechanical Engineering program.

### Degree Requirements

Applicants should meet all the degree requirements for the Ph.D. with Major in Mechanical Engineering program. In addition, the following requirements should be met:

1. Graduate coursework counted for the doctor of philosophy degree should include three core courses (EGM 6533, Advanced Strength of Materials, EML 6317, Advanced Control Systems, EML 6716, Advanced Fluid Dynamics) and at least three graduate courses with content on theoretical and/or Aerospace Engineering. Graduate courses completed during the master's degree program may also be counted toward this requirement. The three Aerospace Engineering courses are listed in the table. Additional courses may be approved by the thesis advisor.
2. The student's dissertation research and scholarship must have a strong emphasis on one or more areas of Aerospace Engineering.

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### Graduate Coursework (9 credits)

#### *Core Course*

Special Topics (Principles of Aerodynamics)	EML 6930	3
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#### *Elective Courses (select two of the courses below)*

Introduction to Finite Element Methods	EGM 5351	3
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Fracture Mechanics	EML 6239	3
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Advanced Engineering Dynamics	EML 6271	3
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Turbomachinery	EML 6402	3
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Computational Fluid Dynamics	EOC 6189	3
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# MECHANICAL ENGINEERING

## DOCTOR OF PHILOSOPHY (PH.D.)

### Neuroengineering Concentration

#### Admission Requirements

Applicants should meet all the admission requirements for the Ph.D. with Major in Mechanical Engineering program.

#### Degree Requirements

Applicants should meet all the degree requirements for the Ph.D. with Major in Mechanical Engineering program. In addition, the following requirements should be met.

1. Graduate coursework counted for the Ph.D. program must contain at least three graduate courses that include content on theoretical and/or applied neuroengineering graduate courses completed during the master's degree program may also be used to meet this requirement. The three courses required consist of the required course, EML 6317, Advanced Control Systems, and two additional graduate courses from the table below. Additional courses may be approved by the dissertation advisor.
2. The student's Ph.D. dissertation research and scholarship must have a strong emphasis in one or more areas of neuroengineering including but not limited to applied and/or theoretical areas.

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#### Required Course

Advanced Control Systems	EML 6317	3
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#### Elective Courses (select two courses)

Topics in Biomechanical Engineering	BME 5930	3
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Biomaterials	BME 6105	3
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Tissue Engineering	BME 6334	3
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Neural Engineering	BME 6390	3
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Advanced Topics in Microfluidics and BioMEMS	BME 6585	3
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Computational Modeling of Biological Neural Networks	BME 6718	3
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[Link to Course Descriptions for the College of Engineering and Computer Science](#)







# UNIVERSITY CATALOG

## SUB MENU



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### GENERAL INFORMATION

### COURSE DESCRIPTIONS

# HARRIET L. WILKES HONORS COLLEGE

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[Combined Programs](#)

[Link to Course Descriptions for the Harriet L. Wilkes Honors College](#)

## Faculty:

Perry, J., Dean; Hill, T., Associate Dean; Baima, N.; Cañete Quesada, C.; Carvelli, L.; Chandrasekhar,

C.; Chaves Fonnegra, A.; Corr, R.; Duboué, E.; Dragojlovic, V.; Earles, J.; Ely, C.; Fewkes, J.; Fily, Y.; Harrawood, M.; Jakee, K.; Kennedy, A.; Kowalko, J.; Lanning, K.; Lemeh, D.; Luria, R.; Macleod, G.; McGovern, W.; Mincer, T.; Moore, J.; Njambi, W. N.; Nur-tegin, K.; O'Brien, W.; Ruest, A.; Smith, E.; Steigenga, T.; Strain, C.; Tille-Victorica, N.; Trivigno, C.; Tunick, M.; Vázquez, M.; Vernon, L.; Wetterer, J.; White, D. R., Emeritus.

The Harriet L. Wilkes Honors College offers Bachelor of Arts and Bachelor of Science degrees in Liberal Arts and Sciences and Bachelor of Arts and Bachelor of Science degrees in Biological and Physical Sciences. The B.A. and B.S. programs are designed to develop the qualities of a free and responsible citizen, one who can reason clearly, read critically and analytically, argue persuasively in speech and in writing and contribute to society in fundamental and innovative ways. In addition, the B.S. programs provide students a deep understanding of the natural sciences and mathematics. By providing intellectual training in the liberal arts and sciences and biological and physical sciences and specialized study in an area of concentration, the College prepares its students for graduate and professional schools, such as law and medicine, as well as for careers in business, science, education and government. The College offers a number of minors as well and students may pursue a [certificate in Undergraduate Research](#) presented by the Office of Undergraduate Research and Inquiry (OURI).

The Harriet L. Wilkes Honors College also offers combined degree programs (B.A. or B.S./M.S.) in partnership with the College of Engineering and Computer Science and with the Department of History (B.A./M.A.) in the Dorothy F. Schmidt College of Arts and Letters. Details of all [combined degree programs](#) are shown below.

## WILKES HONORS COLLEGE CURRICULUM

The College's curriculum has two primary components, the [honors core](#) and the [concentration](#). For the honors core, students take distribution courses in the liberal arts and sciences aimed at sharpening written and oral communication and enhancing problem-solving skills. In addition, all students develop competency in a foreign language by taking a series of interdisciplinary seminars and team-taught courses, as well as distribution electives in the humanities and social sciences. The students also experience non-classroom learning in the form of either an internship or study abroad.

In addition to completing the honors core, students choose a concentration. Concentrations may be traditional choices, such as biology, English, mathematics, philosophy, political science and psychology or interdisciplinary programs, such as environmental studies, international studies, medical humanities or law and society. In addition, students are able to design their own individual concentration in consultation with faculty. The concentration may have a specialized focus, such as

Bioinformatics, or it may combine related disciplines, such as philosophy, politics and economics. As part of the concentration, students synthesize their skills and knowledge into senior projects or theses. Students may concentrate in more than one area by fulfilling the requirements of each concentration. Depending on the area of concentration, students will receive either a Bachelor of Arts or Bachelor of Science degree in Liberal Arts and Sciences or a Bachelor of Arts or Bachelor of Science degree in Biological and Physical Sciences. It is possible to minor in some areas. Refer to the Minors heading appearing later in this Honors College section.

### **Prerequisite Coursework for Transfer Students**

Students who transfer to Florida Atlantic University must complete both the Honors College core/graduation requirements and requirements for their concentration(s) (see links above). Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## THE HONORS CORE

**Note:** Students who entered FAU prior to fall 2015 are subject to a different set of core requirements, which are listed [online](#).

All students must successfully complete 120 credits to graduate. Of these, at least 36 credits are in the Honors Core. The Honors Core provides a broad-based education in the liberal arts and sciences through courses that emphasize critical thinking and writing skills. These courses introduce students to ways of thinking analytically about science, politics, history, ethics, culture, visual images and literature. Some courses serve as introductions to a specific discipline. Others approach problems and themes in ways that cross traditional disciplinary boundaries. In addition, students fulfill other graduation requirements: they write an honors thesis, develop competency in a foreign language, study abroad or complete an internship and finish coursework in their concentration.

### **Core Requirements**

Writing ( ENC 1101, three additional WAC-designated courses and submission of a writing

portfolio)

One of the most important skills a student acquires is the ability to communicate effectively. Clear writing is inseparable from clear and coherent thinking. Honors College courses are writing intensive and provide guidance in researching, composing, editing and revising papers. Students do substantial writing in different disciplines and in formats as diverse as essays, research papers, lab reports and debate briefs. A senior Honors thesis or the written component of a senior Honors project interweaves the research, analytical and writing skills acquired in the first three years.

As part of the Honors College's writing-intensive curriculum, students must take four Writing Across the Curriculum (WAC) courses. WAC courses are discipline-based courses students may use to satisfy other core or concentration requirements. They are designated as WAC because they provide special attention to the writing and revision process. In most cases the Honors Thesis will count as two WAC courses. WAC courses satisfy the State's Gordon Rule requirement. ENC 1101 is taken as one of the four WAC courses.

Students also submit a writing portfolio, which is a mid-career assessment of their writing at the end of their sophomore year, conducted by a committee of faculty. The writing portfolio consists of the student's Forum paper (which the Dean's office keeps on file) and at least one essay submitted to the Dean's office. This essay must meet the following four requirements:

1. It was written in the first or second year at the Honors College;
2. It should be a scholarly essay that demonstrates the student's ability to incorporate evidence from secondary sources and/or analyze a primary text;
3. It should include the professor's comments, if possible; and
4. It should be at least five pages in length.

### **Mathematics and Quantitative Reasoning (6-8 credits, two courses)**

One goal of the honors core is to help foster mathematical literacy. Mathematics is the language of science and technology and, increasingly, of the social sciences. By virtue of its precision, mathematics allows a clear understanding of the world and our place within it. Indeed, important health and environmental issues (acid rain, water management, global warming) cannot be understood without mathematical literacy. By taking two courses in mathematics, students sharpen their critical thinking skills, learning to distinguish evidence from anecdote and causality from correlation. At least one course must be from the [list of core courses](#) designated Group A and the second course may be from Group A or Group B. Math courses also satisfy the State's Gordon Rule computational requirement.

### **Natural Sciences (6-8 credits, two courses)**

By taking two courses in two distinct disciplines within the natural sciences, students will gain an

appreciation and understanding of the natural world as well as our place in it. At least one of these courses will include a laboratory section that will give students hands-on experience and allow them to understand the meaning of science in both theory and practice. At least one course must be from the [list of core courses](#) designated Group A.

### **Social and Behavioral Analysis (6 credits, two courses)**

The courses in social and behavioral analysis familiarize students with different approaches to the study of individual behavior and social institutions and introduce them to some of the concepts and methods of the social sciences. The courses aim at an understanding of the reciprocal relations among people, societies, and institutions and encourage students to think critically and systematically about how these societies and institutions can best be arranged. At least one course must be from the list of core courses designated Group A and the second course must be from Group B in the [list of core courses](#).

### **Humanities (6 credits, two courses)**

Courses in the humanities serve several purposes. Some courses explore questions such as, “what is the life worth living?” or “what is the basis for distinguishing knowledge from belief?” Some courses emphasize how these questions have been approached throughout history, others focus on how different cultures have addressed these questions and some grapple with these questions without regard to their historical or cultural context. Courses in literature are intended to develop students’ ability to appreciate and understand literature by looking at texts in their historical and cultural contexts or examining themes, approaches and generic conventions across time. Courses in the arts are intended to develop students’ ability to create and appreciate the arts in all of their forms, to enhance sensitivity to artistic expression and to increase familiarity with theories central to these forms. Courses may be structured historically, culturally or thematically. At least one course must be from the [list of core courses](#) designated Group A and at least one must be from Group B (online).

### **Global Citizenship (6-7 credits, two courses)**

Societies are increasingly diverse and interconnected with other societies around the world and impacted by technological advances. To be responsible and effective citizens in this world, we must understand the forces that shape our society and our environment and be equipped to think critically about the consequences of these forces in our lives. To this end, students take two courses from two distinct groups from among the three groups of "Environmental Studies," "International Studies" and "Ethics and Global Values." These courses may not be double-counted with other core or graduation requirements. Approved courses in the three categories are identified in the [list of core courses](#) .

### **Additional Humanities or Social and Behavior Analysis Course (3 credits)**

Students take an additional course in the humanities or social sciences in a different discipline than the

discipline of courses used to satisfy the Core Humanities and Social and Behavior Analysis requirements. A list of distinct disciplinary prefixes is available at the end of the [list of core courses](#) .

## **Other Graduation Requirements**

### ***Foreign Language (8 credits, two courses)***

By learning a foreign language, a student gains access to other cultures and worlds and to other ways of thinking. As this is an important objective of the Honors College, students are expected to take two sequential courses in a single language or demonstrate proficiency equivalent to two basic courses. Students are encouraged to incorporate the study of language in a study abroad experience.

### ***Honors College Forum (1 credit, one course)***

Students meet the faculty and other leading scholars and artists who present their work and introduce the leading ideas and controversies in their areas of expertise. Students take this weekly 1-credit seminar in the fall semester.

### ***Interdisciplinary Critical Inquiry Seminars (5-9 credits, three courses)***

The architecture of a traditional college curriculum, in which knowledge is broken into highly specific fields, disciplines and departments, gives the misleading impression that human experience and human problems are neatly compartmentalized and that there is a clear division of labor, each discipline being assigned its own subset of problems and experiences. To help convey to students that knowledge and experience are not so easily partitioned and that many problems benefit from multiple perspectives, the Honors College curriculum includes a unique offering of 1- and 3-credit, team-taught seminars devoted to interdisciplinary critical inquiry. Students must take three of these courses, at least one of which should be 3 credits. Team-taught courses may not be used to satisfy other core requirements, but may satisfy concentration requirements.

### ***Experiential Learning Requirement (Internship, minimum 3 credits; OR Study Abroad, minimum five weeks and 3 credits)***

Life in the world beyond the campus provides students with invaluable experiences that complement their programs of study. The experiential learning requirement applies to all Honors College students (including transfer and international students). Students may fulfill the requirement through participation in a study abroad program (minimum of 3 credits and five-week stay) or through an internship (minimum of 3 credits, which requires 120 hours of unpaid or 180 hours of paid internship experience). All internships must be approved prior to student registration. Internship coursework is graded S/U.

### ***Distribution Electives (6 credits, two courses)***

Many students arrive at college unfamiliar with the specialized areas of study within the social sciences

and humanities. Students have the opportunity to discover and explore these by taking two additional distribution electives. While these may not be courses that satisfy the Social and Behavioral Analysis and Humanities Core requirements, they may be courses from any two distinct disciplines, one within the social sciences and one within the humanities. These courses must be Wilkes Honors College courses taken at the Wilkes Honors College. They may not be courses taken to satisfy other core or graduation requirements or counted for a concentration, but they may be courses used to satisfy minor concentration requirements.

Consult the University Catalog for other graduation requirements. Note that Honors College students do not need to fulfill the General Education Program requirement because they fulfill the Honors College Core requirement instead.

### **The Concentrations**

In addition to obtaining a breadth of knowledge in the liberal arts and sciences or biological and physical sciences through courses in the honors core, each student chooses an area of concentration. The purpose of the concentration is to allow students to obtain deep knowledge of a focused area of interest. Students may have more than one major concentration or a major concentration and one or more minors. In addition to fulfilling the requirements for the concentration, each student will complete a thesis or senior project. Students in the Wilkes Honors College have the opportunity to concentrate in most of the traditional disciplines and to design their own interdisciplinary course of study in consultation with the faculty. The Honors College offers different sets of concentrations based on the major and degree chosen. Details about concentration requirements and listings of course offerings and concentrations can be found [here](#).

## **LIBERAL ARTS AND SCIENCES BACHELOR OF ARTS (B.A.)**

### **Concentrations:**

**American Studies**

**Anthropology**

**Art (Transdisciplinary Visual Arts)**

**Biological Anthropology**

**Business**

**Economics**

**English Literature**

**Environmental Studies**

**History (Interdisciplinary)**

**Interdisciplinary Critical Theory**

**International Studies**

**Latin American Studies**

**Law and Society**

**Mathematical Sciences (Interdisciplinary)**

**Medical Humanities**

**Philosophy**

**Political Science**

**Psychology**

**Spanish**

**Women's Studies**

**Writing**

## **LIBERAL ARTS AND SCIENCES**

### **BACHELOR OF SCIENCE (B.S.)**

**Biological Anthropology Concentration**

**Psychology Concentration**

## **BIOLOGICAL AND PHYSICAL SCIENCES**

### **BACHELOR OF ARTS (B.A.)**

#### **Concentrations:**

**Biological Chemistry**

**Biology**

**Chemistry**

**Data Analytics**

**Environmental Science**

**Marine Biology**

**Mathematics**

**Neuroscience**

**Physics**

## **BIOLOGICAL AND PHYSICAL SCIENCES**

### **BACHELOR OF SCIENCE (B.S.)**

#### **Concentrations:**

## **Biological Chemistry**

**Biology**

**Chemistry**

**Data Analytics**

**Environmental Science**

**Marine Biology**

**Mathematics**

**Neuroscience**

**Physics**

## **Minors**

Undergraduate Minors

The Honors College offers numerous minor concentrations. These require a minimum of 15 credits, including at least 9 credits at the upper level. Of the 15 credits, at least 12 must be earned from FAU. Students must maintain a 2.0 GPA in courses taken for the minor concentration. Minor concentrations are available in:

### **Concentrations:**

**Anthropology**

**Art**

**Chemistry**

**Data Science**

**Digital Game Development**

**Economics**

**English Literature**

**Environmental Studies**

**Ethics (Interdisciplinary)**

**French and Francophone Studies**

**History**

**Interdisciplinary Theory of Knowledge**

**Law and Society**

**Mathematics**

**Philosophy**

**Physics**

**Psychology**

## Spanish Literature

## Visual Arts and Creative Writing

## Women's Studies

Students may also minor in Business through coursework at the Honors College and the College of Business. Further information can be found [here](#).

## UNDERGRADUATE RESEARCH

### UNDERGRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

To recognize undergraduate students' excellence in undergraduate research, the Office of Undergraduate Research and Inquiry (OURI) has established the [Undergraduate Research Certificate](#). Requirements for the Research Certificate include completion of 12 credits of research exposure, skill-building and intensive courses as well as dissemination of the outcomes of students' research and inquiry through a research presentation or exhibition.

## ACADEMIC PATHWAYS

### The FAU Max Planck Honors Program (MPHP)

Established by the Jupiter Life Science Initiative, the Charles E. Schmidt College of Science and the Wilkes Honors College, working in partnership with the Max Planck Florida Institute for Neuroscience, the MPHP is a Jupiter-specific honors program for undergraduates. The program provides participants with exclusive enrichment opportunities. Students who maintain all standards and fulfill all requirements of the MPHP receive a designation of "FAU Max Planck Honors" on their final transcript. For students pursuing the MPHP, 2 to 3 of the elective credits in their concentration are required MPHP courses: Introduction to Neuroscience Research (PSB 4003, 1 credit) and two distinct MPHP Enrichment courses (1 credit each) from the list in the [Interdisciplinary Programs](#) section of this catalog. A minimum grade of "B" in graded and "S" in non-graded courses must be achieved in these exclusive MPHP course options for the credits to count toward the requirements of the MPHP. Visit the [MPHP website](#) to apply.

### Business Pathway/M.B.A. Program

In addition to its concentration in Business, the Wilkes Honors College has an arrangement with the College of Business at FAU whereby students who have met all Honors College graduation requirements, maintained at least a 3.0 GPA in the last 60 hours of coursework and achieved a score of

500 or above on the GMAT (Graduate Management Admission Test) are guaranteed admission into FAU's M.B.A. program. This guarantee is given only to students who have been full-time Wilkes Honors College students for a minimum of six semesters and who have completed the core and concentration in the Wilkes Honors College.

### **Education Pathway/M.Ed. Program**

The Wilkes Honors College has an arrangement with the College of Education at FAU whereby students who have met all Honors College graduation requirements, maintained at least a 3.0 GPA in the last 60 hours of coursework and achieved a score of 800 or above on the GRE (Graduate Record Examination) are guaranteed admission into FAU's M.Ed. Program in Curriculum and Instruction Plus Secondary Education Certification. This guarantee is given only to students who have been full-time Honors College students for a minimum of six semesters and who have completed the core and concentration in the Honors College.

### **Engineering Pathway**

Students may take coursework at the Honors College for their first two years and then transfer seamlessly into the College of Engineering and Computer Science. Students are thus able to take advantage of the Honors College's rich offerings and small class sizes in mathematics and the sciences, social sciences, and humanities during their first two years to satisfy core requirements before focusing on their upper-level engineering coursework in the College of Engineering and Computer Science. Students from the Honors College who meet the admission requirements of the College of Engineering and Computer Science are permitted to transfer automatically to that College. Honors Calculus, Honors General Chemistry and Honors Physics or their equivalents satisfy the Engineering requirements of Calculus, Chemistry and Physics for Engineers. The Wilkes Honors College, in partnership with the College of Engineering and Computer Science, also offers B.A. or B.S. degrees combined with M.S. degrees. For [details](#) see below under Combined Programs.

### **Law School**

Students considering careers in law will receive excellent preparation in the Honors College. Admission to law school requires strong analytical and writing skills, an outstanding academic record and a competitive LSAT (Law School Admission Test) score. The Honors College's emphasis on writing and critical thinking will provide students with the skills law school admissions committees seek. In addition, advisors will provide law school information and assist with the application process.

### **Medical Scholars Program**

The Wilkes Medical Scholars Program is a highly selective, early admission program into the Charles E. Schmidt College of Medicine for students who have a strong desire to pursue a career in

medicine. Students receive a B.A. or B.S. degree from the Wilkes Honors College in Jupiter and the M.D. degree from FAU's College of Medicine in Boca Raton in seven or eight years.

Admission is open to highly qualified incoming Wilkes Honors College freshman students. Those accepted into the Wilkes Medical Scholars Program are offered conditional admission to the College of Medicine. Students must successfully complete the program requirements and achieve a minimum qualifying MCAT score. Further details are available [online](#).

Minimum requirements for entrance:

1. Old SAT minimum score of 1450 (Critical Reading and Math combined) or a New SAT score of 1490 or a minimum ACT composite of 33;
2. Weighted high school GPA of at least 4.30;
3. Medical Pipelines Online Application, deadline January 15;
4. Résumé and letter of recommendation from a counselor or high school teacher emailed to [Medical Scholars Program](#);
5. Recommended but not required—one or more of the following SAT Subject tests: Math Level 2, Biology, Chemistry, Literature;
6. Highly recommended but not required—experience with patient interaction;
7. U.S. citizen or permanent resident status; and
8. Admitted to FAU and the Wilkes Honors College before January 15.

## Medical School

Admission to medical school requires a strong academic record, a competitive MCAT (Medical College Admission Test) score and the completion of certain prerequisite courses. The Honors College offers all of these courses as well as assistance with MCAT preparation and with the application process.

## Nursing Pathway

Honors College students interested in a fast track to a professional nursing career can take advantage of the Nursing Pathway . Successful students receive their Honors College B.A. or B.S. degree, and with an additional 12 months of study at FAU's nationally acclaimed College of Nursing, receive a B.S.N. as a second degree. Up to three Honors College students who meet all College of Nursing requirements are guaranteed an interview for this accelerated B.S.N. program each year. Students must be full-time Honors College students for at least six semesters to be eligible and must have their degree in hand prior to beginning the B.S.N. program.

Further information about pathways can be found [here](#).

## COMBINED PROGRAMS

The Wilkes Honors College (WHC) offers the following combined programs in partnership with the Dorothy F. Schmidt College of Arts and Letters, the College of Engineering and Computer Science and the Charles E. Schmidt College of Science.

The first ten are offered in partnership with the College of Engineering and Computer Science. The 11th program is offered in partnership with the Dorothy. F. Schmidt College of Arts and Letters. Following that combined program is a program offered jointly with the Charles E. Schmidt College of Science: The [B.A. with Concentration in Mathematical Sciences](#) or [B.A./B.S. with Concentration in Mathematics to M.S. with Major in Mathematics](#).

**BIOLOGICAL AND PHYSICAL SCIENCES TO ARTIFICIAL INTELLIGENCE**  
BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM

**BIOLOGICAL AND PHYSICAL SCIENCES TO BIOMEDICAL ENGINEERING**  
BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM

### Concentrations:

**Biology**

**Biological Chemistry**

**Chemistry**

**Marine Biology**

**Neuroscience**

**Physics**

**BIOLOGICAL AND PHYSICAL SCIENCES TO COMPUTER ENGINEERING**  
BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM

**BIOLOGICAL AND PHYSICAL SCIENCES TO COMPUTER SCIENCE**

**BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM**

**BIOLOGICAL AND PHYSICAL SCIENCES TO ELECTRICAL ENGINEERING  
BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM**

**BIOLOGICAL AND PHYSICAL SCIENCES TO INFORMATION TECHNOLOGY  
AND MANAGEMENT  
BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM**

**Advanced Information Technology Concentration  
Computer Science Data Analytics Concentration**

**BIOLOGICAL AND PHYSICAL SCIENCES TO MECHANICAL ENGINEERING  
BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM**

**BIOLOGICAL AND PHYSICAL SCIENCES TO OCEAN ENGINEERING  
BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM**

**BIOLOGICAL AND PHYSICAL SCIENCES TO CIVIL, ENVIRONMENTAL  
OR GEOMATICS ENGINEERING TO CIVIL ENGINEERING  
BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM**

**LIBERAL ARTS AND SCIENCES TO HISTORY  
BACHELOR OF ARTS (B.A.) TO  
MASTER OF ARTS (M.A.)  
COMBINED PROGRAM**

## History Concentration

Details for each combined program are listed below.

### **BIOLOGICAL AND PHYSICAL SCIENCES TO ARTIFICIAL INTELLIGENCE BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

The B.A. or B.S. degree is completed at the WHC, and students then receive their bachelor's degree from WHC. Students complete their master's degree work in [Artificial Intelligence](#) in the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science and receive their master's degree from that college.

Students may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees as long as the combined program totals a minimum of 150 credits and:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's program.

Students must complete the prerequisite coursework for the master's degree while pursuing the bachelor's degree at the WHC. This combined program provides an attractive way for students to continue their graduate work. Students complete the undergraduate program first. The combined program can be completed in approximately five years.

### **Admission Requirements**

The GRE is not required for this combined program. To be eligible for the combined program, bachelor's students in the WHC should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the bachelor's degree at the WHC.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the M.S. portion of the program.

Students in the combined program must maintain continuous enrollment to remain in good standing.

Students must also meet all the degree requirements of the graduate program they have chosen, including prerequisite courses.

## **Degree Requirements**

To be eligible for this combined, students must fulfill the following requirements:

1. Completion of the requirements for the B.A. or B.S. in Biological and Physical Sciences at the WHC (in the concentrations listed above) and any other requirements stipulated by the College and University; and
2. Completion of all requirements in the M.S. in Artificial Intelligence program in the Electrical Engineering and Computer Science Department with either the thesis or non-thesis option.

## **BIOLOGICAL AND PHYSICAL SCIENCES TO BIOMEDICAL ENGINEERING BACHELOR OF ARTS (B.A.) OR BACHLOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

The B.A. or B.S. degree is completed at the WHC, and students then receive their bachelor's degree from WHC. Students complete their master's degree work in [Biomedical Engineering](#) in the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science and receive their master's degree from that college. This combined degree program for WHC students is open to those in the following concentrations:

**Biology**

**Biological Chemistry**

**Chemistry**

**Marine Biology**

**Neuroscience**

**Physics**

Students must complete the prerequisite coursework for the master's degree while pursuing the bachelor's degree at WHC. In addition to the prerequisite coursework listed with the [M.S. in Biomedical Engineering](#), the following deficiency courses must be taken:

1. Students in the Chemistry concentration must take BCH 3033/L, Honors Biochemistry/Lab, BSC 1010/L, Honors Biological Principles/Lab.
2. Students in the Marine Biology, Neuroscience and Physics concentrations must take CHM 2210, CHM 2211, Honors Organic Chemistry 1 and 2 with labs and BCH 3033/L, Honors

## Biochemistry/Lab.

### **Undergraduate/Graduate Coursework**

Students may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees as long as the combined program totals a minimum of 150 credits and:

1. The student has met the minimum 120 credits for the bachelor's degree; and
2. The student has taken a minimum of 30 credits in 5000 level or higher courses for the master's degree.

This combined program provides an attractive way for students to continue their graduate work. The undergraduate program is completed first, and the entire combined program can be completed in approximately five years.

### **Admission Requirements**

The GRE is not required for this combined program. To be eligible for the combined program, WHC bachelor's students should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the bachelor's degree at the WHC.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the M.S. portion of the program.

Students in the combined program must maintain continuous enrollment to remain in good standing. Students must also meet all the degree requirements of the graduate program they have chosen, including prerequisite courses.

### **Degree Requirements**

To be eligible for this combined, students must fulfill the following requirements:

1. Completion of the requirements for the B.A. or B.S. in Biological and Physical Sciences at the WHC (in the concentrations listed above) and any other requirements stipulated by the College and University; and
2. Completion of all requirements in the M.S. in Biomedical Engineering program in the Electrical Engineering and Computer Science Department with either the thesis or non-thesis option.

## **BIOLOGICAL AND PHYSICAL SCIENCES TO COMPUTER ENGINEERING**

## BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

The B.A. or B.S. degree is completed at the Wilkes Honors College (WHC), and students then receive their bachelor's degree from WHC. Students complete their master's degree work in [Computer Engineering](#) in the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science and receive their master's degree from that college.

The Undergraduate/Graduate Coursework and Admissions requirements [detailed above](#) must be satisfied by students interested in this combined program. Students must also complete the prerequisite coursework for the master's degree while pursuing the bachelor's degree at WHC as listed with the [M.S. in Computer Engineering](#). This combined program provides an attractive way for students to continue their graduate work. The undergraduate program is completed first, and the entire combined program can be completed in approximately five years.

### **Degree Requirements**

To be eligible for the combined B.A. or B.S. in Biological and Physical Sciences to M.S. in Computer Engineering degree program, students must fulfill the following requirements:

1. Completion of the requirements for the B.A. or B.S. in Biological and Physical Sciences at the WHC and any other requirements stipulated by the College and University; and
2. Completion of all requirements for the M.S. in Computer Engineering program in the Engineering and Computer Science Department with either the thesis or non-thesis option.

## **BIOLOGICAL AND PHYSICAL SCIENCES TO COMPUTER SCIENCE** BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

The B.A. or B.S. degree is completed at the Wilkes Honors College (WHC), and students then receive their bachelor's degree from WHC. Students complete their master's degree work in [Computer Science](#) in the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science and receive their master's degree from that college.

The Undergraduate/Graduate Coursework and Admissions requirements [detailed above](#) must be satisfied by students interested in this combined program. Students must also complete the prerequisite coursework for the master's degree while pursuing the bachelor's degree at WHC as listed with the [M.S.](#)

in [Computer Science](#). This combined program provides an attractive way for students to continue their graduate work. The undergraduate program is completed first, and the entire combined program can be completed in approximately five years.

### **Degree Requirements**

To be eligible for the combined B.A. or B.S. in Biological and Physical Sciences to M.S. in Computer Science degree program, students must fulfill the following requirements:

1. Completion of the requirements for the B.A. or B.S. in Biological and Physical Sciences at the WHC, and any other requirements stipulated by the College and University; and
2. Completion of all requirements for the M.S. in Computer Science program in the Engineering and Computer Science Department with either the thesis or non-thesis option.

## **BIOLOGICAL AND PHYSICAL SCIENCES TO ELECTRICAL ENGINEERING BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

The B.A. or B.S. degree is completed at the Wilkes Honors College (WHC), and students then receive their bachelor's degree from WHC. Students complete their master's degree work in [Electrical Engineering](#) in the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science and receive their master's degree from that college.

The Undergraduate/Graduate Coursework and Admissions requirements [detailed above](#) must be satisfied by students interested in this combined program. Students must also complete the prerequisite coursework for the master's degree while pursuing the bachelor's degree at WHC as listed with the [M.S. in Electrical Engineering](#). This combined program provides an attractive way for students to continue their graduate work. The undergraduate program is completed first, and the entire combined program can be completed in approximately five years.

### **Degree Requirements**

To be eligible for the combined B.A. or B.S. in Biological and Physical Sciences to M.S. in Electrical Engineering degree program, students must fulfill the following requirements:

1. Completion of the requirements for the B.A. or B.S. in Biological and Physical Sciences at the WHC, and any other requirements stipulated by the College and University; and
2. Completion of all requirements for the M.S. in Electrical Engineering program in the Electrical Engineering and Computer Science Department with either the thesis or non-thesis option.

**BIOLOGICAL AND PHYSICAL SCIENCES TO INFORMATION TECHNOLOGY  
AND MANAGEMENT**  
**BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM**

**Advanced Information Technology Concentration**

The B.A. or B.S. degree is completed at the Wilkes Honors College (WHC), and students then receive their bachelor's degree from WHC. Students complete their master's degree work in [Information Technology and Management with Advanced Information Technology Concentration](#) in the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science and receive their master's degree from that college.

The Undergraduate/Graduate Coursework and Admissions requirements [detailed above](#) must be satisfied by students interested in this combined program. Students must also complete the prerequisite coursework for the master's degree while pursuing the bachelor's degree at WHC as listed with the [M.S. in Information Technology and Management, Advanced Information Technology Concentration](#). This combined program provides an attractive way for students to continue their graduate work. The undergraduate program is completed first, and the entire combined program can be completed in approximately five years.

**Degree Requirements**

To be eligible for the combined B.A. or B.S. in Biological and Physical Sciences to M.S. in Information Technology and Management with Advanced Information Technology Concentration degree program, students must fulfill the following requirements:

1. Completion of the requirements for the B.A. or B.S. in Biological and Physical Sciences at the WHC, and any other requirements stipulated by the College and University; and
2. Completion of all requirements for the M.S. in Information Technology and Management with Advanced Information Technology Concentration program in the Engineering and Computer Science Department with either the thesis or non-thesis option.

**BIOLOGICAL AND PHYSICAL SCIENCES TO INFORMATION TECHNOLOGY  
AND MANAGEMENT**  
**BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO**

## MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

### Computer Science Data Analytics Concentration

The B.A. or B.S. degree is completed at the Wilkes Honors College (WHC), and students then receive their bachelor's degree from WHC. Students complete their master's degree work in [Information Technology and Management with Computer Science Data Analytics Concentration](#) in the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science and receive their master's degree from that college.

The Undergraduate/Graduate Coursework and Admissions requirements [detailed above](#) must be satisfied by students interested in this combined program. Students must also complete the prerequisite coursework for the master's degree while pursuing the bachelor's degree at WHC as listed with the [M.S. in Information Technology and Management, Computer Science Data Analytics Concentration](#). This combined program provides an attractive way for students to continue their graduate work. The undergraduate program is completed first, and the entire combined program can be completed in approximately five years.

### Degree Requirements

To be eligible for the combined B.A. or B.S. in Biological and Physical Sciences to M.S. in Information Technology and Management with Computer Science Data Analytics Concentration degree program, students must fulfill the following requirements:

1. Completion of the requirements for the B.A. or B.S. in Biological and Physical Sciences at the WHC, and any other requirements stipulated by the College and University; and
2. Completion of all requirements for the M.S. in Information Technology and Management with Computer Science Data Analytics Concentration program in the Engineering and Computer Science Department with either the thesis or non-thesis option.

## BIOLOGICAL AND PHYSICAL SCIENCES TO MECHANICAL ENGINEERING BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

The Wilkes Honors College (WHC) and the College of Engineering and Computer Science offer a combined Bachelor of Arts or Bachelor of Science in Biological and Physical Sciences to Master of

Science in Mechanical Engineering degree program. The Bachelor of Arts or Bachelor of Science degree will be completed and received from the WHC. Students complete the Master of Science in Mechanical Engineering in the Department of Ocean and Mechanical Engineering at FAU and will receive the master's degree from that college.

Students may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees. These graduate courses will replace the upper-level elective courses in the bachelor's program. The combined program totals a minimum of 150 credits:

1. The student must take a minimum 120 credits for the bachelor's degree; and
2. The student must take a minimum of 30 credits in 5000 level or higher courses for the master's program.

Students must complete the prerequisite coursework for the master's degree while pursuing the bachelor's degree at the WHC. This combined program provides an attractive way for students to continue their graduate work. Students complete the undergraduate program first. The combined program can be completed in approximately five years.

### **Admission Requirements**

The GRE is not required for this combined program. To be eligible for the combined program, the bachelor's students in the WHC should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the bachelor's degree in the WHC.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the M.S. portion of their program.

Students in the combined program must maintain continuous enrollment to remain in good standing. Students must also meet all the degree requirements of the graduate program they have chosen, including prerequisite courses.

### **Degree Requirements**

To be eligible for the combined B.A or B.S. in Biological and Physical Sciences to M.S. in Mechanical Engineering Degree Program, students must fulfill the following requirements:

1. Completion of all requirements for the M.S. in Mechanical Engineering program in the OME department, using either the thesis or non-thesis option.
2. Completion of the requirements for the B.A or B.S. in Biological and Physical Sciences in the

WHC and other requirements stipulated by the University and College

## **BIOLOGICAL AND PHYSICAL SCIENCES TO OCEAN ENGINEERING BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

The Wilkes Honors College (WHC) and the College of Engineering and Computer Science offer a combined Bachelor of Arts or Bachelor of Science in Biological and Physical Sciences to Master of Science in Ocean Engineering degree program. The Bachelor of Arts or Bachelor of Science degree will be completed and received from the WHC. Students complete the Master of Science in Ocean Engineering in the Department of Ocean and Mechanical Engineering (OME) at FAU and will receive the master's degree from that college.

Students may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their bachelor's and master's degrees. These graduate courses will replace the upper-level elective courses in the bachelor's program. The combined program totals a minimum of 150 credits:

1. The student must take a minimum 120 credits for the bachelor's degree; and
2. The student must take a minimum of 30 credits in 5000 level or higher courses for the master's program.

Students must complete the prerequisite coursework for the master's degree while pursuing the bachelor's degree at the WHC. This combined program provides an attractive way for students to continue their graduate work. Students complete the undergraduate program first. The combined program can be completed in approximately five years.

### **Admission Requirements**

The GRE is not required for this combined program. To be eligible for the combined program, the bachelor's students in the WHC should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the bachelor's degree in the WHC.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the M.S. portion of their program.

Students in the combined program must maintain continuous enrollment to remain in good standing. Students must also meet all the degree requirements of the graduate program they have chosen,

including prerequisite courses.

## **Degree Requirements**

To be eligible for the combined B.A or B.S. in Biological and Physical Sciences to M.S. in Ocean Engineering

Degree Program, students must fulfill the following requirements:

1. Completion of the requirements for the B.A or B.S. in Biological and Physical Sciences in the WHC and other requirements stipulated by the University and College.
2. Completion of all requirements for the M.S. in Ocean Engineering program in the OME department, using either the thesis or non-thesis option.

## **BIOLOGICAL AND PHYSICAL SCIENCES TO CIVIL, ENVIRONMENTAL OR GEOMATICS ENGINEERING TO CIVIL ENGINEERING BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO SECOND BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

The Wilkes Honors College (WHC) and the College of Engineering and Computer Science (CoE&CS) offer a combined Bachelor of Arts or Bachelor of Science in Biological and Physical Sciences to a Second Bachelor of Science in Civil, Environmental or Geomatics Engineering to a Master of Science in Civil Engineering degree program. The B.A. or B.S. degree is completed and received from the WHC. The second bachelor's degree and master's degree are completed in the College of Engineering and Computer Science's Civil, Environmental and Geomatics Engineering Department and received from the CoE&CS. Students may count up to 12 credits of approved graduate coursework (5000 level or higher) toward both their second bachelor's and master's degrees. These graduate courses replace the upper-level elective courses in the bachelor's program. The combined program totals a minimum of 150 credits:

1. The student must take a minimum 120 credits for the first bachelor's degree;
2. The student must take a minimum of 30 credits for the second bachelor's degree; and
3. The student must take a minimum of 30 credits in 5000-level or higher courses for the master's program.

Students must complete the prerequisite coursework for the master's degree while pursuing the second bachelor's degree. This combined program provides an attractive way for students to continue their graduate work. Students complete the B.A. or B.S. undergraduate program first. The combined

program can be completed in approximately five years.

### **Admission Requirements**

The GRE is not required for this combined program. To be eligible for the combined program, bachelor's students in the WHC should:

1. Have a cumulative FAU GPA of 3.25 or better in their last 60 credits. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the bachelor's degree in the WHC.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the M.S. portion of their program.

Students must meet all the degree requirements of the graduate program they have chosen, including prerequisite courses.

### **Degree Requirements**

To be eligible for this combined program, students must fulfill the following requirements:

1. Completion of the requirements for the B.A or B.S. in Biological and Physical Sciences in the WHC, and other requirements stipulated by the University and College.
2. Completion of all requirements for the second B.S. in Civil Engineering, Environmental Engineering or Geomatics Engineering from the Civil, Environmental and Geomatics Engineering Department.
3. Completion of all requirements for the M.S. in Civil Engineering degree program in the Civil, Environmental and Geomatics Department, with either the thesis or the non-thesis (courses only) option.

## **LIBERAL ARTS AND SCIENCES TO HISTORY BACHELOR OF ARTS (B.A.) TO MASTER OF ARTS (M.A.) COMBINED PROGRAM**

### **History Concentration**

This combined degree program enables outstanding students to graduate with both a Bachelor of Arts with Major in Liberal Arts and Sciences with Concentration in History degree and a Master of Arts with a Major in History degree (B.A./M.A.) in as little as five years. The program is 150 credits (with thesis option) or 156 credits (without thesis option). Students complete 120 credits for the

undergraduate degree and 30 credits (thesis option) or 36 credits (non-thesis option) for the graduate degree. Students complete the undergraduate degree first, taking no more than 12 credits of graduate coursework in their senior year, which can be used to satisfy requirements for both degrees.

## Admission Requirements

1. Each applicant must be a declared History concentrator at Florida Atlantic University's Wilkes Honors College, with 60-90 credits completed toward the B.A. degree, including HIS 4971, RI: Honors Thesis in History or AMH 4970, RI: Honors Thesis in American History.
2. Applicants must have a minimum 3.25 GPA for the last 60 undergraduate credits attempted.
3. Applicants should have a minimum score of 155 on the verbal and a 4.0 on the analytical sections of the GRE. If the applicant has a GPA well over the 3.25 minimum, the department may consider the quantitative section for purposes of meeting the GRE criterion.
4. Applicants must demonstrate competency in at least one foreign language. To do so, applicants must complete one of the following two options:
  - a. Passing one semester at the intermediate level (2220) of a foreign language at FAU or the equivalent at another university as determined by the History Department's Graduate Committee.
  - b. Passing an equivalency exam at the 2220 level.
5. Applicants must submit two letters of recommendation, written by tenured or tenure-earning members of the Department of History or History professors at the Honors College.
6. Applicants must provide a writing sample as part of their application. This should be a term paper or lengthy essay.
7. Applicants must provide a two-to-three-page typed, double-spaced autobiographical statement indicating the nature of their preparation for graduate work and the reasons for seeking the combined B.A./M.A. degree in History.
8. Prospective applicants for the combined B.A./M.A. degree in History are encouraged to schedule an interview with the department's Director of Graduate Studies.
9. The application deadline is October 15 for Spring admission, and June 1 for Fall admission.

## Undergraduate Course Replacements

In their senior year, students admitted to the combined degree program may take up to 12 credits of graduate coursework, which are then used to satisfy requirements for both degrees. This will be accomplished by substituting 12 credits of free elective credit at the upper division (3000- 4000- level) with HIS 5060: The Historical Experience, and 9 credits of additional graduate coursework with course prefixes of AMH, EUH, HIS, LAH, or WOH at the 5000- or 6000-level.

## Degree Requirements

To be eligible for the combined B.A./M.A. degree in History, students must fulfill the following requirements:

1. Completion of all requirements for the B.A. in Liberal Arts and Science with Concentration in History in the Wilkes Honors College, in addition to other requirements as stipulated by the University and the College.
2. Completion of all requirements for the [M.A. in History major](#) with either the thesis or non-thesis option.

## LIBERAL ARTS AND SCIENCES TO MATHEMATICS

BACHELOR OF ARTS (B.A) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM

### Mathematical Sciences Concentration

## BIOLOGICAL AND PHYSICAL SCIENCES TO MATHEMATICS

BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) TO  
MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM

### Mathematics Concentration

This is an accelerated five-year program where students complete the Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) degree with a Math concentration in the Wilkes Honors College and then continue on with the [Master of Science \(M.S.\) degree in Mathematics](#) in the Charles E. Schmidt College of Science.

The combined degree program is 150 credits: 120 credits for the undergraduate degree and 30 for the master's degree, with a maximum of 12 credits of graduate coursework used to satisfy both degrees. Once admitted into the program, students follow the suggested course sequences within a single concentration. The baccalaureate degree will be conferred before the master's degree.

Students must maintain a GPA of 3.0 in upper-division and graduate courses. Students interested in this program should consult with the undergraduate and graduate advisors before taking upper-division mathematics coursework to ensure that their coursework will apply toward the combined degree.

Students apply for admission to candidacy by the end of their junior year.

### **The Bachelor's Curriculum**

Students must complete the requirements of the B.A. with concentration in Mathematical Sciences or the B.A./B.S. degree with concentration in Mathematics from the Wilkes Honors College. In addition, students must complete MAS 4107 Linear Algebra 2 and STA 4442 Probability and Statistics 1.

Twelve graduate credits from the Department of Mathematics and Statistics can be counted toward both the bachelor's degree and the master's degree. The 12 graduate credits should be chosen within a single concentration of the master's program. These 12 credits may be counted as the upper-division math electives or substituted as follows:

- MAA 5228 can be used to substitute for MAA 4200
- MAS 5311 can be used to substitute for MAS 4301
- MAS 5145 can be used to substitute for MAS 4107

### **The Master's Curriculum**

Students complete all requirements for the [M.S. degree in Mathematics](#).

[Link to Course Descriptions for the Harriet L. Wilkes Honors College](#)





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## SUB MENU



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### GENERAL INFORMATION

### COURSE DESCRIPTIONS

# CHARLES E. SCHMIDT COLLEGE OF MEDICINE

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## [Link to Course Descriptions for the Charles E. Schmidt College of Medicine](#)

The Charles E. Schmidt College of Medicine's mission as a community-based medical school is to advance the health and well-being of our community by training future generations of humanistic clinicians and scientists and translating discovery into patient-centered care. In addition to its M.D. program, the College of Medicine offers the [Master of Science \(M.S.\) in Biomedical Science](#) (with or without thesis), the [Ph.D. in Integrative Biology](#) and the [Ph.D. in Neuroscience](#). A [Biomedical Science certificate](#) and a [Genomics and Predictive Health certificate](#) are also offered. These programs are detailed below.

### **Faculty:**

Abruna Miranda, J. A.; Alter, S.; Averkiou, P.; Benjamin, L.; Berkowitz, L.; Bertollo, S.; Billington, M. E.; Blakely, R.; Bommareddy, A.; Brennan, L.; Brickman, L.; Bubna, N.; Buteau, S.; Caceres, J. W.; Caputi, M.; Casey, R.; Cippitelli, A.; Clayton, L.; Collins, B.; Cornelia, C.; Darling, A.; Demner, A.; Di Corcia, M.; Drowos, J.; Edison, N.; Eisenberg, E.; Ferris, A.; Foster, J.; Fraser-Damas, S.; Freeman-Costin, K.; Freire Machi, J.; Gleiber, M.; Gografe, S.; Goldman, S.; Grant, P. A.; Gundersen, E. C.; Guthrie, K. M.; Gutman, D.; Hahn, M.; Haire, H.; Hanafy, K.; Hennekens, C. H.; Her, T.; Holland, P.; Holley, A.; Huang, X.; Hughes, P.; Iragavarapu, V.; Isgor, C.; Isaacson, R.; Iwamoto, H.; Jacomino, M.; Kantorow, M.; Keba-Knecht, M.; Klein, M.; Labanowski, M.; Lewis, S.; Li, D.; Li, Z.; Lizotte-Waniewski, M.; Lottenberg, L.; Louda, D.; Lu, M.; Luck, G.; Martinez, L.; Menzie Suderam, J.; Nazarian Rostami, R.; Nouri-Shirazi, M.; Oleinikov, A.; Ouslander, J.; Ozawa, A.; Perumareddi, P.; Pestana, T.; Prentice, H.; Quan, N.; Rackman, S.; Retrouvey, M.; Robishaw, J.; Rodrigues, C. D. O.; Rubin, S.; Sacca, L.; Schmidt-Kastner, R.; Schwartz, M.; Shen, W.; Shih, R.; Solano, J.; Sule, S.; Sutter, K.; Tao, R.; Telkes, I.; Toll, L.; Van der Put, E.; van Praag, H.; Wang, Y.; Wei, J.; Weiner, S.; Weiss, D.; Wiggill, S.; Whitehair, C.; Wilson, J.; Wojcikiewicz, E.; Wood, S.; Wu, J. Y.; Wyatt, A.; Zahra, T.; Zhang, Q.

## DOCTORAL PROGRAMS

### **MEDICINE**

#### **DOCTORATE OF MEDICINE (M.D.)**

The College of Medicine developed an innovative curriculum for the Doctorate of Medicine that features early community-based clinical experiences, integrated basic science courses with an emphasis on small-group and self-directed learning, longitudinal integrated clerkships at seven affiliated hospitals

in Palm Beach and Broward counties, continuity faculty advising and a small class size that fosters a collegial and supportive learning environment. The College provides a student-centered and patient-focused approach that includes regular experiences in its Clinical Skills Simulation Center and interprofessional education with FAU's Nursing and Social Work students. A key component is a curriculum in geriatric medicine that spans the four years of the curriculum. For more information about the medical program, click [here](#).

FAU has also partnered with Scripps Florida to offer a dual Doctorate of Medicine/Doctorate of Philosophy (M.D./Ph.D.) degree, with the medical degree conferred by FAU and the Doctorate of Philosophy conferred by The Scripps Research Institute's Kellogg School of Science and Technology. The College sponsors three Bachelor's/M.D. programs within the University that are completed in seven to eight years. The first program, MedDirect, is offered at the University's Boca Raton campus. The second program is offered through the Harriet L. Wilkes Honors College on the Jupiter campus and is referred to as the Wilkes Medical Scholars program. Both of these Bachelor's/M.D. programs are for academically talented high school students who wish to study medicine based on their knowledge of the profession and first-hand medical experiences. For admission requirements and descriptions of these programs, visit the [Bachelor's/M.D. site](#). The third program is the [FAU High School M.D. Direct Program](#). This program is a highly selective, collaborative program with the FAU Charles E. Schmidt College of Medicine for students (only FAU High School students are eligible to apply) who are exceptional academically and have a strong desire to pursue a career in medicine. Admitted students earn a B.A. or B.S. degree from FAU, an approved two-year M.S. degree from FAU and the M.D. degree from the FAU College of Medicine in seven or eight years.

### **Admission Requirements**

Applicants for the Doctorate of Medicine degree must begin the process by completing an American Medical College Application Service (AMCAS) application online. All applicants must be U.S. citizens or unconditional permanent residents of the United States with an alien registration receipt card in their possession at the time they complete the AMCAS application. Applicants must take the MCAT exam (and release their scores) no later than the fall preceding the year in which they hope to enroll. Applicants who have their verified AMCAS application forwarded to the College of Medicine will be offered an opportunity to complete a secondary application. Completed applications (AMCAS application, letters of recommendation, MCAT score and secondary application) are reviewed by an appraisal committee, which selects those applicants who will be invited for an on-campus interview. Only applicants who complete the on-campus interview with a member of the interview committee will be considered by the admissions committee for admission to the College of Medicine.

Although preference is given to Florida residents, residents of any state may apply, and up to 15 percent of each entering class may come from states other than Florida. To receive consideration as a Florida resident, applicants must list Florida as their state of legal residence on their AMCAS application. The College of Medicine's goal is to create an enriched learning environment for medical students by admitting applicants from a wide variety of backgrounds. Therefore, qualified students from groups currently underrepresented in medicine—women, students from socioeconomically disadvantaged backgrounds, students from rural or underserved areas and those from non-traditional educational backgrounds—are especially encouraged to apply.

***Courses required for admission are:***

1. English (2 semesters or 3 quarters);
2. Inorganic Chemistry with labs (2 semesters or 3 quarters);
3. Organic Chemistry with labs (2 semesters or 3 quarters);
4. Physics with labs (2 semesters or 3 quarters);
5. Biology/Zoology with labs (2 semesters or 3 quarters);
6. Mathematics (2 semesters or 3 quarters);
7. Additional science (2 semesters or 3 quarters)

Courses in the sciences and mathematics that are *recommended but not required* include biochemistry, cell and molecular biology, genetics and statistics. The College of Medicine strongly encourages all applicants to broaden their education and supplement required coursework in math and science by pursuing their own individual academic interests. Applicants who major in the sciences do not have an advantage over those majoring in the social sciences or humanities.

The deadline for completing all prerequisite coursework is the end of the spring semester or quarter prior to matriculation. Since some required courses may be taken or completed after the submission of the AMCAS application, all accepted students will be required to submit final official transcripts from all colleges and universities attended in the United States and Canada to the Office of Admissions before matriculation. These transcripts will be used to confirm that the accepted applicant has satisfactorily completed all required courses and received a bachelor's degree or qualified for the granting of the degree. Any deficiencies may be cause for revocation of the acceptance or for deferment to the next entering class.

The admissions committee utilizes a holistic review process that allows for balanced consideration of the multiple ways in which an applicant may demonstrate his or her capacity as a future medical student and physician and ability to contribute to the diversity of the College of Medicine. Among the factors considered in all admissions decisions are:

1. GPAs and MCAT scores;
2. Rigor of the educational program(s) undertaken;
3. Breadth of life experiences;
4. Ability to contribute to an enriched learning environment for all students;
5. Meaningfulness of direct patient contact experiences;
6. Research experiences;
7. Quality of letters of recommendation;
8. Interpersonal skills;
9. Personal qualities and background;
10. Source and degree of motivation to study and practice medicine.

### **Degree Requirements**

Prior to graduation and receipt of the Doctorate of Medicine degree from the Florida Atlantic University Charles E. Schmidt College of Medicine, students must demonstrate proficiency and compliance in, and satisfy the requirements of, each of the following six areas:

1. **Courses and Clerkships:** Students must complete the required core courses and clerkships and the designated minimum number of elective and selective courses with Satisfactory (passing level) performance.
2. **Licensing Exams:**
  - a. Students must pass the USMLE Step I examination before beginning the third academic year.
  - b. Students must pass the USMLE Step II Clinical Knowledge and Clinical Skills examinations by the deadlines listed in the USMLE policy in the College of Medicine Handbook..
3. **Competency Assessments:**
  - a. Students must pass all FAU College of Medicine Institutional Competency Assessments.
  - b. Students must earn certification for Advanced Cardiac Life Support (ACLS) and Basic Life Support (BLS).
4. **Professional Performance:** Students must demonstrate consistent evidence of professionalism as assessed by the Medical Students Promotions and Professional Standards Committee (MSPPSC) per the competency-based grading system and the Physicianship and Professionalism Advocacy Program (PPAP).
5. **Review and Approval of Academic and Professional Record:** Students must receive the MSPPSC's recommendation for graduation and receipt of the Doctorate of Medicine degree. The MSPPSC's recommendation for graduation and receipt of the M.D. degree must be approved by

the Dean of the FAU College of Medicine.

## Required Courses

The following table lists required courses for the medical program.

<b>Year 1 Courses</b>		
Foundations of Medicine 1	BMS 6015	10
Foundations of Medicine 2	BMS 6016	13
Neuroscience and Behavior	BMS 6020	9
Fundamentals of Biomedical Science-	BMS 6031	21
Pathophysiology and Therapeutics 1	BMS 6541	8
<b>Year 2 Courses</b>		
Foundations of Medicine 3	BMS 6017	13
Foundations of Medicine 4	BMS 6022	4
Pathophysiology and Therapeutics 2	BMS 6542	11
Pathophysiology and Therapeutics 3	BMS 6543	9
USMLE Step 1 Review	BMS 6960	6
Pathophysiology and Therapeutics 4	BMS 6544	6
<b>Year 3 Courses</b>		
Synthesis and Transition	BMS 6405	4
Medical and Surgical Sciences LIC	MDC 7012	10
Family and Community Health Sciences LIC	MDC 7011	10
Internal Medicine Clerkship	MDC 7200	25
Obstetrics and Gynecology Clerkship	MDC 7180	20
Pediatrics Clerkship	MDC 7400	20

Psychiatry Clerkship	MDC 7830	20
Surgery Clerkship	MDC 7600	25
Community and Preventative Medicine Clerkship	MDC 7120	14
Elective Rotation	MDE 8011	6-12
<b>Year 4 Courses</b>		
Elective Rotation (if not taken in Year 3)	MDE 8011	6-12
Transition to Residency	MDE 8067	18 <del>6</del>
Acting Internship Rotation	MDI 8010	12
Selective Rotation	MDS 8011	12

## **INTEGRATIVE BIOLOGY**

### **DOCTOR OF PHILOSOPHY (PH.D.)**

**Biomedical Science Concentration**  
**Environmental Science Concentration**  
**Marine Science and Oceanography Concentration**  
**Neuroscience Concentration**

*(Minimum of 80 credits required)*

The Charles E. Schmidt College of Medicine offers a doctoral program leading to the Doctor of Philosophy (Ph.D.) degree in Integrative Biology. This is a joint program with the Department of Biological Sciences of the Charles E. Schmidt College of Science in which students can pursue interests across a number of fields, including marine science, biomedical science, biotechnology and biology. For complete program details, [click here](#).

## **NEUROSCIENCE**

### **DOCTOR OF PHILOSOPHY (PH.D.)**

*(Minimum of 72 credits required)*

This doctoral program in Neuroscience is a multi-college, multi-institute interdisciplinary degree program organized in partnership with the FAU Brain Institute. Graduate-level instruction is provided by faculty in multiple departments located in the Charles E. Schmidt College of Science, the Charles Schmidt College of Medicine, the College of Engineering and Computer Science, the College of Education and the Harriet L. Wilkes Honors College. Affiliated faculty from the Max Planck Florida Institute for Neuroscience and Scripps Research Florida also participate in the program. The program aims to equip students with the advanced conceptual and technical skills needed to forge productive, neuroscience-oriented careers in industry, academia and government. Specific details for this doctoral program appear in the [Interdisciplinary Programs](#) section of this catalog.

## MASTER'S PROGRAM

### BIOMEDICAL SCIENCE

#### MASTER OF SCIENCE (M.S.)

*(Minimum of 30 credits required)*

Students interested in pursuing advanced studies in biomedical science may obtain a degree of Master of Science (M.S.) with Major in Biomedical Science, taking either the thesis or non-thesis option. The thesis option is oriented toward those students interested in pursuing biomedical research or careers in academia. The non-thesis program is an option for students seeking to solidify their knowledge base in order to apply to appropriate professional schools or pursue careers in the biomedical sciences industry.

#### **Admission Requirements**

All program applicants must have an undergraduate grade point average of 3.0 in the last 60 credits and competitive Graduate Record Exam (GRE) scores (scores are valid for five years). These are minimum requirements that are necessary for consideration for admission to the program. Higher scores will increase applicants' chances for admission. Prerequisites of the master's degree program include one year each of biology, chemistry and physics; one semester each of biochemistry and organic chemistry; and at least two upper-division biology classes. A personal statement explaining career goals is required as well as three letters of recommendation, at least two of which must be from former professors.

#### **Recency of Credits**

No credit that is more than seven years old at the time the M.S. in Biomedical Science degree is

awarded may be counted toward the degree.

## Degree Requirements

### *Non-Thesis Option*

This option requires a minimum of 30 graduate-level credits. With their advisor's approval, students design a course of study courses offered in the Charles E. Schmidt College of Medicine as well as courses in related departments and colleges chosen from the following list.

### *Thesis Option*

This option requires a minimum of 30 credits consisting of coursework chosen from the list below, a minimum of 6 thesis credits, 3 thesis-related research credits. Students design a course of study and research with the guidance and approval of the advisors and thesis committees. Thesis students are required to make a formal research proposal to their committees within their first year prior to enrollment in thesis credits. In addition, upon completion of their research, they must make a formal thesis presentation and defense in the semester they plan to graduate. All thesis students must also receive certification of completion of the Responsible Conduct of Research program. The RCR program, which is offered jointly through the Graduate College and Division of Research, covers the nine instructional areas of RCR. All four components are mandatory in order to receive certification of completion.

Students wishing to change their admission from the thesis option to the non-thesis option must submit to the Graduate Program Committee a letter of request that states the justification for the change and a letter from the thesis advisor in support of the request. An interview with the Graduate Program Committee may be required. A maximum of 6 credits from the thesis career can be applied toward the non-thesis career upon approval by the Graduate Program Committee. PCB 6974 and PCB 6971 credits are non-transferable.

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### **Core (9 credits)**

Data Interpretation and Analysis in the Age of Precision Medicine	GMS 6860	3
Advanced Molecular and Cellular Biology	PCB 5532	3
Human Genetics	PCB 6665	3

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### **Thesis Requirements (9 credits minimum)**

Master's Thesis	PCB 6971	1-12
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*(may be taken multiple times; 6 credits minimum; 12 credits maximum)*

Thesis-Related Research <i>(may be taken only twice; 3 credits minimum; 6 credits maximum)</i>	PCB 6974	2-3
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### **Electives**

Integrated Morphology 1	BMS 6102C	4
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Integrated Morphology 2	BMS 6104C	4
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Clinical Microbiology	BMS 6303	3
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Autonomic Function and Diseases	BMS 6523	3
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Fundamentals of General Pathology	BMS 6601	3
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Brain Diseases: Mechanism and Therapy	BMS 6736	3
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Bioinformatics	BSC 6458C	3
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Biomedical Data and Informatics	BSC 6459	3
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Cognitive Neuroscience	ISC 5465	3
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Biomedical Science Core Technologies Laboratory	GMS 6091C	3
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Macromolecular Therapy for Human Diseases	GMS 6301	3
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Molecular Basis of Disease and Therapy	GMS 6302	3
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Pharmacology	GMS 6513	3
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Biomedical Concepts and Translational Applications	GMS 6841	3
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Host Defense and Inflammation	MCB 6208	3
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Advanced Molecular Genetics of Aging	PCB 5245	3
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Neurobiology of Addiction	PCB 5844	3
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Advanced Cell Physiology	PCB 6207	3
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Molecular Basis of Human Cancer	PCB 6235	3
Advanced Immunology	PCB 6236	3
Problem-Based Immunology	PCB 6238	3
Tumor Immunology	PCB 6239	3
Molecular Biology of the Cardiovascular System and Cardiac Disease	PCB 6705	3
Adult Neurogenesis	PCB 6848	3
Physiology of the Heart	PCB 6885	3
Directed Independent Study <i>(maximum of 6 credits allowed)</i>	PCB 6905	1-3
Special Topics (general)	PCB 6933	1-8
Graduate Seminars	PCB 6934	1
Biological Vision	PSB 5117	3
Principles of Neuroscience	PSB 6037	3
Cellular and Molecular Neuroscience	PSB 6345	3
Systems and Integrative Neuroscience	PSB 6346	3
Developmental Neurobiology	PSB 6515	3
Radiation Biology	RAT 6204	3
Radiation Protection and Safety	RAT 6310	3

## CERTIFICATE PROGRAMS

### BIOMEDICAL SCIENCE GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

Biomedical Science is a broad and interdisciplinary field focused on understanding and improving human health. It incorporates diverse areas of specialized investigation that share this common goal, including anatomy, biochemistry, genetics, immunology, microbiology, pharmacology and others. The Biomedical Science certificate is offered to provide master's and Ph.D. students an integrated background in the biomedical sciences. To achieve this, the 12-credit program is designed with flexibility. Although the program is centered on the Charles E. Schmidt College of Medicine, faculty from other colleges and institutions contribute to the program's success, and students are welcomed from many departments, centers and colleges throughout the University.

### Admission Requirements

Admission to and completion of this program is organized by the Graduate Program Office in the College of Medicine. For admission, the applicant must satisfy the following criteria:

1. Enrollment in an FAU master's or Ph.D. training program in any of the following: Biomedical Science, Biological Sciences, Chemistry and Biochemistry, Complex Systems and Brain Sciences, Integrative Biology and Psychology. Students must have approval of their graduate program to enroll and must remain in good standing with their graduate program to continue in this certificate.
2. Demonstrate competency in life science, mathematics and other courses related to the certificate program, such as by achieving at least a "B" in these courses.
3. Interview with the certificate director or graduate committee chair to discuss program goals and requirements and obtain permission to enroll.

### Program Requirements

The certificate curriculum provides students opportunities to survey different areas of the biomedical sciences and to focus on areas of particular interest. Program requirements are designed to be tailored to the individual student with previous coursework and future goals in mind.

1. **Students must achieve a minimum grade of "B" in four of the courses below for a total of 12 credits:**

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Choose four courses from the list below (12 credits)

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Integrated Morphology 1	BMS 6102C	4
Integrated Morphology 2	BMS 6104C	4
Clinical Microbiology	BMS 6303	3
Autonomic Function and Diseases	BMS 6523	3

Fundamentals of General Pathology	BMS 6601	3
Brain Diseases: Mechanism and Therapy	BMS 6736	3
Macromolecular Therapy for Human Diseases	GMS 6301	3
Molecular Basis of Disease and Therapy	GMS 6302	3
Data Interpretation and Analysis in the Age of Precision Medicine	GMS 6860	3
Host Defense and Inflammation	MCB 6208	3
Advanced Molecular and Cellular Biology	PCB 5532	3
Neurobiology of Addiction	PCB 5844	3
Advanced Cell Physiology	PCB 6207	3
Molecular Basis of Human Cancer	PCB 6235	3
Problem-Based Immunology	PCB 6238	3
Tumor Immunology	PCB 6239	3
Human Genetics	PCB 6665	3
Molecular Biology of the Cardiovascular System and Cardiac Disease	PCB 6705	3
Adult Neurogenesis	PCB 6848	3
Physiology of the Heart	PCB 6885	3
Special Topics	PCB 6933	3
Developmental Neurobiology	PSB 6515	3

**2. Students must participate in the College of Medicine Research Day each year showcasing graduate student research in the College.**

**Note:** No credit that is more than seven years old at the time the graduate certificate in Biomedical Science is awarded may be counted toward the certificate.

## GENOMICS AND PREDICTIVE HEALTH GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

The Genomics and Predictive Health certificate is offered to provide master's and Ph.D. students an integrated background in the field of genomics and predictive health. The certificate program covers advancements in the field of personalized medicine, DNA sequencing technologies and commercial applications of genetic research. A minimum of 12 graduate credits of coursework is required to provide core experiences in the various predictive health domains (disease discovery, customized therapies and prevention). Although the program is centered within the Charles E. Schmidt College of Medicine, faculty from other FAU colleges and institutions contribute to the program's success, and students from many departments and colleges throughout the University are welcomed.

Genomics and predictive health is a broad, interdisciplinary field focused on understanding and improving human health. It incorporates diverse areas of specialized investigation that share this common goal including anatomy, biochemistry, cell biology, clinical sciences, cognitive sciences, development, genetics, immunology, medical sciences, microbiology, molecular biology, pathology, pharmacology, psychology and others.

### **Admission Requirements**

Admission to and completion of this program is overseen by the Graduate Program Office in the Charles E. Schmidt College of Medicine. For admission, the applicant must satisfy the following criteria:

1. Must be enrolled in an FAU master's or Ph.D. program including, but not limited to, Biomedical Science, Biology, Biochemistry, Complex Systems and Brain Sciences, Integrative Biology, Psychology and Bioengineering. Students must have approval of their graduate program to enroll and must remain in good standing with their graduate program to continue in the certificate program;
2. Must meet with the Office of Graduate Programs' advisor to discuss program goals and requirements and obtain permission to enroll.

### **Program Requirements**

The certificate program requires 12 credits that are designed to be tailored to the individual student with previous coursework and future goals in mind.

**Required Courses (9 credits)**

Human Genetics	PCB 6665	3
Integrating Genomics into Predictive Health	PCB 6667	3
Graduate Seminars (1 credit per semester on a continuous basis for total of 3 credits)	PCB 6934	3

**Complete one of the following elective courses (3 credits)**

Emerging Applications in Oncology and Pharmacogenomics	PCB 6230	3
Special Topics (Communicating in the Age of Predictive Health)	PCB 6933	3
Special Topics (Implementing Learning Health Systems)	PCB 6933	3

[Link to Course Descriptions for the Charles E. Schmidt College of Medicine](#)







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### GENERAL INFORMATION

### COURSE DESCRIPTIONS

# CHRISTINE E. LYNN COLLEGE OF NURSING

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## [Link to Course Descriptions for Christine E. Lynn College of Nursing](#)

### **Faculty:**

George, S., Dean and Eminent Scholar; Krause-Parello, C., Associate Dean and Distinguished Professor; Longo, J., Interim Associate Dean; Ortega, M., Associate Dean; Aurélien-Buie, L., Assistant Dean; Broadbent, M., Interim Assistant Dean; Chadwell, K., Assistant Dean; Adenmosun, E.; Akinpelu, O.; Archer, A.; Archibald, C., Emeritus; Barry, C., Emeritus; Bertrand, H.; Blum, C., Emeritus; Borum, M.; Boykin, A., Emeritus; Brennan, M.; Brown, R.; Brown-King, C.; Bulfin, S., Emeritus; Butcher, H. K.; Chiang-Hanisko, L.; Dunphy, L., Emeritus; Edwards, K., Endowed Professor; Eggenberger, T.; Evangelista, J.; Exantus, M.; Fergile, M.; Ferguson, M.; Fisher, C.; France, N., Emeritus; Gengo, R.; Gordon, S.; Gropper, S.; Hain, D.; Haklits, R.; Harris, N.; Hawthorne, D.; Heinze, K.; Horne, C.; Jones, T.; Kaye, S.; Kelly, T.; King, B.; Koszalinski, R.; Leavitt, M. A.; Liehr, P., Emeritus; Locsin, R., Emeritus; Love, T.; Lypnik, E.; Mammah, K.; Martinez, L.; McCaffrey, R., Emeritus; Morancy, W.; Newman, D.; Palma, L.; Parker, M. E., Emeritus; PetitHomme, E.; Phillips, N.; Postell, F.; Pratt, B.; Purnell, M. J., Emeritus; Quidley-Rodriguez, N.; Ray, M., Emeritus; Rivera, A.; Shaw, H.; Sherman, R., Emeritus; Smith, M., Emeritus and Former Eminent Scholar; Snyder, S.; Suriaga, A.; Tappen, R., Eminent Scholar; Toledo, C.; Touhy, T. A., Emeritus; Wiese, L.; Williams, C., Emeritus; Wilson, C.; Winland-Brown, J., Emeritus; Wisdom-Chambers, K.

**Accreditation:** The baccalaureate, master's and doctor of nursing practice degree programs in nursing are fully accredited by the Commission on Collegiate Nursing Education. The baccalaureate program is approved by the Florida State Board of Nursing. All programs are approved as part of the University's accreditation process by the Southern Association of Colleges and Schools.

### **Overview of the College of Nursing**

The Christine E. Lynn College of Nursing is dedicated to caring: advancing the science, studying its meaning, practicing the art and living it day to day.

Through its excellent faculty and programs on the Boca Raton, Davie and Harbor Branch campuses, the College offers Bachelor of Science in Nursing, Honors in Nursing, Master of Science in Nursing, Doctor of Nursing Practice, Doctor of Philosophy and certificate programs to prepare nurses for practice, leadership, research and community service.

The College offers the following programs:

1. Bachelor of Science in Nursing (B.S.N.) degree for graduating high school students in the

Freshman Direct Admit Track and an Honors in Nursing Program for Freshman Direct Admit students.

2. Bachelor of Science in Nursing (B.S.N.) degree for registered nurses with an associate degree or diploma from an ACEN- or CNEA-accredited nursing program. (ACEN-Accreditation Commission for Education in Nursing; CNEA-Commission for Nursing Education Accreditation.)
3. Bachelor of Science in Nursing (B.S.N.) degree in an accelerated format to individuals with a baccalaureate degree in a discipline other than nursing.
4. Bachelor of Science in Nursing (B.S.N.) degree in a part-time format for individuals with a baccalaureate degree in a discipline other than nursing (also referred to as Working Professional B.S.N.). **(Not accepting students at this time.)**
5. Two combined degree programs: Bachelor of Science in Nursing (B.S.N) to either a master's degree with major in [Artificial Intelligence](#) or a master's degree with major in [Biomedical Engineering](#).
6. Master of Science in Nursing (M.S.N.) degree with concentrations in Adult/Gerontological Nurse Practitioner, Advanced Holistic Nursing, Family Nurse Practitioner, Nurse Educator and Nursing Administration and Financial Leadership.
7. Post Graduate Certificates in Adult/Gerontological Nurse Practitioner, Family Nurse Practitioner, Psychiatric Mental Health Nurse Practitioner, Clinical Nurse Leader, Advanced Holistic Nursing, Nursing Administration and Financial Leadership, and Nurse Educator.
8. Doctor of Nursing Practice (D.N.P.) for students with master's degrees in an area of advanced nursing practice or nursing administration, or for highly qualified Bachelor of Science in Nursing graduates through the B.S.N. to D.N.P. program with concentrations in Adult/Gerontological Nurse Practitioner, Family Nurse Practitioner and Psychiatric Mental Health Nurse Practitioner. Highly qualified D.N.P. graduates may also pursue the D.N.P. to Ph.D. program.
9. Doctor of Philosophy with a Major in Nursing (Ph.D.) degree with admission to students with B.S.N. or M.S.N. preparation. The major area of focus is research and theory development related to the phenomenon of caring.

## **Vision**

The Florida Atlantic University Christine E. Lynn College of Nursing will be the international preeminent leader in advancing caring science through its dynamic, innovative caring-based education, research, scholarship and practices.

## **Mission**

The Christine E. Lynn College of Nursing, as an integral part of Florida Atlantic University, is committed to the pursuit of higher education grounded in the arts, sciences and humanities. Faculty of the College support the University mission of teaching, research/scholarship and service within an

environment that fosters inclusiveness. The College is dedicated to caring: advancing the science, studying the meaning, practicing the art and living caring day to day.

## **Philosophy**

Nursing is a discipline of knowledge and professional practice grounded in caring. Nursing makes a unique contribution to society by nurturing the wholeness of persons and environment in caring. Caring in nursing is an intentional, mutual human process in which the nurse artistically responds with authentic presence to calls from persons to enhance well-being. Nursing occurs in nursing situations: co-created lived experiences in which the caring between nurses and persons enhances well-being. Nursing is both science and art. Nursing science is the evolving body of distinctive nursing knowledge developed through systematic inquiry and research. The art of nursing is the creative use of nursing knowledge in practice. Knowledge development and practice in nursing require the complex integration of multiple patterns of knowing. Nurses collaborate and lead interprofessional research and practice to support the health and well-being of persons inextricably connected within a diverse global society.

Persons as participants in the co-created nursing situation refers to individuals, families or communities. Persons are unique and irreducible, dynamically interconnected with others and the environment in caring relationships. The nature of being human is to be caring. Humans choose values that give meaning to living and enhance well-being. Well-being is creating and living the meaning of life. Persons are nurtured in their wholeness and well-being through caring relationships.

Beliefs about learning and environments that foster learning are grounded in our view of person, the nature of nursing and nursing knowledge and the mission of the University. Learning involves the lifelong creation of understanding through the integration of knowledge within a context of value and meaning. A supportive environment for learning is a caring environment. A caring environment is one in which all aspects of the person are respected, nurtured and celebrated. The learning environment supports faculty-student relationships that honor and value the contributions of all, and shared learning and growth.

The above fundamental beliefs concerning nursing, person and learning express our values and guide the actions of faculty as they pursue the missions of teaching, research/scholarship and service shared by the Christine E. Lynn College of Nursing and Florida Atlantic University.

## **Christine E. Lynn College of Nursing Professional Statement**

When students of nursing begin their course of study, they enter into an implied professional agreement agreeing to abide by the American Nurses Association (ANA) Code of Nursing Ethics and to conduct themselves in all aspects of their lives in a manner becoming a professional nurse.

The College of Nursing faculty holds a professional ethic of caring and healing, recognizing that each person's environment includes everything that surrounds an individual. Similarly, the College creates an environment that preserves the wholeness and dignity of self and others. The faculty requires self and socially responsible behavior and will not accept actions that can be perceived as hostile, threatening or unsafe to others. It is the College's expectation that students promote a positive public image of nursing. It is the College's goal, as a professional college, to build an expanding community of nursing scholars and leaders within the context of its caring-based philosophy. Safety of the person being nursed and accountability for individual actions are priorities and/or critical components/elements of a professional nursing education.

Students who do not abide by this policy will be subject to appropriate academic sanctions, which may include disciplinary action, dismissal from the College of Nursing and/or suspension or expulsion from the University.

Legislation aimed at protecting the public has made it necessary to require a Level 2 criminal background check for admission into the Christine E. Lynn College of Nursing.

If upon application the background check reveals violations, students may be denied admission. If the background check reveals violations and the student is admitted, however, the student may still be denied licensure or admission to a clinical agency. Please carefully read the Clinical/Practicum Hours Requirements Clarification found [here](#).

Enrolled students may be required to repeat one or more components of the background check process during the program, dependent upon agency regulations. Results of all components of the background check process must be on file with the College of Nursing for review before students may participate or enroll in any courses or activities that involve or require patient contact.

Random or routine drug screens may be required during the program of study by facilities where patient contact occurs or by the College if reasonable suspicion of substance use exists. Results of drug screens indicating violations of substance use may be basis for dismissal from the program. All costs related to background checks and drug screens are the responsibility of the student or applicant. It is also the student's responsibility to make sure an oath and affirmation is completed yearly from the date of the initial background check.

# BACHELOR'S PROGRAMS

## [Link to Graduate Programs](#)

The Bachelor of Science in Nursing (B.S.N.) program leads to a B.S.N. degree, the foundation of professional nursing practice. The B.S.N. program includes three tracks:

1. Freshman Direct Admit Track for graduating high school students (Honors in Nursing available in this track);
2. Accelerated Track for individuals with a baccalaureate degree in another discipline;
3. Part-Time Track for individuals with a baccalaureate degree in another discipline (**not accepting students at this time**);
4. RN-B.S.N. Track for Registered Nurses with an associate degree or diploma in Nursing from an ACEN- or CNEA-accredited nursing program. (ACEN-Accreditation Commission for Education in Nursing; CNEA-Commission for Nursing Education Accreditation.)

Policies for all bachelor's degree programs at FAU are available [here](#).

## **Bachelor of Science in Nursing Program Objectives**

The purpose of the undergraduate program is to advance the study, understanding and professional practice of the discipline of nursing.

The overall goal of the undergraduate curriculum is to prepare graduates whose practice of nursing nurtures the wholeness of persons through caring in nursing situations in a variety of settings.

The outcome objectives of the undergraduate program are that the graduate will be able to:

1. Unfold a personal journey of coming to know and care for self as person and nurse.
2. Synthesize knowledge from the sciences, arts and humanities as a foundation for generalist practice in nursing. Use nursing theories and research to guide caring-based, reflective nursing practice.
3. Integrate multiple, complex patterns of knowing in coming to know persons and responding critically and reflectively to calls within nursing situations in generalist nursing practice.
4. Practice ethical, safe nursing practice guided by professional standards.
5. Demonstrate cultural humility within nursing situations.
6. Use systematic inquiry to inform decision making, create nursing responses and evaluate outcomes.
7. Demonstrate competence in using technology and information systems to promote well-being,

facilitate decision making and enhance collaboration.

8. Promote well-being for persons and populations across the life span in a variety of settings.
9. Participate in creating caring environments that nurture wholeness.
10. Participate in social and political activities that honor human dignity and advocate for equity in healthcare outcomes, local and global health policy and healthcare delivery.
11. Collaborate with others as a caring leader to transform care in complex healthcare systems.
12. Practice responsible stewardship of the discipline and profession, resources and environment.

### **Undergraduate Research Certificate**

To recognize undergraduate students' excellence in undergraduate research, the Office of Undergraduate Research and Inquiry (OURI) has established the [Undergraduate Research Certificate](#). Requirements for the Research Certificate include completion of 12 credits of research exposure, skill-building and intensive courses as well as dissemination of the outcomes of students' research and inquiry through a research presentation or exhibition.

### **Admission Deadlines**

All required admission materials must be received by the deadlines posted for each B.S.N. track on the College of Nursing [website](#). Freshman Direct Admit and Accelerated tracks enroll once per year. The RN-B.S.N. Track admits each semester (fall, spring and summer); therefore, RN-B.S.N. students may enter the program in any semester.

## **HEALTH HUMANITIES UNDERGRADUATE MINOR**

*(Minimum of 15 credits)*

The minor in Health Humanities is open to all undergraduate students at FAU. The minor is awarded upon graduation from an undergraduate program at FAU; it is not awarded independently of an undergraduate degree. For minor details click [here](#).

## **NURSING BACHELOR OF SCIENCE IN NURSING (B.S.N.)**

*(Minimum of 120 credits required)*

### **Pre-Licensure B.S.N. Program Tracks**

The Pre-Licensure B.S.N. tracks lead to a baccalaureate degree in Nursing for the non-RN student. Graduates of these programs are qualified to be candidates for the NCLEX and, if successful, achieve

RN licensure. The Pre-Licensure tracks are limited access. Individuals must be admitted to FAU as undecided or health students prior to being considered for admission to the Freshman Direct Admit and Accelerated tracks of the B.S.N. program. Qualified applicants will be admitted into Nursing on a space-available basis. Admission as an undecided or health student does not guarantee admission to any track in the B.S.N. program. The Christine E. Lynn College of Nursing supports the University's policy of non-discrimination.

[Link to Freshman Direct Admit Track](#)

[Link to Honors in Nursing Program](#)

[Link to Accelerated Track](#)

[Link to Second Degree Part-Time Track](#)

[Link to RN-B.S.N. Track](#)

[Link to Combined Programs](#)

### **Application Process for Freshman Direct Admit B.S.N. Track**

The Freshman Direct Admit Track is designed for currently enrolled high school seniors who are preparing to enter FAU the fall semester immediately following their May/June high school graduation of the same year. This track is available on the Boca Raton campus only. The Freshman Direct Admit Track is a four-year limited access program.

The Bachelor of Science in Nursing Freshmen Direct Admit Track is a full-time, four-year program (beginning in the fall semester) with Nursing courses in each of the eight semesters. This means that students take Nursing courses each semester along with the other science and general education requirements, which further means that first semester freshmen are already Nursing students. This result is in synchrony with the College of Nursing philosophy, vision and mission in that students are fully interconnected with the College from the beginning of their Nursing education through graduation.

Application to this track is a four-step process and can be found on this [website](#). Application Review Criteria include:

1. High school re-calculated GPA 3.50 on a 4.0 scale;
2. ACT 25 (preferred) or SAT 1210;
3. Cleared Level 2 background check and fingerprinting.

## Freshman Direct Admit Track Degree Requirements

*(Minimum of 120 credits required)*

### ***Fall 1***

Anatomy and Physiology 1	BSC 2085	3
Anatomy and Physiology 1 Lab	BSC 2085L	1
College Writing 1	ENC 1101	3
College Algebra	MAC 1105	3 or
Math for Liberal Arts 1	MGF 1106	3
Learning Strategies and Human Development	SLS 1503	2
Foundations of Caring in Nursing Situations	NUR 3115	3
<b>Total</b>		<b>15</b>

### ***Spring 1***

Anatomy and Physiology 2	BSC 2086	3
Anatomy and Physiology 2 Lab	BSC 2086L	1
College Writing 2	ENC 1102	3
Professional Nursing Practice	NUR 3821	2
Introductory Statistics	STA 2023	3
General Psychology	PSY 1012	3
<b>Total</b>		<b>15</b>

***Summer 1***

General Education course chosen with advisor		3
Microbiology for Health Services	MCB 2004	3
Microbiology for Health Services Lab	MCB 2004L	1
Sociological Perspectives	SYG 1000	3
<b>Total</b>		<b>10</b>

***Fall 2***

General Chemistry for Health Sciences	CHM 2032	3
General Chemistry for Health Sciences Lab	CHM 2032L	1
Psychology of Human Development	DEP 3053	3
Health Assessment in Nursing Situations	NUR 3065	2
Health Assessment in Nursing Situations Lab	NUR 3065L	1
General Pathophysiology	NUR 4125	3
<b>Total</b>		<b>13</b>

***Spring 2***

General Education course chosen with advisor		3
Fundamentals of Nursing Practice 1	NUR 3026C	2
Pharmacotherapeutics	NUR 3145	3
Food, Nutrition and Health	NUR 3183	3
RI: Scholarship for Evidence-Based Nursing Practice	NUR 4937	3
<b>Total</b>		<b>14</b>

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*Summer 2*

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General Education course chosen with advisor		3
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<b>Total</b>		<b>3</b>
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*Fall 3*

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Chronic Care in Nursing Situations for Adults and Aging Populations	NUR 3262	3
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Chronic Care in Nursing Situations for Adults and Aging Populations in Practice	NUR 3262L	2
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Population Health: Nursing Situations	NUR 4638	3
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Population Health: Nursing Situations in Practice	NUR 4638L	1
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Fundamentals of Nursing Practice 2	NUR 3029C	2
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Elective chosen with advisor		3
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<b>Total</b>		<b>14</b>
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*Spring 3*

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General Education course chosen with advisor		3
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Nursing Care of Children: Nursing Situations	NUR 3358	3
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Nursing Care of Children: Nursing Situations In Practice	NUR 3358L	1
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Maternal Newborn: Nursing Situations	NUR 3455	3
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Maternal Newborn: Nursing Situations in Practice	NUR 3455L	1
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Elective chosen with advisor		3
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<b>Total</b>		<b>14</b>
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***Fall 4***

Psychiatric and Mental Health: Nursing Situations Across the Lifespan	NUR 4525	3
Psychiatric and Mental Health: Nursing Situations in Practice	NUR 4525L	1
Acute Care in Nursing Situations with Adults and Aging Populations	NUR 4716	3
Acute Care in Nursing Situations with Adults and Aging Populations in Practice	NUR 4716L	2
Systems, Quality and Information Technology	NUR 4079	3
<b>Total</b>		<b>12</b>

***Spring 4***

Creating Healing Environments	NUR 3171	3
Complex Care in Nursing Situations with Adults and Aging Populations	NUR 4764	3
Complex Care in Nursing Situations with Adults and Aging Populations in Practice	NUR 4764L	1
Nursing Practice Immersion	NUR 4829L	3
<b>Total</b>		<b>10</b>

**HONORS IN NURSING PROGRAM***(Minimum of 120 credits required)*

The Honors in Nursing Program provides a highly select group of students with an enriched learning

experience for high-performing students. The program focuses on the enhancement of research and communication skills required for nursing students. Nursing is now recognized as a STEM program, so students need to seek opportunities in consultation with their faculty mentors to conduct or participate in original research. The Honors in Nursing Program culminates in a completed thesis and dissemination of the student's work.

### **Admission Requirements**

Eligible students in the Freshman Direct Admit Track apply during their sophomore spring semester. Applicants must have a 3.5 cumulative GPA; must successfully complete NUR 4165, Nursing Research, with an "A-" or better; and submit a competitive onsite essay.

### **Standards for Maintaining Active Status**

Students admitted to the Honors in Nursing Program must maintain high academic and ethical standards. Students may be dismissed from the program if they fail to maintain a cumulative GPA of 3.5 throughout the program. Students who do not maintain a GPA of 3.5 may still be able to complete the Freshman Direct Admit B.S.N. degree track. Violation of any of the following three components may be grounds for dismissal:

1. The Christine E. Lynn College of Nursing Professional Statement;
2. American Nurses Association's Code of Ethics; and
3. FAU's Code of Academic Integrity.

If a student withdraws due to extenuating medical circumstances, he or she may be permitted to progress upon a space available basis either in the Honors in Nursing Program or the Freshman Direct Admit B.S.N. track.

### **Honors-Level Enrichment**

Honors-level enrichment is manifested in two challenging courses that provide meaningful, rich academic experiences: Honors Seminar in Nursing 1 (NUR 4934) and Honors Seminar in Nursing 2 (NUR 4935). During both courses students are expected to attend or participate in events offered by the College such as dissertation defenses, Sigma Theta Tau or Iota Xi presentations, doctoral capstone presentations and Office of Undergraduate Research and Inquiry events.

### **Capstone Requirement**

The thesis meets the capstone requirement. RI: Honors Seminar in Nursing 3 (NUR 4936) replaces RI: Scholarship for Evidence-Based Nursing Practice (NUR 4937) with 3 variable credits. The variable credits are to be distributed over at least two semesters.

1. Summer, 1 credit; fall, 1 credit; spring, 1 credit of senior year, or
2. Fall, 2 credits; and spring, 1 credit of senior year.

One credit must be earned in the graduating spring semester. The student will defend both the research proposal and the final thesis. One faculty mentor (chair) and one faculty committee member will assist the student.

## Honors in Nursing Program Degree Requirements

### *Fall 1*

Anatomy and Physiology 1	BSC 2085	3
Anatomy and Physiology 1 Lab	BSC 2085L	1
College Writing 1	ENC 1101	3
College Algebra	MAC 1105	3 <b>or</b>
Math for Liberal Arts 1	MGF 1106	3
Learning Strategies and Human Development	SLS 1503	2
Foundations of Caring Science in Nursing Situations	NUR 3115	3
<b>Total</b>		<b>15</b>

### *Spring 1*

Anatomy and Physiology 2	BSC 2086	3
Anatomy and Physiology 2 Lab	BSC 2086L	1
College Writing 2	ENC 1102	3
Professional Development in Nursing 1: Ethical and Legal Perspectives of Caring	NUR 4824	1
Introductory Statistics	STA 2023	3
General Psychology	PSY 1012	3

<b>Total</b>		<b>14</b>
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***Summer 1***

General Education course chosen with advisor		3
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Microbiology for Health Services	MCB 2004	3
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Microbiology for Health Services Lab	MCB 2004L	1
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Sociological Perspectives	SYG 1000	3
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<b>Total</b>		<b>10</b>
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***Fall 2***

General Chemistry for Health Sciences	CHM 2032	3
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General Chemistry for Health Sciences Lab	CHM 2032L	1
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Psychology of Human Development	DEP 3053	3
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Health Assessment in Nursing Situations	NUR 3065	2
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Health Assessment in Nursing Situations Lab	NUR 3065L	1
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General Pathophysiology	NUR 4125	3
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<b>Total</b>		<b>13</b>
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***Spring 2***

General Education course chosen with advisor		3
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Foundations of Nursing Practice	NUR 3119C	2
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Pharmacotherapeutics	NUR 3145	3
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Food, Nutrition and Health	NUR 3183	3
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Nursing Research	NUR 4165	3
<b>Total</b>		<b>14</b>

*Summer 2*

General Education course chosen with advisor		3
<b>Total</b>		<b>3</b>

*Fall 3*

Chronic Care in Nursing Situations for Adults and Aging Populations	NUR 3262	3
Chronic Care in Nursing Situations for Adults and Aging Populations in Practice	NUR 3262L	2
Population Health: Nursing Situations	NUR 4638	3
Professional Development in Nursing 2: Designer of Caring Environments	NUR 4833	1
Professional Development in Nursing 3: Leader/Coordinator of Caring Environments	NUR 4860	1
Honors Seminar in Nursing 1	NUR 4934	3
<b>Total</b>		<b>13</b>

*Spring 3*

General Education course chosen with advisor		3
The Developing Family: Nursing Situations	NUR 3465	4
The Developing Family: Nursing Situations in Practice	NUR 3465L	2
Honors Seminar in Nursing 2	NUR 4935	3

<b>Total</b>		<b>12</b>
<i>Fall 4</i>		
Psychiatric and Mental Health: Nursing Situations Across the Lifespan	NUR 4525	3
Psychiatric and Mental Health: Nursing Situations in Practice	NUR 4525L	1
Acute Care in Nursing Situations with Adults and Aging Populations	NUR 4716	3
Acute Care in Nursing Situations with Adults and Aging Populations in Practice	NUR 4716L	2
RI: Honors Seminar in Nursing 3	NUR 4936	2
<b>Total</b>		<b>11</b>
<i>Spring 4</i>		
Creating Healing Environments	NUR 3171	3
Complex Care in Nursing Situations with Adults and Aging Populations	NUR 4764	3
Complex Care in Nursing Situations with Adults and Aging Populations in Practice	NUR 4764L	1
Nursing Practice Immersion	NUR 4829L	3
Professional Development in Nursing 4: Member of a Caring Profession	NUR 4861	1
RI: Honors Seminar in Nursing 3	NUR 4936	1
<b>Total</b>		<b>12</b>

## Application Process for the Accelerated B.S.N. Track

The Accelerated Track is available only on the Boca Raton campus. Students who have been unsuccessful in another nursing program will not be considered for admission into the program at Florida Atlantic University.

1. Apply to Florida Atlantic University [here](#). Applicants must have a minimum 3.0 GPA in their bachelor's degree as calculated by the awarding institution. Post-baccalaureate classes are not included in this calculation.
2. Apply to the College of Nursing by completing an application on the Nursing CAS (Centralized Application Service) [website](#). The applicant is cautioned to note the application deadline published on the website. There are no deadline exceptions.
3. Minimum requirements for review of application; **applications not meeting these criteria will not be reviewed**. The following courses must be completed with a grade of "C" or better by the application deadline. Successful completion of all prerequisites must have been achieved at the time of application.

Anatomy & Physiology I with Lab

Anatomy & Physiology II with Lab

Microbiology with Lab

College Algebra or equivalent

Statistics

English Composition 1

English Composition 2

Introduction to Sociology

Introduction to Psychology

Human Growth and Development through the Lifespan

Chemistry with Lab

Nutrition

Grades in the above courses constitute the prerequisite science GPA used for admission decisions. A minimum grade of "C" is required in these courses.

### Admission Decision Criteria

This is a limited-access program, and the program receives many more qualified applications than available spaces. Admission decisions are based on the following:

1. Cumulative undergraduate GP
2. Prerequisite science GPA
3. Other nursing common prerequisites GPA
4. Personal interview

Other factors relevant to professional nursing may be considered. For example: graduation from an undergraduate program at FAU and prerequisite courses completed at an SUS university or equivalent university in the United States.

5. All applicants will be notified of the admission decision via FAU email.
6. By the date posted in the offer letter, applicants must confirm via email to the program advisor their intention to either accept or reject the preliminary admission offer, or their seat will be given to the next eligible applicant.
7. Cleared Level 2 background check and fingerprinting.

### **Accelerated Track Degree Requirements**

The Accelerated Track in the B.S.N. program is specifically designed for the student with a bachelor's degree in another field who wants to earn a bachelor's degree in nursing. A fast track to a professional nursing career, this accelerated B.S.N. is an intense four semester (15-month) program for motivated individuals looking for a challenging and stimulating career in nursing. Students in the program are required to be engaged in coursework or nursing practice experiences for a minimum of 40 hours per week. This is a limited access program. Students must complete all program prerequisites prior to beginning the accelerated program coursework. Accelerated Track requirements: 60 credits.

### **Prerequisite Coursework**

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually by the FAU Registrar's Office on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

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### **Prerequisite Courses**

Anatomy and Physiology 1 and 2 with Labs	8
Microbiology with Lab	4
Chemistry with Lab	4

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Nutrition	3
College Algebra or equivalent	3
Statistics	3
Introduction to Sociology	3
Introduction to Psychology	3
Human Growth and Development through the Lifespan	4

### Accelerated Track Courses

#### *Fall 1*

Health Assessment in Nursing Situations	NUR 3065	2
Health Assessment in Nursing Situations Lab	NUR 3065L	1
Fundamentals of Nursing Practice 1	NUR 3026C	2
Foundations of Nursing Practice	NUR 3119C	2
General Pathophysiology	NUR 4125	3
Pharmacotherapeutics	NUR 3145	3
<b>Total</b>		<b>14</b>

#### *Spring 1*

Chronic Care in Nursing Situations for Adults and Aging Populations	NUR 3262	3
Chronic Care in Nursing Situations for Adults and Aging Populations in Practice	NUR 3262L	2
Psychiatric and Mental Health: Nursing Situations Across the Lifespan	NUR 4525	3

Psychiatric and Mental Health: Nursing Situations in Practice	NUR 4525L	1
Fundamentals of Nursing Practice 2	NUR 3029C	2
RI: Scholarship of Evidence-Based Nursing Practice	NUR 4937	3
Professional Nursing Practice	NUR 3821	2
<b>Total</b>		<b>16</b>

*Summer 1*

Acute Care in Nursing Situations with Adults and Aging Populations	NUR 4716	3
Acute Care in Nursing Situations with Adults and Aging Populations in Practice	NUR 4716L	2
Maternal Newborn: Nursing Situations	NUR 3455	3
Maternal Newborn: Nursing Situations in Practice	NUR 3455L	1
Nursing Care of Children: Nursing Situations	NUR 3358	3
Nursing Care of Children: Nursing Situations in Practice	NUR 3358L	1
Systems, Quality and Information Technology	NUR 4079	3
<b>Total</b>		<b>16</b>

*Fall 2*

Creating Healing Environments	NUR 3171	3
Management of Complex Nursing Situations with Adults and Aging Populations	NUR 4764	3
Management of Complex Nursing Situations with Adults and Aging Populations in Practice	NUR 4764L	1

Nursing Practice Immersion	NUR 4829L	3
Population Health: Nursing Situations	NUR 4638	3
Population Health: Nursing Situations in Practice	NUR 4638L	1
<b>Total</b>		<b>14</b>
<b>Total Credits</b>		<b>60</b>

## Second Degree B.S.N. Part-Time Track

**(This program is on hiatus and not accepting students.)**

This track is for those individuals with a degree in another discipline who are seeking a Bachelor of Science in Nursing degree. Using a concierge model, it serves working adults who are not able to enroll in an accelerated, full-time program. Classes and clinical experiences are designed for evenings and weekends with some online classes. Face-to-face classes and laboratory learning are offered on FAU's Davie campus with clinical practicums offered in partner hospitals in the surrounding area. For information on this concierge model, including information on student support and tuition, click [here](#).

### Application Process for the RN-B.S.N. Track

The RN-B.S.N. Track is designed for registered nurses aspiring to a Bachelor of Science in Nursing degree. Candidates must have 60 completed lower-division college credits from an accredited institution and an associate degree-accredited program in nursing (ACEN or CNEA). The RN-B.S.N. Track is offered in a distance learning format only.

### Prerequisite Coursework for RN-B.S.N. Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or state college or through equivalent coursework at another regionally accredited institution. Students can apply for admission to the RN-B.S.N. Track before or after completion of all prerequisites as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog

course description and a copy of the syllabus for assessment.

## Admission Requirements for the RN-B.S.N. Track

1. Minimum GPA of 2.5 on 4.0 scale.
2. Graduated from an ACEN- or CNEA-accredited nursing program.
3. Current unencumbered RN license in state of residency.
4. Grade of "C" or better in all required prerequisite courses.
5. After preliminary acceptance, a cleared Level 2 background check and fingerprinting is required for full admission.

## RN-B.S.N. Track Degree Requirements

Required lower-division prerequisite courses will be reviewed with an academic advisor. A variety of study plans are available, including three-, four-, five- and six-semester study plans. Students will choose a study plan with an advisor after admission to the B.S.N. program. The RN-B.S.N. Track is offered in a distance learning format only.

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### *Required Courses (FAU or community/state college)*

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Anatomy and Physiology 1 and 2 with Labs	8
Microbiology with Lab	4
Chemistry(lab not required)	3
College Algebra or Math for Liberal Arts	3
Statistics	3
Nutrition	3
English Composition 1 and 2	6
Introduction to Sociology	3
Introduction to Psychology	3
Human Growth and Development Through the Life Span	3

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*General Education Program courses required by the University are described in the [Degree Requirements](#) section of this catalog. In addition, students must fulfill Gordon Rule and foreign*

*language requirements.*

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### ***Upper-Division Nursing Courses***

Foundations of Caring in Nursing Situations	NUR 3115	3
Health Assessment in Nursing Situations	NUR 3065	2
Health Assessment in Nursing Situations Lab	NUR 3065L	1
Pharmacotherapeutics	NUR 3145	3
Creating Healing Environments	NUR 3171	3
General Pathophysiology	NUR 4125	3
RI: Scholarship for Evidence-Based Nursing Practice (research-intensive course)	NUR 4937	3
Population Health: Nursing Situations	NUR 4638	3
Professional Nursing Practice	NUR 3821	2
Systems, Quality and Information Technology	NUR 4079	3
Nursing Practice Immersion	NUR 4829L	3
<b>Total credits</b>		<b>30</b>
<b>Validated credits granted at completion of nursing courses</b>		<b>30</b>

### **Policies for Bachelor's Degree Program**

#### **Health and Other Requirements for Nursing Practice**

***The student who is admitted to the Pre-Licensure tracks (Freshman Direct Admit or Accelerated) must meet the following requirements annually:***

1. Complete the following:
  - a. A complete background check through [www.castlebranch.com](http://www.castlebranch.com) is required as a condition of admission. By submitting to the background check requirement, students agree to have this

information shared with all clinical agencies. Adverse findings may prevent a student from completing the required clinical experiences and graduating from the program. Students with adverse findings may contact the Florida Board of Nursing for clarification regarding the effect of the adverse events on their individual eligibility for licensure.

- b. FDLE and FBI Background fingerprinting.
2. Submit each of the following:
    - a. Annually submit the Oath and Affirmation waiver by one year by date of order. If this waiver expires after the due date, the student will be required at his/her expense to redo the Level 2 background check process to include the drug test and fingerprinting.
    - b. Annually submit evidence of ongoing personal health insurance coverage for the academic year. If a student is found to have lapsed coverage, the student will be dismissed from the clinical practicum, which may jeopardize progression in their program of study.
    - c. Proof of completion of any required immunization series must be provided to the College of Nursing by the date specified by the nursing program in which the student is enrolled.
    - d. TB testing is done annually. Additional health requirements may be necessary for students practicing in specific clinical agencies. Affected students will be notified.
    - e. Proof of current BLS Healthcare Provider CPR certification (CPR for Healthcare Providers must be from the American Heart Association).
  3. Purchase basic supplies and equipment for nursing practice experiences.
  4. Assume responsibility for transportation to and from all off-campus course clinical experiences.
  5. Assume responsibility for basic computer knowledge (Microsoft Office, FAU e-mail, email and Internet).
  6. Purchase learning materials required for courses. Purchase NCLEX preparation and basic tools and equipment for nursing practice experiences.

In the last semester of the curriculum, pre-license students will be required to take a comprehensive exit exam and earn a satisfactory score on the exam prior to graduation.

Failure to provide the above documentation or falsification of the same is grounds for dismissal from the College of Nursing.

7. Student documents must be current and complete in order to participate in any clinical practice learning experience that involves persons receiving care of any kind. Students who do not have the FBI/FDLE and Drug Screening clearance may not be able to complete the program and graduate. Students may also be asked to successfully complete clinical agency-mandated educational programs to participate in clinical learning experiences.
8. Additional health requirements may be necessary for students practicing in specific clinical

agencies. Affected students will be notified.

9. Laptop computers are expected of students in the Nursing program.

***The student who is admitted to the RN-B.S.N. Track must meet the following requirements annually:***

1. Submit a copy of current unencumbered RN license.
2. Complete the following:
  - a. A complete background check through [www.castlebranch.com](http://www.castlebranch.com) is required as a condition of admission. By submitting to the background check requirement, students agree to have this information shared with all clinical agencies. Adverse findings may prevent a student from completing the required clinical experiences and graduating from the program. Students with adverse findings may contact the Florida Board of Nursing for clarification regarding the effect of the adverse events on their individual eligibility for licensure.
  - b. FDLE and FBI background fingerprinting.
3. Submit each of the following:
  - a. Annually submit the Oath and Affirmation waiver by one year by date of order. If this waiver expires after the due date, the student will be required at his/her expense to redo the Level 2 background check process to include the drug test and fingerprinting.
  - b. Annually submit evidence of ongoing personal health insurance coverage for the academic year. If a student is found to have lapsed coverage, the student will be dismissed from the clinical practicum, which may jeopardize progression in their program of study.
  - c. Proof of completion of any required immunization series must be provided to the College of Nursing by the date specified by the nursing program in which the student is enrolled.
  - d. TB testing is done annually. Additional health requirements may be necessary for students practicing in specific clinical agencies. Affected students will be notified.
  - e. Proof of current BLS Healthcare Provider CPR certification (CPR for Healthcare Providers must be from the American Heart Association).
4. Purchase basic supplies and equipment for nursing practice experiences.
5. Assume responsibility for transportation to and from all off-campus course clinical experiences.
6. Assume responsibility for basic computer knowledge (Microsoft Office, FAU e-mail, email and Internet).
7. Purchase learning materials, basic tools and equipment required for courses/requirements.
8. Student documents must be current and complete in order to participate in any clinical practice learning experience that involves persons receiving care of any kind. Students who do not have the FBI/FDLE and Drug Screening clearance may not be able to complete the program and graduate. Students may also be asked to successfully complete clinical agency-mandated educational programs to participate in clinical learning experiences.

9. Laptop computers are expected of students in the Nursing program.

### **Progression and Retention Policy**

Progression and retention in the College of Nursing baccalaureate degree courses are dependent upon the student's ability to meet established academic standards and to comply with student health, security and CPR requirements. The following requirements are necessary for progression in the Nursing program:

1. Successful completion of all nursing courses and required courses in the B.S.N. curriculum is defined as a "C" or better or a grade of satisfactory, "S."
2. Freshman Direct Admit students who cannot progress following the first summer (third semester of first year) will be dismissed from the B.S.N. program.
3. At any time, students not making satisfactory progress toward course objectives will be notified in writing and offered counseling to develop a plan for remediation. Failure to comply with the recommendations on this plan will result in failure of the course.
4. Students may repeat only one nursing course.
5. Students earning a grade of "C-" or below or an unsatisfactory, "U," in any nursing course may repeat that course only once, on a space available basis.
6. A student who earns a grade of "C-" or below or an unsatisfactory, "U," in any nursing course for a second time will be dismissed from the Nursing major. Counseling relative to other majors/options will be provided.
7. A student who earns a grade of "C-" or below or an unsatisfactory, "U," in any two nursing courses will be dismissed from the Nursing major. Counseling relative to other majors/options will be provided.
8. Any fully admitted pre-license B.S.N. student who withdraws from a nursing course, with the exception of a filed exceptional circumstances withdrawal, is considered to be out of sequence with their cohort and must reapply to the program.
9. Students who wish to return to the University after a leave of absence or re-enroll after withdrawing and have been admitted to the B.S.N. program will re-enter under the current curricular requirements. Based on demonstration of clinical skill competencies, an independent study course may be required. In addition, scheduling in clinical courses will depend on availability of clinical space.
10. Students must adhere to the standards of conduct outlined in the ANA Code of Ethics, the Florida Nurse Practice Act (Statute 464.018) and FAU Regulation 4.001 Code of Academic Integrity. Students are expected to demonstrate comportsment and professional behavior consistent with the College's philosophy and conceptual framework as expressed in the College of Nursing

Professional Statement. Failure to do so may result in dismissal from the program.

11. Students must demonstrate safe practice in the care of clients and exercise appropriate judgment as beginning-level practitioners. Students who demonstrate unsafe behaviors in the practice setting may be removed at any time a faculty member determines the student is clinically unsafe and poses a significant risk to patients. Students removed from a clinical course for patient safety reasons will receive a grade of "F" in the course.
12. Students must have on file evidence of compliance to include, but not limited to, Student Health Policy, security requirements and CPR certification prior to beginning any clinical experiences.

## **Dismissal Policy**

A student enrolled in the Bachelor of Science in Nursing Program who fails to exhibit professional and caring behaviors as stated in the Christine E. Lynn College of Nursing Professional Statement, fails to meet academic standards as defined in the Progression and Retention Policy, or violates a University policy may be dismissed from the Nursing program. The faculty member responsible for the nursing course in which the failure is noted or who notes unprofessional behavior will refer the student to the assistant dean. Students recommended for dismissal have the right to utilize the Student's Appeal Procedure as outlined in the Student Handbook.

A student who is dismissed from the Nursing program may petition only one time for readmission/continuation in the Nursing program through the Admission, Progression and Retention Subcommittee of the Christine E. Lynn College of Nursing. Readmission decisions by the subcommittee will be based on the reason for dismissal, strength of the student's record, length of time since dismissal, space availability and the student's plan to prevent recurrence of the problem that led to the dismissal.

## **Procedure**

Students who do not meet the progression and retention requirements will be notified in writing via FAU email of the facts and circumstances, including the availability of an appeal process. Students will be notified by a program official who will offer to meet with the student (in person or via phone call). Students have 10 academic days from the date of the written notification to respond to the program official. After meeting with the program official, the student may be:

1. Placed on academic probation with a written Plan of Improvement (POI). The POI will include specific conditions designed to support individual student success. Students who do not meet conditions indicated in the POI will be recommended for dismissal.
2. Recommended for dismissal. Undergraduate student recommendations for dismissal follow the

University's [Suspension and Dismissal Policy](#).

## COMBINED PROGRAMS

### **NURSING TO ARTIFICIAL INTELLIGENCE**

### **BACHELOR OF SCIENCE IN NURSING (B.S.N.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

*(Minimum of 150 credits required)*

The Christine E. Lynn College of Nursing and the College of Engineering and Computer Science (COECS) offer a combined Bachelor of Science in Nursing (B.S.N.) and Master of Science (M.S.) with Major in Artificial Intelligence degree program. The B.S.N. degree program is completed and received from the Christine E. Lynn College of Nursing. Students then complete the M.S. in Artificial Intelligence in the Department of Electrical Engineering and Computer Science (EECS) and receive the M.S. degree from the COECS.

Students may count up to 9 credits of approved graduate coursework (5000-level or higher) toward both their B.S.N. and M.S. degrees as long as the combined program totals a minimum of 150 credits. Other requirements follow.

1. The student has met the minimum of 120 credits for the bachelor's degree;
2. The student has taken a minimum of 30 credits in 5000-level or higher courses for the master's degree.

Students must complete the prerequisite coursework for the master's degree while pursuing the bachelor's degree at the College of Nursing. This combined program provides an attractive way for students to continue their graduate coursework; the undergraduate program is completed first. The combined program can be completed in approximately five years.

### **Admission Requirements**

The GRE requirement is waived for this combined program. To be eligible for the program, baccalaureate students in the College of Nursing should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the bachelor's degree in the College of Nursing.
2. Formally apply to the combined program, completing the admissions process at least one semester

prior to the beginning of the master's portion of their program.

Students in the combined program must maintain continuous enrollment to remain in good standing. Students must also meet all degree requirements of the graduate program they have chosen, including prerequisite courses.

### Degree Requirements

To be eligible for the combined B.S.N. in Nursing to M.S. in Artificial Intelligence program, students must fulfill the following requirements.

1. Completion of the requirements for the B.S.N. in Nursing in the College of Nursing and other requirements stipulated by the University and College.
2. Completion of all requirements for the M.S. in Artificial Intelligence in the EECS Department with either the thesis or non-thesis option.
3. The following courses are taken during the B.S.N. in Nursing program.

Introduction to Programming in Python	COP 2034	3
Data Structures and Algorithm Analysis with Python	COP 3410	3
Methods of Calculus	MAC 2233	3

### Plan of Study for the Nursing to Artificial Intelligence Combined Program

#### *Fall 1*

Anatomy and Physiology 1	BSC 2085	3
Anatomy and Physiology 1 Lab	BSC 2085L	1
College Writing 1	ENC 1101	3
Methods of Calculus	MAC 2233	3
Foundations of Caring in Nursing Situations	NUR 3115	3
Learning Strategies and Human Development	SLS 1503	2
<b>Total</b>		<b>15</b>

***Spring 1***

Anatomy and Physiology 2	BSC 2086	3
Anatomy and Physiology 2 Lab	BSC 2086L	1
College Writing 2	ENC 1102	3
Professional Development in Nursing 1: Ethical and Legal Perspectives of Caring	NUR 4824	1
General Psychology	PSY 1012	3
Introductory Statistics	STA 2023	3
<b>Total</b>		<b>14</b>

***Summer 1***

General Education course chosen with advisor		3
Microbiology for Health Services	MCB 2004	3
Microbiology for Health Services Lab	MCB 2004L	1
Sociological Perspectives	SYG 1000	3
<b>Total</b>		<b>10</b>

***Fall 2***

General Chemistry for Health Sciences	CHM 2032	3
General Chemistry for Health Sciences Lab	CHM 2032L	1
Psychology of Human Development	DEP 3053	3
Health Assessment in Nursing Situations	NUR 3065	2
Health Assessment in Nursing Situations Lab	NUR 3065L	1
General Pathophysiology	NUR 4125	3

<b>Total</b>		<b>13</b>
<i>Spring 2</i>		
General Education course chosen with advisor		3
Foundations of Nursing Practice	NUR 3119C	2
Pharmacotherapeutics	NUR 3145	3
Food, Nutrition and Health	NUR 3183	3
Nursing Research	NUR 4165	3
<b>Total</b>		<b>14</b>
<i>Summer 2</i>		
General Education course chosen with advisor		3
<b>Total</b>		<b>3</b>
<i>Fall 3</i>		
Introduction to Programming in Python	COP 2034	3
Chronic Care in Nursing Situations for Adults and Aging Populations	NUR 3262	3
Chronic Care in Nursing Situations for Adults and Aging Populations in Practice	NUR 3262L	2
Population Health: Nursing Situations	NUR 4638	3
Professional Development in Nursing 2: Designer of Caring Environments	NUR 4833	1
Professional Development in Nursing 3:	NUR 4860	1

## Leader/Coordinator of Caring Environments

<b>Total</b>		<b>13</b>
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*Spring 3*

General Education course chosen with advisor		3
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Data Structures and Algorithm Analysis with Python	COP 3410	3
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The Developing Family: Nursing Situations	NUR 3465	4
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The Developing Family: Nursing Situations in Practice	NUR 3465L	2
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<b>Total</b>		<b>12</b>
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*Apply to M.S. with Major in Artificial Intelligence**Fall 4*

Psychiatric and Mental Health: Nursing Situations Across the Lifespan	NUR 4525	3
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Psychiatric and Mental Health: Nursing Situations in Practice	NUR 4525L	1
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Acute Care in Nursing Situations with Adults and Aging Populations	NUR 4716	3
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Acute Care in Nursing Situations with Adults and Aging Populations in Practice	NUR 4716L	2
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RI: Scholarship for Evidence-Based Nursing Practice (research-intensive course)	NUR 4937	3
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<b>Total</b>		<b>12</b>
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*Spring 4*

Creating Healing Environments	NUR 3171	3
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Complex Care in Nursing Situations with Adults and Aging Populations	NUR 4764	3
Complex Care in Nursing Situations with Adults and Aging Populations in Practice	NUR 4764L	1
Nursing Practice Immersion	NUR 4829L	3
Professional Development in Nursing 4: Member of a Caring Profession	NUR 4861	1
<b>Total</b>		<b>11</b>

## NURSING TO BIOMEDICAL ENGINEERING

### BACHELOR OF SCIENCE IN NURSING (B.S.N.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

*(Minimum of 150 credits required)*

The Christine E. Lynn College of Nursing and the College of Engineering and Computer Science (COECS) offer a combined Bachelor of Science in Nursing (B.S.N.) and Master of Science (M.S.) with Major in Biomedical Engineering degree program. The B.S.N. degree program is completed and received from the Christine E. Lynn College of Nursing. Students then complete the M.S. in Biomedical Engineering in the Department of Electrical Engineering and Computer Science (EECS) and receive the M.S. degree from the COECS.

Students may count up to 9 credits of approved graduate coursework (5000-level or higher) toward both their B.S.N. and M.S. degrees as long as the combined program totals a minimum of 150 credits. Other requirements follow.

1. The student has met the minimum of 120 credits for the bachelor's degree;
2. The student has taken a minimum of 30 credits in 5000-level or higher courses for the master's degree.

Students must complete the prerequisite coursework for the master's degree while pursuing the bachelor's degree at the College of Nursing. This combined program provides an attractive way for students to continue their graduate coursework; the undergraduate program is completed first. The combined program can be completed in approximately five years.

## Admission Requirements

The GRE requirement is waived for this combined program. To be eligible for the program, baccalaureate students in the College of Nursing should:

1. Have a cumulative FAU GPA of 3.25 or better at the end of their junior year. Note that the cumulative FAU GPA of at least 3.25 must be maintained until the completion of the bachelor's degree in the College of Nursing.
2. Formally apply to the combined program, completing the admissions process at least one semester prior to the beginning of the master's portion of their program.

Students in the combined program must maintain continuous enrollment to remain in good standing. Students must also meet all degree requirements of the graduate program they have chosen, including prerequisite courses.

## Degree Requirements

To be eligible for the combined B.S.N. in Nursing to M.S. in Biomedical Engineering program, students must fulfill the following requirements.

1. Completion of the requirements for the B.S.N. in Nursing in the College of Nursing and other requirements stipulated by the University and College.
2. Completion of all requirements for the M.S. in Biomedical Engineering in the EECS Department with either the thesis or non-thesis option.
3. The following courses are taken during the B.S.N. in Nursing program.

Introduction to Programming in Python	COP 2034	3 or
Introduction to Programming in C	COP 2220	3
Methods of Calculus	MAC 2233	3

## Plan of Study for the Nursing to Biomedical Engineering Combined Program

### *Fall 1*

Anatomy and Physiology 1	BSC 2085	3
Anatomy and Physiology 1 Lab	BSC 2085L	1

College Writing 1	ENC 1101	3
Methods of Calculus	MAC 2233	3
Foundations of Caring in Nursing Situations	NUR 3115	3
Learning Strategies and Human Development	SLS 1503	2
<b>Total</b>		<b>15</b>

*Spring 1*

Anatomy and Physiology 2	BSC 2086	3
Anatomy and Physiology 2 Lab	BSC 2086L	1
College Writing 2	ENC 1102	3
Professional Development in Nursing 1: Ethical and Legal Perspectives of Caring	NUR 4824	1
General Psychology	PSY 1012	3
Introductory Statistics	STA 2023	3
<b>Total</b>		<b>14</b>

*Summer 1*

General Education course chosen with advisor		3
Microbiology for Health Services	MCB 2004	3
Microbiology for Health Services Lab	MCB 2004L	1
Sociological Perspectives	SYG 1000	3
<b>Total</b>		<b>10</b>

*Fall 2*

General Chemistry for Health Sciences	CHM 2032	3
General Chemistry for Health Sciences Lab	CHM 2032L	1
Psychology of Human Development	DEP 3053	3
Health Assessment in Nursing Situations	NUR 3065	2
Health Assessment in Nursing Situations Lab	NUR 3065L	1
General Pathophysiology	NUR 4125	3
<b>Total</b>		<b>13</b>

### *Spring 2*

General Education course chosen with advisor		3
Foundations of Nursing Practice	NUR 3119C	2
Pharmacotherapeutics	NUR 3145	3
Food, Nutrition and Health	NUR 3183	3
Nursing Research	NUR 4165	3
<b>Total</b>		<b>14</b>

### *Summer 2*

General Education course chosen with advisor		3
<b>Total</b>		<b>3</b>

### *Fall 3*

Chronic Care in Nursing Situations for Adults and Aging Populations	NUR 3262	3
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Chronic Care in Nursing Situations for Adults and Aging Populations in Practice	NUR 3262L	2
Population Health: Nursing Situations	NUR 4638	3
Professional Development in Nursing 2: Designer of Caring Environments	NUR 4833	1
Professional Development in Nursing 3: Leader/Coordinator of Caring Environments	NUR 4860	1
General Education course or elective		3
<b>Total</b>		<b>13</b>

*Spring 3*

General Education course chosen with advisor		3
Introduction to Programming in Python	COP 2034	3 <b>or</b>
Introduction to Programming in C	COP 2220	3
The Developing Family: Nursing Situations	NUR 3465	4
The Developing Family: Nursing Situations in Practice	NUR 3465L	2
<b>Total</b>		<b>12</b>

*Apply to M.S. with Major in Biomedical Engineering**Fall 4*

Psychiatric and Mental Health: Nursing Situations Across the Lifespan	NUR 4525	3
Psychiatric and Mental Health: Nursing Situations in Practice	NUR 4525L	1
Acute Care in Nursing Situations with Adults and Aging Populations	NUR 4716	3

Acute Care in Nursing Situations with Adults and Aging Populations in Practice	NUR 4716L	2
RI: Scholarship for Evidence-Based Nursing Practice (research-intensive course)	NUR 4937	3
<b>Total</b>		<b>12</b>

### *Spring 4*

Creating Healing Environments	NUR 3171	3
Complex Care in Nursing Situations with Adults and Aging Populations	NUR 4764	3
Complex Care in Nursing Situations with Adults and Aging Populations in Practice	NUR 4764L	1
Nursing Practice Immersion	NUR 4829L	3
Professional Development in Nursing 4: Member of a Caring Profession	NUR 4861	1
<b>Total</b>		<b>11</b>

[Link to Doctoral Programs](#)

## MASTER'S AND POST GRADUATE PROGRAMS

The Christine E. Lynn College of Nursing offers the Master of Science in Nursing (M.S.N.) and Post Graduate Certificate Programs.

Those applicants seeking a Master of Science in Nursing choose from one of the following concentrations for a program of study: Adult/Gerontological Nurse Practitioner, Advanced Holistic Nursing, Family Nurse Practitioner, Nurse Educator, and Nursing Administration and Financial Leadership.

Completion of one of the Nurse Practitioner concentrations prepares the graduate nurse to seek

certification as a nurse practitioner in the area of concentration. Upon graduation, national certification is required for authorization to practice in the advanced practice role in Florida.

Completion of the Nursing Administration and Financial Leadership concentration prepares the nurse graduate to seek advanced certification in administration.

Completion of the Nurse Educator concentration prepares the graduate to teach in a variety of educational settings and seek certification as a nurse educator.

Completion of the Advanced Holistic Nursing concentration prepares the graduate to seek advanced certification in Holistic Nursing (AHN-BC) and Health and Wellness Nursing Coaching (HWNC-BC).

All required supplementary admission materials for the Family Nurse Practitioner and the Adult/Gerontological Nurse Practitioner concentrations must be submitted through [GradCAS](#) and received by the deadline posted on the College of Nursing [website](#). For all other M.S.N. concentrations, all required supplementary documents must be submitted through the University application system and received by the deadline posted on the College of Nursing website.

Decisions are made only on complete application packets. Refer to the section on [Admissions](#) in this University Catalog or [www.fau.edu/graduate/](http://www.fau.edu/graduate/) for complete University admissions information. Graduate admissions are competitive. Admissions decisions are made based upon the quality of the application and the number of available slots in the desired program concentration. Meeting minimum admission requirements does not guarantee admission.

The number of credits allowed as a non-degree-seeking student are limited and must meet graduate program requirements of the University.

In keeping with Florida Atlantic University's philosophy as a distributed university, courses may be held on various campuses. Modes of delivery include live classes, video conference, web-assisted courses and online offerings and vary by concentration.

Depending on the concentration, full-time or part-time study may be pursued in the graduate program. Once the student is admitted to the program, an advisor is assigned to assist with planning the sequence of courses.

International students should contact the director or assistant dean at least one year prior to intended

enrollment to plan the program of study.

[Link to Graduate Certificate](#)

[Link to Post Graduate Certificate Programs](#)

### **Master's Program Outcomes**

The purpose of the graduate program is to advance the study, understanding and practice of the discipline of nursing. The goal of this curriculum is to prepare graduates whose practice of nursing nurtures the wholeness of persons through caring in advanced practice nursing situations in a variety of settings. The graduate of the program will:

1. Develop self in caring-based advanced nursing practice.
2. Integrate a broad base of knowledge grounded in caring that includes theory and best evidence for advanced nursing practice.
3. Integrate multiple, complex patterns of knowing in coming to know persons and creatively responding to calls within nursing situations in advanced nursing practice.
4. Demonstrate accountability for ethical, safe practice and inquiry in advanced nursing practice.
5. Demonstrate cultural humility within nursing situations in advanced nursing practice.
6. Engage in systematic inquiry as a foundation for advanced nursing practice, healthcare delivery and the evolution of nursing as a caring science.
7. Participate in the implementation of technology and information systems to promote well-being, facilitate decision making and enhance collaboration in advanced nursing practice.
8. Promote well-being for persons and populations across the lifespan in advanced nursing practice.
9. Promote caring environments that nurture wholeness in advanced nursing practice.
10. Honor human dignity and advocate for equity in healthcare outcomes, local and global health policy and healthcare delivery in advanced nursing practice.
11. Participate in the transformation of complex healthcare systems through caring leadership that facilitates intra- and interprofessional collaboration to achieve quality outcomes in advanced nursing practice.
12. Promote responsible stewardship to advance the discipline and profession, preserve resources and respect the environment in advanced nursing practice.

### **Practicum Requirements**

Prior to entering any practicum course for graduate study, students are required to submit the following documentation in the College clinical tracking system:

1. Annual student health form (current within the last year);

2. Proof of personal medical insurance;
3. Current CPR certification (BLS);
4. Signed statement to the effect that OSHA/ HIPAA/Safety requirements have been read;
5. Copy of current license as a registered nurse in the state in which practicum course will be completed. All Nurse Practitioner students must be licensed in Florida.

All aforementioned data must be current throughout the program of study.

### **Academic Standing**

Continuation in the graduate program requires a grade of "C" or above in all required nursing graduate courses and a minimum overall GPA of 3.0. For further clarification, see the Progression and Retention Policy in the [Graduate Student Handbook](#).

## **NURSING**

### **MASTER OF SCIENCE IN NURSING (M.S.N.)**

#### **Adult/Gerontological Nurse Practitioner Concentration**

#### **Advanced Holistic Nursing Concentration (Program suspended effective fall 2024.)**

#### **Family Nurse Practitioner Concentration**

#### **Nurse Educator Concentration**

#### **Nursing Administration and Financial Leadership Concentration**

### **Admission Deadlines**

Adult/Gerontological Nurse Practitioner and Family Nurse Practitioner concentration applicants: The nurse practitioner concentrations are limited access; therefore, admission is competitive and allowed only for the fall term.

Advanced Holistic Nursing, Nurse Educator, and Nursing Administration and Financial Leadership concentration applicants: Admission deadlines for fall and spring are posted on the [College of Nursing website](#).

### **Admission Requirements**

1. Earned B.S.N. from an accredited bachelor's program in nursing.
2. Minimum grade point average of 3.0 on a 4.0 scale for the final 60 baccalaureate-level course credits in the B.S.N. program. Applicants with a GPA less than a 3.0 may be eligible to petition for admission into an M.S.N. program under certain circumstances.

3. Basic undergraduate statistics course.
  4. Baccalaureate-level, upper-division nursing research course.
  5. Résumé or curriculum vitae (CV) presented in specified format located on the [website](#).\*
  6. A written essay describing the student's philosophy of nursing (275 words/one page).
  7. One electronic letter of recommendation requested through the [GradCAS](#) System.
  8. Current RN licensure to practice nursing.\*
  9. A Level 2 (state/federal) criminal background check. (Costs are the responsibility of the applicant/student). Annual renewal by an Oath and Affirmation Statement is required.
  10. An interview and on-site writing sample may be required.
  11. Practice experience is not required but may be considered as part of the overall quality of the application.
- \* Submitted via [GradCAS](#) (Use 3.0 application portal.)

## **Guidelines for Philosophy of Nursing Statement and Reference Letter**

### ***Philosophy of Nursing***

Please provide a typed, double-spaced, one-page statement of your nursing philosophy, specifically addressing:

1. Your beliefs/philosophy of nursing;
2. Why you are interested in pursuing a master's degree in the specific concentration you have chosen; and

### ***Letter of Reference***

The purpose of the letter of reference is to provide the graduate program with information about how colleagues and associates perceive the applicants to the Master of Science in Nursing Program. For the Family Nurse Practitioner and Adult/Gerontological Nurse Practitioner concentrations, the letter is requested electronically through GradCAS. For the other M.S.N. concentrations, the letter is requested electronically through the FAU application portal. The letter must be from a recent place of employment. Reference letters from current students, relatives or peers will not be accepted.

## **CURRICULUM PLANS FOR MASTER OF SCIENCE IN NURSING CONCENTRATIONS**

### **Adult/Gerontological Nurse Practitioner - 52 credits**

Provides graduates with the advanced skills and knowledge to assume the role of Adult/Gerontological Primary Care Nurse Practitioner with an emphasis on responding to calls from adolescents, adults and

older adults. The unique features of this program are that it is inclusive of care to culturally diverse adolescents, adults and older adults.

The Adult/Gerontological Nurse Practitioner curriculum requires a total of 52 credits. The program generally follows a part-time format of study. The curriculum contains a minimum of 780 hours of required clinical practice. Attainment of competencies may require more than 780 hours. Placements may occur in health department clinics, private practice offices, home-health agencies, community-based health centers, hospitals, long-term care institutions and other settings providing health care to adolescents, adults and older adults.

Graduates of the Adult/Gerontological Primary Care Nurse Practitioner program are eligible to sit for the Certification Examination offered by the American Nurses Credentialing Center (ANCC) or the American Academy of Nurse Practitioners (AANP).

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### **Graduate Core Courses - 12 credits**

Advanced Nursing Practice Grounded in Caring	NGR 6110	3
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Philosophical and Theoretical Foundations of Advanced Nursing Practice Roles	NGR 6811	3
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Nursing Research and Evidence-Based Practice	NGR 6812	3
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Leadership, Policy and Finance in Advanced Nursing Practice	NGR 6891	3
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### **Direct Care Core Courses - 9 credits**

Advanced Health Assessment	NGR 6002	2
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Advanced Health Assessment Lab*	NGR 6002L	1
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Advanced Pathophysiology	NGR 6141	3
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Advanced Pharmacotherapeutics	NGR 6172	3
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### **Concentration Courses - 31 credits**

Advanced Pharmacotherapeutics 2	NGR 6176	3
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Perspectives of Aging	NGR 6251	3
Primary Care 1: Foundations of Advanced Nursing Practice	NGR 6200	3
Primary Care 1 Practicum: Foundations of Advanced Nursing Practice*	NGR 6200L	5 –
Women's Health: Nursing Situations in Advanced Practice	NGR 6342	3
Primary Care 2: Foundations of Advanced Nursing Practice	NGR 6605	3
Primary Care 2 Practicum: Foundations of Advanced Nursing Practice**	NGR 6605L	4 –
Comprehensive Care of Adolescents through Older Adults	NGR 6607	3
Comprehensive Care of Adolescents through Older Adults Practicum**	NGR 6607L	4
<b>Total credits</b>		<b>52</b>

\* Requires 180 hours (3 credits) of supervised clinical practical experience in the spring semester and requires 120 hours (2 credits) of supervised clinical practical experience in the summer semester.

\*\* Requires 240 hours of supervised clinical practical experience.

**Note:** Baccalaureate-level pharmacology, pathophysiology and health assessment courses are recommended if taken more than five years from program enrollment.

### Fee for Lab/Practicum Courses

All lab and nurse practitioner practicum courses incur a \$150 per credit fee. The fee covers the higher cost of instruction for these courses due to lower faculty/student ratios, travel for site visits and increasing use of simulation and standardized patients. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>.

The following courses carry this fee:

NGR 6002L, 1 credit, \$150 fee

NGR 6200L (Spring), 3 credits, \$450 fee

NGR 6200L (Summer), 2 credits, \$300 fee

NGR 6605L, 4 credits, \$600 fee

NGR 6607L, 4 credits, \$600 fee

## **Advanced Holistic Nursing - 33 credits (Program suspended effective fall 2024.)**

This 33-credit concentration advances knowledge of contemporary views of healing and holistic nursing practice grounded in caring. The Advanced Holistic Nursing (AHN) concentration courses offer content and practice in the integration of mind-body practices, manipulative body practices and energy-based healing modalities to promote health and well-being.

Students will earn an M.S.N. degree and are eligible to sit for Board Certification in Advanced Holistic Nursing (AHN-BC). The Advanced Holistic Nursing Concentration does not prepare students to enter a Nurse Practitioner role.

Applicants with a master's degree in Nursing may earn a Post Graduate Certificate (PGC) in Advanced Holistic Nursing. A gap analysis is conducted to identify required courses and practicum hours. All PGC students must complete NGR 6110, Advanced Nursing Practice Grounded in Caring. Nurse Practitioners may be particularly interested in a PGC in Advanced Holistic Nursing.

Completely online, full- and part-time study are available. Every effort is made to accommodate the practicum needs of students in various geographic areas.

Preceptor and practicum site decisions are determined in collaboration with faculty. The practicum hours may be completed at the student's place of employment, if appropriate, with an approved preceptor.

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### **Graduate Core Courses - 12 credits**

Advanced Nursing Practice Grounded in Caring	NGR 6110	3
Philosophical and Theoretical Foundations of Advanced Nursing Practice Roles	NGR 6811	3
Nursing Research and Evidence-Based Practice	NGR 6812	3
Leadership, Policy and Finance in Advanced Nursing Practice	NGR 6891	3

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### **Direct Care Core Courses - 9 credits**

Advanced Health Assessment	NGR 6002	2
Advanced Health Assessment Lab*	NGR 6002L	1
Advanced Pathophysiology	NGR 6141	3
Advanced Pharmacotherapeutics	NGR 6172	3
<b>Concentration Courses - 12 credits</b>		
Foundations of Holistic Nursing 1: Advanced Nursing Situations	NGR 6168	3
Foundations of Holistic Nursing 2: Advanced Nursing Situations	NGR 6169	3
Developing Expertise in Holistic Healing: Advanced Nursing Situations*	NGR 6296L	3
Integrating Expertise in Holistic Practice: Advanced Nursing Situations*	NGR 6297L	3
<b>Total credits</b>		<b>33</b>

\* Requires 145 supervised clinical hours.

**Note:** Baccalaureate-level pharmacology, pathophysiology and health assessment courses are recommended if taken more than five years from program enrollment.

### Fee for Lab Course

The following lab course carries a \$150 per credit fee. The fee covers the higher cost of instruction due to the lower faculty/student ratio and increasing use of simulation and standardized patients. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>.

NGR 6002L, 1 credit, \$150 fee

### Family Nurse Practitioner - 52 credits

Provides graduates with advanced practice role preparation, knowledge and skills in the care of children and adults across all ages within a family framework. Health promotion, disease prevention and management of common acute and chronic long-term health alterations in primary care settings are

the foci of this concentration.

The Family Nurse Practitioner curriculum requires 52 credits. The program generally follows a part-time format of study. The curriculum contains a minimum of 780 hours of required clinical practice, most of which may be arranged by the student in her or his own community. Attainment of competencies may require more than 780 hours. Practicum experiences occur in health department clinics, private practice offices, HMO clinics, community-based health centers, hospital clinics and other settings providing primary health care.

Graduates of the Family Nurse Practitioner program are eligible to sit for the Family Nurse Practitioner Certification Examination offered by the American Nurses Credentialing Center (ANCC) or the American Academy of Nurse Practitioners (AANP).

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### **Graduate Core Courses - 12 credits**

Advanced Nursing Practice Grounded in Caring	NGR 6110	3
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Philosophical and Theoretical Foundations of Advanced Nursing Practice Roles	NGR 6811	3
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Nursing Research and Evidence-Based Practice	NGR 6812	3
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Leadership, Policy and Finance in Advanced Nursing Practice	NGR 6891	3
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### **Direct Care Core Courses - 9 credits**

Advanced Health Assessment	NGR 6002	2
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Advanced Health Assessment Lab	NGR 6002L	1
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Advanced Pathophysiology	NGR 6141	3
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Advanced Pharmacotherapeutics	NGR 6172	3
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### **Concentration Courses - 31 credits**

Advanced Pharmacotherapeutics 2	NGR 6176	3
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Primary Care 1: Foundations of Advanced Nursing Practice	NGR 6200	3
Primary Care 1 Practicum: Foundations of Advanced Nursing Practice*	NGR 6200L	5 –
Care of Children: Nursing Situations in Advanced Practice	NGR 6301	3
Women's Health: Nursing Situations in Advanced Practice	NGR 6342	3
Primary Care 2: Foundations of Advanced Nursing Practice	NGR 6605	3
Primary Care 2 Practicum: Foundations of Advanced Nursing Practice**	NGR 6605L	4 –
Primary Care of Families: Comprehensive Advanced Nursing Practice	NGR 6619	3
Primary Care of Families Practicum**	NGR 6619L	4
<b>Total credits</b>		<b>52</b>

\* Requires 180 hours (3 credits) of supervised clinical practical experience in the spring semester and requires 120 hours (2 credits) of supervised clinical practical experience in the summer semester.

\*\* Requires 240 hours of supervised clinical practical experience.

**Note:** Baccalaureate-level pharmacology, pathophysiology and health assessment courses are recommended if taken more than five years from program enrollment.

### Fee for Lab/Practicum Courses

All lab and nurse practitioner practicum courses incur a \$150 per credit fee. The fee covers the higher cost of instruction for these courses due to lower faculty/student ratios, travel for site visits and increasing use of simulation and standardized patients. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>.

The following courses carry this fee:

NGR 6002L, 1 credit, \$150 fee

NGR 6200L (Spring), 3 credits, \$450 fee

NGR 6200L (Summer), 2 credits, \$300 fee

NGR 6605L, 4 credits, \$600 fee

NGR 6619L, 4 credits, \$600 fee

### **Nurse Educator - 39 credits minimum**

Completion of this concentration prepares students to function in new and innovative ways as nurse educators. Students choosing the Nurse Educator concentration will be able to design methods of teaching, learning and evaluation for nursing education in the classroom, online and in nursing practice/clinical settings; analyze and develop plans of study in nursing based on appropriate curricular principles; integrate caring as a theoretical model into an educational framework; apply the role of nurse educator, demonstrating successful instructional methods in the classroom, online and in nursing practice/clinical settings.

The Nurse Educator concentration requires a minimum of 39 credits. Full and part-time programs of study are available. At the completion of the program, graduates are eligible to sit for the National League for Nursing Nurse Educator Certification.

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#### **Core Courses - 12 credits**

Advanced Nursing Practice Grounded in Caring	NGR 6110	3
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Philosophical and Theoretical Foundations of Advanced Nursing Practice Roles	NGR 6811	3
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Nursing Research and Evidence-Based Practice	NGR 6812	3
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Leadership, Policy and Finance in Advanced Nursing Practice	NGR 6891	3
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#### **Direct Care Core Courses - 9 credits**

Advanced Health Assessment	NGR 6002	2
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Advanced Health Assessment Lab	NGR 6002L	1
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Advanced Pathophysiology	NGR 6141	3
Advanced Pharmacotherapeutics	NGR 6172	3
<b>Concentration Courses - 18 credits</b>		
Creative Teaching - Learning Methods in Nursing Education	NGR 6711	3
Curriculum Evolution and Models in Nursing Education	NGR 6713	3
Evaluation in Nursing Education	NGR 6718	3
Advanced Nursing Education Practicum	NGR 6944L	1-3*
Advanced Concepts for Direct Care Nursing Situations	NGR 6006	3
Direct Care Focus Practicum	NGR 6006L	3
<b>Total credits</b>		<b>39</b>

\* NGR 6944L may be taken one credit at a time for a total of 3 credits.

**Note:** Total of 360 education practicum hours of supervised instruction. Complete background check is required and completion of Magnus requirements is necessary before start of practicum hours. Additional clinical practicum hours are required for the direct care focus practicum.

### Fee for Lab Course

The following lab course carries a \$150 per credit fee. The fee covers the higher cost of instruction due to the lower faculty/student ratio and increasing use of simulation and standardized patients. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>.

NGR 6002L, 1 credit, \$150 fee

### Nursing Administration and Financial Leadership - 37-39 credits

This concentration Integrates the caring philosophy into organizational management. Its core and cognate courses provide study central to advanced nursing management and financial practice. Its

concentration courses offer content and practice in nursing and healthcare administration and finance, relevant to primary, secondary and/or tertiary settings in rapidly changing times.

The Nursing Administration and Financial Leadership curriculum can be taken completely online, and the needs of students in other geographic areas can be accommodated for the practicum. The program requires a minimum of 37-39 credits for completion. Full- and part-time program of study options are available. The curriculum contains a minimum of 180-270 hours of required practica related to administrative and financial management in health care organizations. Students find a preceptor who mentors them throughout this portion of the curriculum. Decisions about preceptors are made with the advisor.

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### **Graduate Core Courses - 12 credits**

Advanced Nursing Practice Grounded in Caring	NGR 6110	3
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Philosophical and Theoretical Foundations of Advanced Nursing Practice Roles	NGR 6811	3
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Nursing Research and Evidence-Based Practice	NGR 6812	3
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Leadership, Policy and Finance in Advanced Nursing Practice	NGR 6891	3
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### **Cognate Courses - 9 credits. Choose three of the following courses.**

Healthcare Financing*	HSA 6175	3
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Human Resources Management*	MAN 6156	3
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Special Topics (temporary course assignment)*	HSA 6930	3
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Organizational Behavior in Healthcare*	HSA 6118	3
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Project Management*	MAN 6581	3
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### **Concentration Courses - 16-18 credits**

Financial Administration of Nursing Systems	NGR 6722	3
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Advanced Nursing Administration	NGR 6723L	1-2
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## Practicum 1\*\*

Advanced Nursing Administration	NGR 6724L	1-4
Practicum 2 (4 credits split over two semesters or more)		
Leadership in Nursing Administration: Advanced Nursing Situations	NGR 6725	3
Influencing Health Care Policy Through Nursing: Advanced Nursing Situations	NGR 6892	3
Nursing Informatics	NGR 6871	3
<b>Total credits</b>		<b>37-39</b>

\* Offered in the College of Business.

\*\* May not be required for all students.

## ADVANCED HOLISTIC PRACTICE AND NURSE COACHING GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

The Advanced Holistic Practice and Nurse Coaching certificate, grounded in caring, is a 12-credit graduate certificate that advances knowledge of the contemporary views of healing and holistic nursing practice. The certificate is available for non-degree-seeking students. The course content places emphasis on developing a reflective holistic practice that integrates the principles of nurse coaching and an awareness of holistic healing modalities that promote health and well-being of persons, such as mind-body practices, manipulative body practices and energy-based healing. The practicum experience requires students to evaluate holistic healthcare practices in a selected clinical setting, to identify and evaluate the patient population, their health needs and recommend holistic interventions that are meaningful to the population served. The nurse coaching content emphasizes the holistic process, self development, the nurse coaching core values, skills and competencies. Students using the holistic and caring principles demonstrate coaching competencies and skills to promote a process of change that helps clients reach their full potential. Application for the certificate may be made upon the satisfactory completion of the four courses with a minimum grade of "C."

On completion of the Advanced Holistic Practice and Nurse Coaching Certification program students

are eligible to sit for the Board Certification Holistic and Nurse Coaching examination.

## Admission Requirements

Students must possess these requirements:

1. Earned a B.S.N. from an accredited nursing program.
2. Minimum postsecondary GPA of 3.0 on a 4.0 scale.
3. Official transcripts from all prior institutions attended. Submit one set of official transcripts to FAU Graduate Admissions in the [GradCAS application system](#).
4. CV/Résumé Required [Format](#) for Résumé.
5. [Current RN licensure](#) (submit copy of license or online license verification from the department of health acceptable). Students must be licensed in the state in which they will complete practicum courses.
6. A state/federal criminal background check is required for all admitted If admitted to the AHN graduate certificate program. The student MUST initiate the background check process as required before enrolling in courses. Costs are the responsibility of the applicant/student. All admissions are conditional based on the outcome of the admission background check. Background checks must be updated.

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## Required Courses

Advanced Nursing Practice Grounded in Caring	NGR 6110	3
Foundations of Holistic Nursing 1: Advanced Nursing Situations	NGR 6168	3
Foundations of Holistic Nursing 2: Advanced Nursing Situations	NGR 6169	3
Integrated Holistic Health, Wellness and Nursing Coaching Practicum*	NGE 6292L	3

\* This course includes 180 clinical hours. Students complete all clinical requirements before enrolling in the practicum and would be covered under the FAU SIP program.

## NURSING POST GRADUATE CERTIFICATES (PGC)

### Adult/Gerontological Nurse Practitioner

## **Advanced Holistic Nursing (Program suspended effective fall 2024.)**

**Family Nurse Practitioner**

**Nurse Educator**

**Nursing Administration and Financial Leadership**

**Psychiatric Mental Health Nurse Practitioner**

Applicants holding an earned Master of Science degree in Nursing from an accredited nursing program and who meet all M.S.N. admission requirements may choose from the following Post Graduate Certificate (PGC) Programs: Adult/Gerontological Nurse Practitioner (AGNP), Advanced Holistic Nursing (AHN), Family Nurse Practitioner (FNP), Nurse Educator (NGRE), Nursing Administration and Financial Leadership, and Psychiatric Mental Health Nurse Practitioner (PMHNP).

PGC programs require a minimum of 10 credits for FAU MSN graduates; a minimum of 13 credits is required for applicants from other institutions. Consideration is given to the student's former master's in Nursing program when creating the specific plan of study for the PGC. Programs may vary according to the courses the applicant has taken in the first master's program. This is not a degree-granting option. A Post Graduate Certificate is awarded upon program completion.

Advanced Nursing Practice Grounded in Caring, NGR 6110, is required of all Post Graduate Certificate students regardless of the concentration.

Any applicant for a Post Graduate Certificate must meet with the assistant dean for graduate practice programs or the concentration coordinator for initial advisement, gap analysis and program planning. Post Graduate Certificate students are admitted on a space available basis. Applicants whose gap analysis indicates 30 or more credits are needed will be advised to complete a second master's degree.

### **Admission Requirements for Post Graduate Certificate Programs**

1. Earned M.S. or M.S.N. from an accredited nursing program.
2. Minimum graduate program GPA of 3.0 on a 4.0 scale.
3. Résumé or CV.
4. A written essay describing the student's philosophy of nursing.
5. One letter of recommendation.
6. Current RN licensure to practice nursing.
7. Complete Level 2 background check.
8. An interview and on-site writing sample may be required.

9. Practice experience is not required but may be considered as part of the overall quality of the application.

**Note:** Admissions decisions are made based upon the quality of the application and the number of available slots in the desired program. Meeting the minimal admission requirements does not guarantee admission. PGC applicants submit a preliminary application along with a copy of all official academic transcripts, a current RN license, one letter of recommendation, a statement of philosophy, and a current CV or résumé to the College of Nursing. Once the College of Nursing reviews the preliminary application, applicants will be notified to complete the online non-degree FAU application.

## DOCTORAL PROGRAMS

The Christine E. Lynn College of Nursing offers a Doctor of Philosophy with Major in Nursing (Ph.D.) degree program and a Doctor of Nursing Practice (D.N.P.) degree program. The doctoral programs are grounded in the philosophy of caring and focus on the integration and application of advanced nursing research for improved nursing practice and betterment of humankind.

The Ph.D. graduate is expected to expand application of clinical nursing knowledge and theory, enhancing the practice of the profession and directly impacting the health of clients and communities. The focus of the Ph.D. program is to prepare nurses as scholars in conducting nursing research about practice problems and creating innovative responses to practice issues.

The D.N.P. graduate is prepared for the highest level of professional practice in the discipline. The focus of the D.N.P. program is to provide innovative leadership in the nursing practice arena and to develop innovative practice models for populations in need of advanced nursing.

Alternative pathways to the doctoral degrees are available for highly qualified Bachelor of Science in Nursing graduates through the B.S.N. to Ph.D. and B.S.N. to D.N.P. programs and to highly qualified Doctor of Nursing Practice graduates through the D.N.P. to Ph.D. program.

### **Transfer Credits**

Acceptance of transfer credits from accredited institutions is dependent on the relevance of the work to the doctoral program. Transfer of credits should occur at the time of admission. The doctoral program committee will determine acceptance of transfer credits. Grades on all transfer credits must be a minimum of "B" or better (3.0 in a 4.0 grading system).

## **Credit Duplication**

Credits used for another degree or preparatory/deficiency course credits generally may not be counted toward the credits in the doctoral program.

## **Time Limitations**

Candidates for the doctoral degree must complete all work within a 10-consecutive-year period after initial admission to the program.

## **Academic Standing**

Continuation in the program requires satisfactory progress toward the doctoral degree. Evidence of such progress includes maintenance of a 3.25 cumulative average throughout the course of academic study. In addition, only grades of "A," "A-," "B+," "B," "B-" and "C" are acceptable in fulfilling graduate school requirements in the doctoral plan of study. Students in the doctoral program must achieve a "C" or better in each nursing course and maintain an overall GPA of 3.0 to continue in the program.

Students who do not maintain the required cumulative GPA will be placed on academic probation in the semester immediately following the semester in which the cumulative GPA drops below 3.25. Failure to regain a 3.25 cumulative average within two successive semesters following the semester in which the deficiency first occurred can result in dismissal. The faculty of the Christine E. Lynn College of Nursing reserves the right to dismiss any student at any time when in its judgment the student is not making satisfactory progress toward completion of the degree.

## **Financial Assistance**

A limited number of assistantships, stipends and tuition waivers are available for full-time students. In addition, limited financial assistance is available for students who meet the criteria. Interested students should obtain information on financial assistance from the director or program assistant of doctoral programs.

For more information regarding admissions, degree requirements and financial aid, contact the Ph.D. coordinator or D.N.P. program assistant for the Christine E. Lynn College of Nursing, Florida Atlantic University, 777 Glades Road, Boca Raton, FL 33431.

[Link to B.S.N. to Ph.D. Program](#)

[Link to D.N.P. Program](#)

[Link to D.N.P. to Ph.D. Program](#)

[Link to B.S.N. to D.N.P. Program](#)

## **NURSING**

### **DOCTOR OF PHILOSOPHY (PH.D.)**

*(Minimum of 60 credits required)*

#### **Admission Requirements**

Admission to the Ph.D. program will be for the fall semester each year. Applications must be submitted to the University's Graduate College before completing the application to the College of Nursing.

Evidence of the following information is required in the admissions process:

1. Master's degree with a Major in Nursing from a university or college of nursing program accredited by the National League for Nursing or the Commission on Collegiate Nursing Education. Official copies of transcripts from all post-secondary institutions of education should be sent directly to the University's Graduate College. The University will not be able to accept applications without an official unopened transcript from each institution attended since high school.
2. Minimum cumulative 3.5 GPA in a nursing master's program.
3. Curriculum vitae; required format available on the [website](#).
4. Two letters of recommendation from academic and professional references, one from a master's program professor holding a doctorate (see "[Guidelines Regarding Letters of Reference](#)" on the College of Nursing's website).
5. An example of work that depicts a culminating scholarly product from the master's program. Examples: thesis, project, manuscript for evidenced-based research course, paper/manuscript for inquiry practicum.
6. A typed statement of the applicant's goals for the doctoral degree (12-point font, double-spaced, no more than 500 words).
7. Evidence of grade of "B" or better in a graduate statistics course that provides the student with a broad knowledge of statistical concepts and techniques necessary for critical consumption of research. A copy of the syllabus or official catalog course description will be required if the course was not taken at FAU.
8. Satisfactory background check (a background check is required after conditional acceptance to the

program).

Applicants will be required to have an interview with members of the doctoral admissions committee. Upon review of all the information about the applicant by the doctoral program committee, a decision for admission will be made and the applicant will be notified. Part-time study for the Ph.D. may be an option at the faculty's discretion.

### **Degree Requirements**

The faculty in the College may recommend the Doctor of Philosophy with Major in Nursing degree when the student has met the following requirements:

1. The candidate must complete 60 credits beyond the master's degree, to include at least 45 credits in required and approved coursework and at least 15 credits of dissertation work.
2. The 45 credits of required and approved coursework prior to dissertation include 9 credits of theory core, 15 credits of research core, 6 credits of advanced statistics beyond the required prerequisite course, 9 credits in the nursing concentration core and doctoral seminars, 3 credits in cognate courses that complement the student's research focus area and 3 credits of doctoral pre-candidacy study.
3. The 3 credits of cognate coursework must be approved by an advisor. These credits must be taken in another discipline focusing on dissertation-related content.
4. The candidate must successfully complete the qualifying comprehensive examination at the end of all coursework during the doctoral pre-candidacy study course period. This examination will offer the student the opportunity to show synthesis of knowledge and understanding of theory, research and nursing concentration components from coursework.
5. The dissertation committee for each student will oversee the development and completion of the student's dissertation. Upon successful defense and completion of the dissertation, the candidate will be awarded the degree of Doctor of Philosophy at the next graduation ceremony.

### **Program Outcomes**

By the completion of the Ph.D. program, graduates will be able to:

1. Develop self as a researcher with a foundation in caring science.
2. Evaluate theory-guided approaches to synthesize an evidence base that informs the development of caring knowledge and practice.
3. Create research designs that honor the calls in nursing situations and integrate understanding gleaned from complex patterns of knowing.
4. Demonstrate accountability as an ethical nurse researcher.
5. Integrate cultural humility into research methods, including study design, sample selection and

data collection plans.

6. Lead systematic inquiry that enhances nursing practice, improves healthcare delivery and contributes to nursing science.
7. Analyze available technology and information systems for use in collaborative research.
8. Construct the foundation for a research program intended to promote well-being for a particular population within the context of lifespan development.
9. Engage with colleagues living values expressive of caring in all endeavors, including ones where communities or research scholars convene.
10. Design research that reflects value for human dignity and understanding of complex local, national and global policies that affect the lives of populations of interest.
11. Establish a foundation for transforming complex healthcare systems through intra- and interdisciplinary research informed by caring science.
12. Become an example of responsible stewardship by advancing the discipline through well-designed research, honoring the profession through engagement in meaningful nursing leadership activities, preserving resources and respecting the environment through everyday actions.

### **Ph.D. Program Curriculum Plan - 60 credits**

The following courses are required for the Ph.D. program.

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#### **Doctoral Core Courses - 39 credits**

Evolution of Nursing as a Discipline and Practice	NGR 7111	3
Philosophies of Science Grounding Nursing	NGR 7115	3
Caring Science 1: An Essential Domain of Nursing Knowledge	NGR 7116	3
Caring Science 2: Developing Phenomena of Interest Within Research Focus Areas	NGR 7118	3
Caring Science 3: Innovative Methodologies to Student Caring Science	NGR 7119	3
Theory Development and Application in Nursing	NGR 7121	3
Qualitative Research Methods 1	NGR 7815	3
Advanced Nursing Research: Applied Quantitative Design and Methods	NGR 7818	3

Essential Statistical Methods for Nursing Science	NGR 7846	3
Innovations in Inquiry	NGR 7853	3
Mixed Methods in Practice-Based Research	NGR 7816	3
Applied Advanced Statistics	NGR 7845	3
Scholarship Practicum	NGR 7946	3

**Doctoral Cognate Courses (Choose 3 credits with advisor; see #3 under Degree Requirements)  
OR**

*Students may choose one of the following two nursing electives*

Perspectives of Aging	NGR 6251	3
Crafting the Life of Scholarship	NGR 7709	3

**Doctoral Research Courses - 18 credits; students may repeat any of these three courses**

Doctoral Synthesis (Comps)	NGR 7978	1-3
Advanced Research	NGR 7979*	1-3
Dissertation	NGR 7980*	1-15

\* **Note:** NGR 7979 and two NGR 7980 credits must total 15.

## **NURSING**

### **BACHELOR OF SCIENCE IN NURSING (B.S.N.) TO DOCTOR OF PHILOSOPHY (PH.D.)**

*(Minimum of 72 credits required)*

*(Maximum of 85 credits)*

The B.S.N. to Ph.D. program is an alternative pathway to the Doctor of Philosophy with Major in Nursing available for highly qualified Bachelor of Science in Nursing graduates. The program is streamlined, allowing students to proceed to doctoral-level courses in theory research without taking the traditional master's-level courses in these areas.

## Admission Requirements

All Ph.D. program admission requirements outlined previously are necessary with the exception of a master's degree with major in Nursing. A bachelor's degree in Nursing from a program accredited by the National League for Nursing or the Commission on Collegiate Nursing Education is required. Transcripts must be sent to the University's Graduate College as described in the Ph.D. program's admission section.

The following are also required for admission to the B.S.N. to Ph.D. program:

1. GPA of 3.5 for the B.S.N. degree.
2. One reference letter from the baccalaureate program is required in addition to the others described in the Ph.D. program's admission section.
3. Scholarly product from coursework completed at the B.S.N. level.
4. All other Ph.D. admission requirements must be met.

## Degree Requirements

The B.S.N. to Ph.D. program requires a minimum of 87 credits following the B.S.N. degree. One plan of study prepares students for an educator role. Other role preparation, such as a holistic focus, is possible but may require additional credits. The Nurse Practitioner concentration is not available to B.S.N. to Ph.D. students. Study plans will be developed with direction from the student's faculty mentor and the Ph.D. coordinator.

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### Master Core Courses - 24 credits

Advanced Health Assessment	NGR 6002	2
Advanced Health Assessment Lab	NGR 6002L	1
Advanced Nursing Practice Grounded in Caring	NGR 6110	3
Advanced Pathophysiology	NGR 6141	3
Creative Teaching-Learning Methods in Nursing Education	NGR 6711	3
Curriculum Evolution and Models in Nursing Education	NGR 6713	3
Evaluation in Nursing Education	NGR 6718	3
Advanced Pharmacotherapeutics	NGR 6172	3

### Doctoral Core Courses - 39 credits

Evolution of Nursing as a Discipline and Practice	NGR 7111	3
Philosophies of Science Grounding Nursing	NGR 7115	3
Caring Science 1: An Essential Domain of Nursing Knowledge	NGR 7116	3
Caring Science 2: Developing Phenomena of Interest Within Research Focus Areas	NGR 7118	3
Caring Science 3: Innovative Methodologies to Student Caring Science	NGR 7119	3
Theory Development and Application in Nursing	NGR 7121	3
Qualitative Research Methods 1	NGR 7815	3
Mixed Methods in Practice-Based Research	NGR 7816	3
Advanced Nursing Research: Applied Quantitative Design and Methods	NGR 7818	3
Applied Advanced Statistics	NGR 7845	3
Essential Statistical Methods for Nursing Science	NGR 7846	3
Innovations in Inquiry	NGR 7853	3
Scholarship Practicum	NGR 7946	3
<b>Doctoral Cognate Courses - Choose 3 credits with advisor</b>		
<i>Doctoral Course. Elective may be chosen but may result in additional credits</i>		
Crafting the Life of Scholarship	NGR 7709	3
Doctoral Research Courses (18 credits; students may repeat any of these three courses)		
Doctoral Synthesis (Comps)	NGR 7978	1-3
Advanced Research	NGR 7979*	1-3
Dissertation	NGR 7980*	1-15

\* **Note:** NGR 7979 and two NGR 7980 credits must total 15.

[Link to D.N.P. to Ph.D. Program](#)

[Link to B.S.N. to D.N.P. Program](#)

## **NURSING**

### **DOCTOR OF NURSING PRACTICE (D.N.P.)**

*(Minimum of 72 credits required)*

*(Maximum of 85 credits)*

The Doctor of Nursing Practice program focuses on practice leadership. This program's emphasis is the delivery of advanced practice nursing (APN) to culturally diverse populations. Graduate education in nursing occurs within the context of societal demands and needs as well as the interprofessional work environment. The Institute of Medicine (IOM, 2003) and the National Research Council of the National Academies (2005) have called for nursing education that prepares individuals for practice with interdisciplinary, information systems, quality improvement and patient safety expertise.

This program is designed for nursing leaders to develop skills in shaping and evaluating practice models in their own practice settings. The program will accept a limited number of applicants. Meeting minimum admission requirements does not guarantee admission. In order to meet the need of practicing professionals, the program is designed to be a part-time program with classes offered on weekends. All classes are Web-assisted.

The American Association of Colleges of Nursing recommends that students complete 1000 hours of clinical practicum hours. Clinical practice hours in the second year of study are designed to develop new practice skills and test new models of care.

#### **Admission Requirements**

D.N.P. applicants are admitted once a year in the summer. See the College of Nursing [website](#) for application deadlines. Evidence of the following information is required in the admissions process:

1. Master's degree with a Major in Nursing from a university or college of nursing program accredited by the National League for Nursing or the Commission on Collegiate Nursing

## Education.

2. A minimum cumulative 3.0 GPA in the nursing master's program.
3. Curriculum vitae or résumé; required format available on the [website](#).
4. Two letters of recommendation from academic and professional references, one from a master's program professor holding a doctorate (see guidelines on [website](#)).
5. A typed statement of the applicant's goals for the doctoral degree of no more than 500 words.
6. Satisfactory oral interview by members of the graduate admissions committee may be required.
7. A Level 2 (state/federal) criminal background check.
8. National certification in Advanced Practice Nursing Administration or as a Clinical Nurse Leader.
9. Copy of current licensure in the State of Florida as a Registered Nurse.
10. Complete Verification of Post-Baccalaureate Clinical and Practice Hours form.
11. Basic undergraduate research and statistics course.

**Note:** The D.N.P. program is designed for part-time study.

## Degree Requirements

The faculty in the College may recommend the Doctor of Nursing Practice when the student has met the following requirements:

1. The candidate must complete 72 graduate credits beyond the bachelor's degree. A maximum of 36 graduate credits can be transferred from another accredited college or university.
2. The candidate must complete a minimum of 1000 clinical hours in graduate courses beyond the bachelor's degree.
3. The candidate must complete a D.N.P. project that evaluates an innovation related to advanced practice nursing and/or administration of nursing care.
4. The D.N.P. project committee for each student will oversee the development and completion of the student's project. Upon successful completion of the project, the candidate will be awarded the degree of Doctor of Nursing Practice at the next graduation ceremony.

## Program Outcomes

By the completion of the D.N.P. program, graduates will be able to:

1. Develop self as a caring-based leader in advanced nursing practice.
2. Create innovative models for advanced nursing practice that are grounded in caring, best evidence and knowledge from nursing and other disciplines.
3. Integrate multiple, complex patterns of knowing in coming to know populations of persons and creatively responding to calls for leadership within nursing situations in advanced nursing practice.

4. Demonstrate leadership for developing and implementing ethical, safe practice and inquiry in advanced nursing practice.
5. Lead and mentor others in approaching populations within nursing situations with cultural humility in advanced nursing practice.
6. Use methods of systematic inquiry to evaluate programs, processes and outcomes of advanced nursing
7. Evaluate design and lead in the implementation of technology and information systems to promote well-being, facilitate decision making and enhance collaboration in advanced nursing practice.
8. Create programs and health policy to promote well-being for persons and populations across the lifespan in advanced nursing practice.
9. Design and advocate for caring environments that nurture wholeness in advanced nursing practice.
10. Create personal and professional involvement in local and global health policymakers to honor human dignity and advocate for equity in healthcare outcomes, local and global health policy and healthcare delivery in advanced nursing practice.
11. Lead the transformation of complex healthcare systems through caring leadership that facilitates intra- and interprofessional collaboration to achieve quality outcomes.
12. Assume leadership to promote responsible stewardship to advance the discipline and profession, preserve resources and respect the environment.

### **D.N.P. Program Curriculum Plan**

The following courses are required for the D.N.P. program.

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#### **Doctoral Core Courses - 32-39 credits**

Epidemiology for Advanced Nursing Practice	NGR 6673	3
Theoretical Grounding for Caring-Based Practice	NGR 7124	3
Ethics and Public Policy for Promoting Health	NGR 7738	3
Population-Based Healthcare and Health Equity	NGR 7662C	3
Introduction to Practice Management: Advanced Nursing Practice	NGR 7767	3
The Role of the Doctor of Nursing Practice as Scholar	NGR 7768	3
Interprofessional Leadership in Healthcare	NGR 7795	3

Translation of Evidence for Advanced Practice Nursing	NGR 7855	3
Caring, Informatics and Technology in Advanced Nursing Practice	NGR 7876	3
Healthcare System Analysis and Quality Improvement	NGR 7895	3
Practicum for the Doctor of Nursing Practice*	NGR 7947L	1-3
Doctor of Nursing Practice Proposal Development	NGR 7974	3
Project Implementation, Evaluation and Dissemination*	NGR 7975C	1-3

\* Student must register for this course twice.

## **NURSING**

### **DOCTOR OF NURSING PRACTICE (D.N.P.) TO DOCTOR OF PHILOSOPHY (PH.D.)**

*(Minimum of 60 credits required)*

The D.N.P. to Ph.D. program is an alternative pathway to the Doctor of Philosophy with Major in Nursing available for highly qualified Doctor of Nursing Practice graduates.

#### **Admission Requirements**

All Ph.D. program admission requirements outlined previously are necessary. Additionally, a Doctor in Nursing Practice degree with a Major in Nursing from a university or college of nursing program accredited by the National League for Nursing or the Commission on Collegiate Nursing Education is required. Transcripts must be sent to the University's Graduate College as described in the Ph.D. program's admission section.

The following are also required for admission to the D.N.P. to Ph.D. program:

1. GPA of 3.5 for the D.N.P. degree.
2. One reference letter from the D.N.P. program is required in addition to others described in the Ph.D. program's admission section.
3. Scholarly product from coursework completed at the D.N.P. level.

4. All other Ph.D. admission requirements must be met.

## Degree Requirements

The D.N.P. to Ph.D. program requires a minimum of 60 credits following the D.N.P. degree. One plan of study prepares students for an educator role. Other role preparation, such as a holistic focus, is possible but may require additional credits. The Nurse Practitioner concentration is not available to D.N.P. to Ph.D. students. Study plans are developed with direction from the student's faculty mentor and the Ph.D. coordinator.

The faculty in the College may recommend the Doctor of Philosophy with Major in Nursing degree when the student has met the following requirements:

1. The candidate must complete 60 credits beyond the Doctor in Nursing Practice, to include at least 45 credits in required and approved coursework and at least 15 credits of dissertation work.
2. The 45 credits of required and approved coursework prior to dissertation include 9 credits of theory core, 15 credits of research core, 6 credits of advanced statistics beyond the required prerequisite course, 6 credits in the nursing concentration core and doctoral seminars, 3 credits in cognate courses that complement the student's research focus area, at least 90 research practicum hours, and 3 credits of doctoral pre-candidacy study.
3. D.N.P. candidates have the option to transfer in 3 credits of coursework outside the discipline of nursing in substitution for the required cognate course. A course transcript must be submitted to the Ph.D. program department for approval and an official transcript must be submitted to the Graduate College after obtaining departmental approval for the transfer credits.
4. D.N.P. candidates have the option to challenge 6 credits for the courses identified in the curriculum plan below. D.N.P. candidates will register for the course to be challenged, and they will take an examination or write a paper (the challenge requirements are up to the discretion of the faculty member teaching the course). D.N.P. candidates who receive a "B" or better on the paper or in the examination will successfully complete the course challenge. The grade that candidates receive on the paper or written examination will be the grade they receive in the course.
5. The 3 credits of cognate coursework must be approved by an advisor. These credits must be taken in another discipline focusing on dissertation-related content.
6. The candidate must successfully complete the qualifying comprehensive examination at the end of all coursework during the doctoral pre-candidacy study course period. This examination offers the student the opportunity to show synthesis of knowledge and understanding of theory, research and nursing concentration components from coursework.
7. The dissertation committee for each student will oversee the development and completion of the

student's dissertation. Upon successful defense and completion of the dissertation, the candidate will be awarded the degree of Doctor of Philosophy at the next graduation ceremony.

### **D.N.P. to Ph.D. Program Curriculum Plan**

The following courses are required for the D.N.P. to Ph.D. program.

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#### **Doctoral Core Courses - 33 credits**

Philosophies of Science Grounding Nursing	NGR 7115	3
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Caring Science 1: An Essential Domain of Nursing Knowledge	NGR 7116	3
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Caring Science 2: Developing Phenomena of Interest within Research Focus Areas	NGR 7118	3
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Caring Science 3: Innovative Methodologies to Study Caring Science	NGR 7119	3
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Theory Development and Application in Nursing	NGR 7121	3
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Ethics and Public Policy for Promoting Health	NGR 7738	3
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Qualitative Research Methods 1	NGR 7815	3
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Mixed Methods in Practice-Based Research	NGR 7816	3
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Advanced Nursing Research: Applied Quantitative Design and Methods	NGR 7818	3
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Advance Applied Statistics	NGR 7845	3
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Essential Statistical Methods for Nursing Science	NGR 7846	3
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Innovations in Inquiry	NGR 7853	3
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Scholarship Practicum	NGR 7946	3
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#### **Doctoral Cognate Courses - Choose 3 credits with advisor; see #5 under Degree Requirements**

Doctoral Research Courses (18 credits; students may repeat any of these three courses)

Doctoral Synthesis (Comps)	NGR 7978	1-3
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Advanced Research	NGR 7979*	1-3
Dissertation (taken multiple times)	NGR 7980*	1-15

\* NGR 7979 and NGR 7980 credits must total 15.

**Note:** Students pay a fee to challenge select courses by taking an examination or by writing a paper.

**Note:** Transfer students submit a transcript for evaluation and plan of study will be individualized.

## **NURSING**

### **BACHELOR OF SCIENCE IN NURSING (B.S.N.) TO DOCTOR OF NURSING PRACTICE (D.N.P.)**

*(Minimum of 72 credits required)*

*(Maximum of 85 credits)*

The B.S.N. to D.N.P. program prepares graduates for advanced practice roles as Adult/Gerontological Nurse Practitioners, Family Nurse Practitioners or Psychiatric Mental Health Nurse Practitioners with a doctoral degree focusing on practice leadership. The emphasis of the program is the delivery of advanced practice nursing (APN) to culturally diverse populations, especially the burgeoning group of persons over 65 years old. Graduate education in nursing occurs within the context of societal demands and needs as well as the interprofessional work environment. The Institute of Medicine (IOM, 2003) and the National Research Council of the National Academies (2005) have called for nursing education that prepares individuals for practice with interdisciplinary, information systems, quality improvement and patient safety expertise.

The program is designed for nursing leaders to develop skills in shaping and evaluating practice models in their own practice settings. The program will accept a limited number of applicants. Meeting minimum admission requirements does not guarantee admission. The program is designed to be completed in a full-time plan of study. Classes are offered in various formats, including online, live weekly sessions and intensive weekends.

The American Association of Colleges of Nursing recommends that students complete 1000 hours of clinical practicum hours. Clinical practice hours in the second year of study are designed to develop new practice skills and test new models of care.

## Admission Requirements

B.S.N. to D.N.P. applicants are admitted once a year in the summer. See the College of Nursing [website](#) for application deadlines. Evidence of the following information is required in the admissions process:

1. A baccalaureate degree in Nursing from an approved nursing program. B.S.N. programs will be evaluated by the Ph.D. program department on a case-by-case basis. International B.S.N. programs are not accredited by U.S. accrediting bodies.
2. A minimum cumulative 3.0 GPA in the baccalaureate program is required.
3. Curriculum vitae or résumé presented in specified format located on the College of Nursing [website](#).
4. Two letters of recommendation from academic and professional references, in which one is from a baccalaureate program professor holding a doctorate (guidelines located on the College of Nursing [website](#) ).
5. A typed statement of the applicant's goals for the D.N.P. degree of no more than 500 words.
6. Satisfactory oral interview by members of the graduate admissions committee.
7. A Level 2 (state/federal) criminal background check.
8. Basic undergraduate research and statistics course.
9. Current or eligible for Florida RN license.

**Note:** The B.S.N. to D.N.P. program is designed for full-time study.

## Degree Requirements

The faculty in the College may recommend the Doctor of Nursing Practice when the student has met the following requirements:

1. The candidate must complete 72 graduate credits beyond the bachelor's degree.
2. The candidate must complete a minimum of 1000 clinical hours in graduate courses beyond the bachelor's degree.
3. The candidate must complete a D.N.P. project that evaluates an innovation related to advanced practice nursing and/or administration of nursing care.
4. The D.N.P. project committee for each student will oversee the development and completion of the student's project. Upon successful completion of the project, the candidate will be awarded the degree of Doctor of Nursing Practice.

## Program Outcomes

See D.N.P. [Program Outcomes](#) listed above.

## Master of Science in Nursing Option

Completion of the Master of Science in Nursing (M.S.N.) degree is an option for all B.S.N. to D.N.P. degree-seeking students. This Master's Along the Way option allows D.N.P. students to be eligible to take the national certification exams for the advanced practice specialty area and to become licensed as advanced practice nurses prior to completing the D.N.P. degree.

Upon completion of all master's-level coursework (which occurs during semester IX of the D.N.P. curriculum), D.N.P. students are eligible for a Master of Science in Nursing degree. Students desiring the M.S.N. degree must apply for the degree during semester VIII of the D.N.P. curriculum. After the M.S.N. degree has been awarded, the D.N.P. student may then move directly into the final doctoral-level courses (semesters X and XI) to complete the D.N.P. degree.

## B.S.N. to D.N.P. Program Curriculum Plan

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### Doctoral Core Courses - 49 or 52 credits

Advanced Health Assessment	NGR 6002	2
Advanced Health Assessment Lab	NGR 6002L	1
Advanced Nursing Practice Grounded in Caring	NGR 6110	3
Advanced Pathophysiology	NGR 6141	3
Advanced Pharmacotherapeutics	NGR 6172	3
Epidemiology for Advanced Nursing Practice	NGR 6673	3
Theoretical Grounding for Caring-Based Practice	NGR 7124	3
Ethics and Public Policy for Promoting Health	NGR 7738	3
Population-Based Healthcare and Health Equity	NGR 7662C	3
Introduction to Practice Management: Advanced Nursing Practice	NGR 7767	3
The Role of the Doctor of Nursing Practice as Scholar	NGR 7768	3
Interprofessional Leadership in Healthcare	NGR 7795	3
Translation of Evidence for Advanced Practice Nursing	NGR 7855	3

Caring, Informatics and Technology in Advanced Nursing Practice	NGR 7876	3
Healthcare System Analysis and Quality Improvement	NGR 7895	3
Practicum for the Doctor of Nursing Practice*	NGR 7947L	1-3
Doctor of Nursing Practice Proposal Development	NGR 7974	3
Project Implementation, Evaluation and Dissemination*	NGR 7975C	1-3

\*Student must register for this course twice.

***Concentration: Adult/Gero Nurse Practitioner - 31 credits***

Advanced Pharmacotherapeutics 2	NGR 6176	3
Primary Care 1: Foundations of Advanced Nursing Practice	NGR 6200	3
Primary Care 1 Practicum: Foundations of Advanced Nursing Practice	NGR 6200L	5 –
Perspectives of Aging	NGR 6251	3
Women's Health: Nursing Situations in Advanced Practice	NGR 6342	3
Primary Care 2: Foundations of Advanced Nursing Practice	NGR 6605	3
Primary Care 2 Practicum: Foundations of Advanced Nursing Practice	NGR 6605L	4 –
Comprehensive Care of Adolescents through Older Adults	NGR 6607	3
Comprehensive Care of Adolescents through Older Adults Practicum	NGR 6607L	4

***Concentration: Family Nurse Practitioner - 31 credits***

Advanced Pharmacotherapeutics 2	NGR 6176	3
Primary Care 1: Foundations of Advanced Nursing Practice	NGR 6200	3
Primary Care 1 Practicum: Foundations of Advanced Nursing Practice	NGR 6200L	5 –

Care of Children: Nursing Situations in Advanced Practice	NGR 6301	3
Women's Health: Nursing Situations in Advanced Practice	NGR 6342	3
Primary Care 2: Foundations of Advanced Nursing Practice	NGR 6605	3
Primary Care 2 Practicum: Foundations of Advanced Nursing Practice	NGR 6605L	4 –
Primary Care of Families: Comprehensive Advanced Nursing Practice	NGR 6619	3
Primary Care of Families Practicum	NGR 6619L	4
<b><i>Concentration: Psychiatric Mental Health Nurse Practitioner - 25 credits</i></b>		
Psychopathological Disorders Across the Lifespan: Advanced Nursing Situations	NGR 6503	3
Psychiatric Mental Health Nursing Across the Lifespan: Role Synthesis in Advanced Nursing Practice	NGR 6505L	4
Psychiatric Mental Health Nursing Across the Lifespan: Diagnosis and Medication Management in Advanced Nursing Practice	NGR 6507L	2
Psychiatric Mental Health Nursing Across the Lifespan: Group Therapy in Advanced Nursing Situations	NGR 6508	3
Psychiatric Mental Health Nursing Across the Lifespan Practicum 2: Group Therapy in Advanced Nursing Practice	NGR 6508L	3
Psychiatric Mental Health Nursing Across the Lifespan: Individual and Family Therapy in Advanced Nursing Situations	NGR 6509	3
Psychiatric Mental Health Nursing Across the Lifespan Practicum 1: Individual and Family Therapy in Advanced Nursing Practice	NGR 6509L	4 –
Psychopharmacology Across the Lifespan for Advanced Nursing Practice	NGR 6538	3

## INFORMATION

For questions/clarification/information regarding specific programs in the College of Nursing, contact the following:

**Undergraduate and Accelerated B.S.N. Programs:** Nerla Moise ([nursing@fau.edu](mailto:nursing@fau.edu)) at 561-297-6261 (Accelerated Pre-Licensure Program). Javaris Hammond ([nursing@fau.edu](mailto:nursing@fau.edu)) at 561-297- 6261 (Freshmen Direct Admit). Latchmin Harrilal ([nursing@fau.edu](mailto:nursing@fau.edu)) at 561-297- 6261 (RN- B.S.N. Program). Kyndall Mammah ([kpritcha@health.fau.edu](mailto:kpritcha@health.fau.edu)) at 561-297-6261 (Second Degree Part-Time B.S.N. -Working Professional Program).

**Master of Science in Nursing (M.S.N.) Program and Post Graduate Certificates:** Dr. Katherine Chadwell ([kchadwel@health.fau.edu](mailto:kchadwel@health.fau.edu)) or Amanda Beasley ([beasleya@health.fau.edu](mailto:beasleya@health.fau.edu)) at 561-235-1503.

**Doctor of Nursing Practice Program:** Dr. Debra Hain([dhain@health.fau.edu](mailto:dhain@health.fau.edu))or Joseph Lotito([lotitoj@health.fau.edu](mailto:lotitoj@health.fau.edu)) at 561-297-1109.

**Doctor of Philosophy Program:** Dr. Howard Butcher ([hbutcher@health.fau.edu](mailto:hbutcher@health.fau.edu)) or Gerardo Guzman ([gguzman3@health.fau.edu](mailto:gguzman3@health.fau.edu)) at 561-297-0006.

### Disclaimer

More credits may be required to accomplish nursing practice competencies, to meet changes related to curriculum or to meet required nursing practice hours for state licensure and/or national certifications.

[Link to Course Descriptions for Christine E. Lynn College of Nursing](#)







# UNIVERSITY CATALOG

## SUB MENU



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### GENERAL INFORMATION

### COURSE DESCRIPTIONS

## CHARLES E. SCHMIDT COLLEGE OF SCIENCE

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### [Link to Course Descriptions for the Charles E. Schmidt College of Science](#)

The Charles E. Schmidt College of Science offers baccalaureate programs in Biological Sciences, Chemistry, Exercise Science and Health Promotion, Geosciences, Health Science, Mathematics, Neuroscience and Behavior, Physics, Psychology, Urban Design, and Urban and Regional Planning. The degrees awarded are Bachelor of Arts (B.A.), Bachelor of Science (B.S), Bachelor of Urban Design (B.U.D.) and Bachelor of Urban and Regional Planning (B.U.R.P.). Refer to the department sections for which degrees are awarded in each major.

The Bachelor of Arts programs are offered in the liberal arts tradition. They permit greater elective breadth with less specialization than the Bachelor of Science programs. B.A. programs are available for the preparation of secondary school science and mathematics teachers, for preprofessional programs such as dentistry and medicine and for graduate school preparation in certain interdisciplinary fields.

The Bachelor of Science programs meet the requirements of professional associations and provide the more intensive training required for admission to graduate work. They are normally elected by students intending to pursue careers in these fields.

Honors programs for undergraduates are available through most College of Science departments. Additionally, eligible College of Science majors in Biology, Psychology, and Neuroscience and Behavior bachelor's programs may apply to participate in the [FAU Max Planck Honors Program \(MPHP\)](#). Established by the Jupiter Life Science Initiative, the College of Science and the Wilkes Honors College, working in partnership with the Max Planck Florida Institute for Neuroscience, the

MPHP is a Jupiter-specific honors program for undergraduates. The program provides participants with exclusive enrichment opportunities. Students who maintain all standards and fulfill all requirements of the MPHP receive a designation of “FAU Max Planck Honors” on their final transcript. Details of the MPHP are listed [here](#). Visit the [MPHP website](#) to apply.

Programs leading to the master's degree are available in Biological Sciences, Chemistry, Environmental Science, Exercise Science and Health Promotion, Geosciences, Mathematics, Physics, Psychology and Urban and Regional Planning. Degrees awarded are Professional Science Master (P.S.M.), Master of Science (M.S.), Master of Science in Teaching (M.S.T.), Master of Arts (M.A.) and Master of Urban and Regional Planning (M.U.R.P.). Refer to the department sections for which degrees are awarded in each major.

Doctoral programs (Ph.D.) are offered in Integrative Biology, Chemistry, Geosciences, Mathematics, Neuroscience, Physics and Psychology. Complex Systems and Brain Sciences is being phased out and is no longer accepting students.

## BACHELOR'S DEGREE PROGRAM INFORMATION

### **General Studies Degree Program**

The University offers a Bachelor of General Studies (B.G.S.) degree program that allows students to design a plan of study to meet their personal interests and career goals. The 120-credit program includes 15 credits of upper-division coursework in one discipline, which students select in consultation with an advisor. For more B.G.S. details and degree requirements, please refer to the [Degree Programs section](#) of this catalog.

### **Admission Requirements and Recommendations**

The undergraduate applicant for admission to the Charles E. Schmidt College of Science must meet the general freshman or transfer admission requirements of the University. In addition, the student should consider the list of science and mathematics courses required and recommended by the major department of choice in planning the lower-division program. In general, transfer students should not take more work in their proposed major field than is recommended in the [Degree Requirements section](#) of this catalog under Lower-Division College and Department Requirements and Recommended Courses. Freshmen should review the core curriculum also in the Degree Requirements section.

### **Degree Requirements**

All candidates for a baccalaureate degree from the Charles E. Schmidt College of Science must satisfy:

1. All of the general baccalaureate degree requirements of the University (see the Degree Requirements section).
2. The foreign language requirement as outlined in the Degree Requirements section of this catalog.
3. All of the special requirements for the degree as specified by the department in which the program is offered; these requirements are listed in this section.
4. All the requirements of the Charles E. Schmidt College of Science.

### **Charles E. Schmidt College of Science Requirements**

1. Department major: Credits in the major field as designated for each student by the major department. In order to graduate, a student must maintain a "C" average in departmental major courses unless otherwise specified by the department. Any coursework in the major field transferred from another institution must be approved by the major department.
2. Cognate work: Supporting work in departments related to the major as specified by the student's advisor.
3. Transient Work policy: After matriculation into the Charles E. Schmidt College of Science, transient work is not permitted except in unusual circumstances. In these cases, an academic petition showing justification is required.

### **Cooperative Education Program**

The College's Cooperative Education Program enables interested students from all departments in the College to take advantage of the opportunity to alternate periods of academic study with periods of paid work experience. The program is available on an optional basis to all students in accordance with the description shown in the [Student Services and Activities section](#) of this catalog. In addition, students in the Charles E. Schmidt College of Science must meet the following requirements:

1. Students wishing to participate in the co-op plan in the College of Science should contact their major department to determine which of the co-op plans is available to them.
2. The maximum amount of credit that may be earned is 10 credits, a portion of which may be part of the degree program (non-additive) and a portion of which may be in addition to the requirements of the degree program (additive) as outlined below:

<b>Subject</b>	<b>Non-additive</b>	<b>Additive</b>
Biological Sciences	4	6
Chemistry	10	0
Geology	4	6

Mathematics	4	6
Physics	3	7
Psychology	8	2

3. The following reflects the minimum credits per work period that may be allowed. Students should contact their major department to determine which plan is available to them:

Alternating Plan (40 hr./wk.) 2-4 credits

Parallel Plan (20 hr./wk.) 1-2 credits

Special Plan (40 hr./wk.) 2-4 credits

4. The student will be evaluated as follows:
- Technical report
  - Employer's evaluation
  - Final co-op report
5. Student will be graded as satisfactory/ unsatisfactory.
6. A student's participation in the program must be approved by all of the following:
- The department;
  - The Charles E. Schmidt College of Science;
  - The director of Cooperative Education.
7. A job related to the student's major must be available.
8. The student must accept the job.
9. The employer must accept the student.

### **Pre-Health Professional Programs**

The University provides curricular sequences that satisfy the requirements for preprofessional students aspiring to the practice of medicine, dentistry, optometry, pharmacy, veterinary medicine, etc.

New students in this category are urged to seek advisement from the Pre-Health Professions Office prior to registration and to start a special file at this time. The office may be reached at 561-297-3307.

The Pre-Health Professions Office provides continual guidance and helps students realize their maximum potential for success in applying for admission to professional schools. The office serves the Pre-Health Professions Committee of the Charles E. Schmidt College of Science, which has functioned for many years with ever-increasing success in helping qualified applicants enter the professional

school of their choice. The office maintains a preprofessional discussion group, Premed-L.

## COMBINED DEGREE PROGRAM INFORMATION

The College of Science offers four combined B.S./M.S. programs in the following areas: Biological Sciences, [Exercise Science and Health Promotion](#), [Geosciences](#), Mathematics and Statistics, and Biological Sciences/Environmental Science. A [B.A. in Heath Science combined with an M.S. in Exercise Science and Health Promotion](#), a [B.A./M.A. in Psychology](#), and a [B.S. in Neuroscience and Behavior with an M.A. in Psychology](#) are other offerings. The College also offers a combined B.S. in Physics with a Professional Science Master (P.S.M) in Medical Physics.

For the Biological Sciences B.S./M.S. program, a Molecular Biology and Biotechnology path of study prepares students to enter the interdisciplinary Ph.D. program in Integrative Biology. Both B.S. and M.S. degrees can be completed in five years. The B.S. in Biological Sciences/M.S. in Environmental Science provides hands-on training for a career in environmental science and also prepares students for the Integrative Biology Ph.D. and the Geosciences Ph.D. For detailed information about both combined programs, see the Biological Sciences section of the catalog.

The accelerated tracks, [B.A. to M.S.](#) and [B.S. to M.S.](#), in Exercise Science and Health Promotion assist students in obtaining a master's degree, which may be a requirement in their chosen career paths.

In the Mathematics discipline, students may also complete a Bachelor of Science degree and a Master of Science degree in five years. The program is designed to prepare students for the pursuit of a Ph.D. in Mathematics. See the Mathematics and Statistics section of this catalog for admission and degree requirements.

A combined program in Mathematics is offered jointly by the Wilkes Honors College and the Charles E. Schmidt College of Science. This five-year program leads to bachelor's and master's degrees in Mathematics. Details of the undergraduate portion of the program can be found [here](#).

The combined Bachelor of Science (B.S.) in Physics and Professional Science Master (P.S.M.) in Medical Physics is an accelerated, five-year program. Students apply to the B.S./P.S.M. program in the first semester of their junior year and begin taking graduate courses after completion of their junior year (summer prior to senior year); those courses would apply to both the B.S. and P.S.M. degrees. For details, see the Physics section of the catalog.

## MASTER'S DEGREE PROGRAM INFORMATION

The Master of Science and Master of Arts will be conferred on Charles E. Schmidt College of Science students who satisfy the general University requirements for this degree, and in addition, meet the following College requirements:

1. **Residence Requirements:** Each student must be enrolled for two semesters in courses offered on campus.
2. **Admission to Candidacy:** Admission to candidacy for the master's degree in the College is usually granted after the applicant has completed a minimum of 8 graduate credits, with a 3.0 grade point average, in the major department and has satisfied requirements set by the University as well as by the applicant's major department. The major department may require satisfactory performance in a qualifying examination, demonstration of capability in a foreign language and/or selection of a thesis advisor and topic as prerequisites for candidacy.
3. If a thesis is required, students must pass a final oral defense of their thesis and be examined on such other material as may be indicated by the faculty.

Students who do not meet the standards established by their department may be subject to dismissal.

### **Master of Science in Teaching**

Several departments in the Charles E. Schmidt College of Science that have approved master's programs also have programs leading to the Master of Science in Teaching. These programs are designed to prepare science teachers for secondary schools and junior colleges.

The curriculum for an M.S.T. from the College of Science consists of a minimum of 30 credits (excluding internship) beyond the baccalaureate, of which up to 6 credits may be allowed for a suitable thesis project at the discretion of the department. The same conditions of departmental standards pertain as above.

Students who wish to obtain an M.S.T. degree but who have deficiencies in their undergraduate background, as determined by the department, will register as non-degree students. Upon admission to graduate status, up to 9 credits taken under the non-degree-seeking student category can be transferred to the graduate program at the discretion of the major department. Students must take the remainder of the program while in graduate status. Students will be advised by their departments which undergraduate courses from their projected curricula will be acceptable for the M.S.T. degree. A master's committee will be constituted to supervise and advise students at the time they transfer to graduate status.

## DOCTORAL DEGREE PROGRAM INFORMATION

The Charles E. Schmidt College of Science offers programs of study leading to the Doctor of Philosophy (Ph.D.) degree in Integrative Biology, Chemistry, Geosciences, Mathematics, Neuroscience, Physics and Psychology. Information for the Integrative Biology and the Neuroscience programs is found under the Interdisciplinary Programs heading below. For specifications for the other doctoral programs, see the appropriate departmental section of this catalog. Complex Systems and Brain Sciences is being phased out and is no longer accepting students.

## CERTIFICATE PROGRAMS

Several certificate programs are offered in the Charles E. Schmidt College of Science. The Biological Sciences Department offers an undergraduate [Biotechnology certificate](#) program. In Chemistry and Biochemistry, students may choose from the undergraduate [Pharmaceutical Technology certificate](#) and the graduate [Post-Baccalaureate Research Education Program in Chemistry \(PREPChem\) certificate](#). The Department of Geosciences offers an undergraduate certificate in Geographic Information Systems, an undergraduate Advanced Geographic Information Systems certificate, and two graduate certificates, one in Remote Sensing and the other in [Geographic Information Systems](#). In Mathematics and Statistics, students may choose from undergraduate certificates in Statistics, Actuarial Science, Cybersecurity and [Data Science](#), and the graduate certificate in [Cyber Security](#). An undergraduate minor in Cybersecurity is also available. In Psychology, students may choose the undergraduate certificate in [Applied Mental Health Services](#). Requirements for these certificate programs are listed within their specific departments. The Department of Physics offers a graduate certificate in Medical Physics that appears below in Interdisciplinary Programs.

Five certificate programs—Environmental Science, Environmental Restoration, Medical Physics, Neuroscience and Post-Baccalaureate Pre-Health Professions—are interdisciplinary in nature, crossing several Charles E. Schmidt College of Science departments. Details of these certificate programs are listed below under Interdisciplinary Programs.

### **Undergraduate Research Certificate**

To recognize undergraduate students' excellence in undergraduate research, the Office of Undergraduate Research and Inquiry (OURI) has established the [Undergraduate Research Certificate](#). Requirements for the Research Certificate include completion of 12 credits of research exposure, skill-

building and intensive courses as well as dissemination of the outcomes of students' research and inquiry through a research presentation or exhibition.

## INTERDISCIPLINARY PROGRAMS

The Charles E. Schmidt College of Science offers several interdisciplinary programs: a bachelor's degree program in [Health Science](#); the [FAU Max Planck Honors Program](#); a graduate certificate/preparatory program in Post-Baccalaureate Pre-Health Professions; undergraduate certificates in [Applied Mental Health Services](#) and [Environmental Science](#); graduate certificates in [Environmental Restoration](#), [Medical Physics](#), [Neuroeconomics](#), and [Neuroscience](#); a master's degree program in [Environmental Science](#); a master's degree program in Marine Science and Oceanography; a [professional science master in Medical Physics](#), and doctoral degree programs in [Integrative Biology](#) and [Neuroscience](#). These programs draw on a variety of disciplines and diverse faculty to present students with programs of study especially designed for their individual interests. Admission and degree requirements for the interdisciplinary programs follow.

[Health Humanities Undergraduate Minor](#)

[Post-Baccalaureate Pre-Health Professions Certificate](#)

[Certificate Programs](#)

[Master's Programs](#)

[Doctoral Programs](#)

### HEALTH SCIENCE

#### BACHELOR OF ARTS (B.A.)

**Behavioral and Mental Health Concentration**

**Public/Global/Environmental Health Concentration**

**Science Concentration**

**Women's Health Concentration**

*(Minimum of 120 credits required)*

The Bachelor of Arts with major in Health Science degree is designed for students interested in

pursuing careers in healthcare-related professions. This degree provides broad-based interdisciplinary training with a core in the basic sciences and requires a concentration in one of the following areas: Women's Health, Public/Global/Environmental Health, Science, and Behavioral and Mental Health.

The program structure enables students to take relevant coursework in various colleges and departments across FAU to broaden their understanding of factors that both positively and negatively impact the healthcare system, patients and practitioners. In addition, through the *Health Science* course sequence, students learn how professionals from various fields of practice (medicine, pharmacy, social work, nursing, etc.) interact in a collaborative manner. Students also have access to clinical *observation* opportunities and other extracurricular activities (lab experiences, internships, research).

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

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### Core Requirements

Health Science 1: Foundations of Health and Illness	IDS 2122	3
Health Science 2: Evaluating the Evidence	IDS 3184	1
Health Science 3: Capstone Project	IDS 3893	1
General Psychology	PSY 1012	3
Human Development	DEP 3053	3
College Algebra	MAC 1105	3
Methods of Calculus	MAC 2233	3

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Statistics	STA 2023	3
Microbiology for Health Services and Lab	MCB 2004, 2004L	4
<b><i>Choose from:</i></b>		
Biological Principles and Lab	BSC 1010, 1010L	<b>4 and</b>
Biodiversity and Lab	BSC 1011, 1011L	4
<b>OR</b>		
Anatomy and Physiology 1 and Lab	BSC 2085, 2085L	4
Anatomy and Physiology 2 and Lab	BSC 2086, 2086L	4
<b><i>Choose from:</i></b>		
Contemporary Chemical Issues	CHM 1020C	<b>3 and</b>
General Chemistry for the Health Sciences and Lab	CHM 2032, 2032L	4
<b>OR</b>		
General Chemistry 1 and Lab	CHM 2045, 2045L	<b>4 and</b>
General Chemistry 2 and Lab	CHM 2046, 2046L	4
<b><i>Choose from:</i></b>		
Physical Science	PSC 2121	3
<b>OR</b>		
College Physics 1 and	PHY 2053	4
General Physics 1 Lab	PHY 2048L	1
		<b>43-45 credits required</b>

**Additional Required Credits*****21 credits from list below; 15 credits must be in one concentration area***

***The following four courses may be used in any concentration***

Health Care Medical Terminology	HSA 3534	3
Issues and Trends in Health Care	HSA 4113	3
Health Law	HSA 4423	3
Biomedical Ethics	PHI 4633	3

***Women's Health Concentration***

Culture, Gender and Health	ANT 4469	3
Women, Witches and Healing	NUR 4176	3
Psychology of Women	SOP 3742	3
Family Violence	SOW 4141	3
Women, Violence, Resistance	WST 3325	3
Other, as approved by advisor		

***Public/Global/Environmental Health Concentration***

Asian Medical Systems	ANT 4365	3
Environment and Disease	ANT 4463	3
Psychopathology	CLP 4144	3
Environmental Issues in Atmospheric and Earth Science	ESC 3704	3
Health Research Methods	HSA 4700	3
Perspectives in Health	HSC 3102	3
Stress Management	HSC 4104	3
Weight Management	HSC 4139	3

Substance Abuse	HSC 4143	3
Health Promotion	HSC 4581	3
Nutrition in Health and Exercise	PET 3361	3
Obesity: Biological, Psychological and Cultural Factors	PET 4263	3
Politics of Community Development	PUP 4623	3
Health and Social Inequality	SYO 4404	3
Sociology of Mental Health	SYO 4410	3
Drugs and Society	SYP 3550	3
Other, as approved by advisor		
<b><i>Science Concentration</i></b>		
Exercise Physiology 1 and Exercise Lab Techniques	APK 4110, 4110L	4
Biochemistry 1	BCH 3033	3
General Microbiology	MCB 3020	3
General Pathophysiology	NUR 4125	3
Genetics	PCB 3063	3
Immunology	PCB 4233	3
Neurophysiology of Human Movement	PET 3050	3
Nutrition in Health and Exercise	PET 3361	3
Kinesiology	PET 4330C	3
Biological Bases of Behavior	PSB 3002	3
Psychopharmacology	PSB 4444	3

Speech and Hearing Science	SPA 4011	3
Anatomy and Physiology of the Speech and Hearing Mechanism	SPA 4101	3
Other, as approved by advisor		
<b><i>Behavioral and Mental Health Concentration</i></b>		
Psychopathology	CLP 4144	3
Clinical Psychology	CLP 4343	3
Stress Management	HSC 4104	3
Substance Abuse	HSC 4143	3
Obesity: Biological, Psychological and Cultural Factors	PET 4263	3
Biological Bases of Behavior	PSB 3002	3
Neuropsychology	PSB 4240	3
Interpersonal Communication Skills	SDS 4410	3
Psychology and the Law	SOP 4751	3
Sociology of Mental Health	SYO 4410	3
Other, as approved by advisor		

## HEALTH HUMANITIES UNDERGRADUATE MINOR

*(Minimum of 15 credits)*

The minor in Health Humanities is open to all undergraduate students at FAU. The minor is awarded upon graduation from an undergraduate program at FAU; it is not awarded independently of an undergraduate degree. For minor details click [here](#).

## **POST-BACCALAUREATE PRE-HEALTH PROFESSIONS UNDERGRADUATE CERTIFICATE**

*(Minimum of 52 credits required)*

The Charles E. Schmidt College of Science offers a Post-Baccalaureate Pre-Health Professions certificate for students interested in pursuing medical, dental, veterinary or other health-related professions and who have not completed prerequisite courses as undergraduates. This certificate program is designed to assist students academically, build their research portfolios and help them obtain healthcare shadowing and volunteering experiences. The requirements for students pursuing this certificate are:

1. Students must be degree-seeking at Florida Atlantic University;
2. Students must have an undergraduate GPA of 3.0 or higher in the last 60 credits of their first baccalaureate degree;
3. Students should complete 100 hours of approved community or volunteer service and shadowing while completing this certificate;
4. Students should maintain a 3.0 GPA in order to earn this certificate; and
5. Students must complete at least 52 credits with 75 percent of the credits listed below (for the certificate) in residence at FAU.

In addition, students who wish to qualify for an interview with Florida Atlantic University's Pre-Health Professions Committee need to:

1. Open a Pre-Health Professions file with the Charles E. Schmidt College of Science Pre-Health Professions Office;
2. Have a GPA of 3.2, and a GRE, or MCAT scores of 500 or higher (or equivalent DAT or PCAT scores for those professions); and
3. Have a minimum of three letters of recommendation, two of which must be from science faculty.

For further details, please contact the Charles E Schmidt College of Science Pre-Health Professions Office: [preprof@fau.edu](mailto:preprof@fau.edu).

### **Courses required in the Post-Baccalaureate Pre-Health Professions certificate program:**

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#### **Core Courses**

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Biodiversity	BSC 1011	3
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Biodiversity Lab	BSC 1011L	1
Biological Principles	BSC 1010	3
Biological Principles Lab	BSC 1010L	1
General Chemistry 1	CHM 2045	3
General Chemistry 1 Lab	CHM 2045L	1
General Chemistry 2	CHM 2046	3
General Chemistry 2 Lab	CHM 2046L	1
Organic Chemistry 1	CHM 2210	3
Organic Chemistry 2	CHM 2211	3
Organic Chemistry Lab	CHM 2211L	2
Biochemistry 1	BCH 3033	3
College Physics 1	PHY 2053	4
General Physics 1 Lab	PHY 2048L	1
College Physics 2	PHY 2054	4
General Physics 2 Lab	PHY 2049L	1
<b><i>Statistics</i></b>		
Introductory Statistics	STA 2023	3
Introduction to Biostatistics	STA 3173	3
Experimental Design and Statistical Inference	PSY 3234	3
<b><i>Calculus</i></b>		
Methods of Calculus	MAC 2233	3
Calculus with Analytic Geometry 1	MAC 2311	3
<b>Genetics</b>		

Genetics	PCB 3063	3
<b><i>General Psychology</i></b>		
General Psychology	PSY 1012	3
<b>Anatomy and Physiology - 8 credits required, choose from options below:</b>		
<b><i>Medical or Dental</i></b>		
Human Morphology and Function 1	PCB 3703	3
Human Morphology and Function 1 Lab	PCB 3703L	1
Human Morphology and Function 2	PCB 3704	3
Human Morphology and Function 2 Lab	PCB 3704L	1
<b><i>Veterinary</i></b>		
Comparative Animal Physiology	PCB 4723	3
Comparative Animal Physiology Lab	PCB 4723L	1
Vertebrate Structure Development and Evolution	ZOO 4690	3
Vertebrate Structure and Development Lab	ZOO 4690L	2
<b><i>Pharmacy or Physician Assistant</i></b>		
Anatomy and Physiology 1	BSC 2085	3
Anatomy and Physiology 1 Lab	BSC 2085L or	1
Human Morphology and Function 1	PCB 3703	3
Human Morphology and Function 1 Lab	PCB 3703L	1
Anatomy and Physiology 2	BSC 2086	3
Anatomy and Physiology 2 Lab	BSC 2086L or	1
Human Morphology and Function 2	PCB 3704	3
Human Morphology and Function 2 Lab	PCB 3704L	1

**Choose two courses from one area:*****Medicine/Dentistry***

Introduction to Preprofessional Studies	PCB 3083	3
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Introduction to Preprofessional Studies Lab	PCB 3083L	1
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Medical Shadowing Internship	IDS 3940	1
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Sociological Perspectives	SYG 1000	3
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***Pharmacy***

Public Speaking	SPC 2608	3
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Macroeconomics	ECO 2013	3
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Microeconomics	ECO 2023	3
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Medical Shadowing Internship	IDS 3940	1
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***Physician Assistant***

Health Care Medical Terminology	HSA 3534	3
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Introduction to Preprofessional Studies	PCB 3083	3
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Introduction to Preprofessional Studies Lab	PCB 3083L	1
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Medical Shadowing Internship	IDS 3940	1
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***Veterinary***

Introduction to Animal Science	ANS 3006C	4
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Medical Shadowing Internship	IDS 3940	1
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**ENVIRONMENTAL SCIENCE**

The Environmental Science Program at Florida Atlantic University is developing educational options that will produce environmental scientists, educators, professionals, managers and citizens with the ability to understand and provide technically sound and visionary solutions to environmental problems. The Environmental Science Program recommends that every FAU student attain some awareness and

sensitivity to environmental issues. In order to understand the complex and diverse nature of local and global issues, the curriculum incorporates new courses, graduate and undergraduate certificates, thesis and non-thesis options and a focus on experiential learning. Environmental Science is designed to emphasize a holistic view of the relationship between humans and the environment, incorporating both an interdisciplinary and multidisciplinary focus, with a focus on wetland and coastal systems. Programs of study include the undergraduate Environmental Science certificate, [the graduate Environmental Restoration certificate](#), [the Master of Science with Major in Environmental Science](#) and a combined, accelerated program with Biological Sciences in which students may earn the B.S. in Biological Sciences and the M.S. in Environmental Science in five years. [This program appears in the Biological Sciences Department section.](#)

## **ENVIRONMENTAL SCIENCE** **UNDERGRADUATE CERTIFICATE**

*(Minimum of 18 credits required)*

The Environmental Science certificate program is administered by the Environmental Science Program. Participating faculty have appointments in all departments in the Charles E. Schmidt College of Science, as well as departments in participating colleges. The program allows undergraduate students to explore environmental issues through a broadly based interdisciplinary program. Program objectives are:

1. Introduce students to the major environmental issues facing our rapidly changing society.
2. Provide in-depth analysis in several areas of study, including vital concerns such as wetland and coastal ecosystem management, environmental restoration, environmental ethics, natural resource management, environmental planning and policies, environmental economics and geographical analysis.

The certificate program is designed to enhance an undergraduate student's major program of study. This option does not qualify as a major in Environmental Science. The certificate in Environmental Science is awarded in conjunction with an academic major and consists of 18 credits of environmentally focused courses. Students who already hold a baccalaureate degree may pursue the certificate as a non-degree-seeking student or in conjunction with a second bachelor's degree. All courses taken in the curriculum may be applied toward other general and specific graduation requirements and courses taken to fulfill other requirements may be applied to the certificate curriculum. All courses must be successfully completed with a grade of "C" or better to be counted toward the certificate.

## Certificate Curriculum and Requirements

The certificate consists of 18 credits. All students must complete the following requirements:

1. All students must take one course from each of the **three core areas** below.

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### Human-Environmental Interactions Core

*Choose one of the following*

Environment and Society	EVR 2017	3
Issues in Human Ecology	PCB 3352	3

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### Statistics Core

*Choose one of the following*

Introductory Statistics	STA 2023	3
Introduction to Biostatistics	STA 3173	3
Experimental Design and Statistical Inference	PSY 3234	3
Quantitative Methods	GEO 4022	3

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### Environmental Science Core

*Choose one of the following*

Critical Thinking in Environmental Science	EVS 4021	3
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2. Students must **take one course from three of the five focus areas listed below**. These include Biology, Earth Science, Human-Environmental Interactions, Geographic Information Science and Chemistry.

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### Biology

Vascular Plant Anatomy	BOT 3223	2
Vascular Plants Lab	BOT 3223L	2

Biodiversity	BSC 1011	3
Biodiversity Lab	BSC 1011L	1
General Microbiology	MCB 3020	3
General Microbiology Lab	MCB 3020L	1
Marine Biodiversity	OCB 4032	3
Marine Biodiversity Lab	OCB 4032L	1
Marine Biology	OCB 4043	2
Marine Biology Field Studies and Lab	OCB 4043L	2
Marine Microbiology and Molecular Biology	OCB 4525	3
Marine Microbiology and Molecular Biology Lab	OCB 4525L	1
Marine Ecology	OCB 4633	3
Marine Ecology Lab	OCB 4633L	1
Marine Science	OCE 4006	3
Genetics	PCB 3063	4
Principles of Ecology	PCB 4043	3
Evolution	PCB 3674	3
Comparative Animal Physiology	PCB 4723	3
Comparative Animal Physiology Lab	PCB 4723L	1
Invertebrate Zoology	ZOO 3205	3
Invertebrate Zoology Lab	ZOO 3205L	2
Ornithology	ZOO 4472	2
Ornithology Lab	ZOO 4472L	2

Vertebrate Structure Development and Evolution	ZOO 4690	3
Vertebrate Structure and Development Lab	ZOO 4690L	2
<b>Earth Science</b>		
The Blue Planet	ESC 2000	3
Environmental Issues in Atmospheric and Earth Science	ESC 3704	3
Introduction to Physical Geography	GEO 2200C	3
Biogeography	GEO 4300	3
Physical Geology/Evolution of the Earth	GLY 2010C	4
The History of the Earth and Life	GLY 2100	3
Geology of Florida	GLY 4155C	4
Paleontology	GLY 3603C	3
Coastal and Marine Science	GLY 3730	3
Environmental Geochemistry	GLY 4241	3
Mineralogy and Petrology	GLY 4310C	4
Structural Geology	GLY 4400C	4
Solid Earth Geophysics	GLY 4451	3
Stratigraphy and Sedimentation	GLY 4500C	4
Geomorphology	GLY 4700C	3
Geology Field Methods	GLY 4750C	3
Hydrogeology	GLY 4822	3
Groundwater Numerical Modeling	GLY 4832C	3
Field Experience	GLY 4948C	1

Weather, Climate and Climate Change	MET 2010	3
<b>Human-Environmental Interactions</b>		
American Environmental History	AMH 3630	3
Culture and Ecology	ANT 3403	3
Environment and Disease	ANT 4463	3
Anthropology of Nature	ANT 4419	3
Primate Behavior	ANT 4552	3
Economic Principles and Policies	ECO 3003	5
Environmental Economics	ECP 4302	3
RI: Human-Environment Interactions in South Florida	GEA 4275	3
Water Resources	GEO 4280C	3
American Cultural Landscape	GEO 4422	3
Tourism and Commercial Recreation	GEO 4542	3
Urban Geography	GEO 4602	3
Field Experience	GEO 4948C	1
Global Environmental Politics and Policies	INR 4350	3
Environmental Journalism	JOU 4314	3
Literature and the Environment	LIT 4434	3
Environmental Ethics	PHI 3640	3
Principles and Methods of Environmental Education	SCE 3442	3
Environmental Sociology	SYD 4510	3

Justice, Health and the Environment	SYD 4513	3
Planning and Growth Management	URP 3000	3
Sustainable Cities	URP 4403	3
Environmental Planning Methods	URP 4420	3
Green Consciousness	WST 4349	3
<b>Geographic Information Science</b>		
Introduction to Mapping and GIS	GIS 3015C	3
Remote Sensing of the Environment	GIS 4035C	3
Digital Image Analysis	GIS 4037C	3
Principles of Geographic Information Systems	GIS 4043C	3
Geovisualization and GIS	GIS 4138C	3
<b>Chemistry</b>		
Biochemistry 1	BCH 3033	3
Biochemistry 2	BCH 3034	3
Contemporary Chemical Issues	CHM 1020C	3
General Chemistry 1	CHM 2045	3
General Chemistry 1 Lab	CHM 2045L	1
General Chemistry 2	CHM 2046	3
General Chemistry 2 Lab	CHM 2046L	1
Organic Chemistry 1	CHM 2210	3
Organic Chemistry 2	CHM 2211	3

## **ENVIRONMENTAL RESTORATION GRADUATE CERTIFICATE**

*(Minimum of 18 credits required)*

The Environmental Science Program offers the Environmental Restoration certificate for graduate students who wish to pursue an environmental restoration position upon graduation, professionals looking to increase their knowledge base and/or advance professionally and anyone considering becoming a Certified Ecological Restoration Practitioner (CERP). The Society for Ecological Restoration (SER) administers the CERP program, which covers a rigorous assessment of academic credentials, including courses in ecological restoration, biological science, physical science, resource management and conservation, and quantitative science. FAU's Environmental Restoration certificate can help students fulfill those requirements by bolstering their credentials in the assessed disciplines by drawing upon courses from environmental science, geosciences, biology, chemistry, urban and regional planning, and civil engineering.

Students interested in SER's professional certification should consult with an Environmental Science program advisor to review their academic credentials and tailor their Environmental Restoration certificate plan of study to maximize the certificate's benefits to their academic credentials.

The certificate consists of a minimum of 18 credits, including two core courses, and four electives chosen from a minimum of three of the four elective focal areas. All courses must be completed with a grade of "C" or better to be counted toward the certificate.

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### **Environmental Restoration Core Courses**

Environmental Restoration	EVR 6334	3
Restoration Implementation and Management	EVR 6358	3

### **Elective Foci**

*Choose a total of four electives from a minimum of three of the four elective focal areas.*

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### ***Biological Science Electives***

Advanced Plant Physiology and Advanced Plant Physiology Lab	BOT 6506, BOT 6506L	4
Advanced Ecology	PCB 6046	3
Ecological Theory	PCB 6406	3
Environmental Physiology	PCB 6749	3
Physiology of Marine Animals	PCB 6775	3
Coral Reef Systems and Coral Reef Systems Lab	OCB 6266, OCB 6266L	4
The Biology of Sea Turtles	ZOO 6406	3
Biology of Sharks and Their Relatives	ZOO 6409	3
<b><i>Physical Science Electives</i></b>		
Soil Stabilization and Geosynthetics	CEG 6124	3
Chemistry for Environmental Scientists	CHS 6611	3
Open-Channel Hydraulics	CWR 6235	3
Paleoenvironmental Reconstruction	EVR 6931	3
Environmental Geochemistry	GLY 5243	3
Shore Erosion and Protection	GLY 5575C	3
Coastal Environments	GLY 6737	3
Methods in Hydrogeology	GLY 6838	3
Benchmark Developments in Hydrogeology	GLY 6897	3
<b><i>Resource Management and Conservation Electives</i></b>		

Scientific Communication	BSC 6846	3
Culture, Conservation and Land Use	GEO 6337	3
Marine Fisheries Ecology and Management	OCB 6715C	3
Conservation Biology	PCB 6045	3
Environmental Analysis in Planning	URP 6425	3
Environmental Policy and Programs	URP 6429	3
<b><i>Quantitative Science Electives</i></b>		
Digital Image Analysis	GIS 5033C	3
Remote Sensing of the Environment	GIS 5038C	3
Principles of Geographic Information Systems	GIS 5051C	3
Applications in Geographic Information Systems	GIS 5100C	3
Programming in Geographic Information Systems	GIS 5103C	3
Photogrammetry and Aerial Photography Interpretation	GIS 6028C	3
LIDAR Remote Sensing and Applications	GIS 6032C	3
Geospatial Databases	GIS 6112C	3
Hyperspectral Remote Sensing	GIS 6127	3
Spatial Data Analysis	GIS 6306	3
Experimental Design and Biometry	PCB 6456	4
Statistics for Urban Planning	URP 6211	3

## **MEDICAL PHYSICS**

### **GRADUATE CERTIFICATE**

*(Minimum of 18 credits required)*

The Medical Physics certificate is an 18-credit interdisciplinary graduate program. Students are required to take a 3-credit prerequisite course, followed by 15 credits of program courses.

Medical Physics is an applied branch of physics devoted to the application of concepts and methods from physics to the diagnosis and treatment of human disease. This program prepares students who are interested in health-related careers and/or seeking an advanced degree in Medical Physics. Career paths for medical physicists include radiation therapy physicist, diagnostic medical physicist, nuclear medical physicist and health physicist. Companies that produce treatment equipment, treatment planning systems, support materials and software and hardware development; and research and academia are also suitable career paths.

This certificate program is designed to provide the essential didactic elements of Medical Physics to Ph.D. holders seeking to pursue an alternative pathway to Medical Physics residency. It is intended to enable individuals with a doctoral degree in physics or a related discipline to meet the didactic requirements needed to enter a CAMPEP-accredited residency program (Commission on Accreditation of Medical Physics Education Programs). Students enrolled in the certificate program may also register for Part 1 of the American Board of Radiology board exam in Medical Physics.

Students with a Ph.D. in physics, physical sciences, mathematics or engineering who are interested in this program may apply for admission to the regular graduate program of the Physics Department. Also, students who are officially admitted as doctoral students in the above-mentioned fields may apply.

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### **Required Courses - 18 credits**

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#### ***Prerequisite Course - 3 credits***

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Anatomy and Physiology 1	BSC 2085	3
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#### ***Program Courses - 15 credits***

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Radiation Biology	RAT 6204	3
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Radiation Physics	RAT 6686	3
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Radiation Therapy Physics	RAT 6628	3
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Medical Imaging Physics	RAT 6616	3
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## NEUROECONOMICS GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

Neuroeconomics is a field of study investigating the processes underlying choice behavior by applying formal mathematical and computational models of decision making to the analysis and interpretation of neuroimaging data. The Neuroeconomics certificate program is suitable either 1) for students who have some knowledge of statistics and programming but who do not necessarily use this knowledge on a day-to-day basis or 2) for students with advanced quantitative skills who aim to learn how those skills can be applied to neuroscience research. Available to master's and doctoral students, the program is administered through the College of Science's Dean's Office.

### Admission Requirements

1. Students must satisfy the prerequisites for enrolling in courses in the certificate program.
2. Approval of the certificate program coordinator prior to taking courses to fulfill the 12-credit certificate requirement.

### Degree Requirements

The Neuroeconomics certificate consists of 12 credits. All four courses must be successfully completed (a minimum of B+ average). Students must satisfy the prerequisites for each course in the program.

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#### Required Courses - 12 credits

Cognitive Neuroscience	ISC 5456	3
Special Topics (such as Neuroscience of Decision Making)	ISC 6930	3

#### One of the following

Computational Neuroscience	ISC 6460	3
Special Topics (such as Introduction to Decision Making)	ECO 6930	3

#### One of the following

Special Topics (such as Neurobiological Signal Processing)	ISC 6930	3
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Special Topics in Cognition (such as Neuroimaging in  
Cognitive Neuroscience)

EXP 6930

3

## **NEUROSCIENCE**

### **GRADUATE CERTIFICATE**

*(Minimum of 14 credits required)*

The Neuroscience certificate program provides students with an understanding of the essential principles of neuroscience and elective concentrated study in theoretical and dynamical, molecular and cellular, cognitive and behavioral neuroscience. Available to master's and doctoral students, the program is administered through the College of Science's Dean's Office and consists of a multidisciplinary curriculum comprised of courses from the College of Medicine, College of Science and the College of Engineering and Computer Science.

#### **Admission Requirements**

1. Acceptance into a master's or doctoral training program in any of the following departments or programs: Biological Sciences, Biomedical Sciences, Chemistry and Biochemistry, Complex Systems and Brain Sciences, Electrical Engineering, Integrative Biology, Mathematics and Statistics, Physics or Psychology.
2. Approval from the certificate program coordinator prior to taking courses to satisfy the 14-credit certificate requirement.

#### **Degree Requirements**

The Neuroscience certificate consists of 14 credits. It requires the successful completion (at least a B+ average) of four courses from the tables below plus satisfactory achievement in two semesters of the 1-credit Neuroscience Colloquium. Students are also expected to participate in the FAU Neuroscience Research Day held each spring semester.

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#### **Required Courses - 6 credits**

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Cellular and Molecular Neuroscience	PSB 6345	3
Systems and Integrative Neuroscience	PSB 6346	3

#### **Elective Courses**

Choose one course from any two of the four areas listed below for a minimum of 6 credits: Theoretical and Dynamical Neuroscience, Cognitive Neuroscience, Molecular and Cellular Neuroscience and Behavioral Neuroscience. Note that one of the elective courses is required to be from outside the student's "home" program area. This requirement ensures that the student gains an interdisciplinary exposure to the neurosciences.

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***Theoretical and Dynamical Neuroscience***

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Introduction to Neural Networks	CAP 5615	3
Computational Neuroscience 1	ISC 6460	3
Methods in Complex Systems	ISC 6450	3
Bioinformatics	BSC 6458C	4
Bioinformatics: Engineering Perspectives	BME 6762	3

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***Cognitive Neuroscience***

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Cognitive Neuroscience	ISC 5465	3
Seminar in Cognition	EXP 6609	3
Seminar in Attention	ISC 6932	3
Seminar in Human Perception	EXP 6208	3

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***Molecular and Cellular Neuroscience***

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Advanced Cell Physiology	PCB 6207	3
Developmental Neurobiology	PSB 6515	3
Brain Diseases: Mechanisms and Therapy	BMS 6736	3
Special Topics	BSC 6936	3
Special Topics	PCB 6933	3

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### ***Behavioral Neuroscience***

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Seminar in Behavioral Neuroscience	PSB 6058	3
Developmental Neuropsychology	PSB 6516	3
Special Topics in Behavioral Neuroscience	PSB 6930	3

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### ***Neuroscience Colloquium***

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Special Topics (Students must enroll in two semesters of the 1-credit Neuroscience Colloquium.)	ISC 6930	1
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The Neuroscience Colloquium is a public seminar series with distinguished speakers from outside and inside of FAU. Students also present their own research in the form of a seminar to the other students in the program and faculty. Students in the certificate program are required to present at least one seminar during the two semesters that they are enrolled. Attendance is mandatory for all students.

## **ENVIRONMENTAL SCIENCE MASTER OF SCIENCE (M.S.)**

*(Minimum of 36 credits required)*

This interdisciplinary environmental program is administered in the Charles E. Schmidt College of Science. Participating faculty have appointments in all departments in the College of Science, as well as departments in the Dorothy F. Schmidt College of Arts and Letters, Harbor Branch Oceanographic Institute, the Harriet L. Wilkes Honors College, the College of Engineering and Computer Science and the College of Business. The M.S. in Environmental Science is also available as a combined, accelerated program with the B.S. in Biological Sciences. Complete details about this combined program appear in the [Biological Sciences Department section](#).

Students are required to take most of the coursework spread across the four core subject areas listed below. The exact courses taken are to be determined by students and their advisory committees. A grade of "C" or better (unless otherwise noted in the course description) is required in all courses taken

as part of the requirements for a Master of Science degree in Environmental Science. However, the minimum University-wide, cumulative GPA requirement for degree-seeking graduate students is a 3.0 ("B" grade average). For more information about this program, visit [here](#).

## Admission Requirements

In addition to meeting all of the University and College admission requirements for graduate study, each applicant for the M.S. with Major in Environmental Science must have a:

1. Minimum 3.0 average for the last 60 credits of undergraduate work.
2. Letter of support from a prospective primary advisor who is a member of the Environmental Science Program faculty.

## Thesis Option

A student curriculum consists of a minimum of 36 graduate credits taken in the following six categories:

*Environmental Science Colloquium Series (EVS 6920)*: 2 credits. This course is currently only offered in the fall semester. Students must take EVS 6920 during their first fall semester.

*Fundamentals of Environmental Research (EVS 6917)*: 1 credit. This course is currently only offered in the spring semester. Students must take EVS 6917 during their first spring semester.

*Data Science*: 3 credits. Students must take either GIS 6306, PCB 6456 or URP 6211.

*Electives*: 21-24 graduate credits with no more than 12 credits per course prefix and no more than 15 credits per department. Required courses do not count toward department credit limit.

*Environmental Science Directed Independent Study (EVS 6905) or Directed Independent Research in Environmental Science (EVS 6916)*: Up to 3 graduate credits combined may be counted toward this degree.

*Thesis*: 6-9 credits (EVS 6971).

Degree requirements may change. Students must either: 1) fulfill the requirements in effect during the first semester they are enrolled in the program, or 2) they may choose to fulfill the requirements in effect during the semester they graduate. The [FAU University Catalog](#) is the only official source for determining degree requirements.

## Non-Thesis Option

A student curriculum consists of a minimum of 36 graduate credits taken in the following five categories:

*Environmental Science Colloquium Series (EVS 6920): 2 credits.*

*Fundamentals of Environmental Research (EVS 6917): 1 credit.*

*Data Science: 3 credits.* Students must take either GIS 6306, PCB 6456 or URP 6211.

*Electives: 27 graduate credits with no more than 12 credits per course prefix and no more than 15 credits per department.* Required courses do not count toward department credit limit.

*Environmental Science Directed Independent Study (EVS 6905) or Directed Independent Research in Environmental Science (EVS 6916):* Up to 3 graduate credits combined may be counted toward this degree.

Degree requirements may change. Students must either: 1) fulfill the requirements in effect during the first semester they are enrolled in the program, or 2) they may choose to fulfill the requirements in effect during the semester they graduate. The [FAU University Catalog](#) is the only official source for determining degree requirements.

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**Departmental Courses: No more than 15 total credits from any one department, and no more than 12 credits from any one prefix.**

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### *Biological Sciences*

Flora of South Florida	BOT 5155	3
Flora of South Florida Laboratory	BOT 5155L	3
Plant Ecology	BOT 6169C	3
Advanced Plant Physiology	BOT 6505	3
Advanced Plant Physiology Lab	BOT 6505L	3
Symbiosis	BSC 6355	3
Scientific Communication	BSC 6846	3
Chemistry for Environmental Scientists	CHS 6611	3

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Data Processing and Modeling of Marine Systems	OCB 6673	3
Natural History of the Indian River Lagoon	OCB 6810	3
Marine Global Change	OCE 6019	3
Conservation Biology	PCB 6045	3
Advanced Ecology	PCB 6046	3
Freshwater Ecology	PCB 6307	3
Freshwater Ecology Laboratory and Field Studies	PCB 6307L	3
Marine Ecology	PCB 6317	3
Marine Ecology Laboratory and Field Studies	PCB 6317L	3
Experimental Design and Biometry	PCB 6456	3
Environmental Physiology	PCB 6749	3
Marine Invertebrate Zoology	ZOO 6256	3
Marine Invertebrate Zoology Lab	ZOO 6256L	3
Natural History of Fishes	ZOO 6456	3
Natural History of Fishes Lab	ZOO 6456L	3
Seminar in Ichthyology	ZOO 6459	3
<b><i>Civil, Environmental and Geomatics Engineering</i></b>		3
Soil Stabilization and Geosynthetics	CEG 6124	3
Open-Channel Hydraulics	CWR 6235	3
Sustainability and Pollution Prevention	ENV 6932	3
<b><i>Curriculum and Instruction</i></b>		
Advanced Methods of Environmental Education	SCE 6344	3
Perspectives of Environmental Education	SCE 6345	3

Trends and Issues in Environmental Education	SCE 6644	3
<i>Geosciences</i>		
Environmental Restoration	EVR 6334	3
Restoration Implementation and Management	EVR 6358	3
Paleoenvironments and People	EVR 6417	3
Paleoenvironmental Reconstruction	EVR 6931	3
Human-Environmental Interactions	GEA 6277	3
Biogeography	GEO 5305	3
Plants and People	GEO 6317	3
Culture, Conservation and Land Use	GEO 6337	3
Digital Image Analysis	GIS 5033C	3
Remote Sensing of the Environment	GIS 5038C	3
Principles of Geographic Information Systemes	GIS 5051C	3
Applications of Geographic Information Systems	GIS 5100C	3
Programming in Geographic Information Systems	GIS 5103C	3
Photogrammetry and Aerial Photography Interpretation	GIS 6028C	3
LIDAR Remote Sensing and Applications	GIS 6032C	3
Topics in Geoinformation Science	GIS 6120	3
Hyperspectral Remote Sensing	GIS 6127	3
Spatial Data Analysis	GIS 6306	3
Environmental Geochemistry	GLY 5243	3
Environmental Geophysics	GLY 5457	3
Shore Erosion and Protection	GLY 5575C	3

Marine Geology	GLY 5736C	3
Advanced Topics in Applied, Coastal and Hydrogeology	GLY 5934	3
Advanced Environmental Geochemistry	GLY 6246	3
Coastal Environments	GLY 6737	3
Global Environmental Change	GLY 6746	3
Modeling Groundwater Movement	GLY 6836	3
Methods in Hydrogeology	GLY 6838	3
Coastal Hazards	GLY 6888	3
Benchmark Developments in Hydrogeology	GLY 6897	3
<b><i>Urban and Regional Planning</i></b>		
Statistics for Urban Planning	URP 6211	3
Introduction to GIS in Planning	URP 6270	3
Managing GIS Projects	URP 6272	3
Sustainable Cities	URP 6406	3
Environmental Analysis in Planning	URP 6425	3
Environmental Policy and Programs	URP 6429	3
Transportation Planning	URP 6711	3
Urban and Regional Theory	URP 6840	3
<b><i>Women, Gender and Sexuality</i></b>		
Women, Environment, Ecofeminism, Environmental Justice	WST 6348	3

## **MARINE SCIENCE AND OCEANOGRAPHY MASTER OF SCIENCE (M.S.)**

*(Minimum of 37 credits required)*

This is an interdisciplinary program designed to provide students with specialized training in Marine Science and Oceanography. It is jointly administered by the Charles E. Schmidt College of Science (CESCS) and the Harbor Branch Oceanographic Institute (HBOI). Participating faculty have appointments at CESCS and HBOI.

Students are required to take most of the coursework spread across the core subject areas listed below. The exact courses taken are to be determined by students and their advisory committees. Application deadline is January 15 for the fall semester and October 15 for the spring semester.

### **Admission Requirements**

In addition to meeting all of the University and College admission requirements for graduate study, each applicant for the M.S. with Major in Marine Science and Oceanography must:

1. Have a minimum 3.0 GPA for the last 60 credits of undergraduate work.
2. Provide two letters of recommendation.
3. Obtain a "sponsor" from within the faculty of this master's program who will then act as the student's advisor until a thesis topic has been chosen.

For sponsor selection suggestions, students should go to the departmental webpages to examine the fields and interests of individual faculty members. Once students find a faculty member in their field of interest, they should contact the faculty member directly. The student's application package must contain a signed sponsor form from the selected faculty member.

### **Degree Requirements**

Students may graduate with a thesis or non-thesis master's degree; both require the successful completion of 37 credits as described below.

### **Thesis Option**

A student curriculum consists of a minimum of 37 graduate credits taken in the following three categories:

**Required Courses:** Six courses (12 credits) are required for all students in the master's degree program in Marine Science and Oceanography.

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#### ***Required Courses***

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Physical and Geological Oceanography	OCE 6097	3
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Biological Oceanography	OCB 6066	3
Chemical Oceanography	OCC 6050	3
Marine Science and Oceanography Colloquium	OCE 6922	1 <b>or</b>
Marine Science Seminar	BSC 6938	1
Marine Science and Oceanography Thesis Proposal	OCE 6970	1
Marine Science and Oceanography Thesis Defense	OCE 6975	1
<b>Total Research Core</b>		<b>12</b>

**Electives:** 15 to 21 credits from the approved course list. Up to 6 credits designated as "Special Topics" courses may be taken with the approval of the thesis advisor. No more than 6 credits of electives taken outside the approved course list will be counted toward the degree. No courses under the 5000 level may be taken. No more than 3 credits of Marine Science and Oceanography Directed Independent Research (OCE 6908) may be counted toward this degree.

**Thesis:** 6 to 12 credits (OCE 6972).

- For Master's Thesis Proposal Seminar requirements, see [MSO regulations](#).
- For Master's Thesis Defense Requirements, see [MSO regulations](#) and the Graduate College for current [University thesis requirements](#).

**Proposal and Defense:** OCE 6970 will be taken for 1 credit during the semester in which students intend to propose their research plan. Upon successful completion of their proposal and approval from their committee, students will earn a satisfactory grade. OCE 6975 will be taken for 1 credit during the semester in which students intend to defend their research. Upon successful defense of the student's research via a public presentation and thesis document, the student will earn a satisfactory grade.

### Non-Thesis Option

A student curriculum consists of a minimum of 37 credits taken in the following three categories:

**Required Courses:** Five courses (11 credits) are required for all students in the master's degree program in Marine Science and Oceanography.

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### Required Courses

Physical and Geological Oceanography	OCE 6097	3
Biological Oceanography	OCB 6066	3
Chemical Oceanography	OCC 6050	3
Marine Science and Oceanography Comprehensive Exam	OCE 6964	1
Marine Science and Oceanography Colloquium	OCE 6922	1 <b>or</b>
Marine Science Seminar	BSC 6938	1
<b>Total Research Core</b>		<b>11</b>

**Electives:** A minimum of 26 credits from the approved course list. Up to 6 credits designated as "Special Topics" courses may be taken with the approval of the student's advisor.

No more than 6 credits of electives taken outside the approved course list will be counted toward the degree. No courses under the 5000 level may be taken. No more than 3 credits of Marine Science and Oceanography Directed Independent Research (OCE 6908) may be counted toward this degree.

Students taking the non-thesis option must take and pass a minimum of three written comprehensive exams given by a committee in designated areas within Marine Science and Oceanography specialties during the semester they are signed up for 1 credit of OCE 6964 (Marine Science and Oceanography Comprehensive Exam). Questions require written essay responses. See the [MSO regulations](#) for complete requirements to complete the master's comprehensive exams.

Integrative Biology PH.D. students choosing MSO for a Master's Along the Way degree will be verified for completion of degree requirements by the Biology Department during the Graduation Audit Check. Consult with the IB Ph.D. advisor early in matriculation to ensure the curriculum followed would satisfy the requirements for the MSO master of science non-thesis option.

### Approved Course List

Advances in Finfish Aquaculture	BSC 6342	3
Scientific Communication	BSC 6846	3
Special Topics (such as Marine Conservation)	BSC 6936	1-4
Seminar	BSC 6938	1

Chemistry for Environmental Scientists	CHS 6611	3
Ocean Optics and Remote Sensing	EOC 6267	3
Restoration Implementation and Management	EVR 6358	3
Biogeography	GEO 5305	3
Digital Image Analysis	GIS 5033C	3
Remote Sensing of the Environment	GIS 5038C	3
Principles of Geographic Information Systems	GIS 5051C	3
Applications in Geographic Information Systems	GIS 5100C	3
Programming in Geographic Information Systems	GIS 5103C	3
Topics in Geoinformation Science	GIS 6120	3
Hyperspectral Remote Sensing	GIS 6127	3
Environmental Geochemistry	GLY 5243	3
Shore Erosion and Protection	GLY 5575C	3
Marine Geology	GLY 5736C	3
Comparative Carbonate Sedimentology	GLY 6352	3
Beach Morphodynamics of Southeast Florida	GLY 6708C	3
Coastal Environments	GLY 6737	3
Global Environmental Change	GLY 6746	3
Methods in Hydrogeology	GLY 6838	3
Coastal Hazards	GLY 6888	3
Special Topics in Applied Geology	GLY 6934	3
Coral Reef Ecosystems	OCB 6266	3
Coral Reef Ecosystems Lab	OCB 6266L	1

Data Processing and Modeling of Marine Systems	OCB 6673	3
Marine Fisheries Ecology and Management	OCB 6715C	4
Natural History of the Indian River Lagoon	OCB 6810	3
Image and Video Processing and Vision in Marine Environment	OCE 5266	3
Marine Global Change	OCE 6019	3
Dynamics of Marine Biogeochemical Processes	OCE 6096	3
Underwater Optical Imaging for Marine Scientists	OCE 6267	3
Ocean Monitoring Systems	OCE 6268	3
Marine Optics	OCE 6269	3
Conservation Biology	PCB 6045	3
Advanced Ecology	PCB 6046	3
Marine Ecology	PCB 6317	3
Marine Ecology Lab and Field Studies	PCB 6317L	2
Ecological Theory	PCB 6406	3
Experimental Design and Biometry	PCB 6456	3
Aquatic Animal Health	PCB 6772	3
Physiology of Marine Animals	PCB 6775	3
Sensory Biology and Behavior of Fishes	PCB 6871	3
Marine Invertebrate Zoology	ZOO 6256	3
Marine Invertebrate Zoology Lab	ZOO 6256L	2
The Biology of Sea Turtles	ZOO 6406	3
Biology of Sharks and Their Relatives	ZOO 6409	3

Natural History of Fishes	ZOO 6456	3
Natural History of Fishes Lab	ZOO 6456L	2
Seminar in Ichthyology	ZOO 6459	3

## **MEDICAL PHYSICS**

### **PROFESSIONAL SCIENCE MASTER (P.S.M.)**

*(Minimum of 41 credits required)*

The Professional Science Master (P.S.M.) with major in Medical Physics degree is an interdisciplinary program that develops advanced scientific knowledge and professional skills. The program provides hands-on learning through on-site training. It aims to engage students with professional goals and help them become scientists uniquely suited to the 21st-century workplace.

Medical physics is an applied branch of physics devoted to the application of concepts and methods from physics to the diagnosis and treatment of human disease. A qualified medical physicist is competent to practice independently in one or more of the subfields (tracks) of medical physics.

The program requires 41 credits. It provides professional training in partnership with area hospitals and concentrates on the medical physics radiation therapy track, which employs approximately 75 percent of the medical physicists.

#### **Admission Requirements**

In addition to meeting all of the University and College admission requirements for graduate study, applicants for the Medical Physics program must meet all of the following departmental requirements:

1. A B.S. or B.A. in Physics. Candidates with a B.S. in Biology, Chemistry, Computer Science or Engineering with a minor in Physics are considered;
2. At least a 3.0 (of a 4.0 maximum) GPA in science and mathematics courses;
3. Have taken the general GRE. No minimum score is required. (GRE scores more than five years old will not be accepted);
4. Approval from the Department of Physics.

#### **Degree Requirements**

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#### **Core Courses - 18 credits**

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Radiation Biology	RAT 6204	3
Radiation Physics	RAT 6686	3
Radiation Therapy Physics	RAT 6628	3
Medical Imaging Physics	RAT 6616	3
Nuclear Medical Physics	RAT 6687	3
Radiation Protection and Safety	RAT 6310	3
<b>Additional Required Courses - 20 credits</b>		
Advanced Photon Beam Radiation Therapy	RAT 6629	3
Radiation Therapy: Clinical Practicum and Shadowing	RAT 6947	3
Shielding and Commissioning	RAT 6376	3
Seminar in Medical Physics	RAT 6932	1
Special Topics (such as Human Morphology and Function 1)	BSC 5931	3
Special Topics (such as Human Morphology and Function 2)	BSC 5931	3
Master's Thesis	RAT 6975	4
<b>Elective Course - 3 credits</b>		
<i>Choose one course from the following with advisor's approval.</i>		
Biostatistics	STA 5195	3
Computational Physics	PHZ 5156	3
Bioinformatics: Bioengineering Perspectives	BME 6762	3
Nonlinear Dynamic Systems	ISC 5453	3
Advanced Cell Physiology	PCB 6207	3
Tumor Immunology	PCB 6239	3

Special Topics (including Cell Structure and Function)	BSC 6936	3
Introduction to Biophysics	PHZ 5715	3
<b>Total</b>		<b>41</b>

## **INTEGRATIVE BIOLOGY** **DOCTOR OF PHILOSOPHY (PH.D.)**

### **Biomedical Science Concentration**

### **Environmental Science Concentration**

### **Marine Science and Oceanography Concentration**

### **Neuroscience Concentration**

*(Minimum of 72 credits required)*

Integrative biology refers to interdisciplinary, multilevel approaches to education and research in the biological sciences. The Integrative Biology program focuses on the relationship between cell/molecular functions and experimental biology in the broad sense, with a view to connectivity between levels of biological organization and biological processes. Core courses and research elements will emphasize this theme. The curriculum is individually tailored to each student's research interests and built around a set of core courses that emphasize 1) the theme of integrative biology, 2) scientific communication, 3) statistics, 4) elective courses chosen by the student and an supervisory committee, 5) seminar courses and 6) dissertation research.

Faculty from the Department of Biological Sciences, the Charles E. Schmidt College of Medicine, the Harriet L. Wilkes Honors College, the Center for Molecular Biology and Biotechnology, the Brain Institute and Harbor Branch Oceanographic Institute participate in this doctoral program. FAU's Partner Institution, the Max Planck Florida Institute for Neuroscience, also contributes expertise to this program.

Those applicants seeking a doctorate in Integrative Biology may choose to pursue the Integrative Biology core program (IBIO) or pursue one of the program's four concentrations: Neuroscience (IBNS), Environmental Science (IBES), Biomedical Science (IBBS) or Marine Science and Oceanography (IBMO). These concentrations fall under the umbrella of the Integrative Biology major

and all students accepted to the concentrations are subject to all Integrative Biology policies and regulations as well as additional regulations specific to each concentration.

### **Biomedical Science Concentration (IBBS)**

Completion of the Biomedical Science concentration provides students with advanced knowledge and research experience in the biomedical science field. The IBBS curriculum focuses strongly on both knowledge-based and experimental-based biomedical science courses and teaches students appropriate scientific methodology. Students who complete the IBBS concentration develop the skills and expertise they need to succeed both within and outside academia. IBBS faculty are active experts in their respective biomedical science fields and provide students with research opportunities in a wide variety of emerging biomedical science areas including: Human Genetics and Genomics; Precision Medicine; Cancer Biology and Prevention; Microbiology, Immunology and Infectious Disease; HIV/AIDS Mechanisms and Treatments; Respiratory Physiology and Biophysics; Visual Biology and Diseases; Breast Cancer Mechanisms and Therapy; Huntington's Disease Mechanisms; Alzheimer's Disease Mechanisms and Therapy; Vaccine Development; Osteoarthritis Prevention and Treatment; Prostate Cancer Mechanisms; Cardiac Physiology and Disease; Childhood Malaria Mechanisms and more.

### **Environmental Science Concentration (IBES)**

Completion of the Environmental Science concentration provides students with advanced research and technical training that prepares them to find solutions to some of the world's most difficult environmental problems. Habitat degradation, invasive species, contaminants and climate change challenge land and water managers in South Florida and indeed the world. IBES faculty have considerable experience conducting research to address these difficult conservation problems, particularly in South Florida's extensive freshwater and marine ecosystems. The IBES curriculum emphasizes experiential learning through dissertation research, combined with innovative courses in the fields of ecology, conservation biology, environmental chemistry, geographic information systems, statistics, and modeling.

### **Marine Science and Oceanography Concentration (IBMO)**

Completion of the Marine Science and Oceanography concentration provides students with a broad understanding of oceanographic science along with the inquiry skills necessary to conduct research independently within their area of specialization. The IBMO curriculum focuses on both knowledge-based and laboratory- and field-based courses that promote the cross-disciplinary training students need to face the complex challenges of 21st century science. IBMO faculty have expertise in diverse ocean ecosystems, including developed and undeveloped coastlines, large estuaries and both deep sea and

coastal waters, and provide students with research opportunities in areas of water quality, hydrology, coastal ecology, biogeochemical cycling, endangered and invasive species, ocean megafauna fisheries and aquaculture, harmful algal blooms, urbanization and underwater optical imaging and ocean monitoring systems.

### **Neuroscience Concentration (IBNS)**

Completion of the Neuroscience concentration provides students with both knowledge and practical experience in the neuroscience field at an advanced level. In the evolving and growing field of neuroscience, students who complete the IBNS concentration will have the appropriate training to succeed both within and outside of academia. The Neuroscience curriculum focuses strongly on knowledge-based and experimental-based neuroscience courses and includes training in scientific methodologies. IBNS faculty are active experts in their respective neuroscience fields and provide students with research opportunities in a broad range of areas including neuronal circuitry, synaptic plasticity, learning and memory, cognitive and behavioral neuroscience, neurodegeneration, neuroimmunology, drug discovery, stress neurobiology, neurogenetics and neurodevelopment.

### **Admission Requirements**

The decision to consider an applicant acceptable for admission to the Integrative Biology program includes the following criteria:

1. Applicants must have a baccalaureate degree biological science or a related field.
2. Applicants who meet the minimum University standard for grade point average of 3.0 (on a 4.0 scale).
3. A minimum of three letters of recommendation and a personal statement. Successful applicants will have strong personal statements and recommendation letters from advisors who are familiar with their recent academic and research experiences.
4. International applicants whose native language is not English must score at least 550 (paper-based test), 213 (computer-based test) or 79-80 (Internet-based test) on the Test of English as a Foreign Language (TOEFL). Additionally, international applicants whose transcripts are from non-U.S. institutions must have their credentials evaluated course-by-course with a grade point average (GPA) calculation on a 4.0 scale. International applicants must also demonstrate competency in spoken English.
5. Applicants applying to the IBES or IBMO concentration must have a confirmed Ph.D. supervisor from within FAU prior to applying and submit the supervisor verification form with their application. The Ph.D. supervisor must be a member of the program's graduate faculty and will chair the supervisory and dissertation research committees (see program faculty lists on respective program webpages).

Applicants applying to the IBIO core program or IBNS or IBBS concentration may enter the program with a confirmed Ph.D. supervisor from within FAU or participate in laboratory rotations within the first two semesters in the program. Applicants applying to the IBIO, IBNS or IBBS concentration who would like to participate in laboratory rotations are strongly encouraged to directly contact potential Ph.D. supervisor(s) from within FAU and secure their sponsorship or mentoring interest prior to applying. Applicants eligible to participate in laboratory rotations must identify which program faculty they have contacted on their application (see program faculty lists on respective program webpages).

## Degree Requirements

The Integrative Biology program is research-intensive and requires at least 72 credits beyond the baccalaureate degree. The following are specific requirements for this degree:

1. Students must earn a grade of “B” or higher in all graduate coursework and maintain a cumulative grade point average of 3.0 or higher.
2. Students must have a confirmed Ph.D. supervisor by the end of their second semester in the program (Year 1, Semester 2).
3. Completion of 9 core credits listed in Integrative Biology Core Courses.
4. Completion of at least 9 elective credits (three courses) up to 21 elective credits (seven courses) of graded coursework that support the student’s research plan:
  - a. The student's Ph.D. supervisor and/or supervisory committee must approve all elective courses.
  - b. Elective courses must be 5000-, 6000- or 7000-level courses in biology, biomedical science, chemistry and biochemistry, complex systems and brain sciences, engineering and computer science, environmental science, ecology, exercise science and health promotion, geosciences, marine science and oceanography, mathematics, neuroscience, physics, psychology, urban and regional planning, special topics or approved cognates.
  - c. Students may elect to complete up to 6 credits designated Special Topics with the approval of their Ph.D. supervisor and/or supervisory committee.
  - d. Courses designated as proficiency or remedial (4000-level and below) may not be used to satisfy the elective course requirement.
  - e. Students participating in an Integrative Biology concentration must select from graduate-level elective courses related to the specific concentration (see the elective lists below for IBNS, IBES, IBBS, and IBMO). The lists of track-specific elective courses below are not exclusive and the selection of elective courses to meet degree requirements will be determined by consultation between the student and the Ph.D. supervisor and/or supervisory committee.

5. Completion of at least 3 credits of seminar/journal club courses taken as individual credits in three separate semesters. A seminar/journal club course is based on student participation in activities, such as student presentations or student/faculty-led discussions of relevant topics.
6. Completion of at least 25 dissertation credits conducting dissertation research under the direction of the student's dissertation research committee.
7. Remaining credits may include elective coursework, seminar/journal club courses, Integrative Biology lab rotation (BSC 6913), advanced research (BSC 7978) or dissertation (BSC 7980) credits that support the student's research plan with approval from the student's Ph.D. supervisor and/or supervisory committee.
8. Admission to candidacy requires both the successful writing and public presentation of an original dissertation research proposal. The defense of the dissertation proposal will be held with the student's dissertation research committee following the public dissemination.
9. Degree completion requires both the successful writing and public presentation of original dissertation research. The defense of the dissertation research will be held with the student's dissertation research committee following the public dissemination.

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### **Integrative Biology Core Courses - 9 credits**

Integrative Biology 1	BSC 6390	3
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Scientific Communication	BSC 6846	3
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### ***Choose one of the following courses***

Experimental Design and Biometry	PCB 6456	3
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Experimental Design 1	PSY 6206	3
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Biostatistics	STA 5195	3
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### ***Electives - 9 to 21 credits***

Choose at least three courses up to a maximum of seven courses at the 5000, 6000 or 7000 level.

### ***Other Requirements - 3 credits***

Choose at least three 1-credit seminar or journal club courses taken in three separate semesters.

### ***Research - up to 26 credits***

Advanced Research in Integrative Biology is taken every semester while advancing toward

candidacy.

Advanced Research in Integrative Biology	BSC 7978	1-9
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***Dissertation - 25 credits (minimum)***

Dissertation	BSC 7980	1-9
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<b>Minimum Degree Total</b>		<b>7 2</b>
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The degree requirements listed above apply to all Integrative Biology program participants including students accepted to all concentrations. Additional concentration-specific requirements and approved elective lists are described below.

**Biomedical Science Concentration (IBBS) Core Courses and Electives**

***IBBS Core Courses***

Students who enter the IBBS concentration without a core course or equivalent must complete one of the core courses listed below. When this course is completed, it may be used toward fulfillment of the Integrative Biology elective requirement.

Biomedical Data and Informatics	BSC 6459	3
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Data Interpretation and Analysis in the Age of Precision Medicine	GMS 6860	3
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Advanced Molecular and Cell Biology	PCB 5532	3
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Human Genetics	PCB 6665	3
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***IBBS Electives***

Students may choose from the following approved IBBS electives toward fulfillment of the Integrative Biology elective requirement. Students may elect to complete up to 6 credits designated Special Topics with the approval of their Ph.D. supervisor and/or supervisory committee.

Integrated Morphology 1	BMS 6102C	4
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Integrated Morphology 2	BMS 6104C	4
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Autonomic Function and Disease	BMS 6523	3
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Fundamentals of General Pathology	BMS 6601	3
Brain Diseases: Mechanism and Therapy	BMS 6736	3
Biomedical Data and Informatics	BSC 6459	3
Neural Plasticity	GMS 6021	3
Biomedical Science Core Technologies Laboratory	GMS 6091C	3
Macromolecular for Human Diseases	GMS 6301	3
Molecular Basis of Disease and Therapy	GMS 6302	3
Pharmacology	GMS 6513	3
Advanced Pharmacology	GMS 6551	3
Principles of Neuroimmunology	GMS 6708	3
Biomedical Concepts and Translational Applications	GMS 6847	3
Data Interpretation and Analysis in the Age of Precision Medicine	GMS 6860	3
Host Defense and Inflammation	MCB 6208	3
Advanced Molecular and Cellular Biology	PCB 5532	3
Neurobiology of Addiction	PCB 5844	3
Advanced Cell Physiology	PCB 6207	3
Emerging Applications in Oncology and Pharmacogenomics	PCB 6230	3
Molecular Basis of Human Cancer	PCB 6235	3
Problem-Based Immunology	PCB 6238	3
Tumor Immunology	PCB 6239	3
Human Genetics	PCB 6665	3
Integrating Genomics into Predictive Health	PCB 6667	3

Molecular Biology of the Cardiovascular System and Cardiac Disease	PCB 6705	3
Molecular Mechanism of Aging and Age-Related Diseases	PCB 6817	3
Adult Neurogenesis	PCB 6848	3
Physiology of the Heart	PCB 6885	3
Special Topics	PCB 6933	3
Developmental Neurobiology	PSB 6515	3

## Environmental Science Concentration (IBES) Electives

### *IBES Electives*

Students enrolled in the IBES concentration must complete at least one course from each of the two focal areas below toward fulfillment of the Integrative Biology elective requirement. Students may elect to complete up to 6 credits of Special Topics with the approval of their Ph.D. supervisor and/or supervisory committee.

### *Statistics and Modeling*

Experimental Design and Biometry	PCB 6456	3
Modeling Groundwater Movement	GLY 6836	3
Ecological Theory	PCB 6406	3

### *Ecology and Earth Sciences*

Special Topics	BSC 6936	3
Biogeography	GEO 5305	3
Plants and People	GEO 6317	3
Environmental Restoration	EVR 6334	3
Flora of South Florida	BOT 5155	2
Flora of South Florida Lab	BOT 5155L	2
Advanced Plant Physiology	BOT 6506	2

Advanced Plant Physiology Lab	BOT 6506L	2
Conservation Biology	PCB 6045	3
Marine Ecology	PCB 6317	3
Advanced Ecology	PCB 6046	3
Marine Ecology Lab and Field Studies	PSB 6317L	2
Freshwater Ecology	PCB 6307	3
Freshwater Ecology Lab	PCB 6307L	2
Environmental Physiology	PCB 6749	3
Marine Geology	GLY 5736C	3
Advanced Topics in Applied, Coastal, and Hydrogeology	GLY 5934	3
Coastal Environments	GLY 6737	3
Shore Erosion and Protection	GLY 5575C	3
Global Environmental Change	GLY 6746	3
Environmental Geophysics	GLY 6457	3
Methods in Hydrogeology	GLY 6838	3
Natural History of Indian River Lagoon	OCB 6810	3
Marine Global Change	OCE 6019	3
Seminar in Ichthyology	ZOO 6459	1-2
Marine Invertebrate Zoology	ZOO 6256	3
Marine Invertebrate Zoology Lab	ZOO 6256L	2
Natural History of Fishes	ZOO 6456	3
Natural History of Fishes Lab	ZOO 6456L	2
Seminar on Emerging Topics in Avian Ecology	ZOO 6544C	1

Chemistry for Environmental Scientists	CHS 6611	3
Environmental Geochemistry	GLY 5243	3
Physiology of Marine Animals	PCB 6775	3
Introduction to GIS in Planning	URP 6270	3
Principles of Geographic Information Systems	GIS 5051C	3
Applications in Geographic Information Systems	GIS 5100C	3
Programming in Geographic Information Systems	GIS 5103C	3
Remote Sensing of the Environment	GIS 5038C	3
Digital Image Analysis	GIS 5033C	3
Hyperspectral Remote Sensing	GIS 6127	3
Topics in Geoinformation Science	GIS 6120	3

## Marine Science and Oceanography (IBMO) Core Courses and Elective Courses

### *IBMO Core Courses*

Students who enter the IBMO concentration without these two courses or equivalent must complete the core courses listed below. Completion of these courses may be used toward fulfillment of the Integrative Biology elective requirement.

Biological Oceanography	OCB 6066	3
<b><i>Choose one of the following courses</i></b>		
Chemical Oceanography	OCC 6050	3
Physical and Geological Oceanography	OCE 6097	3

### *IBMO Electives*

Students may choose from the following IBMO electives for fulfillment of the Integrative Biology elective requirement. Students may elect to complete up to 6 credits designated Special Topics with the approval of their Ph.D. supervisor and/or supervisory committee.

***Marine Biology***

Advances in Finfish Aquaculture	BSC 6342	3
Special Topics	BSC 6936	3
Aquatic Animal Health	PCB 6772	3
Physiology of Marine Animals	PCB 6775	3
Sensory Biology and Behavior of Fishes	PCB 6871	3
Marine Invertebrate Zoology	ZOO 6256	3
Marine Invertebrate Zoology Lab	ZOO 6256L	2
The Biology of Sea Turtles	ZOO 6406	3
Biology of Sharks and Their Relatives	ZOO 6409	3
Natural History of Fishes	ZOO 6456	3
Natural History of Fishes Lab	ZOO 6456L	2
<b><i>Conservation and Ecology</i></b>		
Marine Conservation Biology	BSC 6316	3
Coral Reef Ecosystems	OCB 6266	3
Coral Reef Ecosystems Lab	OCB 6266L	1
Natural History of the Indian River Lagoon	OCB 6810	3
Conservation Biology	PCB 6045	3
Advanced Ecology	PCB 6046	3
Marine Ecology	PCB 6317	3
Marine Ecology Lab and Field Studies	PCB 6317L	2
Ecological Theory	PCB 6406	3

***Remote Sensing and Geographic Information Systems***

Digital Image Analysis	GIS 5033C	3
Remote Sensing of the Environment	GIS 5038C	3
Principles of Geographic Information Systems	GIS 5051C	3
Applications in Geographic Information Systems	GIS 5100C	3
Programming in Geographic Information Systems	GIS 5103C	3
Topics in Geoinformation Science	GIS 6120	3
Hyperspectral Remote Sensing	GIS 6127	3

### ***Chemistry***

Chemistry for Environmental Scientists	CHS 6611	3
Environmental Geochemistry	GLY 5243	3

### ***Marine Optics***

Underwater Optical Imaging for Marine Scientists	OCE 6267	3
Ocean Monitoring Systems and Implementation Strategies	OCE 6268	3
Marine Optics	OCE 6269	3
Data Processing for Studies and Modeling of Marine Systems	OCE 6673	3

## **Neuroscience Concentration (IBNS) Core Courses and Electives**

### ***IBNS Core Courses***

Students who enter the IBNS concentration with no prior neuroscience coursework must take two of the following five courses. Completion of these courses may be used toward fulfillment of the Integrative Biology elective requirement.

Cellular and Molecular Neuroscience	PSB 6345	3
Systems and Integrative Neuroscience	PSB 6346	3
Practical Cell Neuroscience	BSC 6417C	3

Neurophysiology	PCB 6835C	3
Advanced Neurophysiology Lab	PCB 6837L	3

***IBNS Electives***

Students enrolled in the IBNS concentration must select graduate-level elective courses relevant to the field of neuroscience. Students may choose from the following approved IBNS electives toward fulfillment of the Integrative Biology requirement. Students may elect to complete up to 6 credits of designated Special Topics courses with the approval of their Ph.D. supervisor and/or supervisory committee.

***General Neuroscience***

Special Topics	BSC 6936	3
Cellular and Molecular Neuroscience	PSB 6345	3
Systems and Integrative Neuroscience	PSB 6346	3

***Molecular and Cellular Neuroscience***

Neurobiology of Addiction	PCB 5844	3
Neural Plasticity	GMS 6021	3
Principles of Neuroimmunology	GMS 6708	3
Advanced Cell Physiology	PCB 6207	3
Developmental Neurobiology	PSB 6515	3
Brain Diseases: Mechanisms and Therapy	BMS 6736	3
Cellular Neuroscience and Disease	PCB 6849	3
Practical Cell Neuroscience	BSC 6417C	3
Autonomic Function and Diseases	BMS 6523	3
Neurophysiology	PCB 6835C	3
Advanced Neurophysiology Lab	PCB 6837L	3

Human Neuroanatomy	ZOO 6748	3
<i>Behavioral Neuroscience</i>		
Seminar in Behavioral Neuroscience	PSB 6058	3
Developmental Neuropsychology	PSB 6516	4
Principles of Neuroscience	PSB 6037	3
<i>Cognitive Neuroscience</i>		
Seminar in Cognitive Development	DEP 6067	3
Cognitive Neuroscience	ISC 5465	3
Seminar in Cognition	EXP 6609	3
Seminar in Human Perception	EXP 6208	3
<i>Theoretical and Dynamical Neuroscience</i>		
Introduction to Neural Networks	CAP 5615	3
Introduction to Data Science	CAP 5768	3
Computational Neuroscience 1	ISC 6460	3
Bioinformatics	BSC 6458C	4
Bioinformatics: Engineering Perspectives	BME 6762	3

## NEUROSCIENCE

### DOCTOR OF PHILOSOPHY (PH.D.)

This doctoral program in Neuroscience is a multi-college, multi-institute interdisciplinary degree program organized in partnership with the FAU Brain Institute. Graduate-level instruction is provided by faculty in multiple departments located in the Charles E. Schmidt College of Science, the Charles Schmidt College of Medicine, the College of Engineering and Computer Science, the College of Education and the Harriet L. Wilkes Honors College. Affiliated faculty from the Max Planck Florida Institute for Neuroscience and Scripps Research Florida also participate in the program. The program aims to equip students with the advanced conceptual and technical skills needed to forge productive,

neuroscience-oriented careers in industry, academia and government. Specific details for this doctoral program appear in the [Interdisciplinary Programs](#) section of this catalog.

## BIOLOGICAL SCIENCES

### Faculty:

Milton, S., Chair; Anderson, R.; Baronas-Lowell, D.; Baldwin, J.; Binninger, D.; Brooks, W. R.; Esiobu, N.; Frazier, E.; Godenschwege, T.; Hartmann, J. X.; Hughes, C.; Jia, K.; Kajiura, S.; Koch-Rose, M.; Kumi-Diaka, J.; Lovelace, M.; Lyons, H. J.; Macleod, G.; McCoy, M.; Murphey, R.; Narayanan, R.; Noonburg, E.; Owen, D.; Salmon, M.; Theisen, T.; Weissbach, H., Emeritus; Wyneken, J.; Zhang, X-H.

The Department of Biological Sciences offers undergraduate degree programs leading to the Bachelor of Arts (B.A.) degree and Bachelor of Science (B.S.) degree. A grade of "C-" or better (unless otherwise noted in the course description) is required in all biology AND cognate courses taken as part of the requirements for an undergraduate degree in Biological Sciences. However, students must maintain a "C" average in departmental major courses.

The department also offers a Bachelor of Science in Medical Biology, an Honors Program, the [FAU Max Planck Honors Program](#), a minor in Biological Sciences, and an undergraduate certificate program in Biotechnology. A Bachelor of Science (B.S.) in Neuroscience and Behavior is offered jointly with the Department of Psychology. This major is detailed under the [Psychology Department section](#).

Master's-level degree programs include the Master of Science (M.S.), the Master of Science in Teaching (M.S.T.), and a [Professional Science Master \(P.S.M.\) in Business Biotechnology](#).

Two combined programs are also available. In one, students earn a B.S./M.S. in Biological Sciences and in the other, a [B.S. in Biological Sciences and an M.S. in Environmental Science](#).

### Recency of Undergraduate Credits Transfer Policy

No credits more than 10 years old may be transferred into or applied to an FAU Biology undergraduate program. Any credits that are transferred in are considered earned in the first semester of enrollment at FAU.

[Link to Bachelor of Science Program](#)

[Link to Bachelor of Science with Major in Medical Biology Program](#)

[Link to Additional Undergraduate Offerings](#)

[Link to Combined Programs](#)

[Link to Master's Programs](#)

## BIOLOGICAL SCIENCES

### BACHELOR OF ARTS (B.A.)

*(Minimum of 120 credits required)*

The Bachelor of Arts (B.A.) degree is intended to provide maximum flexibility for students pursuing study in interdisciplinary areas such as environmental science or secondary school teaching. In addition to the University and College degree requirements, students seeking a Bachelor of Arts degree in Biological Sciences must complete the following core requirements. All degree programs require a total of 120 credits, 45 of which must be upper-division credits.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

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#### **Core Requirements - 40-43 credits**

Introduction to Biology at FAU	BSC 1019	0 or
First-Year Interest Group Experience	SLS 1411	1 or
Honors Introduction to Academic Life	SLS 1501	2

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Biological Principles and Lab	BSC 1010, 1010L	4
Biodiversity and Lab	BSC 1011, 1011L	4
General Chemistry 1	CHM 2045	3
General Chemistry 1 Lab	CHM 2045L	1
General Chemistry 2	CHM 2046	3
General Chemistry 2 Lab	CHM 2046L	1
Organic Chemistry 1	CHM 2210	3
Organic Chemistry 2	CHM 2211	3
Methods of Calculus	MAC 2233	3
Experimental Design and Statistical Inference	PSY 3234	3
Physical Science	PSC 2121	3

**Choose four of the courses below**

*Additional courses chosen from this category beyond the four courses may be applied toward the elective requirement.*

One course in Physiology\*\*\* 4-5

Genetics PCB 3063 4

Cell Biology PCB 3023 3

Principles of Ecology PCB 4043 3

Evolution PCB 3674 3

*\*\*\*Students who choose the "One course in Physiology" option above may fulfill this option by choosing one of the below course/lab combinations.*

Principles of Plant Physiology and Lab BOT 4503, 4503L 4

Comparative Animal Physiology and Lab PCB 4723, 4723L 4

Vertebrate Structure Development and Evolution and Lab ZOO 4690, 4690L 5

Human Morphology and Function 1 and Lab	PCB 3703, 3703L	4
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Human Morphology and Function 2 and Lab	PCB 3704, 3704L	4
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### **Biology Electives**

*Choose a minimum of 12 upper-division credits from the list below.*

Vascular Plant Anatomy and Lab	BOT 3223, 3223L	4
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Plant Cell Biology	BOT 4542	3
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Plant Biotechnology	BOT 4734C	3
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Conservation Biology	BSC 3052	3
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Introduction to Biological Research	BSC 3453	1
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Biological Research Writing	BSC 3481	2
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Molecular Genetics of Aging	BSC 4022	3
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Climate Change Biology: Ecosystems to Human Health	BSC 4307	3
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Laboratory Methods in Biotechnology	BSC 4403L	3
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Concepts in Bioinformatics	BSC 4434C	3
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Biology of Cancer	BSC 4806	3
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Directed Independent Study*	BSC 4905	1-3
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Directed Independent Research in Biological Sciences*	BSC 4910	0-3
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Honors Research	BSC 4917	3
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Honors Thesis	BSC 4918	3
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Special Topics	BSC 4930	1-3
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Comparative Animal Behavior	CBH 4024	3
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Critical Thinking in Environmental Science	EVS 4021	3
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Artificial Intelligence Applications in Biology	IDS 4139	3
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General Microbiology and Lab	MCB 3020, 3020L	4
Medical Bacteriology	MCB 4203	3
Virology	MCB 4503	3
Microbial Ecology	MCB 4603	3
Marine Biodiversity and Lab	OCB 4032, 4032L	4
Marine Biology and Lab	OCB 4043, 4043L	4
Marine Microbiology and Molecular Biology and Lab	OCB 4525, 4525L	4
Marine Ecology and Lab	OCB 4633, 4633L	4
Marine Science	OCE 4006	3
Issues in Human Ecology	PCB 3352	3
Genetics Lab	PCB 4067L	3
Immunology	PCB 4233	3
Freshwater Ecology and Lab	PCB 4301, 4301L	4
Molecular Genetics	PCB 4522	3
Genes and Development	PCB 4594	3
Cellular Neuroscience and Disease	PCB 4842	3
Practical Cell Neuroscience	PCB 4843C	3
Invertebrate Zoology and Lab	ZOO 3205, 3205L	5
Introduction to Animal Locomotion	ZOO 4373	3
Ornithology and Lab	ZOO 4472, 4472L	4
Principles of Human Neuroanatomy	ZOO 4742	3

**Note:** PHY 2053 may be substituted for PSC 2121.

\* Students may enroll in a maximum of 3 research credits within a single semester.

**Note:** No more than a total of 5 non-graded (S/U) credits may be used to fulfill biology degree program requirements. Approved non-graded biology electives include:

Directed Independent Study	BSC 4905	1-3
Directed Independent Research in Biological Sciences	BSC 4910	0-3
Seminar	BSC 4932	1
Science Internship	IDS 3941	1-3

**Note:** No more than 2 credits of a seminar course (BSC 4932) may be used to fulfill biology degree program requirements.

**Note:** Biology department approval is required for students wishing to complete the Science Internship for credit. After a student's Science Internship registration request has been processed by the FAU Career Center, the Career Center will communicate directly with the department to request approval on the student's behalf.

**Note:** Students wishing to participate in Medical Shadowing Internship should not enroll in the Science Internship. They should instead enroll in Medical Shadowing Internship (IDS 3940). The Medical Shadowing Internship course cannot be used to fulfill biology degree program requirements.

Students can find detailed flight plan information and General Education Program checklists for biology majors through [University Advising Services](#).

### Environmental Sciences Focus

Complete all of the above and the following electives.

#### Biology Elective

Issues in Human Ecology	PCB 3352	3 <b>or</b>
Environment and Society	EVR 2017	3

#### General Electives

Macroeconomics Principles	ECO 2013	3
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Microeconomics Principles	ECO 2023	3
Environmental Economics	ECP 4302	3
Environmental Ethics	PHI 3640	3

## BIOLOGICAL SCIENCES BACHELOR OF SCIENCE (B.S.)

*(Minimum of 120 credits required)*

The Bachelor of Science (B.S.) degree is recommended for students planning to be professional biologists in industry or governmental service, for graduate work in the biological sciences and for students planning careers in medicine, dentistry or veterinary medicine. In addition to the University and College degree requirements, students seeking a Bachelor of Science degree in Biological Sciences must complete the following degree requirements.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### Core Requirements - 47-51 credits

Introduction to Biology at FAU	BSC 1019	0 or
First-Year Interest Group Experience	SLS 1411	1 or
Honors Introduction to Academic Life	SLS 1501	2

Biological Principles and Lab	BSC 1010, 1010L	4
Biodiversity and Lab	BSC 1011, 1011L	4
General Chemistry 1 and Lab	CHM 2045, 2045L	4
General Chemistry 2 and Lab	CHM 2046, 2046L	4
Organic Chemistry 1	CHM 2210	3
Organic Chemistry 2	CHM 2211	3
Methods of Calculus	MAC 2233	3 <b>or</b>
Calculus with Analytic Geometry 1	MAC 2311	4
College Physics 1	PHY 2053	4 <b>or</b>
General Physics 1	PHY 2048	4
College Physics 2	PHY 2054	4 <b>or</b>
General Physics 2	PHY 2049	4
General Physics 1 Lab	PHY 2048L	1
General Physics 2 Lab	PHY 2049L	1
Experimental Design and Statistical Inference	PSY 3234	3 <b>or</b>
Introduction to Biostatistics	STA 3173	3
<b>Choose four of the courses below</b>		
<i>Additional courses chosen from this category beyond the four courses may be applied toward the elective requirement.</i>		
One course in Physiology***		4-5
Genetics	PCB 3063	4
Cell Biology	PCB 3023	3
Principles of Ecology	PCB 4043	3
Evolution	PCB 3674	3

***\*\*\*Students who select the "One course in Physiology" option above may fulfill this option by choosing one of the below course/lab combinations.***

Principles of Plant Physiology and Lab	BOT 4503, 4503L	4
Comparative Animal Physiology and Lab	PCB 4723, 4723L	4
Vertebrate Structure Development and Evolution and Lab	ZOO 4690, 4690L	5
Human Morphology and Function 1 and Lab	PCB 3703, 3703L	4
Human Morphology and Function 2 and Lab	PCB 3704, 3704L	4

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### **Electives**

***Choose a minimum of 18 upper-division credits from the list below.***

Biochemistry 1	BCH 3033	3
Biochemistry 2 or Biochemistry Lab	BCH 3034 <b>or</b> BCH 3103L	3
Vascular Plant Anatomy and Lab	BOT 3223, 3223L	4
Plant Cell Biology	BOT 4542	3
Principles of Plant Physiology and Lab	BOT 4503, 4503L	4
Plant Biotechnology	BOT 4734C	3
Conservation Biology	BSC 3052	3
Introduction to Biological Research	BSC 3453	1
Biological Research Writing	BSC 3481	2
Molecular Genetics of Aging	BSC 4022	3
Climate Change Biology: Ecosystems to Human Health	BSC 4307	3
Laboratory Methods in Biotechnology	BSC 4403L	3
Concepts in Bioinformatics	BSC 4434C	3

Biology of Cancer	BSC 4806	3
Directed Independent Study*	BSC 4905	1-3
Directed Independent Research in Biological Sciences*	BSC 4910	0-3
Honors Research	BSC 4917	3
Honors Thesis	BSC 4918	3
Special Topics	BSC 4930	1-3
Comparative Animal Behavior	CBH 4024	3
Organic Chemistry Lab	CHM 2211L	2
Critical Thinking in Environmental Science	EVS 4021	3
Artificial Intelligence Applications in Biology	IDS 4139	3
General Microbiology and Lab	MCB 3020, 3020L	4
Medical Bacteriology	MCB 4203	3
Virology	MCB 4503	3
Microbial Ecology	MCB 4603	3
Marine Biodiversity and Lab	OCB 4032, 4032L	4
Marine Biology and Lab	OCB 4043, 4043L	4
Marine Microbiology and Molecular Biology and Lab	OCB 4525, 4525L	4
Marine Ecology and Lab	OCB 4633, 4633L	4
Marine Science	OCE 4006	3
Issues in Human Ecology	PCB 3352	3
Genetics Lab	PCB 4067L	3
Immunology	PCB 4233	3
Freshwater Ecology and Lab	PCB 4301, 4301L	4

Molecular Genetics	PCB 4522	3
Genes and Development	PCB 4594	3
Cellular Neuroscience and Disease	PCB 4842	3
Practical Cell Neuroscience	PCB 4843C	3
Biological Bases of Behavior	PSB 3002	3
Invertebrate Zoology and Lab	ZOO 3205, 3205L	5
Introduction to Animal Locomotion	ZOO 4373	3
Ornithology and Lab	ZOO 4472, 4472L	4
Principles of Human Neuroanatomy	ZOO 4742	3

\* Students may enroll in a maximum of 3 research credits within a single semester.

**Note:** No more than a total of 5 non-graded (S/U) credits may be used to fulfill biology degree program requirements. Approved non-graded biology electives include:

Directed Independent Study	BSC 4905	1-3
Directed Independent Research in Biological Sciences	BSC 4910	0-3
Seminar	BSC 4932	1
Directed Independent Research in Environmental Science	EVS 4916	0-3
Science Internship	IDS 3941	1-3

**Note:** No more than 2 credits of a seminar course (BSC 4932) may be used to fulfill biology degree program requirements.

**Note:** Biology department approval is required for students wishing to complete the Science Internship for credit. After a student's Science Internship registration request has been processed by the FAU Career Center, the Career Center will communicate directly with the department to request approval on the student's behalf.

**Note:** Students wishing to participate in Medical Shadowing Internship should not enroll in the

Science Internship. They should instead enroll in Medical Shadowing Internship (IDS 3940). The Medical Shadowing Internship course cannot be used to fulfill biology degree program requirements.

Students can find detailed flight plan information and General Education Program checklists for biology majors through [University Advising Services](#).

## **HONORS IN THE MAJOR—BIOLOGICAL SCIENCES**

Eligible undergraduate students may apply to participate in the Department of Biological Sciences' Honors in the Major program. There are two paths to attaining Honors in the Major. Students who fulfill all requirements associated with one of the biology honors pathways successfully and have an overall GPA of 3.2 or greater at the time of degree conferral will receive a designation of Honors in the Major on their transcripts. The transcript designations, "Honors in Biological Sciences—Research Thesis" or "Honors in Biological Sciences—Research," will mark participation in the one of the two paths.

### **Honors in Biological Sciences—Research Thesis**

The Department of Biological Sciences offers an Honors Thesis Program that recognizes research accomplishments of talented undergraduates. Eligible students must have a minimum of 20 credits in biology and an overall GPA of 3.2. Students usually begin the program in their junior year and conduct independent, supervised research during their junior and senior years. A written paper and a seminar describing the results of their research are required in the senior year. Interested students should contact the faculty member whose research interests are closest to those the student wishes to pursue.

### **Honors in Biological Sciences—Research**

The Department of Biological Sciences offers an Honors Research Program that recognizes research accomplishments of talented undergraduates. Eligible students must have a minimum of 20 credits in biology and an overall GPA of 3.2. Students usually begin the program in their junior year and conduct independent, supervised research during their junior and senior years. Submission of a grant proposal is required no later than the second semester of the junior year. Presentation of a poster or seminar at a local, regional, national or international research conference/symposium describing the results of the research is required in the senior year. Interested students should contact a faculty member whose research interests are closest to those the student wishes to pursue. Visit the [website](#) for more information.

## **THE FAU MAX PLANCK HONORS PROGRAM (MPHP)**

Eligible College of Science majors in Biology, Psychology, Neuroscience and Behavior and Medical

Biology may apply to participate in this Jupiter-specific honors program for undergraduates. For students pursuing the MPHP, 3 to 6 of the elective credits in their individual program must be applied toward the requirements of the MPHP. These include successful completion of a Capstone experience (1 to 3 credits) and three different MPHP Enrichment courses (1 credit each) from those listed below. A minimum grade of "B" must be achieved in graded courses ("S" in non-graded courses) among these exclusive MPHP course options for the credits to count toward the requirements of the MPHP. Visit the [MPHP website](#) to apply.

## **BIOLOGICAL SCIENCES** UNDERGRADUATE MINOR

*(Minimum of 19 credits required)*

A minor in Biological Sciences consists of a minimum of 19 credits in biology courses, to include Biodiversity with Lab (BSC 1011, 1011L), Biological Principles with Lab (BSC 1010, 1010L), Principles of Ecology (PCB 4043) and additional courses at the 3000 level or above, at least one of which must be a lab course. Of the 19 credits, at least 15 must be earned from FAU. All courses must be completed with a grade of "C-" or better.

## **BIOTECHNOLOGY** UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The certificate program in Biotechnology is designed to provide undergraduate students with the necessary foundations for a career in biotechnology in conjunction with their academic major. Particular emphasis is placed on application of biotechnology to studies in botany, biochemistry, environmental sciences, marine biology, microbiology, medicine or pharmacology.

To enter the program, a student must have 15 credits of work at a senior institution with a minimum GPA of 2.5 and a year each of general biology, general chemistry, general physics and mathematics through one semester of calculus. A grade of "C-" or better must be attained in each course in biology, chemistry and biotechnology, and an overall and upper-division GPA of at least 2.5 is required at graduation. Students must also earn a "B-" or better in the following laboratory courses: BCH 3103L, BSC 4403L and MCB 3020L.

Students receiving a bachelor's degree in the Department of Biological Sciences or the Department of

Chemistry and Biochemistry will meet the requirements for certification by completing the courses listed below, as well as their prerequisites. Students in other departments should meet with a biotechnology advisor to determine eligibility and requirements for this certification program.

Biochemistry Lab	BCH 3103L	3
Laboratory Methods in Biotechnology	BSC 4403L	3
General Microbiology	MCB 3020	3
General Microbiology Lab	MCB 3020L	1
Genetics	PCB 3063	4
<b>Total Credits</b>		<b>14</b>

### Secondary Education Program

A program leading to teacher certification in biology is available through the Department of [Curriculum and Instruction](#) in the College of Education.

## MEDICAL BIOLOGY BACHELOR OF SCIENCE (B.S.)

*(Minimum of 120 credits required)*

The Bachelor of Science (B.S.) with Major in Medical Biology program provides undergraduate preparation for students interested in pursuing professional degrees in medicine, dentistry, pharmacy, veterinary medicine or graduate degrees in the biomedical sciences. In addition to University and college degree requirements, students seeking a B.S. with Major in Medical Biology must complete the following requirements.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete lower-division requirements (including the requirements of the [General Education Program](#)) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or state college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

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**Core Requirements - 63-64 credits, 25-26 upper-division credits**

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Biochemistry 1	BCH 3033	3
Biological Principles and Lab	BSC 1010, 1010L	4
Biodiversity and Lab	BSC 1011, 1011L	4
General Chemistry 1 and Lab	CHM 2045, 2045L	4
General Chemistry 2 and Lab	CHM 2046, 2046L	4
Organic Chemistry 1	CHM 2210	3
Organic Chemistry 2 and Lab	CHM 2211, 2211L	3
Life Science Calculus <b>or</b>	MAC 2241	4 <b>or</b>
Calculus with Analytic Geometry 1	MAC 2311	4
General Microbiology and Lab	MCB 3020, 3020L	4
Genetics	PCB 3063	4
Cell Biology	PCB 3023	3
Human Morphology and Function 1 and Lab <b>or</b>	PCB 3703, 3703L	4 <b>or</b>
Vertebrate Structure Development and Evolution and Lab	ZOO 4690, 4690L	5
Human Morphology and Function 2 and Lab <b>or</b>	PCB 3704, 3704L	4 <b>or</b>
Comparative Animal Physiology and Lab	PCB 4723, 4723L	4
College Physics 1 <b>or</b>	PHY 2053	3 <b>or</b>
General Physics 1	PHY 2048	3
College Physics 2 <b>or</b>	PHY 2054	4 <b>or</b>

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General Physics 2	PHY 2049	4
General Physics 1 Lab	PHY 2048L	1
General Physics 2 Lab	PHY 2049L	1
Experimental Design and Statistical Inference <b>or</b>	PSY 3234	3 <b>or</b>
Introduction to Biostatistics	STA 3173	3
<b>Electives</b>		
<i>Choose a minimum of 12 upper-division credits from the list below.</i>		
Biochemistry 2 <b>or</b> Biochemistry Lab	BCH 3034 <b>or</b> BCH 3103L	3
Molecular Genetics of Aging	BSC 4022	3
Laboratory Methods in Biotechnology	BSC 4403L	3
Biology of Cancer	BSC 4806	3
Directed Independent Research in Biological Sciences ***	BSC 4910	0-3
Special Topics	BSC 4930	1-3
Comparative Animal Behavior	CBH 4024	3
RI: Introduction to Drug Design	CHM 4273	3
RI: Structural Biochemistry	CHM 4350	3
Directed Independent Study***	CHM 4905	1-4
Senior Seminar	CHM 4930	1
Artificial Intelligence Applications in Biology	IDS 4139	3
Medical Bacteriology	MCB 4203	3
Virology	MCB 4503	3

Evolution	PCB 3674	3
Principles of Ecology	PCB 4043	3
Genetics Lab	PCB 4067L	3
Immunology	PCB 4233	3
Molecular Genetics	PCB 4522	3
Genes and Development	PCB 4594	3
Cellular Neuroscience and Disease	PCB 4842	3
Practical Cell Neuroscience	PCB 4843C	0-3
Directed Independent Study***	PCB 4905	1-3
Directed Independent Research***	PCB 4915	1-3
Directed Independent Research***	PCB 4916	0-3
Special Topics	PCB 4930	1-8

\*\*\*Students may enroll in a maximum of 3 research credits within a single semester.

**Note:** No more than a total of 5 non-graded (S/U) credits may be used to fulfill biology degree program requirements.

Directed Independent Research in Biological Sciences	BSC 4910	0-3
Directed Independent Study***	CHM 4905	1-4
Science Internship	IDS 3941	1-3
Directed Independent Study***	PCB 4905	1-3
Directed Independent Research***	PCB 4915	1-3
Directed Independent Research***	PCB 4916	0-3

**Note:** Biology department approval is required for students wishing to complete the Science Internship for credit. After a student's Science Internship registration request has been processed by the [FAU Career Center](#), the Career Center will communicate directly with the department to request approval on the student's behalf.

**Note:** Students wishing to participate in Medical Shadowing Internship should not enroll in the Science Internship. They should instead enroll in Medical Shadowing Internship (IDS 3940). The Medical Shadowing Internship course cannot be used to fulfill biology degree program requirements.

Students can find detailed flight plan information and General Education Program checklists for biology majors through [University Advising Services](#).

## **BIOLOGICAL SCIENCES**

### **BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

*(Minimum of 153-156 credits required)*

This combined degree program leads to both bachelor's (B.S.) and master's (M.S.) degrees in Biological Sciences with an emphasis in molecular biology and biotechnology. It is a laboratory-intensive curriculum that provides hands-on training for students who are interested in a career in the rapidly expanding field of biotechnology. This program will also provide excellent preparation for pursuing advanced degree studies.

The combined degree program is 153-156 credits, 120 for the undergraduate degree and 33-36 for the master's degree. Students complete the undergraduate degree first, taking no more than 12 credits of graduate coursework in their senior year, which will then be used to satisfy both degrees. See specific program requirements below.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog

course description and a copy of the syllabus for assessment.

### Requirements and Eligibility

Students would typically begin taking graduate courses in their senior year that would apply to both their B.S. and M.S. degrees. The program can be completed in five years by allowing 12 credits of graduate-level courses to fulfill course requirements for both the B.S. and M.S. degrees. Students must maintain a minimum GPA of 3.0 to remain in the program.

The program requires completion of a research project (6 credits). While there is no formal requirement for a thesis, the research must be described in both a written report and an oral presentation to an advisory committee.

Students are expected to work in a research lab during their last two years of the program completing Directed Independent Study and Thesis credits. The research may be completed in the laboratory of any member of the Center for Molecular Biology and Biotechnology (CMBB). Additionally, the research may be done under the direction of a faculty member in Biological Sciences if the project is appropriate to molecular biology and biotechnology. Faculty in other departments may mentor students with approval of the director or the chair.

Prospective students must formally apply to this graduate program and meet all admission requirements: a minimum undergraduate science GPA of 3.0 and GRE scores of at least 151 (verbal) and 148 (quantitative). Students should take the GRE before the end of their junior year.

### Curriculum

The core curriculum for students in the combined B.S./M.S. degree program is the same as for all Biological Sciences students in a Bachelor of Science (B.S.) program. The difference in this combined program is the emphasis on Molecular Biology and Biotechnology.

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#### Molecular Biology and Biotechnology Core and Elective courses

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Laboratory Methods in Biotechnology	BSC 4403L	3
Organic Chemistry 2	CHM 2211	3
Organic Chemistry Lab	CHM 2211L	2
General Microbiology	MCB 3020	3
General Microbiology Lab	MCB 3020L	1

Genetics	PCB 3063	4
Practical Cell Neuroscience	PCB 4843C	3
Molecular Genetics	PCB 4522	3
Genetics Lab	PCB 4067L	3
Molecular Genetics of Aging	BSC 4022	3
Immunology	PCB 4233	3
Cellular Neuroscience and Disease	PCB 4842	3
Plant Biotechnology	BOT 4734C	3

Completion of the courses listed above as well general education courses required of all students will fulfill the requirements for the B.S. in Biological Sciences with emphasis on Molecular Biology and Biotechnology in addition to the 15 credits identified in the [Biotechnology certificate program](#). Those six courses must also be taken to fulfill the B.S./M.S. program.

### **Graduate courses that may count toward both B.S. and M.S. requirements -12 credits**

Students may choose 12 credits from the graduate courses listed below:

Advanced Biochemistry	BCH 6740	3
Bioinformatics	BSC 6458C	4
Directed Independent Study	BSC 6905	1-3
Instrumentation	CHM 6157	3
Advanced Molecular Genetics of Aging	PCB 5246	3
Advanced Immunology	PCB 6236	3
Cellular and Molecular Neuroscience	PSB 6345	3
Systems and Integrative Neuroscience	PSB 6346	3 <b>or</b>
Neurophysiology	PCB 6835C	3
Advanced Neurophysiology Lab	PCB 6837L	3

Cellular Neuroscience and Disease	PCB 6849	3
Principles of Neuroscience	PSB 6037	3
Practical Cell Neuroscience	BSC 6417C	3
Human Neuroanatomy	ZOO 6748	3

Students who complete these courses but decide not to pursue the M.S. degree would be required to take one additional 3-credit elective (approved by their faculty advisor) to fulfill the B.S. requirements.

### **Additional graduate-level courses - 15 credits**

In addition to the 12 credits of graduate courses that fulfill requirements for the B.S. degree, the student must take an additional 15 credits of graduate courses from the list shown above or other graduate courses approved by their advisory committee.

### **Research - 6 credits**

An important element of this program is the hands-on laboratory experience. This requirement is met by the formal laboratory courses as well as individual training in a research laboratory, an experience that cannot be duplicated in laboratory courses. Six credits of Master's Thesis (BSC 6971) must be completed. A formal thesis is not required, but the research must be presented as both a written report and oral presentation to an advisory committee.

### **Comments on Total Credits**

A student could complete the requirements of this program and earn both the B.S. and M.S. degree with a minimum of 153-156 credits. Many students will likely finish with more credits.

## **BIOLOGICAL SCIENCES TO ENVIRONMENTAL SCIENCE BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

*(Minimum of 156 credits required)*

This combined degree program leads to both a bachelor's (B.S.) in Biological Sciences degree and a master's (M.S.) in Environmental Science degree. It is a laboratory and field intensive curriculum that provides hands-on training for students who are interested in a career in the rapidly expanding field of environmental science. This program also provides excellent preparation for the Integrative Biology Ph.D. and the Geosciences Ph.D. The combined degree program is 156 credits, 120 for the undergraduate degree and 36 for the master's degree. Students complete the undergraduate degree first, taking no more than 12 credits of graduate coursework in their senior year, which will then be used to

satisfy both degrees. See specific program requirements below.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Admission Requirements and Eligibility**

Students would take the Graduate Record Exam (GRE) and apply to the B.S./M.S. in their junior year.

In addition to meeting all of the University and College admissions requirements for graduate study, each applicant for the M.S. with Major in Environmental Science must:

1. Have a minimum GRE score of 151 on the verbal section and 151 on the quantitative section. GRE scores more than five years old will not be accepted.
2. Have a minimum 3.0 average for the last 60 credits of undergraduate work.
3. Obtain approval from the Environmental Science Program.

Students would typically begin taking graduate courses in their senior year that would apply to both their B.S. and M.S. degrees. The program can be completed in five years by allowing 12 credits of graduate-level courses to fulfill course requirements for both the B.S. and M.S. degrees. Students must maintain a minimum GPA of 3.0 to remain in the program.

### **Curriculum**

The core curriculum for students in the combined B.S./M.S. degree program satisfies the requirements for the Bachelor of Science (B.S.) in Biological Sciences. The difference in this combined program is the emphasis on environmental science and the 12 credits in graduate courses that count toward the M.S. program taken during the senior year.

**Core Requirements - 47-49 credits**

Biological Principles and Lab	BSC 1010, 1010L	4
Biodiversity and Lab	BSC 1011, 1011L	4
General Chemistry 1 and Lab	CHM 2045, 2045L	4
General Chemistry 2 and Lab	CHM 2046, 2046L	4
Organic Chemistry 1	CHM 2210	3
Organic Chemistry 2	CHM 2211	3
Methods of Calculus	MAC 2233	3 <b>or</b>
Calculus with Analytic Geometry 1	MAC 2311	4
Principles of Ecology	PCB 4043	3
College Physics 1	PHY 2053	4 <b>or</b>
General Physics 1	PHY 2048	4
College Physics 2	PHY 2054	4 <b>or</b>
General Physics 2	PHY 2049	4
General Physics 1 Lab	PHY 2048L	1
General Physics 2 Lab	PHY 2049L	1
Experimental Design and Statistical Inference	PSY 3234	3 <b>or</b>
Introduction to Biostatistics	STA 3173	3
<b>Select at least three of the courses below</b> <i>The other may be used as an elective.</i>		
Genetics	PCB 3063	4
Cell Biology	PCB 3023	3
Principles of Ecology	PCB 4043	3

Evolution	PCB 3674	3
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### Electives

*Choose at least 21 credits from the list below.*

Biochemistry 1	BCH 3033	3
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Vascular Plant Anatomy and Lab	BOT 3223, 3223L	4
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Principles of Plant Physiology and Lab	BOT 4503, 4503L	4
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Plant Biotechnology	BOT 4734C	3
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Laboratory Methods in Biotechnology	BSC 4403L	3
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Biology of Cancer	BSC 4806	3
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Directed Independent Study	BSC 4905	1-3
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Honors Research	BSC 4917	3
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Honors Thesis	BSC 4918	3
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Special Topics (Model Systems Genetics Lab)	BSC 4930	3
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Organic Chemistry Lab	CHM 2211L	2
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General Microbiology and Lab	MCB 3020, 3020L	4
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Medical Bacteriology	MCB 4203	3
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Microbial Ecology	MCB 4603	3
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Marine Biodiversity and Lab	OCB 4032, 4032L	4
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Marine Biology and Lab	OCB 4043, 4043L	4
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Marine Microbiology and Molecular Biology and Lab	OCB 4525, 4525L	4
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Marine Ecology and Lab	OCB 4633, 4633L	4
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Marine Science	OCE 4006	3
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Issues in Human Ecology	PCB 3352	3
Human Morphology and Function 1 and Lab	PCB 3703, 3703L	4
Human Morphology and Function 2 and Lab	PCB 3704, 3704L	4 <b>or</b>
Immunology	PCB 4233	3
Molecular Genetics	PCB 4522	3
Comparative Animal Physiology and Lab	PCB 4723, 4723L	4
Cellular Neuroscience and Disease	PCB 4842	3
Practical Cell Neuroscience	PCB 4843C	3
Invertebrate Zoology and Lab	ZOO 3205, 3205L	5
Introduction to Animal Locomotion	ZOO 4373	3
Ornithology and Lab	ZOO 4472, 4472L	4
Vertebrate Structure Development and Evolution and Lab	ZOO 4690, 4690L	5

Students should consult their faculty advisor concerning additional courses that may be applied to their degree requirements.

### **Graduate courses that may count toward both the B.S. and the M.S. requirements - 12 credits**

Students may select 12 credits from the graduate courses listed below to count for both the B.S. in Biological Sciences and the M.S. in Environmental Science. See the M.S. in Environmental Science degree requirements [here](#) for more courses that count toward the M.S. degree after the B.S. degree is completed.

### **Colloquium**

Environmental Science Colloquium Series (May be taken more than once.)	EVS 6920	1
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### **Core Subject Areas**

***Chemistry***

Chemistry for Environmental Scientists	CHS 6611	3
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***Geographic Information Systems***

Introduction to GIS in Planning	URP 6270	3
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Principles of Geographic Information Systems	GIS 5051C	3
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Remote Sensing of the Environment	GIS 5038C	3
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***Modeling***

Modeling Groundwater Movement	GLY 6836	3
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Ecological Theory	PCB 6406	3
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***Statistics***

Experimental Design and Biometry	PCB 6456	3
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***Conservation and Ecology***

Biogeography	GEO 5305	3
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Plants And People	GEO 6317	3
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Environmental Restoration	EVR 6334	3
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Flora of South Florida	BOT 5155	2
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Flora of South Florida Lab	BOT 5155L	2
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Conservation Biology	PCB 6045	3
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Marine Ecology	PCB 6317	3
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Advanced Ecology	PCB 6046	3
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Marine Ecology Lab and Field Studies	PCB 6317L	2
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Scientific Communication	BSC 6846	3
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Freshwater Ecology	PCB 6307	3
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Freshwater Ecology Lab	PCB 6307L	2
Environmental Physiology	PCB 6749	3
Marine Geology	GLY 5736C	3
Coastal Environments	GLY 6737	3
Shore Erosion and Protection	GLY 5575C	3
Global Environmental Change	GLY 6746	3
Environmental Geophysics	GLY 6457	3
Natural History of the Indian River Lagoon	OCB 6810	3
Marine Global Change	OCE 6019	3
Seminar in Ichthyology	ZOO 6459	1-2
Seminar in Avian Ecology	ZOO 6544C	1
<b><i>Policy and Planning</i></b>		
Human-Environmental Interactions	GEA 6277	3
Geographic Analysis of Population	GEO 5435C	3
Culture, Conservation and Land Use	GEO 6337	3
Coastal Hazards	GLY 6888	3
Introduction to Transportation Planning	URP 6711	3
Environmental Analysis in Planning	URP 6425	3
Environmental Policy and Programs	URP 6429	3
Sustainable Cities	URP 4403	3
Urban and Regional Theory	URP 6840	3
Women, Environment, Ecofeminism, Environmental Justice	WST 6348	3
Environmental Philosophy	PHM 6035	3

## **Thesis Option**

A student curriculum consists of a minimum of 36 credits taken in the following four categories:

*Core Subject Areas:* 22-28 credits from the core subject areas with at least one course from four different core subject areas.

*Electives:* No more than 6 credits of electives taken outside the core areas will be counted toward the degree, and no more than 6 credits may be 4000-level courses. No more than 3 credits of Directed Independent Study may be counted toward this degree.

*Thesis:* 6-12 credits (EVS 6971).

*Colloquium:* 2 credits or more.

## **Non-Thesis Option**

A student curriculum consists of a minimum of 36 credits taken in the following four categories:

*Core Subject Areas:* 25-31 credits from the core subject areas with at least one course from four different core subject areas.

*Directed Independent Study:* 3 credits (EVS 6905) required. Up to 3 additional credits may be taken as electives.

*Electives:* No more than 6 credits of electives taken outside the core areas will be counted toward the degree.

*Colloquium:* 2 credits or more.

## **MASTER'S PROGRAMS**

### **BIOLOGICAL SCIENCES**

### **MASTER OF SCIENCE (M.S.) OR MASTER OF SCIENCE IN TEACHING (M.S.T.)**

*Application Deadline: Spring term - October 1; Fall term - January 15*

### **Departmental Admission Requirements**

In addition to meeting all of the University and College admission requirements for graduate study,

each applicant for the Master of Science or Master of Science in Teaching degree must have:

1. A minimum 3.0 average for the last 60 credits of undergraduate work;
2. Letters of recommendation: Three are required (letters by previous professors are preferable);
3. Statement of goals and interests;
4. [Graduate Student Biology Faculty Advisor Verification](#) form\*;
5. Approval of the Department of Biological Sciences.

\*For Biology Faculty Advisor selection suggestions, students should go to the Biology departmental webpages to examine the fields and interests of individual faculty members. Once students find a Biology faculty member in their field of interest, they should contact the faculty member directly.

## **Degree Requirements**

There are three degree programs available: thesis option, non-thesis option 1 and non-thesis option 2. Specific requirements for each degree are described below.

## **BIOLOGICAL SCIENCES**

### **MASTER OF SCIENCE (M.S.)**

*(Minimum of 36 credits)*

#### **Thesis Option**

This degree program is designed for students whose career goals include a research emphasis. This option is tailored for students doing research or contemplating graduate work for a Ph.D. degree.

This M.S. degree requires a minimum of 36 total credits. Degree requirements include:

1. At least half or 18 credits must be Biology Department courses;
2. 12 credits of graded coursework at the 6000 level (exclusive of any research credits);
3. Before students can register for Master's Proposal Seminar (BSC 6963) (i.e., students formally presenting their research proposal to their committee and subsequent approval by committee), students conducting exploratory research can take up to 6 credits, which can include:
  - a. Up to 3 credits of Directed Independent Research in Biological Sciences (BSC 6917) or up to 3 credits of Directed Independent Study (DIS/DIR), either one taken outside of Biology. Any combination of DIS/DIR credits regardless of source cannot total more than 3 credits that will count toward the degree.
  - b. Up to 3 credits of Master's Thesis (BSC 6971).
4. Master's Thesis Proposal (BSC 6963), 1 credit maximum\*;
5. Master's Thesis Defense Seminar (BSC 6975), 1 credit maximum\*\*;

6. Minimum of 6 credits of Master's Thesis (BSC 6971) is required. Note: No more than 12 credits of Master's Thesis can count toward the degree;
7. Maximum of 3 credits in Directed Independent Research in Biological Sciences (BSC 6917) will count toward the degree, or up to 3 credits of Directed Independent Study (DIS/DIR), either one taken outside of Biology. Any combination of DIS/DIR credits regardless of source cannot total more than 3 credits that will count toward the degree;
8. Remaining courses must be 5000 or 6000 level.

\* For Master's thesis Proposal Seminar requirements, see [Biology Regulations and Procedures](#).

\*\* For Master's Thesis Defense requirement, see [Biology Regulations and Procedures](#) and the Graduate College for current [University thesis requirements](#).

### **Non-Thesis Option 1**

This degree program is designed for students who wish to improve their knowledge in the biological sciences through a rigorous series of courses and exams or for Integrative Biology Ph.D. students choosing Biology for a [Master's Along the Way](#) degree.

This M.S. degree requires a minimum of 36 credits. Degree requirements include:

1. At least half or 18 credits must be Biology Department courses;
2. Eighteen (18) of the 36 credits must be at the 6000 level or higher; the remaining 18 credits must be at the 5000 or 6000 level;
3. Two (2) of the 36 credits must involve courses in which the student presented a formal seminar;
4. Maximum of 3 credits in Directed Independent Research in Biological Sciences Study (BSC 6917) will count toward the degree, or up to 3 credits of Directed Independent Study (DIS/DIR), either one taken outside of Biology. Any combination of DIS/DIR credits regardless of source cannot total more than 3 credits that will count toward the degree;
5. One of the 36 credits must be the Master's Comprehensive Exam (BSC 6962). Students must take and pass a minimum of three written comprehensive exams given by a committee in designated areas within the microbiology and organismal specialties. Question types require written responses in essay and definition formats. See [FAU Regulations for Biology Master's Degrees](#) for complete requirements to complete the Master's Comprehensive Exam course.

**Note:** Master's Thesis (BSC 6971), Master's Thesis Proposal (BSC 6963) and Master's Thesis Defense (BSC 6975) do not count toward the M.S. Non-Thesis Option 1 degree.

Integrative Biology PH.D. students choosing Biology for a Master's Along the Way degree will be

verified for completion of degree requirements by the Biology Department during the Graduation Audit Check. Consult with the IB Ph.D. advisor early in matriculation to ensure the curriculum followed would satisfy the requirements for the M.S./Non-Thesis Option 1.

## **BIOLOGICAL SCIENCES**

### **MASTER OF SCIENCE IN TEACHING (M.S.T.)**

*(Minimum of 30 credits)*

#### **Non-Thesis Option 2**

This degree program is designed for students who wish to satisfy requirements for teaching in high school or junior college. In addition to regular coursework, students in this option may also elect to complete a Research Report, a short paper describing the results and significance of a circumscribed research project. Depending on background, students may also be required to take 6 credits of an Educational Internship.

The M.S.T. degree requires a minimum of 30 credits, if the student has two years of teaching experience at a secondary or junior college level. The M.S.T. degree requires 36 credits if the student has not completed the student teaching requirement. Degree requirements include:

1. At least half or 15 credits must be Biology Department courses;
2. Fifteen (15) of the 30 credits must be at the 6000 level or higher; the remaining 15 credits must be at the 5000 or 6000 level;
3. Two (2) of the 30 credits must involve courses in which the student presented a formal seminar;
4. Maximum of 3 credits in Directed Independent Research in Biological Sciences Study (BSC 6917) will count toward the degree, or up to 3 credits of Directed Independent Study (DIS/DIR), either one taken outside of Biology. Any combination of DIS/DIR credits regardless of source cannot total more than 3 credits that will count toward the degree;
5. One of the 30 credits (or 36 credits for students without two years prior teaching experience) must be the Master's Comprehensive Exam (BSC 6962). Students must take and pass a minimum of three written comprehensive exams given by a committee in designated areas within the microbiology and organismal specialties. Question types require written responses in essay and definition formats. See [FAU Regulations for Biology Master's Degrees](#) for complete requirements to complete the Master's Comprehensive Exam course;

**Note:** Master's Thesis (BSC 6971), Master's Thesis Proposal (BSC 6963) and Master's Thesis Defense (BSC 6975) do not count toward the M.S. Non-Thesis Option 1 degree.

6. Students must take 6 credits of approved graduate courses in education or another cognate field if they plan to teach in high school and hold a Rank III secondary certificate (obtained independently from this M.S.T. degree), or if the student intends to teach at the college level;
7. Six (6) additional credits of Internship (EDG 6940) are required, except for those with two years of teaching experience at a secondary school or junior college level. Such internships can be completed in the following manner. Students enrolled in EDG 6940 (6 credits) may choose one of the following to fulfill the course requirements:
  - a. Do an internship with one of the local public schools (verified by local school contacts). There is no form to be completed, but rather the student independently lines up an internship opportunity. Once confirmed, the Biology Department will contact the FAU Education Department requesting permission for the student to register for the Internship, EDG 6940. At the end of the term in which the student registers for the internship, the FAU Education Department will contact the Biology Department to verify the student has completed the internship successfully so that a satisfactory grade can be applied. This latter confirmation is done based on the teacher/school in which the student does the internship and who verifies in writing that the internship was completed;
  - b. Teach a laboratory course in the Biology Department (verified by the lab coordinator for time, effort and teaching responsibilities).

## **BUSINESS BIOTECHNOLOGY PROFESSIONAL SCIENCE MASTER (P.S.M.)**

*(Minimum of 34 credits required)*

***Application Deadline: Spring term - October 1; Fall term - January 15***

The Professional Science Master (P.S.M.) with major in Business Biotechnology is a terminal degree for students interested in entering the workforce directly following completion of the degree. The 34-credit program is tailored for the student with undergraduate training in biology or chemistry who is primarily interested in working in the business side of the emerging biotechnology and pharmaceutical industries. This interdisciplinary program, provided in conjunction with the College of Business, includes traditional classroom courses in both business and science, culminating in two internship experiences. One internship provides experience working side-by-side with a research scientist. The second internship exposes the student to the business side of the biotechnology industry.

### **Departmental Admission Requirements**

1. Baccalaureate degree in biology or chemistry. Degrees in other scientific areas can be considered on an individual basis;
2. Graduating undergraduate science GPA of 3.0 or higher;
3. Personal statement of career goals and how the applicant feels this training will help achieve those goals;
4. Three letters of recommendation with at least one from a former professor;
5. [Graduate Student Biology Faculty Advisor Verification](#) form;
6. Approval of the Department of Biological Sciences.

## Degree Requirements

The program requires a total of 34 credits. Student curriculum degree requirements include:

### Core Courses - 10 credits required

Venture Creation	ENT 6016	3
Biotechnology Business Development	ENT 6196	3
Professional Science Master's (P.S.M.) in Business Biotechnology - Scientific Internship	BSC 6946	2
Professional Science Master's (P.S.M.) in Business Biotechnology - Business Internship	MAN 6946	2

\* Each internship will last one semester. One internship will be science oriented with the student working directly with research scientists. The second will involve working on the business and administrative side of the company or institute, including technology transfer and business development offices. The goal is to place students in one of the biomedical institutes (e.g., Scripps Florida and the Max Planck Institute) or an emerging biotechnology business.

### Science Courses

**Choose 15 credits from the list below. May require instructor permission or prerequisites. \*\***

Biochemistry of the Gene	BCH 5415	3
Advanced Biochemistry	BCH 6740	3
Laboratory Methods in Biotechnology	BSC 6408L	3
Practical Cell Neuroscience	BSC 6417C	3

Computer Graphics for Biologists	BSC 6455	3
Bioinformatics	BSC 6458C	4
Scientific Communication (Note: Priority enrollment given to Integrative Biology Ph.D. students)	BSC 6846	3
Special Topics	BSC 6936	3
Advanced Molecular Genetics of Aging	PCB 5245	3
Advanced Genetics Lab	PCB 5064L	3
Genes and Development	PCB 6595	3
Advanced Cell Physiology	PCB 6207	3
Advanced Immunology	PCB 6236	3
Climate Change: Ecosystems to Human Health	PCB 6409	3
RNS Biology and Disease	PCB 6525	3
Reproductive Endocrinology	PCB 6804	3
Advanced Neurophysiology Lab	PCB 6837L	3
Cellular Neuroscience and Disease	PCB 6849	3
Special Topics, including Macromolecular Structure and Function and Protein Misfolding and Disease (3 credits each)	PCB 6933	6
Principles of Neuroscience	PSB 6037	3
Developmental Neurobiology	PSB 6515	3
Human Neuroanatomy	ZOO 6748	3
Structural Biochemistry	CHM 6351	3
Instrumentation	CHM 6157	3
Macromolecules and Human Disease	GMS 6301	3

Host Defense and Inflammation	MCB 6208	3
Advanced Molecular and Cell Biology	PCB 5532	3
Human Genetics	PCB 6665	3
Autonomic Function and Diseases	BMS 6523	3
Molecular Basis of Disease and Therapy	GMS 6302	3
Neurobiology of Addiction	PCB 5844	3
Molecular Basis of Human Cancer	PCB 6235	3
Problem-Based Immunology	PCB 6238	3
Tumor Immunology	PCB 6239	3
Adult Neurogenesis	PCB 6846	3
Advanced Topics in Biochemistry	BCH 6930	3
Brain Diseases: Mechanism and Therapy	BMS 6736	3
Advanced Plant Biotechnology	BOT 6735C	3
Advanced Drug Development	CHM 6277C	3
Drug Design	CHM 6278	3
Advanced Topics in Organic Chemistry	CHM 6380	3
Advanced Drug Formulation	CHM 6279C	3
Pharmacology	GMS 6513	3
Special Topics	ISC 6930	1-3
Neurophysiology	PCB 6835C	3
Special Topics	PCB 6933	1-8

\*\* The science courses are electives, and their selection will vary depending on student demand, resources, faculty and new courses being developed. The list of science courses above would be appropriate for a student in this program. Other science courses can be taken as science electives with

the approval of the faculty advisor.

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### **Business Courses - 9 credits required**

*Choose from list below.*

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Financial Accounting Concepts	ACG 6027	3
Technology Commercialization Strategies	ENT 6186	3
Developing and Marketing Innovations	MAR 6837	3
Advanced Marketing Management	MAR 6815	3
Marketing Functions/Processes	MAR 6055	3
Entrepreneurship and Venture Capital	ENT 6428	3
Leadership and Organizations	MAN 6296	3
Human Resources Management	MAN 6156	3
Advanced Business Plan Development	ENT 6116	3
Project Management	MAN 6581	3
Cross-Cultural Management and Human Resources	MAN 6609	3

**Important comment about courses.** The list of business courses shown above reflect those currently listed in the University Catalog. Availability will vary depending on the offerings in each department. New courses may have been added since this information was published. Appropriate business courses can be taken as business electives with the approval of the student's graduate program advisor.

For additional information about this degree program, contact David Binninger, [binninge@fau.edu](mailto:binninge@fau.edu).

## CHEMISTRY AND BIOCHEMISTRY

### **Faculty:**

Cudic, P., Chair; Allani, S. K.; Ande, P.; Chamely-Wiik, D. M.; Cudic, M.; Du, D.; Fields, G. B.; Haces, A. M.; Haky, J. E., Emeritus; Huchital, D. H.; Lepore, S.; Louda, J. W.; Merk, V.; Rezler, E. M.; Roche, S. P.; Sempertegui, T.; Snyder, P. A.; Stawikowski, M.; Terentis, A. C.; Weissbach, H., Emeritus; West, L.; Wiesenfeld, J. R., Emeritus; Yildirim, I.

*Accreditation: The Department of Chemistry and Biochemistry offers a Bachelor of Science program with a curriculum that is approved by the Committee on Professional Training of the American Chemical Society.*

Chemistry is the central science encompassing elements of physics, biology and mathematics as well as unique elements of its own. The Chemistry and Biochemistry Department offers three undergraduate degree programs in Chemistry (one B.A. and two B.S.), which are designed to focus on individual student interests, and an [Honors Program in Chemistry](#). A certificate program in [Pharmaceutical Technology](#) is designed for students who plan to pursue a career in the biopharmaceutical industry. A [Post-Baccalaureate Research Education Program in Chemistry \(PREPChem\)](#) certificate program is also offered. At the master's level, the department offers a Master of Science in Chemistry (M.S.) and a Master of Science in Teaching (M.S.T.). A doctoral degree program in Chemistry (Ph.D.) is also available.

[Link to Combined Program](#)

[Link to Master's Programs](#)

[Link to Doctoral Program](#)

The Bachelor of Arts (B.A.) is a liberal arts degree intended for students planning professional careers in chemistry-related professions. These include health professions (medicine, dentistry, pharmacy), environmental consulting, technical sales and secondary school teaching. This degree is often pursued by students studying in related disciplines (e.g., biological sciences, geology, neuroscience and behavior) who wish to obtain a second major or a second degree.

The Bachelor of Science (B.S.) degrees are designed for students preparing for professional careers as chemists in industry, government or academic research. Students interested in pursuing advanced graduate studies in chemistry, biochemistry or related fields should also follow one of the B.S. degree programs.

Two B.S. degree programs in Chemistry are offered:

1. The **ACS-Approved B.S. Program** offers a rigorous program of study in all aspects of inorganic, organic, analytical, biochemical and physical chemistry. Its curriculum corresponds to certification guidelines of the Committee on Professional Training of the American Chemical Society (ACS). An ACS-certified degree can offer advantages in job placement and graduate

school admission.

- The **B.S. Program with a Concentration in Biochemistry** is designed for students pursuing careers in biochemistry and related disciplines, such as molecular biology, biophysics and pharmacology. Additionally, premedical students who wish to pursue a research-oriented curriculum might be interested in this program.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### Core Curriculum

All Chemistry majors must take a minimum of 16 credits of chemistry at Florida Atlantic University. The following courses are required for all Chemistry majors:

Biochemistry 1	BCH 3033	3
General Chemistry 1	CHM 2045	3
General Chemistry 1 Lab	CHM 2045L	1
General Chemistry 2	CHM 2046	3
General Chemistry 2 Lab	CHM 2046L	1
Organic Chemistry 1	CHM 2210	3
Organic Chemistry 2	CHM 2211	3
Organic Chemistry Lab	CHM 2211L	2
Quantitative Analysis	CHM 3120	2

Quantitative Analysis Lab	CHM 3120L	2
General Physics 1 Lab	PHY 2048L	1
General Physics 2 Lab	PHY 2049L	1

## CHEMISTRY

### BACHELOR OF ARTS (B.A.)

In addition to the core curriculum, the B.A. degree program requires the following courses:

Biochemistry Lab	BCH 3103L	3
Introduction to Physical Chemistry	CHM 3400	3 <b>or</b>
Physical Chemistry 1	CHM 3410	3
Inorganic Chemistry	CHM 3609	3
Inorganic Chemistry Lab	CHM 3609L	1
College Algebra	MAC 1105	3
Methods of Calculus	MAC 2233	3
College Physics 1	PHY 2053	4 <b>or</b>
General Physics 1	PHY 2048	3
College Physics 2	PHY 2054	4 <b>or</b>
General Physics 2	PHY 2049	3

## CHEMISTRY

### BACHELOR OF SCIENCE (B.S.)

ACS-Approved Program

In addition to the core curriculum, the ACS-Approved B.S. degree program requires the following courses.

Chemical Literature	CHM 3060	1
Physical Chemistry 1	CHM 3410	3
Physical Chemistry 1 Lab	CHM 3410L	2
Physical Chemistry 2	CHM 3411	3
Physical Chemistry 2 Lab	CHM 3411L	2
Inorganic Chemistry	CHM 3609	3
Inorganic Chemistry Lab	CHM 3609L	1
Bioanalytical Instrumentation	CHM 4139	2
Bioanalytical Instrumentation Lab	CHM 4139L	2
Calculus with Analytic Geometry 1	MAC 2311	4
Calculus with Analytic Geometry 2	MAC 2312	4
General Physics 1	PHY 2048	4
General Physics 2	PHY 2049	4
<b><i>Choose one of the following.</i></b>		
Calculus with Analytic Geometry 3	MAC 2313	3
Differential Equations 1	MAP 2302	3
<b><i>Choose three of the following.</i></b>		
Biochemistry 2	BCH 3034	3
RI: Advanced Biochemistry	BCH 4035	3
Environmental Chemistry	CHM 3080	3
Organic Chemistry 3	CHM 4220	3

RI: Introduction to Drug Design	CHM 4273	3
Introduction to Drug Development	CHM 4274C	3
RI: Structural Biochemistry	CHM 4350	3
Materials Chemistry	CHM 4714	3
Directed Independent Study	CHM 4905	3
Directed Independent Research in Chemistry	CHM 4915	1-3
Directed Independent Research in Chemistry	CHM 4916	0-3

## **CHEMISTRY**

### **BACHELOR OF SCIENCE (B.S.)**

#### **Biochemistry Concentration**

In addition to the core curriculum, the B.S. in Chemistry (Biochemistry concentration) program requires the following courses.

Biochemistry 2	BCH 3034	3
Biochemistry Lab	BCH 3103L	3
RI: Advanced Biochemistry	BCH 4035	3
Biological Principles	BSC 1010	3
Biological Principles Lab	BSC 1010L	1
Chemical Literature	CHM 3060	1
Physical Chemistry 1	CHM 3410	3
Physical Chemistry 1 Lab	CHM 3410L	2
Calculus with Analytic Geometry 1	MAC 2311	4
Experimental Design and Statistical Inference	PSY 3234	3

General Physics 1	PHY 2048	4 <b>or</b>
College Physics 1	PHY 2053	4
General Physics 2	PHY 2049	4 <b>or</b>
College Physics 2	PHY 2054	4

***Choose a minimum of one of the following.***

Environmental Chemistry	CHM 3080	3
Inorganic Chemistry	CHM 3609	3
Inorganic Chemistry Lab	CHM 3609L	1
Bioanalytical Instrumentation	CHM 4139	2
Bioanalytical Instrumentation Lab	CHM 4139L	2
Organic Chemistry 3	CHM 4220	2
RI: Introduction to Drug Design	CHM 4273	3
Introduction to Drug Development	CHM 4274C	3
RI: Structural Biochemistry	CHM 4350	3
Materials Chemistry	CHM 4714	3

***Choose a minimum of one of the following.***

General Microbiology	MCB 3020	3
General Microbiology Lab	MCB 3020L	1
Genetics	PCB 3063	3
Cell Biology	PCB 3023	3
Biological Bases of Behavior	PSB 3002	3

*Choose a minimum of one of the following.*

Seminar	BSC 4932	1
Directed Independent Study	CHM 4905	1-3
Science Internship	IDS 3941	1-3
Directed Independent Research in Chemistry	CHM 4915	1-3
Directed Independent Research in Chemistry	CHM 4916	0-3

Additional courses for Pre-Professional majors:

*Required*

Biodiversity	BSC 1011	3
Biodiversity Lab	BSC 1011L	1

*Suggested Electives*

Comparative Animal Behavior	CBH 4024	3
Medical Shadowing Internship	IDS 3940	1
Human Morphology and Function 1	PCB 3703	3
Human Morphology and Function 1 Lab	PCB 3703L	1 <b>or</b>
Comparative Vertebrate Morphology	ZOO 4690	3
Comparative Vertebrate Morphology Lab	ZOO 4690L	1
Human Morphology and Function 2	PCB 3704	3
Human Morphology and Function 2 Lab	PCB 3704L	1 <b>or</b>
Comparative Animal Physiology	PCB 4723	3
Comparative Animal Physiology Lab	PCB 4723L	1

## Secondary Education Program

A program leading to teacher certification in chemistry is available. For information, contact the Department of [Curriculum and Instruction](#) in the College of Education.

## Honors Program in Chemistry

The Honors Program in Chemistry provides an enriched learning experience for high-performing students. The program focuses on the enhancement of research and communication skills required for scientists. Students gain a positive perspective on working in the interdisciplinary research field becoming prepared to continue their education in a graduate program or within the highly competitive STEM job market.

### Admission Requirements

Students enter the Honors Program in Chemistry in one of two ways:

1. Students who have not completed any upper-level courses are eligible to enter the program if they have an overall GPA of 3.5 or higher.
2. Students who have completed upper-level chemistry courses are eligible to enter the program if they have an overall GPA of 3.3 or higher and are nominated by a faculty member.

Students must download and submit a completed application, along with all supporting documents on the checklist, in a single email to [honorschemistry@fau.edu](mailto:honorschemistry@fau.edu).

### Standards for Maintaining Active Status

Students admitted to the Honors Program in Chemistry must maintain high academic and ethical standards. Students may be dismissed from the program if they fail to maintain an overall GPA of 3.0, fail to maintain a GPA of 3.3 in their major or violate the code of academic integrity. In the event of withdrawal or dismissal from the Honors Program, credits earned will be applied to a traditional bachelor's degree in chemistry with no penalty.

### Honors-Level Enrichment

Honors compacts apply to a total of at least three upper-level chemistry and biochemistry courses. Each of the honors compacts has established criteria including written assignments and an oral presentation. Honors compacts also require individual or group assignments. Chemical Literature, CHM 3060, for 1 credit with a supplemental honors component, is a required course for students in the program.

### Capstone Experience

1. The capstone experience consists of at least two semesters of Honors Directed Independent Research in Chemistry, CHM 4915, for a minimum of 2 credits; and
2. A senior-level thesis must be produced by students taking CHM 4915 with an honors designation and they must register for Honors Thesis in Chemistry, CHM 4972, for credits. The thesis has additional criteria for which students should consult qualified research faculty members.

## Graduation Requirements

To be eligible for Honors in Chemistry at graduation, students must have:

1. Achieved an overall 3.0 GPA or higher;
2. A Chemistry GPA of 3.3 or higher;
3. Completed a minimum of three (7 credits) upper-level honors compacts; and
4. Completed the Honors Thesis in Chemistry, CHM 4972 for 2 credits, obtaining a grade of “B+” or higher.

## PHARMACEUTICAL TECHNOLOGY UNDERGRADUATE CERTIFICATE

*(Minimum of 14 credits required)*

The Pharmaceutical Technology certificate program provides students with a unique opportunity to understand the drug development process, emphasizing the roles that biology, chemistry, biochemical, analytical, formulation and regulatory issues play in the process of drug discovery.

This 14-credit certificate program is designed for individuals who have completed higher undergraduate level courses including Organic Chemistry 2 and Biochemistry 1. This certificate is also intended for individuals who plan to pursue a career in the biopharmaceutical industry.

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### Required Courses - 10 credits

Bioanalytical Instrumentation	CHM 4139	2
Bioanalytical Instrumentation Lab	CHM 4139L	2
RI: Introduction to Drug Design	CHM 4273	3
Introduction to Drug Development	CHM 4274C	3

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### Elective Courses - 4 credits

Biochemistry Laboratory	BCH 3103L	3
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RI: Advanced Biochemistry	BCH 4035	3
Seminar	BSC 4932	1
Organic Chemistry 3	CHM 4220	3
Introduction to Drug Formulation	CHM 4276C	3
RI: Structural Biochemistry	CHM 4350	3
Special Topics (i.e., Organic Spectroscopy)	CHM 4933	3
Special Topics (i.e., Chemical Biology)	CHM 4933	3
Science Internship	IDS 3941	1-3

## **POST-BACCALAUREATE RESEARCH EDUCATION PROGRAM IN CHEMISTRY (PREPCHEM)**

### GRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The PREPCHEM certificate is intended for undergraduates who hold a recent bachelor's degree and who have the desire to further build their knowledge and research skills to become more competitive candidates for admission to graduate school.

The program requires students to take traditional graduate courses in chemistry (9 credits) and undergraduate/graduate courses in the field of artificial intelligence (AI) (6 credits). AI is being used more frequently by chemists to perform various tasks and is becoming an integral part of modern drug discovery processes.

All required graduate courses, including Graduate Research, are offered through the department of Chemistry and Biochemistry. Data Science and AI courses are offered in the College of Science or the College of Engineering and Computer Science.

Upon completion of 15 credits, students receive a post-baccalaureate certificate. When admitted to the M.S. or Ph.D. program in Chemistry at FAU, up to 12 graduate credits from this certificate program may be applied to the degree program. For questions concerning the transfer of credits to a degree program, contact the department of Chemistry and Biochemistry.

## Required Coursework

### *Chemistry - 9 credits*

Introduction to Chemical Research	CHM 5944	1
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Instrumentation	CHM 6157	3
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Graduate Research	CHM 6918	4
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Graduate Seminar	CHM 6935	1
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### Artificial Intelligence (6 credits)

Applications of Artificial Intelligence	CAP 2603	3
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Computational Foundations of Artificial Intelligence	CAP 5625	3 or
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Introduction to Data Science	CAP 5768	3
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## COMBINED PROGRAM

### CHEMISTRY

### BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.)

### COMBINED PROGRAM

*(Minimum of 150 credits required)*

The joint B.S./M.S. degree program allows students to complete both a B.S. degree and a non-thesis M.S. degree in Chemistry within five years. The combined degree program includes a minimum of 150 credits, where the undergraduate degree program requires 120 credits, and the graduate program requires 30 credits at graduate level. Students may count 12 credits of graduate coursework (5000 level or higher) taken as an undergraduate to satisfy both degrees. Students apply to the program during their junior year or upon completion of 60 credits in the B.S. in Chemistry program at FAU.

### Admission Requirements

Students must have completed 60 credits in the B.S. in Chemistry program at FAU and have a minimum undergraduate science GPA of 3.25. The GRE exam is not required.

**Graduate Courses to Be Shared (12 credits)**

Graduate courses that will count toward both the B.S. and M.S. degrees must be at the 5000 level or higher. The application of 12 graduate credits to both the undergraduate and graduate degrees is justified because of the academic continuity of the two programs.

**Graduate Core Courses Required for the M.S. Degree (10 credits)**

All students must register for Introduction to Chemical Research (CHM 5944) once admitted into the program. To fulfill requirements for the M.S., students must also take the required core courses.

**Required Core Courses - 10 credits**

Introduction to Chemical Research	CHM 5944	1
Bioanalytical Methods and Applications	CHM 6137	2
Kinetics and Energetics of Reactions	CHM 6720	3
Synthesis and Characterization	CHM 6730	3
Current Topics in Bioanalysis	CHM 6937	1

**Graduate Elective Courses Required for the MS Degree (20 credits)**

Students must take 20 credits of elective courses in Chemistry (5000 or 6000-level) to complete requirements for the MS degree Non-Thesis option.

**Degree Requirements**

Students admitted to the program will fulfill all the requirements for both the BS and MS degree.

**Funding Opportunities**

Students admitted to the program are eligible for financial support in the form of [Pathways Scholarships](#) offered through the Graduate College.

**MASTER'S PROGRAMS****CHEMISTRY****MASTER OF SCIENCE (M.S.)**

[Link to Doctoral Program](#)

**Admission Requirements**

In addition to the University's general graduate admission requirements, the typical prerequisite for admission to the Master of Science in the Department of Chemistry and Biochemistry is the Bachelor of Science degree in Chemistry or its equivalent. Students must have achieved a minimum 3.0 GPA in the last 60 credits of undergraduate work, a "B" average in chemistry courses taken at the junior and senior undergraduate levels, or scores of at least 150 (verbal) and 152 (quantitative) on the Graduate Record Exam.

### **Degree Program**

Master of Science (M.S.) students will be required to complete the five core courses as well as three electives. These electives may be selected from graduate-level courses offered in the Department of Chemistry and Biochemistry or other departments in the University. Elective courses must be approved by the student's research advisory committee. Students must also write a thesis describing their research, which must be approved by the research advisory committee. The thesis must be defended successfully by the student in an oral exam with the research advisory committee. The student's research advisory committee must consist of at least three members, two of whom are members of the Chemistry and Biochemistry graduate faculty. One committee member must be from outside the Department of Chemistry and Biochemistry and must also hold an appointment to the graduate faculty. The minimum degree requirements are listed below. Students taking the non-thesis option may take a maximum of 3 credits of Graduate Research under the direction of a chemistry faculty member and are not required to have a research advisory committee.

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#### **Core Courses - 10 credits**

Introduction to Chemical Research	CHM 5944	1
Bioanalytical Methods and Applications	CHM 6137	2
Synthesis and Characterization	CHM 6730	3
Kinetics and Energetics of Reactions	CHM 6720	3
Current Topics in Bioanalysis	CHM 6937	1

#### **Elective courses - 9 credits**

*Select three courses at the 5000, 6000 or 7000 level from the Chemistry Department*

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#### ***Thesis Option - 11 credits***

Graduate Seminar	CHM 6935	1
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Master's Thesis	CHM 6971	10
<b><i>Non-Thesis Option - 11 credits</i></b>		
Graduate Seminar	CHM 6935	1
<i>The remaining 10 credits will be taken from the following courses</i>		
Advanced Biochemistry	BCH 6740	3
Advanced Topics in Biochemistry	BCH 6930	3
Organic Chemistry 3	CHM 5224	3
Materials Chemistry	CHM 5716	3
Advanced Drug Development	CHM 6277C	3
Drug Design	CHM 6278	3
Advanced Drug Formulation	CHM 6279C	3
Structural Biochemistry	CHM 6351	3
Advanced Topics in Organic Chemistry	CHM 6380	3
Medicinal Chemistry	CHM 6428	3
Graduate Research	CHM 6918	1-3
Chemistry for Environmental Scientists	CHS 6611	3
<b>Minimum Degree Total</b>		<b>30</b>

## CHEMISTRY

### MASTER OF SCIENCE (M.S.) ALONG THE WAY TO THE DOCTOR OF PHILOSOPHY (PH.D.)

#### *Master's en Passant*

Ph.D. students wishing to earn the non-thesis master's degree along the way are required to have passed the Ph.D. candidacy exam and have completed the following courses:

Introduction to Chemical Research	CHM 5944	1
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Bioanalytical Methods and Applications	CHM 6137	2
Current Topics in Bioanalysis	CHM 6937	1
Synthesis and Characterization	CHM 6730	3
Kinetics and Energetics of Reactions	CHM 6720	3
Graduate elective courses		9
Graduate seminar (non-thesis)	CHM 6935	1
Advanced Research in Chemistry (1 - 9 cr.)	CHM 7978	10
<b>Minimum Degree Total</b>		<b>30</b>

## CHEMISTRY

### MASTER OF SCIENCE IN TEACHING (M.S.T.)

In addition to the University's general graduate admission requirements, the typical prerequisite for admission to the Master of Science in Teaching degree program in the Department of Chemistry and Biochemistry is the Bachelor of Arts degree in chemistry or its equivalent. Students must have achieved a minimum 3.0 GPA in the last 60 credits of undergraduate work or scores of at least 148 (verbal) and 147 (quantitative) on the Graduate Record Exam.

#### Degree Program

The M.S.T. in Chemistry program provides post-baccalaureate education for secondary teachers, community college instructors and other individuals who wish to pursue these careers. The degree program requires a minimum of 30 credits of graduate coursework. Students also perform independent study (graduate research) under the supervision of a Department of Chemistry and Biochemistry faculty member, typically with a chemical education theme, and culminating in the presentation of a graduate seminar. The minimum degree requirements are listed below.

#### Core Courses - 10 credits

Introduction to Chemical Research	CHM 5944	1
Bioanalytical Methods and Applications	CHM 6137	2
Current Topics in Bioanalysis	CHM 6937	1

Synthesis and Characterization	CHM 6730	3
Kinetics and Energetics of Reactions	CHM 6720	3
<b>Electives - 9 credits</b>		
<i>Choose three courses from the following, maximum of 3 credits at the 5000 level</i>		
Advanced Biochemistry	BCH 6740	3
Advanced Topics in Biochemistry	BCH 6930	3
Organic Chemistry 3	CHM 5224	3
Materials Chemistry	CHM 5716	3
Advanced Organic Chemistry	CHM 6225	3
Advanced Drug Development	CHM 6277C	3
Drug Design	CHM 6278	3
Advanced Drug Formulation	CHM 6279C	3
Structural Biochemistry	CHM 6351	3
Advanced Topics in Organic Chemistry	CHM 6380	3
Medicinal Chemistry	CHM 6428	3
Chemistry for Environmental Scientists	CHS 6611	3
<b>Other Requirements - 5 credits</b>		
Graduate Research (may be taken over multiple terms)	CHM 6918	4
Graduate seminar (non-thesis)	CHM 6935	1
<b>Education Requirements - 6 credits</b>		
<i>Choose two courses from the College of Education.</i>		
<b>Minimum Degree Total</b>		<b>30</b>

## DOCTORAL PROGRAM

# CHEMISTRY

## DOCTOR OF PHILOSOPHY (PH.D.)

### Admission Requirements

The minimum admission requirements for the Ph.D. program in the Department of Chemistry and Biochemistry are a minimum 3.0 GPA in the last 60 credits of undergraduate work, a "B" average in chemistry courses taken at the junior and senior undergraduate levels or scores of at least 150 (verbal) and 152 (quantitative) on the Graduate Record Exam. **The Ph.D. program in Chemistry requires 80 credits, minimum.**

### Degree Program

Students will be required to complete five core courses as well as three electives. If students have completed graduate-level courses previously, they may be substituted for one or more electives at the discretion of the Department of Chemistry and Biochemistry Graduate Programs Committee. Elective courses must be approved by the student's research advisory committee. Students must also complete Introduction to Chemical Research and present a seminar to the department (1 credit each). In addition to the courses listed below, Ph.D. students are required to earn Advanced Research in Chemistry (CHM 7978) credits until they are admitted to candidacy.

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### Core Courses - 10 credits

Introduction to Chemical Research	CHM 5944	1
Bioanalytical Methods and Applications	CHM 6137	2
Synthesis and Characterization	CHM 6730	3
Kinetics and Energetics of Reactions	CHM 6720	3
Current Topics in Bioanalysis	CHM 6937	1

**Electives - 9 credits** - *Select three courses at the 5000, 6000 or 7000 level from the Chemistry Department. May not select Graduate Research, CHM 6918, as an elective.*

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### Other Requirements - 36 credits

Graduate Seminar (non-thesis)	CHM 6935	1
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**Research - up to 35 credits** - *Advanced Research in Chemistry credits are taken to fulfill full-time enrollment requirements while advancing toward candidacy*

Advanced Research in Chemistry	CHM 7978	1-9
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**Dissertation - 25 credits (minimum) - taken after admission to candidacy**

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Dissertation (minimum)	CHM 7980	25
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<b>Minimum Degree Total</b>		<b>80</b>
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Each student's research advisory committee must have at least four members, three of whom are members of the Chemistry and Biochemistry Ph.D. program's graduate faculty. One committee member must be from outside the Department of Chemistry and Biochemistry and have graduate faculty status.

### **Admission to Candidacy**

The Candidacy Exam must be attempted within three months of finishing all coursework and successfully completed within five months. This exam will be specifically designed for each student by the student's research advisory committee according to department guidelines and will focus on the student's selected area of research. Students will be admitted to candidacy upon successful completion of the Candidacy Exam and thereafter must enroll in CHM 7980, Dissertation.

### **Research Proposal**

In addition to presenting a proposed plan for thesis research activities to the advisory committee, students must also complete an independent research proposal in a field distinct from their thesis research. This proposal is to be completed within three months of completing the Candidacy Exam. The goal of this exercise is for the student to prepare an original written research proposal and successfully defend this orally to his/her committee. This is designed to test the student's ability to identify and design a research project, which will test problem-solving skills and ability to distill relevant literature and design appropriate experiments to address specific research questions.

### **Dissertation**

Students must also write a dissertation describing their research, which must be approved by the research advisory committee. The dissertation must be successfully defended by the student in an oral exam with the research advisory committee.

## **COMPLEX SYSTEMS AND BRAIN SCIENCES**

**(This program is being phased out and no longer accepting students.)**

### **Faculty:**

Perry, G. W., Interim Director; Kelso, J. A. S., Eminent Scholar in Science; Alexander, W.; Anzures,

G.; Barenholtz, E.; Blanks, J.; Bressler, S.; Engeberg, E.; Ester, E.; Fuchs, A.; Hock, H.; Hong, S.; Pandya, A. S.; Prentice, H. M.; Shen, W.; Sheremata, S.; Stackman, R.; Vertes, R. P.; Wu, J. Y.

## **COMPLEX SYSTEMS AND BRAIN SCIENCES**

### **DOCTOR OF PHILOSOPHY (PH.D.)**

*(Minimum of 80 credits required)*

The Center for Complex Systems and Brain Sciences offers a Ph.D. degree that encompasses diverse areas of study. These areas are organized around a unifying conceptual framework that is both timely and exciting since the mathematical and computational tools of non-linear dynamics will provide major breakthroughs in the understanding of mind, brain and behavior. Students will acquire research skills in specific experimental systems in the brain and behavioral sciences while developing theoretical concepts and tools within a specially tailored graduate program.

#### **Admission to Doctoral Study**

In addition to meeting all of the University and College requirements for admission to graduate study, applicants for the Doctor of Philosophy (Ph.D.) degree must meet each of the following criteria:

1. The student must have a baccalaureate degree from an accredited college or university;
2. The student must have a quantitative score of 155 or higher on the Graduate Record Examination;
3. The student must have a minimum 3.0 average in the last 60 credits of undergraduate work; and
4. The student must be approved for admission to the program by the faculty of the Center for Complex Systems and Brain Sciences.

#### **Degree Requirements**

Students must complete, with grades of "B" or better, a minimum of 80 graduate credits. This must include the following six core courses: Cognitive Neuroscience, Nonlinear Dynamic Systems, Methods in Complex Systems, Cellular and Molecular Neuroscience and Systems and Integrative Neuroscience and Proseminar on Research in Complex Systems. Students must also participate in a weekly journal club. The remaining credits may be completed through additional courses, directed research and dissertation credits at the discretion of the student and advisor. A minimum of 12 dissertation credits is required. In addition, the student must complete a research paper, directed by program faculty, by the end of the second year.

A central requirement for the Ph.D. degree program is submission and defense of a dissertation based on original work in an area of specialization acceptable to the student's doctoral committee. Approval of a dissertation proposal by the doctoral committee must precede the experimental and/or theoretical

work required.

### Admission to Candidacy

Admission to doctoral candidacy depends on the student's successful completion of the core coursework, successful completion of the qualifying research paper, satisfactory annual reviews of the student's progress by program faculty and selection of a program faculty member who is willing to chair the student's doctoral dissertation.

### Transfer Credits

Any transfer credits toward requirements for the Ph.D. degree program must be approved by the program faculty as well as by the University. A maximum of 30 credits may be transferred.

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#### Core Courses - 18 credits

Nonlinear Dynamic Systems	ISC 5453	3
Cognitive Neuroscience	ISC 5465	3
Methods in Complex Systems	ISC 6450	3
Proseminar in Research in Complex Systems	ISC 6937	3
Cellular and Molecular Neuroscience	PSB 6345	3
Systems and Integrative Neuroscience	PSB 6346	3

**Electives - 9 credits** 9

*Choose 9 credits from the following prefixes: EXP, ISC, PSB, and PSY*

**Other Requirements - 41 credits** 41

*Choose 41 credits from additional graduate courses, directed independent study (ISC 6908) and dissertation credits (ISC 7980) as approved by the advisor*

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#### Dissertation - 12 credits

Dissertation (taken over multiple terms)	ISC 7980	12
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**Minimum Degree Total** **80**

## ENVIRONMENTAL SCIENCE

(See [Interdisciplinary Programs](#) at the beginning of this Charles E. Schmidt College of Science section for the undergraduate Environmental Science certificate, the graduate Environmental Restoration certificate and the Master of Science with Major in Environmental Science.)

## EXERCISE SCIENCE AND HEALTH PROMOTION

### Faculty:

Zourdos, M., Chair; Boerum, C.; Canteri, L.; Graves, B. S.; Hall, M.; Huang, C-J.; Khamoui, A.; Papania, M.; Penhollow, T.; Pyka, I.; Visavadiya, N.; Whitehurst, M.; Zoeller, R.

### Purpose/Mission Statement

The Department of Exercise Science Health Promotion (ESHP) offers interdisciplinary undergraduate and graduate degrees designed to prepare students for careers in clinical, corporate and community/nonprofit-based physical fitness and health promotion, postgraduate study in applied health sciences (e.g., physical therapy physician assistant) as well as advanced study in human biology/physiology. Whether in the role of practitioner or scientist, the ESHP graduate is uniquely prepared to influence the health and well-being of their fellow citizens. Importantly, the impact of ESHP graduates includes the potential to reduce healthcare costs when those they touch adopt a healthy lifestyle and dramatically reduce the occurrence and severity of diseases (obesity, heart disease, hypertension, diabetes, cancer) associated with sedentary living.

[Link to Combined Programs](#)

[Link to Master's Program](#)

## **EXERCISE SCIENCE AND HEALTH PROMOTION** BACHELOR OF SCIENCE (B.S.)

### Exercise Physiology Concentration

### Pre-Physical Therapy and Occupational Therapy Concentration

To be eligible for the B.S., all Exercise Science and Health Promotion majors must complete all ESHP upper division and prerequisite courses with a grade of "C" or better. Upon completion of the Exercise Science and Health Promotion baccalaureate program, students will be prepared to take the American

College of Sports Medicine examination for the Certified Exercise Physiologist (EP) and the National Strength and Conditioning Association examination for Certified Strength and Conditioning Specialist (CSCS) and Certified Personal Trainer (CPT).

### **General Admission Requirements**

1. Satisfy all University and program entrance requirements;
2. Satisfy the General Education Program requirements;
3. Meet with your assigned ESHP advisor each semester.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Concentrations**

The B.S. degree in Exercise Science and Health Promotion offers two concentrations:

1. Exercise Physiology
2. Pre-Physical Therapy and Occupational Therapy (Pre-PT/OT)

### **Undergraduate Program Lower-Division Requirements for Exercise Physiology Concentration**

The Exercise Physiology concentration is available in person or fully online. Students planning on majoring in Exercise Science and Health Promotion can satisfy some University and general education requirements while simultaneously satisfying ESHP program requirements. All prerequisite courses require a grade of "C" or better. The following prerequisites or their equivalents are required for all ESHP majors in the Exercise Physiology concentration:

**Required Prerequisite Courses**

Health, Fitness for Life	HSC 2100	2
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First Aid and CPR	HSC 2400	2
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***Mathematics***

College Algebra	MAC 1105	3
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Information Systems Fundamentals	ISM 2000	3
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Introductory Statistics	STA 2023	3
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***Social Sciences***

Anatomy/Physiology 1 and 2 (including labs)	BSC 2085, 2085L and BSC 2086, 2086L	8
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General Chemistry 1 (including lab)	CHM 2045, 2045L	4
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General Psychology	PSY 1012	3
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PEM/PEN courses (2 separate) 1 to 2 credits each		2-4
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Sciences (Natural)		3
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**Note:** Both Biochemistry and General Physics are recommended for students planning on graduate study.

***Upper-Division Requirements******Third Year Fall Semester - 16 credits***

Exercise Physiology 1	APK 4110	3
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Exercise Lab Techniques	APK 4110L	1
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Perspectives in Health	HSC 3102	3
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Introduction to Health and Exercise Science	PET 3102	3
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Nutrition in Health and Exercise	PET 3361	3
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Elective 1	Varies	3
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***Spring Semester - 16 credits***

Exercise Physiology 2	APK 4134	3
Health Promotion	HSC 4581	3
Applications of Training Physiology 1	PEP 3192	3
Exercise Testing and Prescription	PET 4550	4
Elective 2	Varies	3

***Fourth Year Fall Semester - 16 credits***

Applications of Training Physiology 2	PEP 4138	3
Neurophysiology of Human Movement	PET 3050	3
Biomechanics	PET 4340C	4
Elective 3	Varies	3
Elective 4	Varies	3

***Spring Semester - 12 credits***

Internship (permission required and all required courses must be completed)	PET 4946	3-9
Elective 5	Varies	3

**Electives*****Choose five courses from the following.***

Biological Principles	BSC 1010	3
Biodiversity	BSC 1011	3
General Chemistry 2	CHM 2046	3
Organic Chemistry 1	CHM 2210	3
Organic Chemistry 2	CHM 2211	3

Psychopathology	CLP 4144	3
Psychology of Human Development	DEP 3053	3
Health Care Medical Terminology	HSA 3534	3
Stress Management	HSC 4104	3
Sexual Health Peer Education	HSC 4133	3
Weight Management	HSC 4139	3
Substance Abuse	HSC 4143	3
Methods of Calculus	MAC 2233	3
Genetics	PCB 3063	4
Tactical Strength and Conditioning	PET 4093	3
Obesity: Biological, Psychological and Cultural Factors	PET 4263	3
Management Principles in Exercise Science and Health Promotion	PET 4404	3
Directed Independent Study (faculty supervision required)	PET 4905	3
Special Topics	PET 4930	3
Practicum in Exercise Science and Health Promotion	PET 4947	3
College Physics 1	PHY 2053	3
College Physics 2	PHY 2054	3
Sociological Perspectives	SYG 1000	3

### **Undergraduate Program Lower-Division Requirements for Pre-Physical Therapy and Occupational Therapy Concentration**

Students planning on majoring in Exercise Science and Health Promotion can satisfy some University

and general education requirements while simultaneously satisfying ESHP program requirements. All prerequisite courses require a grade of "C" or better. The following prerequisites or their equivalents are required for all ESHP majors in the Pre-PT/OT concentration. This concentration is available in person only with some online course options.

**Note:** All students are advised to take Methods of Calculus (MAC 2233) instead of Information Systems Fundamentals (ISM 2000) because MAC 2233 is a prerequisite for the required course, College Physics 1 (PHY 2053).

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### Required Prerequisite Courses

Health, Fitness for Life	HSC 2100	2
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First Aid and CPR	HSC 2400	2
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### *Mathematics*

College Algebra	MAC 1105	3
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Information Systems Fundamentals	ISM 2000	3 or
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Methods of Calculus	MAC 2233	3
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Introductory Statistics	STA 2023	3
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### *Social Sciences*

Anatomy/Physiology 1 and 2 (including labs)	BSC 2085, 2085L and BSC 2086, 2086L	8
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General Chemistry 1 (including lab)	CHM 2045, 2045L	4
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General Psychology	PSY 1012	3
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PEM/PEN courses (2 separate) 1 to 2 credits each		2-4
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Sciences (Natural)		3
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**Note:** Students must have at least 45 credits of 3000 level or higher courses. Students are advised to be cognizant of the courses required for their potential PT or OT program. College Physics 2 is often

required. In this case, the remaining 11 electives after College Physics 2 should be taken at the 3000 level or higher to meet the 45\-credit rule.

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## Upper-Division Requirements

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### *Third Year Fall Semester - 16 credits*

Biological Principles	BSC 1010	3
Biological Principles	BSC 1010L	1
Perspectives in Health	HSC 3102	3
Introduction to Health and Exercise Science	PET 3102	3
Nutrition in Health and Exercise	PET 3361	3
Elective 1	Varies	3

### *Spring Semester - 16 credits*

Exercise Physiology 1	APK 4110	3
General Chemistry 2	CHM 2046	3
General Chemistry 2 Lab	CHM 2046L	1
Psychopathology	CLP 4144	3
Applications of Training Physiology 1	PEP 3192	3
Elective 2	Varies	3

### *Fourth Year Fall Semester - 18 credits*

Exercise Lab Techniques	APK 4110L	1
Neurophysiology of Human Movement	PET 3050	3
Biomechanics	PET 4340C	4
College Physics 1	PHY 2053	4
Elective 3	Varies	3

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Elective 4	Varies	3
<b><i>Spring Semester - 12 credits</i></b>		
Internship (permission required and all required courses must be completed)	PET 4946	3-9
Elective 5	Varies	3
<b>Electives</b> <i>Choose five courses from the following.</i>		
Exercise Physiology 2	APK 4134	3
Biodiversity	BSC 1011	3
Biodiversity Lab	BSC 1011L	1
Organic Chemistry 1	CHM 2210	3
Organic Chemistry 2	CHM 2211	3
Psychopathology	CLP 4144	3
Psychology of Human Development	DEP 3053	3
Health Care Medical Terminology	HSA 3534	3
Stress Management	HSC 4104	3
Sexual Health Peer Education	HSC 4133	3
Weight Management	HSC 4139	3
Substance Abuse	HSC 4143	3
Health Promotion	HSC 4581	3
General Microbiology	MCB 3020	3
General Microbiology Lab	MCB 3020L	1
General Pathophysiology	NUR 4125	3
Genetics	PCB 3063	4

Applications of Training Physiology 2	PEP 4138	3
Tactical Strength and Conditioning	PET 4093	3
Obesity: Biological, Psychological and Cultural Factors	PET 4263	3
Management Principles in Exercise Science and Health Promotion	PET 4404	3
Exercise Testing and Prescription	PET 4550	3
Directed Independent Study (faculty supervision required)	PET 4905	3
Special Topics	PET 4930	3
Practicum in Exercise Science and Health Promotion	PET 4947	3
College Physics 2	PHY 2054	3
Interpersonal Communication Skills	SDS 4410	3
Sociological Perspectives	SYG 1000	3

### General Advice

1. Meet with an ESHP-assigned advisor at least once each semester.
2. Work with your ESHP advisor to complete and sign an official plan of study, "the contract" after meeting foreign language and Writing Across Curriculum (Gordon Rule) requirements; after receiving the College of Education welcome letter; and after attaining a "C" or better in all prerequisite courses for the ESHP program.
3. Student must have current student professional liability insurance during the internship. See internship coordinator for specific information.

### Program Completion Criteria

Students who elect to fulfill the University foreign language requirement in addition to the ESHP requirements will receive a Bachelor of Science (B.S.) degree. To be eligible for graduation, the student must satisfy all University, College, department and program requirements and complete the ESHP

upper-division requirements and prerequisite courses with a grade of "C" or better in each course.

## COMBINED PROGRAMS

### **HEALTH SCIENCE TO EXERCISE SCIENCE AND HEALTH PROMOTION BACHELOR OF ARTS (B.A.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

This accelerated program leads to both a Bachelor of Arts (B.A.) and a Master of Science (M.S.) degree. Students enrolled in the B.A. with Major in Health Science may only enter the combined program through the Health Promotion concentration. Students apply to the B.A./M.S. program in the first semester of their senior year and begin taking graduate courses during the last semester of their senior year; those courses would apply to both the B.A. and M.S. degrees. The combined degree program is 138 credits, regardless of thesis option. That is, 120 for the undergraduate degree and 18 for the additional credits in the health promotion graduate area within Exercise Science and Health Promotion (ESHP).

Students complete the undergraduate degree first. Up to 12 credits of graduate work taken in the senior year can be counted toward both the undergraduate and graduate degrees. Students wishing to apply to the accelerated M.S. program may do so in semester 10 of their undergraduate program. Students must achieve a "B" or higher in the three core courses (listed below) and have a 3.25 cumulative GPA in their academic work. This program may be useful for students wishing to enter a profession that requires a master's degree; however, the department generally does not advise obtaining a B.A., if the goal is to obtain a Ph.D. eventually.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree program from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Requirements and Eligibility

In addition to the University and Charles E. Schmidt College of Science requirements, students seeking a B.A. in Health Science and M.S. in Exercise Science and Health Promotion (Health Promotion Track) must complete the following courses.

## Undergraduate Health Science Core Curriculum

To meet University degree requirements, students in ESHP must also have completed required credits in courses outside the Charles E. Schmidt College of Science.

B.A./M.S. candidates must complete all core courses listed in the [Bachelor of Science with Major in Health Science](#) section of this catalog, along with the requirements for their specific track within Health Science.

Substitutions for required courses within the B.A. in Health Science program are allowed with prior approval from the department's undergraduate advising committee. Graduate courses are listed below.

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### Required Courses - 18 credits

Personal and Community Health	HSC 5203	3
Evaluation of Health Promotion and Health Education Programs	HSC 6115	3
Needs Assessment and Program Planning in Health Promotion	HSC 6248	3
Epidemiological Basis of Health	HSC 6505	3
Health Behavior, Health Education and Health Promotion	HSC 6585	3
Research and Evaluation	PET 6505C	3

### Electives - 12 credits

*Required courses for other tracks may be used for electives and/or students may choose from the following.*

Advanced Exercise Physiology 1	APK 6111	3
Advanced Exercise Physiology 2	APK 6116	3

Advanced Sports Nutrition	HUN 6247	3
Drug Abuse Behavior	HSC 5156	3
Chronic Stress and Population Health	HSC 5177	3
Human Obesity	HSC 5178	3
Advanced Concepts in Health Promotion	HSC 5587	3
Exercise Neuroscience	PET 5077	3
Strength and Conditioning Program Design	PET 5391	3
Advanced Exercise Testing and Prescription	PET 5521	3
Special Topics	PET 5930	1-4
Practical Applications in Exercise Science and Health Promotion	PET 5947	1-3
Skeletal Muscle Physiology	PET 6382	3
Directed Independent Study	PET 6905	1-5
Thesis option		6
<b>Total</b>		<b>30 credits</b>

**Read the following information thoroughly.**

1. A master's degree is a minimum of 30 credits.
2. If choosing the thesis option, there could be a maximum of 6 additional credits.
3. Up to 3 credits of Directed Independent Study (PET 6905) may be counted toward this degree.
4. FAU students who applied through the accelerated B.S./M.S. program may count 12 credits for both degrees.
5. Thesis students must adhere to thesis deadlines. See the ESHP graduate coordinator and thesis chair.
6. All students must turn in a graduate application according to the FAU academic calendar.

**EXERCISE SCIENCE AND HEALTH PROMOTION  
BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.)**

## COMBINED PROGRAM

This accelerated program leads to both a Bachelor of Science (B.S.) and a Master of Science (M.S.) degree. Students apply to the B.S./M.S. program during their senior year and begin taking graduate courses during the first semester of their senior year. Those courses would apply to both the B.S. and M.S. degrees. The combined degree program is either 138 or 144 credits depending on the graduate track or thesis versus non-thesis options. That is, 120 for the undergraduate degree and 18 (non-thesis), or 24 (thesis) additional credits for the graduate degree.

Students complete the undergraduate degree first. Up to 12 credits of graduate work taken in the senior year can be counted toward both the undergraduate and graduate degrees. Students wishing to apply to the accelerated M.S. program may do so in semester 10 of their undergraduate program. Students must have a 3.25 cumulative GPA in their academic work.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree program from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Requirements and Eligibility**

In addition to the University and Charles E. Schmidt College of Science requirements, students seeking a B.S. in Exercise Science and Health Promotion and M.S. in Exercise Science and Health Promotion (Health Promotion Track) must complete the following courses.

### **Undergraduate Health Science Core Curriculum**

To meet University degree requirements, students in ESHP must also have completed required credits in courses outside the Charles E. Schmidt College of Science.

Substitutions for required courses are allowed with prior approval from the department's undergraduate advising committee. Graduate courses are listed below.

**Exercise Physiology - 18 credits**

Advanced Exercise Physiology 1	APK 6111	3
Advanced Exercise Physiology 2	APK 6116	3
Advanced Sports Nutrition	HUN 6247	3
Exercise Neuroscience	PET 5077	3
Strength and Conditioning Program Design	PET 5391	3
Advanced Exercise Testing and Prescription	PET 5521	3
Research and Evaluation	PET 6505C	3

**Electives - 12 credits**

Drug Abuse Behavior	HSC 5156	3
Chronic Stress and Population Health	HSC 5177	3
Human Obesity	HSC 5178	3
Personal and Community Health	HSC 5203	3
Advanced Concepts in Health Promotion	HSC 5587	3
Evaluation of Health Promotion Education	HSC 6115	3
Needs Assessment and Program Planning in Health Promotion	HSC 6248	3
Epidemiological Basis of Health	HSC 6505	3
Health Behavior, Health Education and Health Promotion	HSC 6585	3
Exercise Neuroscience	PET 5077	3
Special Topics	PET 5930	1-4
Practical Applications in Exercise Science and Health Promotion	PET 5947	1-3

Skeletal Muscle Physiology	PET 6382	3
Directed Independent Study	PET 6905	1-5
Thesis option		6
<b>Total</b>		<b>30 credits</b>
Health Promotion (18 credits)		
Personal and Community Health	HSC 5203	3
Evaluation of Health Promotion and Health Education Programs	HSC 6115	3
Needs Assessment and Program Planning in Health Promotion	HSC 6248	3
Epidemiological Basis of Health	HSC 6505	3
Health Behavior, Health Education and Health Promotion	HSC 6585	3
Research and Evaluation	PET 6505C	3
<b>Electives - 12 credits</b>		
Advanced Exercise Physiology 1	APK 6111	3
Advanced Exercise Physiology 2	APK 6116	3
Advanced Sports Nutrition	HUN 6247	3
Drug Abuse Behavior	HSC 5156	3
Chronic Stress and Population Health	HSC 5177	3
Human Obesity	HSC 5178	3
Advanced Concepts in Health Promotion	HSC 5587	3
Exercise Neuroscience	PET 5077	3
Strength and Conditioning Program Design	PET 5391	3

Advanced Exercise Testing and Prescription	PET 5521	3
Special Topics	PET 5930	1-4
Practical Applications in Exercise Science and Health Promotion	PET 5947	1-3
Skeletal Muscle Physiology	PET 6382	3
Directed Independent Study	PET 6905	1-5
Thesis option		6
<b>Total</b>		<b>30 credits</b>

## **EXERCISE SCIENCE AND HEALTH PROMOTION**

### MASTER OF SCIENCE (M.S.)

#### **Exercise Physiology Concentration**

#### **Health Promotion Concentration**

The master's degree with major in Exercise Science and Health Promotion may be structured with a concentration in Exercise Physiology or Health Promotion. Both concentrations are offered online only.

#### **Admission Requirements**

1. The student must meet College and University requirements.
2. Any applicant seeking admission into the M.S. program with a major in Exercise Science and Health Promotion must have a minimum grade point average of 3.0 in the last 60 credits of undergraduate work attempted prior to receiving the bachelor's degree.
3. Graduate students are required to have CITI certification

#### **Exercise Physiology - 18 credits**

Advanced Exercise Physiology 1	APK 6111	3
Advanced Exercise Physiology 2	APK 6116	3
Advanced Sport Nutrition	HUN 6247	3
Strength and Conditioning Program Design	PET 5391	3

Advanced Exercise Testing and Prescription	PET 5521	3
Research and Evaluation	PET 6505C	3
<b>Electives - 12 credits</b>		
Drug Abuse Behavior	HSC 5156	3
Chronic Stress and Population Health	HSC 5177	3
Human Obesity	HSC 5178	3
Personal and Community Health	HSC 5203	3
Advanced Concepts in Health Promotion	HSC 5587	3
Evaluation of Health Promotion and Health Education Programs	HSC 6115	3
Needs Assessment and Program Planning in Health Promotion	HSC 6248	3
Epidemiological Basis of Health	HSC 6505	3
Health Behavior, Health Education and Health Promotion	HSC 6585	3
Exercise Neuroscience	PET 5077	3
Special Topics	PET 5930	1-4
Practical Applications in Exercise Science and Health Promotion	PET 5947	1-3
Skeletal Muscle Physiology	PET 6382	3
Directed Independent Study	PET 6905	1-5
Thesis option		6
<b>Total</b>		<b>30 credits</b>

**Health Promotion - 18 credits**

Personal and Community Health	HSC 5203	3
Evaluation of Health Promotion and Health Education Programs	HSC 6115	3
Needs Assessment and Program Planning in Health Promotion	HSC 6248	3
Epidemiological Basis of Health	HSC 6505	3
Health Behavior, Health Education and Health Promotion	HSC 6585	3
Research and Evaluation	PET 6505C	3
<b>Electives - 12 credits</b>		
Advanced Exercise Physiology 1	APK 6111	3
Advanced Exercise Physiology 2	APK 6116	3
Advanced Sports Nutrition	HUN 6247	3
Drug Abuse Behavior	HSC 5156	3
Chronic Stress and Population Health	HSC 5177	3
Human Obesity	HSC 5178	3
Advanced Concepts in Health Promotion	HSC 5587	3
Exercise Neuroscience	PET 5077	3
Strength and Conditioning Program Design	PET 5391	3
Advanced Exercise Testing and Prescription	PET 5521	3
Special Topics	PET 5930	1-4
Practical Applications in Exercise Science and Health Promotion	PET 5947	1-3
Skeletal Muscle Physiology	PET 6382	3

Directed Independent Study	PET 6905	1-5
Thesis option		6
<b>Total</b>		<b>30 credits</b>

### Read the following information thoroughly:

1. A master's degree is a minimum of 30 credits.
2. If choosing the thesis option, there could be a maximum of 6 additional credits.
3. Up to 3 credits of Directed Independent Study (PET 6905) may be counted toward this degree.
4. FAU students who applied through the accelerated B.S./M.S. program may count 12 credits for both degrees.
5. Thesis students must adhere to thesis deadlines. See the ESHP graduate coordinator and thesis chair.
6. All students must turn in a graduate application according to the FAU academic calendar.
7. Advanced Exercise Physiology courses are not sequential.

## GEOSCIENCES

### Faculty:

Briggs, T. R., Chair; Berry, L., Emeritus; Comas, X.; Fadiman, M.; Gammack-Clark, J.; Hindle, T.; Ivy, R. L.; Johanson, E.; Liu, W.; Markwith, S.; Oleinik, A.; Petuch, E. J., Emeritus; Polsky, C.; Prokocki, E.; Restrepo, J. I., Emeritus; Roberts, C. E., Emeritus; Xie, Z.; Zhang, C.; Zhang, X.; Zhu, Y.

The Department of Geosciences offers undergraduate degree programs leading to a Bachelor of Arts (B.A.) or a Bachelor of Science (B.S.) with a major in Geosciences. Minors in Geography, Geographic Information Science and Geology are also available as well as two certificate programs in Geographic Information Systems. Descriptions and requirements for all these programs follow.

A grade of "C" or better is required in all courses taken in the department that are part of the minimum degree requirements.

Students who enter FAU as freshmen and major in Geosciences must meet the University's General Education Program requirements as listed in the [Degree Requirements section](#) of this catalog. All Geosciences students seeking the B.A. or B.S. degree must also meet the University's foreign language requirement as listed in the Degree Requirements section.

In the graduate area, Geosciences offers a Master of Science (M.S.) with major in Geosciences. This program offers a thesis and non-thesis option. The department also offers a Doctor of Philosophy (Ph.D.) in Geosciences and two graduate certificates, one in Geographic Information Systems and the other in Remote Sensing. Descriptions of all these programs are provided below.

[Link to Bachelor of Arts in Geosciences](#)

[Link to Bachelor of Science in Geosciences](#)

[Link to Honors Programs](#)

[Link to Minors and Undergraduate Certificates](#)

[Link to Combined B.S./M.S. in Geosciences](#)

[Link to Master's Program in Geosciences](#)

[Link to Graduate Certificates](#)

[Link to Doctoral Program in Geosciences](#)

## **GEOSCIENCES**

### **BACHELOR OF ARTS (B.A.)**

#### **Geography Concentration**

#### **Geology Concentration**

*(Minimum of 120 credits required)*

The Geosciences core courses below (10 credits) are required of all students for the B.A. in Geosciences. Students then choose between a concentration in either Geography or Geology. The Geography concentration is available in person or fully online. The Geology concentration is available in person only.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida

public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides*.

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

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### Geosciences Core Courses (required of all students)

Weather, Climate and Climate Change	MET 2010	3
Introductory Statistics	STA 2023	3
Introduction to Mapping and GIS	GIS 3015C	3
Geosciences Honors Colloquium	GEO 4920	1
<b>Core Total</b>		<b>10</b>

### Geography Concentration

In addition to the Geosciences core courses noted above, students selecting the Geography Concentration are required to complete the Geography Concentration core courses (12 credits) noted below. Students then select 33-34 credits from the three areas of emphasis (Environmental Systems, Human Systems and GIScience). A minimum of 6 credits must be chosen from each area. Total credits for the B.A. in Geosciences with a Geography Concentration are 55-56 credits.

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### Geography Concentration Core Courses

World Geography	GEA 2000	3
Introduction to Physical Geography	GEO 2200C	3
Quantitative Methods	GEO 4022	3
RI: Human-Environmental Interactions in South Florida	GEA 4275	3

**Core Total****12****Areas of Emphasis***Choose 33-34 credits from the emphasis areas below with a minimum of 6 credits from each.****Environmental Systems***

The Blue Planet	ESC 2000	3
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Introduction to Coastal Freshwater Resources	EVR 4453	3
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Physical Geology/Evolution of the Earth	GLY 2010C	4
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History of the Earth and Life	GLY 2100	3
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Environmental Issues in Atmospheric and Earth Science	ESC 3704	3
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Coastal and Marine Science	GLY 3730	3
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Water Resources	GEO 4280C	3
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Biogeography	GEO 4300	3
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Geomorphology	GLY 4700C	3
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Hydrogeology	GLY 4822	3
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Atmospheric Hazards	MET 3052	3
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Tropical Climatology	MET 3112	3
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Climate Data Applications	MET 4142	3
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***Human Systems***

Climate Change: Myths, Realities and Solutions	EVR 3114	3
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Hazards, Climate and People	EVR 4112	3
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Culture and Environment: Latin America and the Caribbean	GEA 4405	3
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American Cultural Landscape	GEO 4422	3
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Tourism and Commercial Recreation	GEO 4542	3
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Urban Geography	GEO 4602	3
Transportation and Spatial Organization	GEO 4700	3
<b><i>GIScience</i></b>		
Photogrammetry and Aerial Photograph Interpretation	GIS 4021C	3
Remote Sensing of the Environment	GIS 4035C	3
Digital Image Analysis	GIS 4037C	3
Principles of GIS	GIS 4043C	3
Applications in GIS	GIS 4048C	3
Web GIS	GIS 4054C	3
Programming in GIS	GIS 4102C	3
Geospatial Databases	GIS 4118	3
Geovisualization and GIS	GIS 4138C	3
Mobile GIS and Drone Technology	GIS 4140C	3
Spatial Data Analysis	GIS 4115C	3
<b>Areas of Emphasis Total</b>		<b>33-34</b>

### **Geology Concentration**

In addition to the Geosciences core courses noted above (10 credits), students selecting the Geology Concentration are required to complete a Science core (19 credits), the Geology Concentration core (10 credits), and Geosciences electives (18-22 credits) as noted below. Total credits for the B.A. in Geosciences with a Geology Concentration are 57-61 credits.

### **Science Core Courses**

Biological Principles and Lab	BSC 1010/1010L	4 <b>or</b>
Biodiversity and Lab	BSC 1011/1011L	4

College Algebra	MAC 1105	3
Introduction to Astronomy	AST 2002	3
General Chemistry 1 and Lab	CHM 2045, 2045L	4
General or College Physics and Lab	PHY 2048 or PHY 2053 and 2048L	5
<b>Science Core Total</b>		<b>19</b>

### Geology Concentration Core Courses

Physical Geology/Evolution of the Earth	GLY 2010C	4
History of the Earth and Life	GLY 2100	3
Geology Field Methods	GLY 4750C	3
<b>Core Total</b>		<b>10</b>

### Geosciences Electives

*Choose six courses from the list below to total 18 - 22 credits.*

Paleontology	GLY 3603C	3
Environmental Issues in Atmospheric and Earth Science	ESC 3704	3
Introduction to Coastal Freshwater Resources	EVR 4453	3
Coastal and Marine Science	GLY 3730	3
Environmental Geochemistry	GLY 4241	3
Water Resources	GEO 4280C	3
Mineralogy and Petrology	GLY 4310C	4
Structural Geology	GLY 4400C	4

Stratigraphy and Sedimentation	GLY 4500C	4
Geomorphology	GLY 4700C	3
Hydrogeology	GLY 4822	3
<b>Geosciences Electives Total</b>		<b>18-21</b>

## **GEOSCIENCES**

### **BACHELOR OF SCIENCE (B.S.)**

**Climate Change Concentration**

**Geography Concentration**

**Geology Concentration**

*(Minimum of 120 credits required)*

The Geosciences core courses below (11 credits) are required of all students for the B.S. in Geosciences. Students then choose one of three concentrations: Climate Change, Geography or Geology. The Geography concentration is available in person or fully online. The other concentrations are available in person only.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

**Geosciences Core Courses (required of all students)**

Introductory Statistics	STA 2023	3
General Chemistry 1 and Lab	CHM 2045, 2045L	4
Introduction to Mapping and GIS	GIS 3015C	3
Geosciences Honors Colloquium	GEO 4920	1
<b>Core Total</b>		<b>11</b>

**Climate Change Concentration**

In addition to the Geosciences core courses noted above (11 credits), students selecting the Climate Change Concentration are required to complete a Science core (9-11 credits), the Climate Change Concentration core (30 credits), and Geosciences and Interdisciplinary electives (21 credits) as noted below. Total credits for the B.S. in Geosciences with a Climate Change Concentration are 71-73 credits.

**Science Core Courses**

Biological Principles and Lab	BSC 1010/1010L	4 <b>or</b>
Biodiversity and Lab	BSC 1011/1011L	4 <b>or</b>
Life Science and Life Science Lab or RI: Life Science Lab	BSC 1005/1005L	3
The Blue Planet	ESC 2000	3 <b>or</b>
Introduction to Physical Geography	GEO 2200C	3 <b>or</b>
Physical Geology / Evolution of the Earth	GLY 2010C	4
Methods of Calculus	MAC 2233	3
<b>Science Core Total</b>		<b>9-11</b>

**Climate Change Concentration Core Courses**

Environmental Issues in Atmospheric and Earth Science	ESC 3704	3
Climate Change: The Human Dimensions	EVR 1110	3
Climate Change: Myths, Realities and Solutions	EVR 3114	3
Hazards, Climate and People	EVR 4112	3
Quantitative Methods	GEO 4022	3
Remote Sensing of the Environment	GIS 4035C	3
Principles of Geographic Information Systems	GIS 4043C	3
Weather, Climate and Climate Change	MET 2010	3
Atmospheric Hazards	MET 3052	3
Tropical Climatology	MET 3112	3
<b>Core Total</b>		<b>30</b>

### **Geosciences and Interdisciplinary Electives**

*Choose 21 credits from the courses below.*

Conservation Biology	BSC 3052	3
Climate Change Biology: Ecosystems to Human Health	BSC 4307	3
Microeconomic Principles	ECO 2023	3 <del>or</del>
Environmental Economics	ECP 4302	3
Environmental Science and Engineering	ENV 3001C	3
RI: Human-Environmental Interactions in South Florida	GEA 4275	3
Sea-Level Rise: Impacts and Responses	GEO 3342	3
Spatial Data Analysis	GIS 4115C	3
Water Resources	GEO 4280C	3

Biogeography	GEO 4300	3
Directed Independent Research in Geosciences	GEO 4915	1-6
Mobile GIS and Drone Technology	GIS 4140C	3
Coastal and Marine Science	GLY 3730	3
Environmental Geochemistry	GLY 4241	3
Hydrogeology	GLY 4822	3
Directed Independent Study	GLY 4905	1-3
Comparative Environmental Politics	INR 4054	3
Global Environmental Politics and Policies	INR 4350	3
Climate Data Applications	MET 4142	3
Disaster and Emergency Management	PAD 4393	3
Principles of Ecology	PCB 4043	3
Sociology of Climate and Disaster	SYP 4464	3
RI: Sustainable Cities	URP 4403	3
Environmental Planning Methods	URP 4420	3
Planning for Hazards/Disasters	URP 4430	3
<b>Geosciences and Interdisciplinary Electives Total</b>		<b>21</b>

### Geography Concentration

In addition to the Geosciences core courses noted above, students selecting the Geography Concentration are required to complete a Science core (7 credits), the Geography Concentration core (24 credits), and Geosciences electives (30-31 credits) as noted below. Total credits for the B.S. in Geosciences with a Geography Concentration are 72-73 credits.

### Science Core Courses

Biological Principles and Lab	BSC 1010/1010L	4 <b>or</b>
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Biodiversity and Lab	BSC 1011/1011L	4
Methods of Calculus	MAC 2233	3
<b>Science Core Total</b>		<b>7</b>

### Geography Concentration Core Courses

World Geography	GEA 2000	3
Introduction to Physical Geography	GEO 2200C	3
Weather, Climate and Climate Change	MET 2010	3
Quantitative Methods	GEO 4022	3
Principles of GIS	GIS 4043C	3
Remote Sensing of the Environment	GIS 4035C	3
RI: Human-Environmental Interactions in South Florida	GEA 4275	3
Biogeography	GEO 4300	3
<b>Core Total</b>		<b>24</b>

### Geosciences Electives

*Choose 30-31 credits from the courses below.*

The Blue Planet	ESC 2000	3
Introduction to Coastal Freshwater Resources	EVR 4322	3
Physical Geology/Evolution of the Earth	GLY 2010C	4
History of the Earth and Life	GLY 2100	3
Climate Change: Myths, Realities and Solutions	EVR 3114	3
Environmental Issues in Atmospheric and Earth Science	ESC 3704	3

Coastal and Marine Science	GLY 3730	3
Applications in GIS	GIS 4048C	3
Photogrammetry and Aerial Photograph Interpretation	GIS 4021C	3
Digital Image Analysis	GIS 4037C	3
Web GIS	GIS 4054C	3
Programming in GIS	GIS 4102C	3
Hazards, Climate and People	EVR 4112	3
Geospatial Databases	GIS 4118	3
Geovisualization and GIS	GIS 4138C	3
Mobile GIS and Drone Technology	GIS 4140C	3
Spatial Data Analysis	GIS 4115C	3
Water Resources	GEO 4280C	3
Tourism and Commercial Recreation	GEO 4542	3
Urban Geography	GEO 4602	3
Transportation and Spatial Organization	GEO 4700	3
Geomorphology	GLY 4700C	3
Hydrogeology	GLY 4822	3
Atmospheric Hazards	MET 3052	3
Tropical Climatology	MET 3112	3
Climate Data Applications	MET 4142	3
<b>Geosciences Electives Total</b>		<b>30-31</b>

### Geology Concentration

In addition to the Geosciences core courses noted above (11 credits), students selecting the Geology

Concentration are required to complete a Science core (15-16 credits), the Geology Concentration core (38 credits), and Geosciences electives (9 credits) as noted below. Total credits for the B.S. in Geosciences with a Geology Concentration are 73-74 credits.

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### Science Core Courses

General Physics 1	PHY 2048	4
General Physics 1 Lab	PHY 2048L	1
General Physics 2	PHY 2049	4 <del>or</del>
Calculus with Analytic Geometry 1	MAC 2311	4
Calculus with Analytic Geometry 2	MAC 2312	4
<b>Science Core Total</b>		<b>17</b>

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### Geology Concentration Core Course

Physical Geology/Evolution of the Earth	GLY 2010C	4
History of the Earth and Life	GLY 2100	3
Mineralogy and Petrology	GLY 4310C	4
Structural Geology	GLY 4400C	4
Solid Earth Geophysics	GLY 4451	3
Stratigraphy and Sedimentation	GLY 4500C	4
Geology Field Methods	GLY 4750C	3
Field Camp	GLY 4790	6
Hydrogeology	GLY 4822	3
<b>Core Total</b>		<b>34</b>

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### Geosciences Electives

*Choose four courses from the list below, only one of which may have a GIS prefix.*

Introduction to Coastal Freshwater Resources	EVR 4453	3
Geology of Florida	GLY 4155C	4
Paleontology	GLY 3603C	3
Coastal and Marine Science	GLY 3730	3
Remote Sensing of the Environment	GIS 4035C	3
Principles of GIS	GIS 4043C	3
Environmental Geochemistry	GLY 4241	3
Geomorphology	GLY 4700C	3
Groundwater Numerical Modeling	GLY 4832C	3
<b>Geosciences Electives Total</b>		<b>12-13</b>

## HONORS PROGRAMS

### HONORS PROGRAM IN GEOGRAPHY

Qualified students may apply to participate in the upper-division Honors Program in the Geography concentration for both the B.A. and B.S. degrees. The Honors Program recognizes research accomplishments of talented undergraduates. Students normally begin the program in their sophomore or junior year and conduct independent research with mentor supervision during their junior and senior years.

To enter the program, students must have:

1. A minimum of 9 credits in geography courses with GEA, GEO, GIS, EVR, ESC prefixes;
2. A cumulative GPA of at least 3.3, and must maintain a 3.3 to remain in the program;
3. The support of a faculty mentor. Interested students should contact the faculty member whose research interests are closest to those the student wishes to pursue.

To be awarded the Honors undergraduate degree, students must:

1. Complete all requirements for the B.A. or B.S. Geosciences, Geography concentration;
2. Complete 6 credits of: GEO 4920, Geosciences Honors Colloquium (1 credit, repeated twice); GEO 4948C, Field Experience (1 credit); GEO 4915, 4916, Directed Independent Research in Geosciences (3 credits);
3. Meet the capstone requirement, which entails presenting research findings from the Field Experience and the Directed Independent Research in Geosciences in both a written thesis format as well as an oral presentation at the Geosciences Colloquium Series or an appropriate academic conference, including FAU undergraduate research symposium, approved by both the faculty mentor and the department chair;
4. Complete an [honors compact](#) with their faculty mentor, which is an agreement that the projects will be conducted at the honors level.

In the Honors Colloquium course, students are exposed to talks from prominent researchers and professionals in the various subfields of the geosciences, introducing them to current important research themes in the geosciences, as well as reinforcing the scientific method and appropriate methodologies for problem solving in the geosciences. Speakers change every semester. Students enroll in the Field Experience course while doing the field work, lab work and/or data collection for their research project and in the Directed Independent Research in Geosciences course while working in the analysis and write-up phases of their research.

## **HONORS PROGRAM IN GEOLOGY**

Qualified students may apply to participate in the upper-division Honors Program in **the** Geology concentration for both the B.A. and B.S. degrees. The Honors Program recognizes research accomplishments of talented undergraduates. Students normally begin the program in their sophomore or junior year and conduct independent research with mentor supervision during their junior and senior years.

To enter the program, students must:

1. Have a minimum of 9 credits in geology courses with GLY prefix;
2. Have completed the Geology core courses and a cumulative GPA of at least 3.3, which must be maintained to remain in the program. The GPA will be monitored throughout student's study in the Honors Program;
3. Formally apply for the Honors Program with a letter addressed to the honors committee. The application and overall GPA will be assessed by an appointed faculty committee;

4. Have the support of a faculty mentor. Interested students should contact the faculty member whose research interests are closest to those the student wishes to pursue;
5. Complete an [honors contract](#) with their faculty mentor, which is a joint commitment between the student and mentor that the projects will be conducted at the honors level.

To be awarded the Honors in Geology designation, students must:

1. Complete all requirements for the B.A. or B.S. in Geosciences, Geology concentration;
2. Complete 2 credits of GEO 4920, Geosciences Honors Colloquium (1 credit, repeated twice), which is an honors-specific course;

In the Honors Colloquium course, students are exposed to talks from prominent researchers and professionals in the various subfields of the geosciences, introducing them to current important research themes in the geosciences, as well as reinforcing the scientific method and appropriate methodologies for problem solving in the geosciences. Speakers change every semester.

3. Complete 4 credits selected from GEO 4948C, Field Experience (1-4 credit total) and GLY 4915, 4916, Directed Independent Research in Geosciences (1-4 credits total);

Students should consult with their faculty mentor to determine whether they should enroll in Field Experience or Directed Independent Research in Geosciences credits for the preliminary portions of their research projects (data collection, model development, method development, etc.). While working in the analysis and write-up portions of their research projects, students should enroll in Directed Independent Research in Geosciences credits.

4. Meet the capstone requirement, which entails presenting research findings from the independent research in both a written thesis format, as well as an oral presentation at the Geosciences Colloquium Series or an appropriate academic conference, including FAU undergraduate research symposium, approved by both the faculty mentor and the department chair.

## HONORS PROGRAM IN CLIMATE CHANGE

Qualified students may apply to participate in the upper-division Honors Program in the B.S. Geosciences, Climate Change concentration. The Honors Program recognizes research accomplishments of talented undergraduates. Students normally begin the program in their sophomore or junior year and conduct independent research with mentor supervision during their junior and senior years.

To enter the program, students must have:

1. A minimum of 9 credits in geoscience courses with EVR, ESC, GEA, GEO, GIS, GLY, MET prefixes;
2. A cumulative GPA of at least 3.0, and must maintain a 3.3 to remain in the program;
3. The support of a faculty member. Interested students should contact the faculty member whose research interests are closest to those the student wishes to pursue.

To be awarded the Honors undergraduate degree, students must:

1. Complete all requirements for the B.S. Geosciences, Climate Change concentration;
2. Complete 6 credits of: GEO 4920, Geosciences Honors Colloquium (1 credit, repeated twice); GEO 4948C, Field Experience (1 credit); GEO 4915, 4916, Directed Independent Research in Geosciences (3 credits);
3. Meet the capstone requirement, which entails presenting research findings from the Field Experience and the Directed Independent Research in Geosciences in both a written thesis format as well as an oral presentation at the Geosciences Colloquium Series or an appropriate academic conference, including FAU undergraduate research symposium, approved by both the faculty mentor and the department chair;
4. Complete an [honors compact](#) with their faculty mentor, which is an agreement that the projects will be conducted at the honors level.

In the Honors Colloquium course, students are exposed to talks from prominent researchers and professionals in the various subfields of the geosciences, introducing them to current important research themes in the geosciences, as well as reinforcing the scientific method and appropriate methodologies for problem solving in the geosciences. Speakers change every semester. Students enroll in the Field Experience course while doing the field work, lab work and/or data collection for their research project and in the Directed Independent Research in Geosciences course while working in the analysis and write-up phases of their research.

## **GEOGRAPHY**

### **UNDERGRADUATE MINOR**

*(Minimum of 15 credits required)*

Students minoring in Geography will earn a "C" or better in a minimum of 15 credits. Note: Courses used to fulfill requirements for a major may not be used for the minor. Requirements include:

1. GIS 3015C and 12 additional credits in geography beyond the minimum requirements for the major;
2. Within the 12 credits, a minimum of 6 credits with a GEA or GEO prefix at the 4000 level;
3. The remaining 6 credits from all department course listings with ESC, EVR, MET, GEA or GEO prefixes.
4. Of the 15 credits, a minimum of 12 earned at FAU.

## GEOGRAPHIC INFORMATION SCIENCE

### UNDERGRADUATE MINOR

*(Minimum of 15 credits required)*

Students minoring in Geographic Information Science will complete a minimum of 15 credits with a grade of "C" or better in each course. Of the 15 credits, a minimum of 12 must be earned at FAU.

Note: Courses used to fulfill requirements for a major may not be used for the minor. Required courses are:

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#### Required Courses

Introduction to Mapping and GIS	GIS 3015C	3
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Principles of GIS	GIS 4043C	3
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#### *Choose 9 credits from the list below:*

Spatial Data Analysis	GIS 4115C	3
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Photogrammetry and Aerial Photograph Interpretation	GIS 4021C	3
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Remote Sensing of the Environment	GIS 4035C	3
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Digital Image Analysis	GIS 4037C	3
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Applications in GIS	GIS 4048C	3
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Web GIS	GIS 4054C	3
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Programming in GIS	GIS 4102C	3
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Geovisualization and GIS	GIS 4138C	3
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## **GEOLOGY**

### UNDERGRADUATE MINOR

*(Minimum of 15 credits required)*

Students minoring in Geology will earn a "C" or better in a minimum of 15 credits. **Note:** Courses used to fulfill requirements for a major may not be used for the minor. Requirements include:

1. GLY 2010C and 12 additional credits in geology beyond the minimum requirements for the major;
2. Within the 12 credits, a minimum of 6 credits with a GLY prefix at the 4000 level;
3. The remaining 6 credits from all department course offerings with ESC, EVR or GLY prefixes.
4. Of the 15 credits, a minimum of 12 earned at FAU.

## **GEOGRAPHIC INFORMATION SYSTEMS**

### UNDERGRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

The Department of Geosciences offers undergraduates a certificate in Geographic Information Systems. Departmental majors or other students who complete the four required courses (12 credits) below with a grade of "C" or better in each course are entitled to the GIS certificate. Students should consult their departmental advisor or another faculty member about registration for this program. Students may use these courses in the completion of a major. The certificate is available in person or fully online.

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#### **Required Courses**

Introduction to Mapping and GIS	GIS 3015C	3
Principles of Geographic Information Systems	GIS 4043C	3
Remote Sensing of the Environment	GIS 4035C	3

#### ***Choose one of the following elective courses***

Digital Image Analysis	GIS 4037C	3
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Applications of GIS	GIS 4048C	3
Web GIS	GIS 4054C	3
Geospatial Databases	GIS 4118	3
Geovisualization and GIS	GIS 4138C	3
Mobile GIS and Drone Technology	GIS 4140C	3

## **ADVANCED GEOGRAPHIC INFORMATION SYSTEMS UNDERGRADUATE CERTIFICATE**

*(Minimum of 9 credits required)*

The Department of Geosciences offers an advanced certificate in Geographic Information Systems that permits students to develop an in-depth understanding of programming and spatial data analysis beyond the basic GIS certificate. Two required courses and one additional course in an applied area of geographic information science complete the advanced GIS certificate. The certificate is available in person or fully online.

### **Required Courses**

Programming in GIS	GIS 4102C	3
Spatial Data Analysis	GIS 4115C	3

### ***Choose one of the following applied courses***

Applications of GIS	GIS 4048C	3
Web GIS	GIS 4054C	3
Geospatial Databases	GIS 4118	3
Geovisualization and GIS	GIS 4138C	3
Photogrammetry and Aerial Photograph Interpretation	GIS 4021C*	3
Mobile GIS and Drone Technology	GIS 4140C	3
Introduction to Laser Mapping Technology	CCE 4514C	3

\*SUR 4331C - Digital Photogrammetry Principles and Applications is an approved substitute for Geomatics Engineering students.

## COMBINED PROGRAM

### GEOSCIENCES

### BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

*(Minimum of 154 credits required)*

This accelerated, five-year program leads to both a Bachelor of Science (B.S.) in Geosciences with Geography Concentration and a Master of Science with a focus on Human Environment and Sustainable Science or Geographic Information Science. Students apply to the B.S./M.S. program in the second semester of their junior year and begin taking graduate courses in their senior year that would apply to both the B.S. and M.S. degrees. The combined program is 154 credits, 120 for the undergraduate degree and 34 for the master's degree. Students complete the undergraduate degree first, taking no more than 12 credits of graduate coursework in their senior year, which will then be used to satisfy both degrees. Students must maintain a GPA of 3.0 in upper-division and graduate courses. Due to the accelerated nature of the program, students should take the GRE by the end of the first semester in their junior year.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Requirements and Eligibility

In addition to the University and Charles E. Schmidt College of Science requirements, students seeking a combined degree in Geosciences with Geography Concentration must complete the following courses. The Geosciences core courses (11 credits) are required for all students in the Bachelor of Science program in Geosciences. Students selecting the Geography Concentration then complete a Science core (7 credits), the Geography Concentration core (24 credits) and Geosciences electives (30-31 credits) as noted below.

The graduate courses that would apply to both the B.S. and M.S. degrees must be 5000 level or higher. Some courses, denoted with asterisks, have a 5000--level version that can be counted toward the graduate degree.

### Geosciences Core Courses (required of all students)

Introductory Statistics	STA 2023	3
General Chemistry 1 and Lab	CHM 2045, 2045L	4
Introduction to Mapping and GIS	GIS 3015C	3
Geosciences Honors Colloquium	GEO 4920	1
<b>Core Total</b>		<b>11</b>

### Science Core Courses

Biological Principles and Lab	BSC 1010, 1010L	4 <b>or</b>
Biodiversity and Lab	BSC 1011, 1011L	4
Methods of Calculus	MAC 2233	3
<b>Core Total</b>		<b>7</b>

### Geography Concentration Core Courses

World Geography	GEA 2000	3
RI: Human-Environmental Interactions in South Florida	GEA 4275	3

Introduction to Physical Geography	GEO 2200C	3
Quantitative Methods	GEO 4022	3
Biogeography*	GEO 4300	3
Remote Sensing of the Environment*	GIS 4035C	3
Principles of Geographic Information Systems*	GIS 4043C	3
Weather, Climate and Climate Change	MET 2010	3
<b>Core Total</b>		<b>24</b>

### Geosciences Electives

*Choose 30-31 credits from the courses below.*

The Blue Planet	ESC 2000	3
Physical Geology/Evolution of the Earth	GLY 2010C	4
History of the Earth and Life	GLY 2100	3
Climate Change: Myths, Realities and Solutions	EVR 3114	3
Environmental Issues in Atmospheric and Earth Science	ESC 3704	3
Coastal and Marine Science	GLY 3730	3
Applications in GIS*	GIS 4048C	3
Photogrammetry and Aerial Photograph Interpretation	GIS 4021C	3
Digital Image Analysis*	GIS 4037C	3
Web GIS	GIS 4054C	3
Programming in GIS*	GIS 4102C	3
Hazards, Climate and People	EVR 4112	3
Geospatial Databases	GIS 4118	3

Geovisualization and GIS*	GIS 4138C	3
Mobile GIS and Drone Technology*	GIS 4140C	3
Spatial Data Analysis (	GIS 4115C	3
Water Resources	GEO 4280C	3
Tourism and Commercial Recreation	GEO 4542	3
Urban Geography	GEO 4602	3
Transportation and Spatial Organization	GEO 4700	3
Geomorphology	GLY 4700C	3
Hydrogeology	GLY 4822	3
<b>Geosciences Electives Total</b>		<b>30-31</b>

### **Additional Graduate-Level Courses for the Master's Degree**

*Up to 12 credits can be taken as a senior. All courses must be at the 5000 or 6000 level.*

Human-Environmental Interactions	GEA 6277	3
Research in the Geosciences	GEO 6118	3
Geosciences Colloquium Series	GEO 6920	1

### ***Geosciences Focus - 12 credits***

*Choose 12 credits from one of the following areas of focus.*

<b>Focus</b>	<b>Focus Courses</b>
Geographic Information Science	course prefix GIS
Human Environment and Sustainable Science	course prefixes EVR, GEA or GEO

### **Electives - 15 credits**

*Choose five courses (total of 15 credits) from the following course prefixes: EVR, GEA, GEO, GIS, GLY and no more than 3 credits of independent study (GEO 6908 or GLY 6908). Students may*

*choose up to 6 credits from cognate areas (any 5000 or 6000 level course within the College of Science) approved by their advisors.*

## MASTER'S PROGRAM

[Link to Graduate Geographic Information Systems Certificate](#)

[Link to Graduate Remote Sensing Certificate](#)

[Link to Doctoral Program in Geosciences](#)

## GEOSCIENCES

### MASTER OF SCIENCE (M.S.)

The department offers a thesis (31 credits) and non-thesis option (34 credits) for the Master of Science (M.S.) in Geosciences. The requirements for both options are outlined below. Students must choose between the thesis and non-thesis options and a focus area by the end of their second semester of study when the plan of study is filed. The non-thesis option with the Geosciences focus is available in person or fully online. All other options and areas of focus are available in person only.

Thesis students are required to form a committee (advisor and two additional committee members) during the second semester of study. Students who do not have a thesis committee formed by the end of the second semester are automatically transferred to the non-thesis option.

### Admission Requirements

In addition to meeting the University and College admission requirements for graduate study, applicants for the master's degree in the Department of Geosciences must meet the following requirements:

1. Hold a bachelor's degree in an appropriate discipline from an accredited college or university;
2. Have earned a minimum grade point average of 3.0 (on a 4.0 scale) in the last 60 credits of undergraduate work attempted;
3. A minimum of one letter of recommendation from a reference familiar with the applicant's recent academic and/or professional experiences;
4. Applicants applying to the thesis option must provide a written letter of support from a Geosciences faculty member with graduate faculty status at FAU or an approved cognate faculty

member with graduate faculty status at FAU indicating a willingness to supervise the applicant's thesis research;

- International students whose native language is not English must score at least 550 on the paper-based TOEFL, at least 61 on the computer-based test or an IELTS band score of at least 6.0.

## General Degree Requirements

- Students must maintain a GPA of 3.0 or higher throughout their graduate program. Failure to do so will subject the student to dismissal from the program.
- Students must achieve a grade of at least "C+" in order for a course to be counted as part of the minimum credits toward the degree.

## Course Requirements

All courses must be taken at the 5000 level or higher. No more than 3 credits of directed independent study (such as GEO 6908 or GLY 6908) may be used to fulfill the minimum credits for either degree option. A minimum of 24 credits should be taken from the Geosciences curriculum.

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### Thesis Option - 31 credits

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#### *Core Courses - 7 credits*

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Research in the Geosciences	GEO 6118
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Thesis Seminar	GLY 6931
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Geosciences Colloquium Series	GEO 6920
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#### *Geosciences Focus - 12 credits*

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*Choose 12 credits from one of the following areas of focus:*

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#### *Geology: course prefix GLY*

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Human Environment and Sustainable Science: course prefixes EVR, GEA or GEO

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Geographic Information Science: course prefix GIS

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#### *Thesis - 6 credits*

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Complete a minimum of 6 credits from one of the following two options

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Master's Thesis (may be taken over multiple terms)	GEO 6971
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Master's Thesis (may be taken over multiple terms)

GLY 6971

***Electives - 6 credits***

***Choose two courses (total of 6 credits) at the 5000 or 6000 level from the following course prefixes: EVR, GEA, GEO, GLY, GIS and no more than 3 credits of independent study (GEO 6908 or GLY 6908). May choose up to 6 credits from cognate areas approved by the student's advisor. Any 5000 or 6000 level course within the College of Science or any 5000 or 6000 level course with the prefix of URP.***

**Non-Thesis Option - 34 credits*****Core Courses - 7 credits***

Human-Environmental Interactions

GEA 6277

Research in the Geosciences

GEO 6118

Geosciences Colloquium Series

GEO 6920

***Geosciences Focus - 12 credits***

***Choose 12 credits from one of the following areas of focus.***

***Geology: course prefix GLY***

Human Environment and Sustainable Science: course prefixes EVR, GEA or GEO

Geographic Information Science: course prefix GIS

***Electives - 15 credits***

***Choose five courses (total of 15 credits) at the 5000 or 6000 level from the following course prefixes: EVR, GEA, GEO, GLY, GIS and no more than 3 credits of independent study (GEO 6908 or GLY 6908). May choose up to 6 credits from cognate areas approved by the student's advisor. Any 5000 or 6000 level course within the College of Science or any 5000 or 6000 level course with the prefix of URP.***

**Other Requirements**

Students enrolled in the thesis option must defend their thesis proposal successfully no later than the beginning of the third semester for full-time students or the beginning of the fourth semester for part-time students.

## GEOGRAPHIC INFORMATION SYSTEMS

### GRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

The Geographic Information Systems (GIS) certificate for graduate students is offered jointly by the Department of Geosciences and the Department of Urban and Regional Planning in the Charles E. Schmidt College Science. Graduate students who complete the program below with a grade of "B" or better in each course are entitled to receive the certificate. Students should consult with the director of the GIS Center or their graduate advisor about registration for this program. Students shall use the courses below to complete the certificate. The certificate is available in person or fully online.

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#### **Required Courses - 9 credits**

Principles of Geographic Information Systems*	GIS 5051C	3
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**OR**

Introduction to GIS in Planning	URP 6270	3
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**AND**

Applications in Geographic Information Systems	GIS 5100C	3
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Spatial Data Analysis	GIS 6306	3
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#### **Choose two of the following courses (6 credits)**

Programming in Geographic Information Systems	GIS 5103C	3
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Web GIS	GIS 6061C	3
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Geospatial Databases	GIS 6112C	3
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Environmental Analysis in Planning	URP 6425	3
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Managing GIS Projects	URP 6272	3
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\* If the undergraduate version of this course was already counted for the undergraduate GIS certificate, this graduate version cannot be counted toward the graduate GIS certificate.

## REMOTE SENSING GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

The Department of Geosciences offers graduate students a certificate in Remote Sensing. Graduate students who complete the required courses with a grade of "B" or better in each course will earn the certificate program. Students should consult with the director of the GIS Center or their graduate advisor about registration for this program. Students shall use the courses below to complete the certificate. The certificate is available in person or fully online.

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### Choose four of the following courses.

Remote Sensing of the Environment*	GIS 5038C	3
Digital Image Analysis*	GIS 5033C	3
Hyperspectral Remote Sensing	GIS 6127	3
LiDAR Remote Sensing and Applications	GIS 6032C	3
Photogrammetry and Aerial Photograph Interpretation	GIS 6028C	3

## DOCTORAL PROGRAM

### GEOSCIENCES DOCTOR OF PHILOSOPHY (PH.D.)

The Department of Geosciences at Florida Atlantic University offers advanced graduate training leading to the degree of Doctor of Philosophy (Ph.D.) in Geosciences. This professionally oriented program combines department specialties in geography and geology with other cognate areas in the College and the University through an innovative curriculum that includes ecology and conservation biology, chemistry, anthropology, civil engineering, ocean engineering and urban and regional planning. The program provides advanced research and technical training to allow its graduates to find solutions to problems. While the main focus of the degree is on traditional, full-time students, the degree program also welcomes part-time students who wish to maintain their professional employment while earning their doctoral degree.

## Admission Requirements

Individuals will be admitted to the doctoral program in Geosciences based on the following requirements:

1. Minimum of a bachelor's degree in a field of geosciences or related area. Students who have already earned a master's degree or equivalent in geography, geology or related field may be admitted to the doctoral program and may be awarded up to 30 credits toward the Ph.D. in Geosciences. Geosciences-related areas include anthropology, biology, chemistry, civil engineering, environmental science, public administration and urban and regional planning.
2. International students whose native language is not English must score at least 550 on the paper-based TOEFL or at least 79-80 on the computer-based test or a score of 6 or higher on the IELTS.
3. A minimum of three letters of recommendation from references familiar with the applicant's recent academic and/or professional experiences.
4. A written letter of support from a Geosciences faculty member with graduate faculty status at FAU or an approved cognate faculty member with graduate faculty status at FAU indicating a willingness to supervise the applicant's doctoral research.

## Degree Requirements

A total of 90 credits beyond the bachelor's degree or 60 credits beyond an earned master's degree in a related field (as defined under Admission Requirements), admission to candidacy and successful defense of a research dissertation in an approved area within the geosciences will earn students the Ph.D. in Geosciences. Students must maintain a cumulative GPA of 3.0 or higher and a grade of "B" or higher in any course applied to the degree program.

A minimum of 54 credits out of the 90 credits presented for the degree must be earned from the Geosciences Department (courses with EVR, ESC, GEA, GEO, GIS and GLY prefixes). Therefore, no more than 36 credits for those admitted with a bachelor's degree or 6 credits for those entering with a master's degree may come from outside the Geosciences Department.

All students are required to complete a core of 9 credits in the Geosciences as listed below. All must be completed prior to applying for candidacy.

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### Geosciences Core - 9 credits required

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Research in the Geosciences	GEO 6118	3
Thesis Seminar	GLY 6931	3
Geosciences Colloquium Series*	GEO 6920	3

\* This is a 1-credit course with content that varies each semester. Students are required to take this course for three semesters for a total of 3 credits. Students may not apply for candidacy until all colloquium requirements have been completed.

### **Additional Courses**

For students entering directly from a bachelor's degree program, 57 additional course credits are required. For students entering with a master's degree in geography, geology or a related field, 27 additional course credits are required. All coursework must be at the 5000 or 6000 level in geography, geology and interdisciplinary cognates as appropriate to the student's research plan. These courses must be approved by the student's dissertation advisor and the director of the Ph.D. program. No more than 18 credits beyond the bachelor's degree and 9 credits beyond the master's degree of 5000-level work may be applied to the degree without approval from the student's dissertation advisor and the director of the Ph.D. program.

No more than 3 credits of Directed Independent Study (GEO 6908 or GLY 6908) may be used to meet course requirements without approval from the student's dissertation advisor and the director of the Ph.D. program.

No more than 15 credits beyond the bachelor's degree and 9 credits beyond the master's degree of GEO 6918, Graduate Research, may be used to meet the course requirement without approval from the student's dissertation advisor and the director of the Ph.D. program.

**Note:** Courses designated as undergraduate deficiency courses, generally for students coming into the program with a non-related undergraduate degree, may not be used to satisfy course requirements for the degree. Undergraduate deficiency courses will be outlined in the admissions notification.

### **Admission to Candidacy**

1. Formation of a dissertation committee. This committee includes a minimum of the advisor plus three other members. All members must have graduate faculty status in the FAU Graduate College. The majority of the committee members must be from the FAU Geosciences Department. The remaining committee members may include affiliate graduate faculty from another department at FAU, another university or doctoral holding professionals with expertise pertinent to the research program designed. Affiliate graduate faculty members may not serve as the sole committee chair but may co-chair a committee with a FAU Geosciences graduate faculty member.
2. Satisfactory completion of written and oral examinations covering graduate-level material in the

field of geosciences. The material for the exams will be determined by the student's committee as appropriate to the student's research plan. The exam should be taken during the academic term immediately following the completion of the coursework outlined in section 1 of the degree requirements. Two attempts at the examinations are permitted. A second failure on the qualifying exams will result in dismissal from the program. Full-time students should become candidates by the end of their fifth semester in the program. Part-time students should become candidates by the end of semester seven.

3. Submission, public presentation and successful defense of an original research proposal.

## Doctoral Research

1. Dissertation research must be conducted under the direction of a graduate faculty member in the Geosciences Department serving as chair or co-chair of the student's dissertation committee. While conducting the doctoral research, a minimum of 24 credits must be included comprised of any combination of credits from GEO 7978, Advanced Research, and GEO 7980, Dissertation, including at least 6 credits of GEO 7980. A student may not enroll in GEO 7978, Advanced Research credits, until the semester the student plans to take the candidacy exams and may not enroll in GEO 7980, Dissertation credits, until the student has reached candidacy.
2. Written submission, public presentation and defense of a satisfactory research dissertation. The defense will include an oral examination of the research presented by the student's dissertation committee.

## MATHEMATICS AND STATISTICS

### Faculty:

Wang, Y., Chair; Abraha, Y.; Bai, S.; Bhattacharjee, P.; Booton, B. O.; Chang, L-C.; Drees, K.; Edwards, P. B.; Escuder, A. T.; Ford, T. J.; Greenberg, A.; Hahn, W.; Hoffman, F.; Ito, K.; Kalies, W. D.; Klingler, L. C., Emeritus; Kuchta, V.; Li, Y.; Lin, Y.; Locke, S. C.; Long, H.; Lubarsky, R.; Lundberg, E.; Magliveras, S. S., Emeritus; Meyerowitz, A. D.; Milman, M. M., Emeritus; Mireles-James, J.; Moosai, S.; Motta, F.; Mullin, R. C., Emeritus; Murray, M.; Naudot, V.; Nawarathna, R. H. H.; Niederhausen, H., Emeritus; Nikolova, D. B.; Peitgen, H. O., Emeritus; Persichetti, E.; Pina, P. A.; Radulovic, A. B. S.; Radulovic, D.; Richman, F., Emeritus; Rosen, Z.; Sagher, Y.; Schmidmeier, M.; Schonbek, T. P.; Schroeck, F. E., Emeritus; Sica, F.; Stadnik, M.; Tuncer, N.; Voss, R.; Winkowska-Nowak, K.; Yin, Z.; Yiu, P., Emeritus; Zhang, X. D.

The Department of Mathematics and Statistics offers undergraduate programs leading to the Bachelor

of Arts (B.A.) degree and to the Bachelor of Science (B.S.) degree. Either of these two programs, with suitably chosen electives, constitutes an excellent background for a wide range of careers, in particular as a systems analyst, mathematics teacher, actuary and statistician. Students interested in advanced or professional degrees, for example in the medical sciences, benefit from rigorous training in mathematics. Furthermore, the Bachelor of Science degree program is designed to prepare students for graduate work in mathematics and related areas. Two certificate programs, one in Statistics and one in Actuarial Science, are also available for undergraduates, as well as an Honors Program in Mathematics and two minors, one in Mathematics and one in Statistics.

The department offers an accelerated five-year program leading to both the Bachelor of Science (B.S.) and Master of Science (M.S.) degrees. Students in this combined program take graduate credits in their senior year that count toward both degrees. An additional combined programs is offered in conjunction with the Wilkes Honors College.

A [Data Science certificate](#) program, designed jointly by the departments of Electrical Engineering and Computer Science and Mathematics and Statistics, provides an in-depth study of the methods to manage, analyze and extract knowledge from data.

For graduate students, the Department of Mathematics and Statistics offers programs leading to the Master of Science (M.S.), Master of Science in Teaching (M.S.T.) and Doctor of Philosophy (Ph.D.) degrees.

Outstanding scholarship in the mathematics program is recognized by membership in the Florida Zeta Chapter of Pi Mu Epsilon, the national mathematics honorary society for university students, and by the annual Pi Mu Epsilon award at the Honors Convocation. Students in the Department of Mathematics and Statistics have performed well on the William Lowell Putnam Mathematical Examination, the annual North American mathematical competition for undergraduates.

The Department of Mathematics and Statistics works in close cooperation with the Career Planning and Placement Office and the Cooperative Education Office in counseling and assisting mathematics students seeking permanent, part-time or vacation employment.

Students are strongly urged to meet with an advisor so that their programs can be tailored to individual needs and interests. Students in the major programs in mathematics are required to consult with a faculty advisor each year.

[Link to B.S. with Major in Data Science and Analytics](#)

[Link to Honors Program](#)

[Link to Minors](#)

[Link to Undergraduate Certificates](#)

[Link to Combined Programs](#)

[Link to Master's Programs](#)

[Link to Doctoral Program](#)

[Link to Cyber Security Graduate Certificate](#)

## BACCALAUREATE DEGREE REQUIREMENTS

*(Minimum of 120 credits required)*

In addition to the University and Charles E. Schmidt College of Science requirements, students seeking a Bachelor of Arts or a Bachelor of Science degree in Mathematics must satisfy the following requirements.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## **MATHEMATICS**

**BACHELOR OF ARTS (B.A.)**

Calculus 1	MAC 2311	4
Calculus 2	MAC 2312	4
Calculus 3	MAC 2313	4
Discrete Mathematics	MAD 2104	3
Introduction to Computational Math	MAD 2502	3
Matrix Theory or Linear Algebra	MAS 2103	3
Introduction to Advanced Mathematics	MHF 3202	3
Introductory Complex Analysis	MAA 4402	3
Vector Calculus	MAS 3156	3
Modern Algebra	MAS 4301	3
Probability and Statistics 1	STA 4442	3
Upper-division math electives		12
<b>Mathematics Total</b>		<b>48</b>

**Required Minimum GPA 2.2****MATHEMATICS****BACHELOR OF SCIENCE (B.S.)**

The B.S. degree program in Mathematics consists of four concentrations:

1. Mathematical Biology
2. Mathematical Cryptology
3. Pure Mathematics
4. Statistics and Data Science

To complete the B.S. degree program, students will take the specific courses for one of the four concentrations. All students will take two courses in Calculus, at least one statistics course, Discrete Mathematics and at least one programming course.

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**Mathematical Biology Concentration**


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Methods of Calculus	MAC 2233	3 <b>or</b>
Life Science Calculus 1	MAC 2241	3 <b>or</b>
Calculus with Analytic Geometry 1	MAC 2311	4 <b>or</b>
Mathematics for Biological Sciences 1	MAP 2491	3
Biological Principles	BSC 1010	3
Biodiversity	BSC 1011	3
Applied Machine Learning and Data Mining	CAP 4612	3
General Chemistry 1	CHM 2045	3
General Chemistry 2	CHM 2046	3
Artificial Intelligence Applications in Biology	IDS 4139	3
Discrete Mathematics	MAD 2104	3
Introduction to Computational Mathematics	MAD 2502	3
Mathematics for Biological Sciences 2	MAP 2492	4
Applied Mathematical Modeling	MAP 4103	3
Genetics	PCB 3063	3 <b>or</b>
Principles of Ecology	PCB 4043	3
Introductory Statistics	STA 2023	3
Introduction to Biostatistics	STA 3173	3
<i>Choose two upper-division math electives</i>		<b>6</b>
<i>Choose two upper-division science electives with BCH, BOT, BSC, CHM, IDS, MCB, OCB, PCB, PHY, PHZ, ZOO prefixes</i>		<b>6</b>
<i>Choose one Research-Intensive elective</i>		<b>3</b>

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RI: Introduction to Data Science	CAP 3786	3
RI: Industrial Problems in Applied Math	MAP 4913	3
RI: Neurophysiology	PCB 4832C	3
RI: Neurobiology of Learning and Memory	PSB 4810	3
RI: Statistical Learning	STA 4241	3

**Concentration Total (including Science) 59-60**

*Note: For this concentration, MAP 2492 can be replaced by the combination of the three courses MAC 2312 and MAP 2302 and MAS 2103.*

### Mathematical Cryptology Concentration

Calculus and Analytic Geometry 1	MAC 2311	4
Calculus and Analytic Geometry 2	MAC 2312	4
Calculus and Analytic Geometry 3	MAC 2313	4
General Chemistry 1 and Lab <b>or</b>	CHM 2045/2045L	<b>or</b>
General Physics 1 and Lab	PHY 2048, 2048L	4-5
Cryptography and Information Security	CIS 4362	3
Programming 1	COP 2220	3
Programming 2	COP 3014	3
Data Structures and Algorithm Analysis	COP 3530	3
Discrete Mathematics	MAD 2104	3
Matrix Theory	MAS 2103	3
Introductory Number Theory	MAS 3203	3
Modern Algebra	MAS 4301	3
Introduction to Advanced Mathematics	MHF 3202	3
Probability and Statistics 1	STA 4442	3

***Choose two, not limited to the following courses, from the approved list of upper-division math electives.*** **6**

***\* Courses apply to the undergraduate Cybersecurity Certificate program.***

Numerical Methods	MAD 3400	3
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Graph Theory	MAD 4301	3
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Numerical Analysis 1	MAD 4401	
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Post-Quantum Cryptography	MAD 4475	3
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Cryptography of Blockchain	MAD 4476	3
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Introduction to Coding Theory *	MAD 4605	3
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Engineering Mathematics 1	MAP 3305	3
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Introduction to Methods in Complex Systems	MAP 4112	3
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Mathematics of Cybersecurity *	MAP 4190	3
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Vector Calculus	MAS 3156	3
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Linear Algebra 2	MAS 4107	3
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Mathematics for Cryptography *	MAS 4206	3
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Topology for Data Science	MTG 4325	3
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Computational Statistics	STA 3100	3
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***Choose three, not limited to the following courses, from the approved list of upper-division EECS electives in the Cybersecurity Certificate program.*** **9**

Applied Machine Learning and Data Mining	CAP 4612	3
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Introduction to Deep Learning	CAP 4613	3
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Introduction to Artificial Intelligence	CAP 4630	3
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Introduction to Data Mining and Machine Learning	CAP 4770	3
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Introduction to Cryptographic Engineering	CDA 4321	3
Applied Cryptography and Security	CIS 4634	3
Network and Data Security	CNT 4411	3
Introduction to Database Structure	COP 3540	3
Python Programming	COP 4045	3
Computer Operating Systems	COP 4610	3
Design and Analysis of Algorithms	COT 4400	3
Theory of Computation	COT 4420	3
<b>Concentration Total (excluding Science)</b>		<b>57</b>
<b>Pure Mathematics Concentration</b>		
Calculus with Analytic Geometry 1	MAC 2311	4
Calculus with Analytic Geometry 2	MAC 2312	4
Calculus with Analytic Geometry 3	MAC 2313	4
General Chemistry 1 and Lab <b>or</b>	CHM 2045, CHM 2045L	<b>or</b>
General Physics 1 and Lab	PHY 2048, PHY 2048L	4-5
Introductory Analysis 1	MAA 4226	3
Introductory Complex Analysis	MAA 4402	3
Discrete Mathematics	MAD 2104	3
Introduction to Computational Mathematics	MAD 2502	3
Differential Equations 1	MAP 2302	3
Matrix Theory	MAS 2103	3
Vector Calculus	MAS 3156	3

Linear Algebra 2	MAS 4107	3
Modern Algebra	MAS 4301	3
Introductory Abstract Algebra 1	MAS 4304	3
Introduction to Advanced Mathematics	MHF 3202	3
Probability and Statistics 1	STA 4442	3
<i>Upper-division math electives</i>		<b>9</b>
<b>Concentration total (excluding Science)</b>		<b>57</b>
<b>Statistics and Data Science Concentration</b>		
Calculus with Analytic Geometry 1	MAC 2311	4
Calculus with Analytic Geometry 2	MAC 2312	4
Calculus with Analytic Geometry 3	MAC 2313	4
General Chemistry 1 and Lab <b>or</b>	CHM 2045, CHM 2045L	<b>or</b>
General Physics 1 and Lab	PHY 2048, PHY 2048L	4-5
Programming 1	COP 2220	3
Programming 2	COP 3014	3
Data Structures and Algorithm Analysis	COP 3530	3
Introduction to Complex Analysis	MAA 4402	3
Discrete Mathematics	MAD 2104	3
Introduction to Computational Mathematics	MAD 2502	3
Matrix Theory	MAS 2103	3
Modern Algebra	MAS 4301	3

Introduction to Advanced Mathematics	MHF 3202	3
Applied Statistics 1	STA 4234	2 <b>and</b>
Applied Statistics 1 Lab	STA 4202L	1
Probability and Statistics 1	STA 4442	3
<i>Choose two of the Approved Math Electives, at least one upper-division course</i>		<b>6</b>
<i>Choose two of the Concentration Electives</i>		<b>6</b>
RI: Introduction to Data Science	CAP 3786	3
Introduction to Deep Learning	CAP 4613	3
Introduction to Data Mining and Machine Learning	CAP 4770	3
Introduction to Data Science and Analytics	CAP 4773	3
Theory of Computation	COT 4420	3
Applied Mathematical Modeling	MAP 4103	3
Introduction to Methods in Complex Systems	MAP 4112	3
RI: Industrial Problems in Applied Math	MAP 4913	3
Topology for Data Science	MTG 4325	3
Computational Statistics	STA 3100	3
RI: Statistical Learning	STA 4241	3
Applied Time Series and Forecasting	STA 4853	3
<b>Concentration Total (excluding Science)</b>		<b>57</b>

### **Required Minimum GPA 2.5**

#### **Notes:**

1. Upper-division mathematics electives: These electives must be chosen from courses offered by the Department of Mathematics and Statistics and numbered 3000 or higher. The following

courses may not be used as upper-division mathematics electives: STA 3163, ~~STA 3173~~, STA 3949, MAT 3949, MAP 4945, or STA 4821.

2. In calculation of the departmental GPA, where relevant, the highest grade in the course will be used.
3. Because of overlap in course content, Mathematics majors may receive credit for at most one course in each of the following pairs: (MAP 2302, MAP 3305), (MAP 4303, ~~MAP 4306~~ [**Discontinued summer 2024.**]), (STA 4443, STA 4032).
4. The upper-division mathematics courses required for these programs that are completed at FAU must be completed with at least a 2.2 GPA (B.A. program) or 2.5 GPA (B.S. program).
5. Any mathematics course taken at another institution must be completed with a grade of at least "C" "C-" to be considered part of either baccalaureate program.
6. Mathematics majors are required to consult with their advisors at least once a year.

## **DATA SCIENCE AND ANALYTICS** **BACHELOR OF SCIENCE (B.S.)**

### **Data Science in the Natural Sciences Concentration**

### **Data Science and Engineering Concentration**

### **Data Science in Business Concentration**

The Bachelor of Science with Major in Data Science and Analytics (BSDSA) program is a multi-college, interdisciplinary program administered jointly by the Department of Mathematics and Statistics in the Charles E. Schmidt College of Science, the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science, the Department of Information Technology and Operations Management (ITOM) in the College of Business, the Department of Political Science in the Dorothy F. Schmidt College of Arts and Letters and the School of Criminology and Criminal Justice in the College of Social Work and Criminal Justice. For details about this program, see the [Interdisciplinary Programs](#) section of this catalog.

## **HONORS PROGRAM IN MATHEMATICS**

Qualified students are invited to participate in the undergraduate Mathematics Honors Program. This program encourages students to participate in mathematics more deeply while increasing student participation in research and inquiry.

### **Entry Requirements**

The following requirements must be met before applying to the Honors Program in Mathematics:

1. Written support from a faculty member willing to serve as a mentor for the capstone experience.
2. Written commitment from at least one additional faculty member willing to review the capstone experience.
3. Completion of Calculus, 1, 2 and 3 and at least 12 additional credits in mathematics at the 2000 level or higher with at least half of these credits taken at FAU.
4. A GPA of at least a 3.3 in mathematics courses at FAU at the 2000 level or higher and an overall FAU GPA of 3.3.

Students should complete the application form and submit it to the honors coordinator. The department honors committee will decide on acceptance into the program.

### **Standards to Maintain Status**

A student must maintain a 3.3 GPA in mathematics courses at FAU at the 2000 level or higher and an FAU overall GPA of 3.3 while in the Honors Program in Mathematics. If a student in the program subsequently drops below a 3.3 GPA, the honors coordinator will inform the student that the honors designation will not be received unless the student's GPA is 3.3 or greater at the time of graduation. Students must adhere to the FAU Code of Academic Integrity, which may be found [here](#).

### **Honors-Level Enrichment**

Complete at least two of the following activities, which may be repeated:

1. Complete a graduate course in mathematics at FAU at the 5000 level or higher (MST and DIS courses are excluded) with a grade of "B+" or higher.
2. Complete an honors course or a course with an honors compact in mathematics at FAU at the 3000 level or 4000 level (DIS courses are excluded) with a grade of "B+" or higher.
3. Submit a mathematics paper to a student journal (or research journal) or the FAU Undergraduate Research Journal. Submission must be pre-approved by the faculty mentor.
4. Submit a solution to a mathematics problem posed in a student journal. Submission must be pre-approved by the faculty mentor.
5. Give an hour presentation at the Mathematics and Statistics Colloquium or the Math Club explaining a research article that the student has read or an original result the student has obtained.
6. Give a presentation or poster in mathematics at a conference or the FAU Undergraduate Research Symposium.
7. Pass one actuarial exam.

## Capstone Requirement

Complete one of the following capstone experiences:

1. Write an honors thesis and achieve a grade of "B+" or better in MAT 4970, Honor Thesis in Mathematics. At least one published research article must be read and related published papers must be appropriately referenced in the thesis. The thesis must be reviewed and accepted by the faculty mentor and reviewer(s). The student must give a presentation, separate from item 5 above, at the Mathematics and Statistics Colloquium or the Math Club explaining the thesis.
2. Complete a semester-long internship and write a report, which must be reviewed and accepted by the faculty mentor and reviewer(s). The student must give a presentation at the Mathematics and Statistics Colloquium or the Math Club describing the internship activities.
3. Complete a Research Experience for Undergraduates program and write a report, which must be reviewed and accepted by the faculty mentor and reviewer(s). The student must give a presentation, separate from item 5 above, at the Mathematics and Statistics Colloquium or the Math Club explaining the program activities and results.

Honors theses and capstone reports will be stored by the department and will be available to department members.

Upon completion of the program, students will receive the designation "Honors in Mathematics" on their transcripts.

## MATHEMATICS UNDERGRADUATE MINOR

*(Minimum of 12 or 13 credits required)*

Students are expected to complete MAC 2311 (Calculus 1) and MAC 2312 (Calculus 2) or their equivalents as prerequisites for the Minor in Mathematics (8 credits). The minor requires four Mathematics courses, 12 or 13 credits, with minimum grades of "C" in each course, with at least 9 of these credits completed at Florida Atlantic University.

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### Choose three courses from the list

Calculus 3	MAC 2313	4
Discrete Mathematics	MAD 2104	3

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Introduction to Computational Mathematics	MAD 2502	3
Differential Equations 1	MAP 2302	3 <b>or</b>
Engineering Mathematics 1	MAP 3305	3
Matrix Theory	MAS 2103	3

The remaining course must be an upper-division mathematics course (3000 level or above), excluding MAP 3305. The total number of credits, including the MAC 2311 and MAC 2312 prerequisites, is 20 or 21.

## **STATISTICS** UNDERGRADUATE MINOR

*(Minimum of 26 credits required)*

The minor in Statistics enables students to gain knowledge in the field while pursuing a major in other disciplines, including mathematics. The required curriculum provides the necessary statistical foundations of the field and practical applications relevant to the student's area of specialization.

Each course must be completed with a minimum grade of "C." The total number of credits required for this minor is 26. To obtain the minor in Statistics, the student must complete the following required/elective courses:

### **Prerequisites**

Calculus 1	MAC 2311	4
Calculus 2	MAC 2312	4
Matrix Theory	MAS 2103	3

### **Core Required Courses**

Applied Statistics Lab	STA 4202L	1
Applied Statistics 1	STA 4234	2
Probability and Statistics 1	STA 4442	3
Probability and Statistics 2 or	STA 4443	3

Probability and Statistics for Engineers

or STA 4032

***Choose two electives from the following list***

Intermediate Econometrics	ECO 4422	3
Introduction to Queueing Theory	MAP 4260	3
Statistical Physics	PHY 4523	3
RI: Introduction to Data Science or SAS for Data and Statistical Analyses	CAP 3786 or STA 3024	3
Computational Statistics	STA 3100	3
RI: Statistical Learning	STA 4241	3
Statistical Designs	STA 4222	3
Applied Statistics 2	STA 4702	3
Applied Time Series and Forecasting	STA 4853	3
<b>Mathematics and Statistics Total</b>		<b>26</b>

As with all degree programs, the authoritative source for the degree requirements is the University Catalog that was in effect for the academic year in which the student entered the University.

## UNDERGRADUATE CERTIFICATES

### ARTIFICIAL INTELLIGENCE (AI) FOR CYBERSECURITY UNDERGRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

#### Introduction

Cybersecurity involves studying methods, tools, mathematical principles and operational practices to safeguard the integrity of information, systems, and networks. Artificial Intelligence, leveraging its capacity to process extensive datasets, detect patterns, and dynamically respond to emerging threats in real-time, emerges as an indispensable tool for enhancing the security of information infrastructures, system functionalities, network architectures and cryptographic protocols.

This program aims to equip students with knowledge and tools that leverage AI technologies to develop more robust and efficient cybersecurity solutions, allowing for proactive identification and response to cyber threats.

For track details, see [College of Engineering and Computer Science](#).

## **ACTUARIAL SCIENCE**

### UNDERGRADUATE CERTIFICATE

*(Minimum of 24 credits required)*

Actuarial Sciences is a career that is in high demand. Actuaries are professionals who use their mathematical training to solve problems in insurance and finances. The certificate requires 15 credits of prerequisite courses and 24 credits of required courses, with at least 18 of these credits taken at FAU.

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#### **Prerequisites**

Calculus 1, 2 and 3	MAC 2311, 2312, 2313	12
Macroeconomic Principles	ECO 2013	3

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#### **Requirements**

Microeconomic Principles	ECO 2023	3
Principles of Financial Management	FIN 3403	3
Actuarial Mathematics 1	MAP 4172	3
Actuarial Mathematics 2	MAP 4173	3
Internship-Actuarial Science	MAP 4945	6
Probability and Statistics 1, 2	STA 4442, 4443	6

It is recommended that students also complete STA 4234, STA 4202L and STA 4702. These courses will prepare students for the third actuarial exam.

## **CYBERSECURITY**

## UNDERGRADUATE MINOR AND UNDERGRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

Cybersecurity is the study of methods to ensure information and system security. Industry and government need an educated workforce to serve as information and systems security analysts, security and network administrators and more. Due their extensive expertise and facilities, the departments of Information Technology and Operations Management (in the College of Business), Electrical Engineering and Computer Science (In the College of Engineering and Computer Science) and Mathematics and Statistics (in the College of Science) have jointly designed the Cybersecurity Minor and Certificate. Three tracks, each requiring 12 credits, constitute the minor and certificate: Information Technology (IT), Computer Science (CS) and Mathematical Sciences (MS). Details for this certificate program can be found in the [Interdisciplinary Programs](#) section of this catalog.

### **DATA SCIENCE**

## UNDERGRADUATE CERTIFICATE

*(Minimum of 15 credits required)*

A [Data Science certificate](#) program, designed jointly by the departments of Electrical Engineering and Computer Science and Mathematics and Statistics, provides an in-depth study of the methods to manage, analyze and extract knowledge from data. Admission and course requirements are detailed [here](#).

### **STATISTICS**

## UNDERGRADUATE CERTIFICATE

*(Minimum of 23 credits required)*

The certificate program in Statistics enables students to pursue an interdisciplinary course of study in statistics. The required curriculum provides students with necessary statistical foundations of the field and exposes them to practical applications relevant to their chosen areas of specialization.

Each of the following courses must be completed with a minimum grade of "C-." The total number of credits required for this certificate is 23. To obtain the certificate in Statistics, the student must

complete the following required/elective courses:

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### Required Courses

Calculus 1	MAC 2311	4
Calculus 2	MAC 2312	4
Applied Statistics Lab	STA 4202L	1
Applied Statistics 1	STA 4234	2
Probability and Statistics 1	STA 4442	3

### Choose one from this list

Probability and Statistics 2	STA 4443	3
Probability and Statistics for Engineers	STA 4032	3
Stochastic Models for Computer Science	STA 4821	3
Stochastic Processes and Random Signals	EEL 4541	3

### Recommended mathematics courses

Calculus 3	MAC 2313	4
Matrix Theory	MAS 2103	3

### Choose two elective courses

Intermediate Econometrics	ECO 4422	3
Introduction to Queueing Theory	MAP 4260	3
Statistical Physics	PHY 4523	3
RI: Introduction to Data Science* or SAS for Data and Statistical Analyses*	CAP 3786 <b>or</b> STA 3024	3
Computational Statistics*	STA 3100	3
Statistical Designs*	STA 4222	3

RI: Statistical Learning*	STA 4241	3
Applied Statistics 2*	STA 4702	3
Applied Time Series and Forecasting*	STA 4853	3
<b>Total</b>		<b>23</b>

\*Recommended elective courses

As with all degree programs, the authoritative source for the degree requirements is the University Catalog that was in effect for the academic year in which the student entered the University.

### Secondary Education Program

A program leading to teacher certification in mathematics is available through the Department of [Curriculum and Instruction](#) in the College of Education.

## COMBINED PROGRAMS

### MATHEMATICS

#### BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM

*(Minimum of 150 credits required)*

This accelerated, five-year program leads to both Bachelor of Science (B.S.) and a Master of Science (M.S.) degrees. The combined degree program is 150 credits: 120 credits for the undergraduate degree and 30 for the master's degree, with a maximum of 12 credits of graduate coursework used to satisfy both degrees. Once admitted into the program, students shall follow the suggested course sequence. To allow for maximum flexibility in career aspirations, students may select from five concentrations.

- Pure Mathematics
- Applied Analysis
- Biostatistics
- Cryptology and Information Security
- Financial Mathematics

Once admitted into the program, students shall follow the suggested course sequence within a single concentration. The baccalaureate degree will be conferred before the master's degree.

Students must maintain a GPA of 3.0 in upper-division and graduate courses. Students interested in the combined B.S./M.S. should consult with the graduate advisor before taking upper-division mathematics coursework to ensure that their coursework will apply toward the combined degree. Students must apply for admission to candidacy by the end of their junior year.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **B.S. Curriculum**

Students must complete the requirements of the B.S. degree in Mathematics. Twelve graduate credits will count toward both B.S. and M.S. degree requirements. Students must select 12 credits from the graduate courses within a single concentration.

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#### **Pure Mathematics Concentration**

*Choose four courses from the following list.*

Introductory Analysis 1	MAA 5228	3
Introductory Analysis 2	MAA 5229	3
Linear Algebra	MAS 5145	3
Introductory Abstract Algebra 1	MAS 5311	3
Introductory Abstract Algebra 2	MAS 5312	3

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#### **Applied Analysis Concentration**

***Choose four courses from Lists A and B, with at least one from List A.***

**List A**

Introductory Analysis 1	MAA 5228	3
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Linear Algebra	MAS 5145	3
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Computational Mathematics	MAD 6403	3
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Numerical Analysis	MAD 6407	3
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Ordinary Differential Equations	MAP 6336	3
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Partial Differential Equations	MAP 6345	3
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**List B**

Introduction to Data Science	CAP 5768	3
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Multivariable Analysis	MAA 5105	3
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Introductory Analysis 2	MAA 5229	3
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Real Analysis	MAA 6306	3
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Complex Analysis 1	MAA 6406	3
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Introduction to Dynamical Systems and Chaos 1	MAP 6211	3
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General Topology 1	MTG 6313	3
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Regression Analysis	STA 6236	3
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Mathematical Statistics	STA 6326	3
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Mathematical Probability	STA 6444	3
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Applied Time Series Analysis	STA 6857	3
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**Biostatistics Concentration**

***Choose four courses from Lists A and B, with at least one from List A.***

**List A**

Linear Algebra	MAS 5145	3
Biostatistics	STA 5195	3
Mathematical Statistics	STA 6326	3
Mathematical Probability	STA 6444	3
<b>List B</b>		
Introduction to Data Science	CAP 5768	3
Multivariable Analysis	MAA 5105	3
Numerical Analysis	MAD 6407	3
Linear Algebra	MAS 5145	3
Statistical Computing	STA 6106	3
Survival Analysis	STA 6177	3
Biostatistics - Longitudinal Data Analysis	STA 6197	3
Applied Statistical Methods	STA 6207	3
Regression Analysis	STA 6236	3
Topics in Probability and Statistics (Stochastic Calculus)	STA 6446	3
Applied Time Series Analysis	STA 6857	3

### **Cryptology and Information Security Concentration**

*Choose four courses from Lists A and B, with at least one from List A.*

#### **List A**

Introduction to Cryptology and Information Security	MAD 5474	3
Cryptanalysis	MAD 6478	3
Coding Theory	MAD 6607	3

Linear Algebra	MAS 5145	3
<b>List B</b>		
Introductory Analysis 1	MAA 5228	3
Introductory Analysis 2	MAA 5229	3
Enumerative Combinatorics	MAD 6206	3
Graph Theory	MAD 6307	3
Computational Mathematics	MAD 6403	3
Introductory Abstract Algebra 1	MAS 5311	3
Introductory Abstract Algebra 2	MAS 5312	3
Algebraic Number Theory	MAS 6215	3
Algebraic Curves	MAS 6315	3
Commutative Algebra	MAS 6333	3
Topics in Algebra	MAS 6396	3
Special Topics	MAS 6933	1-4
Mathematical Statistics	STA 6326	3
Mathematical Probability	STA 6444	3

**Financial Mathematics Concentration**

*Choose four courses from Lists A and B, with at least one from List A.*

**List A**

Introductory Analysis 1	MAA 5228	3
Linear Algebra	MAS 5145	3
Mathematical Statistics	STA 6236	3
Mathematical Probability	STA 6444	3

**List B**

Multivariable Analysis	MAA 5105	3
Introductory Analysis 2	MAA 5229	3
Statistical Computing	STA 6106	3
Applied Statistical Methods	STA 6207	3
Regression Analysis	STA 6236	3
Topics in Probability and Statistics	STA 6446	3
Applied Time Series Analysis	STA 6857	3
Directed Independent Study	STA 6907	3

The 12 graduate credits may be counted as upper-division math electives or as a substitute for a required course as follows:

MAA 5228 may be substituted for MAS 3156

MAA 6406 may be substituted for MAA 4402

MAS 5145 may be substituted for MAS 4107

MAS 5311 may be substituted for MAS 4301

**M.S. Curriculum**

Students complete all requirements for the M.S. degree with major in Mathematics.

**LIBERAL ARTS AND SCIENCES TO MATHEMATICS****BACHELOR OF ARTS (B.A.) TO MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM****Mathematical Sciences Concentration****BIOLOGICAL AND PHYSICAL SCIENCES TO MATHEMATICS****BACHELOR OF ARTS (B.A.) OR  
BACHELOR OF SCIENCE (B.S.) TO MASTER OF SCIENCE (M.S.)  
COMBINED PROGRAM**

## Mathematics Concentration

The Department of Mathematics and Statistics offers a combined program with the Wilkes Honors College: the [B.A. with Major in Liberal Arts and Sciences, with Concentration in Mathematical Sciences](#), or [B.A./B.S. with Major in Biological and Physical Sciences, with Concentration in Mathematics](#), to [M.S. with Major in Mathematics](#). Details for the undergraduate portions of the program can be found [here](#).

## MASTER'S PROGRAMS

### DATA SCIENCE AND ANALYTICS

#### MASTER OF SCIENCE (M.S.)

##### Data Science via Scientific Inquiry Concentration

##### Data Science and Engineering Concentration

##### Data Science and Business Concentration

##### Data Science in Society Concentration

The [Master of Science with Major in Data Science and Analytics](#) (MSDSA) is a multi-college interdisciplinary program jointly administered by the Department of Mathematics and Statistics in the Charles E. Schmidt College of Science, the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science, the Department of Information Technology and Operations Management (ITOM) in the College of Business and the Department of Political Science in the Dorothy F. Schmidt College of Arts and Letters. The program aims to prepare students with essential skill sets needed to analyze small, fast, big, massive and complex data. To allow for maximum flexibility in career aspirations, students may select from four concentrations:

- Data Science via Scientific Inquiry Concentration, Department of Mathematics and Statistics.
- Data Science and Engineering Concentration, Department of Electrical Engineering and Computer Science.
- Data Science in Business Concentration, Department of Information Technology and Operations Management.
- Data Science in Society Concentration, Department of Political Science.

For more information about the Master of Science with Major in Data Science and Analytics degree program, see the [Interdisciplinary Program](#) section of this catalog.

## **MATHEMATICS**

### **MASTER OF SCIENCE (M.S.)**

#### **Pure Mathematics Concentration**

#### **Applied Analysis Concentration**

#### **Biostatistics Concentration**

#### **Cryptology and Information Security Concentration**

#### **Financial Mathematics Concentration**

This program is designed to provide a foundation for mathematical work and application of mathematics in scientific or technical fields and industry. It should normally take a full-time student two years to complete. Five concentrations are offered: Pure Mathematics, Applied Analysis, Biostatistics, Cryptology and Information Security, and Financial Mathematics.

#### **Admission Requirements**

In addition to meeting the University graduate admission requirements, applicants must have a bachelor's degree in mathematics or coursework that includes the equivalent of Introduction to Advanced Mathematics, Modern Algebra, and Probability and Statistics 1, as well as computer competency. Applicants who do not meet all of the requirements will still be considered for conditional admission.

#### **Degree Requirements**

To complete the M.S. degree in Mathematics the candidate must complete at least 30 credits of graduate coursework and satisfy the following criteria in addition to University requirements:

1. Earn at least 24 credits in courses specified in a degree concentration, pre-approved by the graduate advisor in mathematics; at least 15 credits of all credits applied to the degree must be at the 6000 level;
2. If pre-approved by the department graduate committee, up to 12 credits of FAU coursework from outside of the Department of Mathematics and Statistics may count toward the degree.
3. Complete one of the following three capstone options:
  - a. Successfully complete and defend a master's thesis, earning at least 6 credits of MAT 6971, Master's Thesis;
  - b. Successfully complete and report on an industrial internship, earning at least 6 credits; or
  - c. Successfully complete a master's examination. The exam should be scheduled during the semester before the anticipated completion of coursework for the degree. Students should contact the departmental graduate director to schedule the exam.

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## Capstone Options

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### *Thesis - 6 credits*

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Master's Thesis (may be taken over multiple terms)	MAT 6971	1-6
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### *Internship - 6 credits*

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Internship in Applied Mathematics	MAP 6941	1-6
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### *Non-Thesis, Non-Internship - 6 credits*

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*Choose 6 credits of graduate courses approved by the department and complete M.S. exam.*

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## Concentration Options

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### *Pure Mathematics - 24 credits*

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#### Common Core Course

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Linear Algebra	MAS 5145	3
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#### **Additional Core Courses - 9 credits, choose three of the following four courses.**

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Introductory Analysis 1	MAA 5228	3
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Introductory Analysis 2	MAA 5229	3
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Introductory Abstract Algebra 1	MAS 5311	3
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Introductory Abstract Algebra 2	MAS 5312	3
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**At least four elective courses - 12 credits. Choose 12 credits at the 5000 or 6000 level from courses in the Mathematics and Statistics Department. A minimum of 9 credits must be at the 6000 level.**

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### *Applied Analysis - 24 credits*

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#### Common Core Course

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Linear Algebra	MAS 5145	3
<b>Additional Core Courses - 9 credits</b>		
Introductory Analysis 1	MAA 5228	3
Computational Mathematics	MAD 6403	3 <b>or</b>
Numerical Analysis	MAD 6407	3
Ordinary Differential Equations	MAP 6336	3 <b>or</b>
Partial Differential Equations	MAP 6345	3
<b>At least four elective courses - 12 credits</b>		
Introduction to Data Science	CAP 5768	3
Multivariable Analysis	MAA 5105	3
Introductory Analysis 2	MAA 5229	3
Real Analysis	MAA 6306	3
Complex Analysis 1	MAA 6406	3
Introduction to Functional Analysis	MAA 6506	3
Computational Mathematics	MAD 6403	3
Numerical Analysis	MAD 6407	3
Introduction to Dynamical Systems and Chaos 1	MAP 6211	3
Ordinary Differential Equations	MAP 6336	3
Partial Differential Equations	MAP 6345	3
Supervised University Instruction in Mathematics	MAT 5946	1-3
General Topology 1	MTG 6316	3
Regression Analysis	STA 6236	3

Mathematical Statistics	STA 6326	3
Mathematical Probability	STA 6444	3
Applied Time Series Analysis	STA 6857	3
<b><i>Biostatistics - 24 credits</i></b>		
<b>Common Core Course</b>		
Linear Algebra	MAS 5145	3
<b>Additional Core Courses - 9 credits</b>		
Biostatistics	STA 5195	3
Mathematical Statistics	STA 6326	3
Mathematical Probability	STA 6444	3
<b>At least four elective courses - 12 credits</b>		
Introduction to Data Science	CAP 5768	3
Data Mining and Machine Learning	CAP 6673	3
Multivariable Analysis	MAA 5105	3
Numerical Analysis	MAD 6407	3
Supervised University Instruction in Mathematics	MAT 5946	1-3
Statistical Computing	STA 6106	3
Survival Analysis	STA 6177	3
Biostatistics - Longitudinal Data Analysis	STA 6197	3
Applied Statistical Methods	STA 6207	3
Regression Analysis	STA 6236	3
Topics in Probability and Statistics (Stochastic Calculus)	STA 6446	3

Applied Time Series Analysis	STA 6857	3
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***Cryptography and Information Security - 24 credits***

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**Common Core Course**

Linear Algebra	MAS 5145	3
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**Additional Core Courses - 9 credits**

Introduction to Cryptology and Information Security	MAD 5474	3
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Cryptanalysis	MAD 6478	3
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Coding Theory	MAD 6607	3
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**Three courses - 9 credits from the following**

Introductory Analysis 1	MAA 5228	3
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Introductory Analysis 2	MAA 5229	3
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Introductory Abstract Algebra 1	MAS 5311	3
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Introductory Abstract Algebra 2	MAS 5312	3
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Mathematical Statistics	STA 6326	3
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Mathematical Probability	STA 6444	3
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**At least one elective course - 3 credits**

Computer Data Security	CIS 6370	3
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Distributed Systems Security	CIS 6375	3
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Analysis of Algorithms	COT 6405	3
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Secret Sharing Protocols	COT 6427	3
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Randomized Algorithms	COT 6446	3
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Computer Networks	CNT 5008	3
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Data Analysis and Modeling for Cybersecurity	CAI 6803	3
Information Theory	EEL 6532	3
Enumerative Combinatorics	MAD 6206	3
Graph Theory	MAD 6307	3
Computational Mathematics	MAD 6403	3
Algebraic Number Theory	MAS 6215	3
Algebraic Curves	MAS 6315	3
Commutative Algebra	MAS 6333	3
Topics in Algebra	MAS 6396	3
Supervised University Instruction in Mathematics	MAT 5946	1-3
Special Topics	MAT 6933	1-4
Mathematical Statistics	STA 6326	3
Mathematical Probability	STA 6444	3
<b><i>Financial Mathematics - 24 credits</i></b>		
<b>Common Core Course</b>		
Linear Algebra	MAS 5145	3
<b>Additional Core Courses - 18 credits</b>		
Introductory Analysis 1	MAA 5228	3
Mathematical Statistics	STA 6326	3
Mathematical Probability	STA 6444	3
Topics in Probability and Statistics (Stochastic Calculus)	STA 6446	3
Applied Time Series Analysis	STA 6857	3

Directed Independent Study	STA 6907	1-4
<b>At least one elective course - 3 credits</b>		
Data Mining and Machine Learning	CAP 6673	3
Financial Markets	FIN 6246	3
Financial Management	FIN 6406	3
Portfolio Theory	FIN 6525	3
Multivariable Analysis	MAA 5105	3
Introductory Analysis 2	MAA 5229	3
Supervised University Instruction in Mathematics	MAT 5946	1-3
Statistical Computing	STA 6106	3
Applied Statistical Methods	STA 6207	3
Regression Analysis	STA 6236	3
Topics in Probability and Statistics	STA 6446	3
Directed Independent Study	STA 6907	3

## MATHEMATICS

### MASTER OF SCIENCE IN TEACHING (M.S.T.)

This degree program, with emphasis on issues of teaching, provides post-baccalaureate education for any students seeking a deeper understanding of and appreciation for mathematics. This M.S.T. degree program does not provide teaching certification; students interested in teaching at the state college level should consult with an advisor in the Department of Mathematics and Statistics. This program is available fully online.

#### Admission Requirements

Admission requirements for the M.S.T. program are the same as for the M.S. in Mathematics.

#### Degree Requirements

This program requires 24 credits of mathematics courses and 6 credits of education courses at or above the 5000 level, and at least half of all credits applied to the degree must be in 6000-level courses.

(Candidates without a valid secondary certificate or with fewer than two years of teaching experience might be required to complete a 6-credit internship.) The Mathematics and Statistics Department offers one or two 6000-level classes specifically designed for the M.S.T. program each semester (including summers), see the table below; but other 5000- or 6000-level Math courses may be applied toward this degree for students wishing to complete the program more quickly. Candidates may complete 6 of the 24 credits in mathematics by writing a master's thesis.

### Online courses designed for the M.S.T. Program

Advanced Euclidean Geometry	MTG 6226	3
Advanced Algebra and Geometry	MAS 6318	3
Mathematics and Technology	MAT 6715	3
Number Theory of Cryptography	MAS 6217	3
Dynamical Systems, Chaos, and Computing	MTG 6418	3
Problem Solving and Recreational Mathematics	MAT 6516	3
Calculus from a Historical Perspective	MHF 6410	3
Fractal Geometry	MTG 6415	3
Introductory Discrete Mathematics	MAD 6108	3
Survey of Statistics and Probability	STA 6116	3

## **CYBER SECURITY** GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

Cybercrime-related issues especially impact the State of Florida because a significant part of the state's economic development comes from tourism, international banking and high-tech industries. The number of scientists, engineers and experts needed with special skills in cyber security exceeds the number available. The Cyber Security certificate provides opportunities for graduate students to expand

their knowledge and skills to meet the needs of the cyber security field. Due to their extensive expertise and facilities, the departments of Electrical Engineering and Computer Science and Mathematics and Statistics have jointly designed the certificate. This 12-credit certificate program has two tracks: Computer Science (CS) and Mathematics (Math). Details for both tracks can be found in the [Interdisciplinary Programs](#) section of this catalog.

## DOCTORAL PROGRAM

### MATHEMATICS

#### DOCTOR OF PHILOSOPHY (PH.D.)

The degree of Doctor of Philosophy (Ph.D.) is conferred upon those candidates who have demonstrated the ability to make original and independent contributions in mathematics. This quality is evaluated through a dissertation that the candidate must submit to a supervisory committee and defend in an open presentation.

#### Admission to Doctoral Study

Although each candidate will be considered individually, the admission requirements include:

1. A baccalaureate in Mathematics or a related field completed with an average of "B" or better;
2. A TOEFL score, if applicable;
3. Three letters of recommendation and a statement of personal objectives; and
4. Approval of the FAU Mathematics and Statistics Department graduate committee.

#### Requirements to be admitted to candidacy

1. The student must complete the following courses: Introductory Analysis 1 and 2 (MAA 5228 and 5229), Introductory Abstract Algebra 1 and 2 (MAS 5311 and 5312), Linear Algebra (MAS 5145) and Multivariable Analysis (MAA 5105).
2. Satisfy one of the following:

**Option A.** Pass two of the three exams (Algebra, Analysis, Probability and Statistics) within five semesters (not counting the summer terms) of admission to doctoral study. Then form a supervisory committee as outlined in Item 3.

**Option B.** Complete the following steps within six semesters (not counting the summer terms) of admission to doctoral study.

- a. Earn a pass on one exam and a constructive attempt on a different exam within four semesters (not counting the summer terms) of admission to doctoral study.
  - b. Select a prospective research advisor, and complete two courses at the 6000 level, selected by the prospective research advisor and approved by the departmental graduate committee. These courses will need to be passed with a combined GPA of at least 3.5. They will count toward Degree Requirement 1a below, but not 1b or 1c. The prospective research advisor may propose additional requirements.
  - c. Receive a positive recommendation by the prospective research advisor and the graduate committee. Then form a supervisory committee as outlined in Item 3 with the prospective research advisor serving as research advisor.
3. Form a supervisory committee of at least four members including the research advisor and at least two other members of the graduate faculty of the Department of Mathematics and Statistics.

## Degree Requirements

1. Credits and course requirements:
  - a. Earn a minimum of 72 credits;
  - b. Complete 6000-level or higher courses with at least four of these prefixes: MAA, MAD, MAP, MAS, MHF, MTG and STA;
  - c. For at least two of the prefixes in Item 1b, complete at least two 6000-level or higher courses.
2. Successful completion of a preliminary examination covering specific areas of study and set by the student's supervisory committee.
3. Presentation and oral defense of a dissertation.
4. Completion of all University requirements, including at least 18 credits at FAU beyond the master's level.

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### Core - 18 credits

Multivariable Analysis	MAA 5105	3
Introductory Analysis 1	MAA 5228	3
Introductory Analysis 2	MAA 5229	3
Linear Algebra	MAS 5145	3
Introductory Abstract Algebra 1	MAS 5311	3

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Introductory Abstract Algebra 2

MAS 5312

3

**Electives - 18 credits***Choose 18 credits at the 6000 or 7000 level from the Mathematics and Statistics Department***Remaining Requirements - 35 credits***Choose 35 credits at the 5000, 6000 or 7000 level from the Mathematics and Statistics Department. Students may take MAT 7978, but not MAS 6318, MHF 6405 or MHF 6410.***Dissertation - 1 credit (minimum)**

Dissertation

MAT 7980

1

## PHYSICS

**Faculty:**

Wille, L. T., Chair; Beetle, C.; Engle, J. S.; Gross, R.; Han, M.; Hotiu, A.; Kreymerman, G.; Lau, A. W. C.; Leventouri, T.; Miller, W. A.; Muhammad, W.; Sarajedini, A.; Sarajedini, V.; Sorge, K. D.; Starling, E.; Tichy, W.;

**Faculty Emeritus:**

Bruenn, S. W.; Dean, N.; Jordan, R. G.; Medina, F.

The Department of Physics offers undergraduate programs leading to the Bachelor of Arts (B.A.) and Bachelor of Science (B.S.) degrees. It also offers an Honors program and a Minor in Physics at the undergraduate level. The department offers graduate programs leading to Master of Science (M.S.), Professional Science Master (P.S.M.) in Medical Physics, Master of Science in Teaching (M.S.T.) and Doctor of Philosophy (Ph.D.) degrees. It also offers a dual-degree program leading to both the B.S. and P.S.M. in Medical Physics on an accelerated schedule requiring only one year of additional study beyond the B.S.

The Department of Curriculum and Instruction in the College of Education also offers specialized programs leading to the Bachelor of Arts (B.A.) or Bachelor of Arts in Education (B.A.E.) degrees in Secondary Education with a focus on Physics (6-12) Education. The physics content-area courses required for these degrees are offered through the Department of Physics, and the content-area requirements in both physics and mathematics are outlined below. Contact the [Department of Curriculum and Instruction](#) with questions or to enroll in these degree programs.

[Link to Combined Program](#)

[Link to Master's Programs](#)

[Link to Doctoral Program](#)

## **Undergraduate Information**

Students considering a major or minor degree in physics should schedule a meeting with a member of the department's undergraduate advising committee to discuss their personal objectives and suitable degree options. A list of current committee members and contact information is available from the department office in SE 108 on the Boca Raton campus.

The department is committed to allowing undergraduate majors maximum flexibility in designing curricula tailored to their specific educational and career objectives. The undergraduate advising committee has been charged to consider student requests for waivers from otherwise required physics courses in favor of specific courses from outside the department that may be more directly suited to an individual student's needs. Such waivers must be obtained in advance and must be based on a clear educational objective set forth by the student. Ideally, students should plan and agree with the committee on any deviations from the standard curriculum for their degree at or near the time they declare a major in physics.

In addition to meeting University and College standards, students in any physics degree program must receive a grade of "C" or better in every required course offered within the Charles E. Schmidt College of Science.

Scholarship funds are available through the physics scholarship fund to outstanding graduates of the State of Florida's community (or state) college system. For more details, contact the Department of Physics.

## **Undergraduate Physics Core**

All students seeking a major or minor degree in physics are required to complete the same introductory physics and mathematics sequences as well as an introductory natural science sequence outside the department. Students may opt for introductory sequences in either biology or chemistry. The undergraduate advising committee may approve alternative sequences, even retroactively, on a case-by-case basis.

**Introductory Physics Courses**

General Physics 1	PHY 2048	4
General Physics 1 Lab	PHY 2048L	1
General Physics 2	PHY 2049	4
General Physics 2 Lab	PHY 2049L	1
First-Year Physics Seminar	PHY 1090	1
<b>Total</b>		<b>11</b>

**Introductory Mathematics Courses**

Calculus with Analytic Geometry 1	MAC 2311	4
Calculus with Analytic Geometry 2	MAC 2312	4
Calculus with Analytic Geometry 3	MAC 2313	4
<b>Total</b>		<b>12</b>

**Additional Introductory Mathematics Course**

Differential Equations 1 <b>or</b>	MAP 2302	3 <b>or</b>
Engineering Mathematics 1	MAP 3305	3
<b>Total</b>		<b>3</b>

**Courses in Related Sciences, either**

General Chemistry 1	CHM 2045	3
General Chemistry 1 Lab	CHM 2045L	1
General Chemistry 2	CHM 2046	3

General Chemistry 2 Lab	CHM 2046L	1
<b>or</b>		
Biological Principles	BSC 1010	3
Biological Principles Lab	BSC 1010L	1
Biodiversity	BSC 1011	3
Biodiversity Lab	BSC 1011L	1
<b>Total</b>		<b>8</b>

To meet University degree requirements, students in any physics program must also complete 32 additional lower-division general education credits in courses outside the Charles E. Schmidt College of Science.

## PHYSICS BACHELOR OF ARTS (B.A.)

*(Minimum of 120 credits required)*

The Bachelor of Arts (B.A.) degree program is offered for students seeking exposure to analytical methods in contemporary physics within a broader, liberal arts-style curriculum. Course requirements are significantly reduced compared with the department's flagship B.S. program described later in this section. The department does not recommend its B.A. degree for students planning graduate or professional work in physics. However, this program may be well suited to students planning work in related fields. Potential candidates should consult with the departmental undergraduate advisor to ensure this program will help meet their personal educational objectives before enrolling.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

In addition to the Undergraduate Physics Core described above, B.A. candidates must complete the following required courses:

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### Intermediate Physics Courses

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Survey of Modern Physics	PHY 3101C	3
Classical Mechanics	PHY 3221	3
Electromagnetism 1	PHY 3323	3
Quantum Mechanics 1	PHY 4604	3
Third-Year Physics Seminar	PHY 3932	1

*Choose at least one course from the following list.*

Statistical Physics	PHY 4523	3
Physical Electronics	PHY 3722C	3
Computational Physics	PHZ 3151C	3
<b>Total</b>		<b>16</b>

Overall, this degree program requires 34 credits of lower-division mathematics and science courses and 16 credits of upper-division physics courses. Substitutions for required courses are allowed with prior approval from the department's undergraduate advising committee.

## SCIENCE EDUCATION

BACHELOR OF ARTS (B.A.) OR BACHELOR OF SCIENCE (B.S.) OR  
BACHELOR OF SCIENCE IN EDUCATION (B.S.E.)

### Physics Education Concentration

*(Minimum of 120 credits required)*

The Bachelor of Arts (B.A.) in Science Education with concentration in Physics Education is offered through the Department of [Curriculum and Instruction](#) in the College of Education. It is intended for students interested in teaching physics professionally at the secondary level. Students may also earn this program with a Bachelor of Science (B.S.) or Bachelor of Science in Education (B.S.E.) degree. Students in this program will be advised through the Department of Curriculum and Instruction. However, content-course requirements are listed here for students interested in this program.

### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

In addition to the Undergraduate Physics Core courses described above, candidates must complete the following required courses:

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#### Intermediate Physics Courses

Survey of Modern Physics	PHY 3101C	3
Electromagnetism 1	PHY 3323	3
Physical Electronics	PHY 3722C	3

***Choose at least 8 credits from the following list.***

Classical Mechanics	PHY 3221	3
Statistical Physics	PHY 4523	3
Quantum Mechanics 1	PHY 4604	3

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Computational Physics

PHZ 3151C

3

**Total****20**

Overall, this degree program requires 73 lower-division credits, including general education requirements for the B.A., B.S. or B.S.E. degree, as well as math, science and education courses. It also requires 20 credits of upper-division physics courses and 24 credits of upper-division education courses. See the Department of [Curriculum and Instruction](#) in the College of Education for details.

## PHYSICS

### BACHELOR OF SCIENCE (B.S.)

*(Minimum of 120 credits required)*

The Bachelor of Science (B.S.) degree program is the flagship of the department's undergraduate curriculum. It is designed to help students prepare for careers in physics, related sciences or closely related fields such as engineering. The emphasis is on analytical methods in contemporary theoretical and experimental physics. Students considering graduate work in physics or related areas are strongly encouraged to complete this program.

#### Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

In addition to the undergraduate physics core described above, B.S. candidates must complete the following required courses:

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#### Intermediate Physics Courses

Survey of Modern Physics	PHY 3101C	3
Classical Mechanics	PHY 3221	3
Electromagnetism 1	PHY 3323	3
Electromagnetism 2	PHY 3324	3
Statistical Physics	PHY 4523	3
Quantum Mechanics 1	PHY 4604	3
Physical Electronics	PHY 3722C	3
Undergraduate Laboratory 1	PHY 3802L	1
Undergraduate Laboratory 2	PHY 4803L	1
Third-Year Physics Seminar	PHY 3932	1
Computational Physics	PHZ 3151C	3
Mathematical Methods for Physics	PHZ 4113	3
Approved Electives		6
<b>Total</b>		<b>36</b>

Overall, this degree program requires 34 credits of lower-division mathematics and science courses and 36 credits of upper-division physics courses. Substitutions for required courses are allowed with prior approval from the department's undergraduate advising committee.

## **HONORS PROGRAM IN PHYSICS**

Qualified physics majors may elect to complete an Honors Program (thesis) prior to graduation. The thesis will describe participation in current research under the supervision of a member of the department faculty. A student completing a satisfactory thesis will receive the distinction "honors in physics" upon graduation.

To qualify for the program, students must maintain a GPA of at least 3.0 in required courses within the

College of Science and complete a minimum of 30 credits of physics courses by the end of their junior year. Candidates should apply for this program through the undergraduate advising committee roughly one year prior to graduation.

## **ASTRONOMY**

### **UNDERGRADUATE MINOR**

*(Minimum of 12 credits required)*

The primary goal of this minor is to prepare undergraduate B.S. Physics majors at FAU to attend graduate school intending to earn a master's or doctorate in Astronomy and Astrophysics. The minor builds on the existing Physics major and provides students the background needed in astronomy and astrophysics to succeed in graduate school. In addition, students in other majors, such as Engineering, Journalism and Communications, Marketing, History and Philosophy may also want to have a minor in Astronomy to enhance their career potential.

In addition to courses listed below, this program will require a "C" or better in (MAC 1105 or MAC 2311) and (PHY 2053 or PHY 2048) in fulfillment of prerequisites for the upper-division coursework.

Students are required to earn at least 12 credits (9 of which must be upper division) with a minimum grade of C from among the required courses listed below. At least 9 of these credits must be completed at Florida Atlantic University.

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#### **Required Courses**

Introduction to Astronomy	AST 2002	3
Astronomy and Astrophysics	AST 3018	3

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#### **Select at least two courses from the following list**

Solar System Astronomy	AST 3110	3
Techniques of Observational Astronomy	AST 3722	3
Stars and the Galaxy	AST 4300	3
Galaxies and Cosmology	AST 4402	3

Overall, this degree program requires 10-11 lower-division credits and 9 upper- division credits,

including prerequisites.

## PHYSICS UNDERGRADUATE MINOR

*(Minimum of 36 credits required)*

The department offers a minor in Physics to interested students seeking bachelor's degrees in other fields. It is expected that most students interested in this program will major in fields sufficiently closely related that most of the undergraduate physics core will also fulfill major requirements. Students interested in this program should consult with the department's undergraduate advising committee prior to enrolling.

In addition to the undergraduate physics core described above, candidates for a minor in Physics must complete the following required courses:

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### Intermediate Physics Course

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Survey of Modern Physics	PHY 3101C	3
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*Choose at least one course from the following list.*

Classical Mechanics	PHY 3221	3
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Electromagnetism 1	PHY 3323	3
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Physical Electronics	PHY 3722C	3
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Statistical Physics	PHY 4523	3
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Quantum Mechanics 1	PHY 4604	3
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Computational Physics	PHZ 3151C	3
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<b>Total</b>		<b>6</b>
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Overall, this degree program requires 30 lower-division credits in physics and mathematics and 6 credits of upper-division physics. Some of the lower-division credits may also satisfy candidates' major requirements. At least 75 percent of all credits required for the minor must be earned from FAU.

## COMBINED PROGRAM

## **PHYSICS TO MEDICAL PHYSICS**

### **BACHELOR OF SCIENCE (B.S.) TO PROFESSIONAL SCIENCE MASTER (P.S.M.) COMBINED PROGRAM**

*(Minimum of 161 credits required)*

This accelerated, five-year program leads to both a Bachelor of Science (B.S.) and a Professional Science Master (P.S.M.) degree. Students apply to the B.S./P.S.M. program in the first semester of their junior year and begin taking graduate courses after completion of their junior year (summer prior to senior year); those courses would apply to both the B.S. and P.S.M. degrees. The combined degree program is 161 credits, 120 for the undergraduate degree and 41 for the graduate degree. Students complete the undergraduate degree first. Up to 12 credits of graduate work taken in the senior year can be counted toward both the undergraduate and graduate degrees. Students must maintain a minimum GPA of 3.0 in upper-division and graduate courses. Because of the accelerated nature of the program, students should take the GRE by the end of their first year junior semester.

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

#### **Requirements and Eligibility**

In addition to the University and Charles E. Schmidt College of Science requirements, students seeking a B.S. in Physics/P.S.M. in Medical Physics must complete the following courses.

#### **Undergraduate Physics Core**

Students are required to complete the introductory physics and mathematics sequences as well as an introductory natural science sequence outside the department as noted in the [Undergraduate Physics Core](#). Students may opt for introductory sequences in either biology or chemistry. The undergraduate

advising committee may approve alternative sequences, even retroactively, on a case-by-case basis.

To meet University degree requirements, students in any physics program must also complete 32 additional lower-division general education credits in courses outside the Charles E. Schmidt College of Science.

## Curriculum

In addition to the Undergraduate Physics Core, B.S./P.S.M. candidates must complete the following required courses.

### Upper Division Physics Courses

Survey of Modern Physics	PHY 3101C	3
Classical Mechanics	PHY 3221	3
Electromagnetism 1	PHY 3323	3
Electromagnetism 2	PHY 3324	3
Statistical Physics	PHY 4523	3
Quantum Mechanics 1	PHY 4604	3
Physical Electronics	PHY 3722C	3
Undergraduate Laboratory 1	PHY 3802L	1
Undergraduate Laboratory 2	PHY 4803L	1
Third-Year Physics Seminar	PHY 3932	1
Computational Physics	PHZ 3151C	3
Mathematical Methods for Physics	PHZ 4113	3
Approved Electives		6
<b>Total</b>		<b>44</b>

Substitutions for required courses are allowed with prior approval from the department's undergraduate advising committee. Graduate courses are listed below.

Beginning in the first semester of their junior year, students may take Radiation Biology (RAT 6204, 3

credits). Then in the summer, they may take Seminar in Medical Physics (RAT 6932, 1 credit), Radiation Protection and Safety (RAT 6310, 3 credits) and Shielding and Commissioning (RAT 6376, 3 credits). In their senior year, they may take Radiation Physics (RAT 6686, 3 credits), Medical Imaging Physics (RAT 6616, 3 credit), Nuclear Medical Physics (RAT 6687, 3 credits) and one 5000-level elective (3 credits). This plan gives a total of 22 credits out of the 41 needed for the P.S.M. in Medical Physics program.

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## Graduate Courses

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### *Core Courses - 15 credits*

Radiation Biology	RAT 6204	3
Radiation Physics	RAT 6686	3
Radiation Therapy Physics	RAT 6628	3
Medical Imaging Physics	RAT 6616	3
Nuclear Medical Physics	RAT 6687	3

### *Additional Required Courses - 23 credits*

Radiation Protection and Safety	RAT 6310	3
Advanced Photon Beam Radiation Therapy	RAT 6629	3
Radiation Therapy: Clinical Practicum and Shadowing	RAT 6947	3
Shielding and Commissioning	RAT 6376	3
Seminar in Medical Physics	RAT 6932	1
Special Topics (such as Human Morphology and Function 1)	BSC 5931	3
Special Topics (such as Human Morphology and Function 2)	BSC 5931	3
Master's Thesis	RAT 6975	4

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***Elective Course - 3 credits******Choose one course from the following with advisor's approval.***

Biostatistics	STA 5195	3
Computational Physics	PHZ 5156	3
Bioinformatics: Bioengineering Perspectives	BME 6762	3
Nonlinear Dynamic Systems	ISC 5453	3
Advanced Cell Physiology	PCB 6207	3
Tumor Immunology	PCB 6239	3
Special Topics (including Cell Structure and Function)	BSC 6936	3
Introduction to Biophysics	PHZ 5715	3
<b>Total</b>		<b>41</b>

## MASTER'S PROGRAMS

### PHYSICS

#### MASTER OF SCIENCE (M.S.)

The Department of Physics offers the Master of Science (M.S.) degree with major in Physics. The degree should be particularly attractive to those intending to seek jobs in industry or in teaching at the secondary or community college levels. The coursework and research experience provided by the M.S. program will also be of value to students whose eventual goal is a Ph.D., although those students are strongly encouraged to enroll directly into the Ph.D. program if possible. The M.S. in Physics normally requires four semesters beyond the B.S. in Physics, or equivalent. The Department also offers a Professional Science Master (P.S.M.) with Major in Medical Physics, an interdisciplinary program, which is described in the [Interdisciplinary Programs section](#).

#### Admission Requirements

In addition to meeting all of the University and College admission requirements for graduate study, applicants for the M.S. in Physics must meet all of the following the departmental requirements:

1. Hold a B.S. degree, or equivalent, in Physics or a closely related field;
2. Earn a cumulative GPA of 3.0 or higher, or equivalent, in the last 60 credits of undergraduate work;
3. Be approved by the Department of Physics; and
4. Pass a recent TOEFL exam with a minimum score of 550 (PBT), 213 (CBT) or 79 (IBT). This requirement is waived for students from countries whose official languages include English.

### Degree Requirements

This M.S. degree has two variants, one requiring a thesis, and the other requiring a passing grade in a Comprehensive Exam administered by the department. Both require 30 credits.

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#### Graduate Core Courses - 12 credits required

Mechanics	PHY 6247	3
Electromagnetism	PHY 6346	3
Statistical Mechanics	PHY 6536	3
Quantum Mechanics 1	PHY 6645	3

#### Mathematical Physics Course - 3 credits required

Mathematical Physics 1	PHZ 5115	3 <b>or</b>
Mathematical Physics 2	PHZ 5116	3

#### Computational Physics Course - 3 credits required

Computational Physics	PHZ 5156	3
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#### Elective Courses, Thesis Variant - 12 credits required

Master's Thesis	PHY 6971	6
Approved Electives*, **		6

#### Elective Courses, Non-Thesis Variant - 12 credits required

Approved Electives*, **		12
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*Non-Thesis M.S. candidates must pass a written or oral Comprehensive Exam administered by the department.*

**Total****30**

\* All electives must be approved the department's graduate advisor.

\*\* Only 3 credits of Graduate Research (PHY 6918) may be counted toward this degree.

## PHYSICS

### MASTER OF SCIENCE IN TEACHING (M.S.T.)

The Master of Science in Teaching (M.S.T.) is designed for physics teachers in secondary schools and community colleges. The cognate area will usually be Mathematics.

#### Admission Requirements

In addition to meeting all University and College admission requirements for graduate study, applicants for the M.S.T. degree must satisfy the following departmental requirements:

1. A B.A. or B.S. degree, or equivalent, in physics or a closely related subject;
2. A GPA of 3.0 or higher in the last 60 credits of undergraduate coursework; and
3. Approval from the Department of Physics.

#### Degree Requirements

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##### *Two courses from the following list - 6 credits*

Mechanics	PHY 6247	3
Electromagnetism	PHY 6346	3
Statistical Mechanics	PHY 6536	3
Quantum Mechanics 1	PHY 6645	3
Mathematical Physics 1	PHZ 5115	3
Mathematical Physics 2	PHZ 5116	3

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##### *Take each of the following courses - 24 credits*

Topics in Physics	PHY 5935	6
Master's Thesis*	PHY 6971	6

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Physics Electives approved by the department**	6
Education Electives approved by the department**	6
<b>Total</b>	<b>30</b>

\* Credits in Master's Thesis may be replaced with additional electives with department approval.

\*\* All electives must be graduate courses and must be approved by the department's graduate advisor prior to enrollment.

## DOCTORAL PROGRAM

### PHYSICS

#### DOCTOR OF PHILOSOPHY (PH.D.)

*(Minimum of 72 credits required)*

The Department of Physics offers graduate study leading to a Doctor of Philosophy (Ph.D.) degree. The department is active in research in experimental, theoretical and computational physics as well as astronomy. The Ph.D. will be conferred only for work of distinction in which the student displays original scholarship, achievement and ability.

#### Admission Requirements

In addition to meeting all of the University and College admission requirements for graduate study, applicants for the Ph.D. in Physics must meet all of the following the departmental requirements:

1. Hold a B.S. degree, or equivalent, in Physics or a closely related field;
2. Earn a GPA of 3.0 or higher, or equivalent, in the last 60 credits of undergraduate work;
3. Be approved by the Department of Physics; and
4. Pass a recent TOEFL exam with a minimum score of 550 (PBT), 213 (CBT) or 79 (IBT). This requirement is waived for students from countries whose official languages include English.

In addition, the Department strongly encourages applicants to secure two or more letters of support from faculty familiar with their past work and to provide a report of a recent score on the GRE Physics subject exam. Although not required, these items will be considered in the admissions process if available.

#### Degree Requirements *(minimum of 72 credits)*

1. Students in the Physics Ph.D. program must satisfy the following course requirements.

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### **Graduate Core Courses - 12 credits required**

Mechanics	PHY 6247	3
Electromagnetism	PHY 6346	3
Statistical Mechanics	PHY 6536	3
Quantum Mechanics 1	PHY 6645	3

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### **Mathematical Physics Course - 3 credits required**

Mathematical Physics 1	PHZ 5115	3 or
Mathematical Physics 2	PHZ 5116	3

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### **Computational Physics Course - 3 credits required**

Computational Physics	PHZ 5156	3
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### **Ph.D. Elective and Research Courses - 54 credits required**

Approved Electives *, **		24
Dissertation**	PHY 7980	30

\* All electives must be approved by the department's graduate advisor. At most, 6 elective credits may be earned in Directed Independent Study (AST/PHY/RAT 6907) courses offered the department faculty.

\*\* Up to 6 credits of other graduate-level research courses offered by the department may be counted toward the dissertation requirement.

2. The department may apply up to 24 transfer credits from another institution toward this degree. Approval of transfer credits is at the discretion of the department faculty. However, all students in the Ph.D. program must complete the Ph.D. core courses listed above at FAU.

### **Admission to Candidacy**

To be admitted to candidacy, students must satisfy the following requirements within five semesters (excluding summers) of beginning the Ph.D. program:

1. Complete the four Graduate Core Courses listed above with a grade of "B" or higher in each.

2. Complete at least 36 credits of graduate-level courses (including the Graduate Core Courses and approved transfer credits from other institutions, but excluding research or dissertation credits) with a cumulative GPA of at least 3.0.
3. Form a Supervisory Committee:
  - a. Identify a member of the department faculty who agrees to serve as Ph.D. supervisor and chair (or co-chair) of the Supervisory Committee overseeing a dissertation project on a specific topic selected by the student in consultation with the supervisor.
  - b. Identify at least three additional members of the FAU graduate faculty who agree to serve as members of the Supervisory Committee. At least one member of the Supervisory Committee must be from outside the FAU Department of Physics, but a (simple) majority of Committee members must be graduate faculty from within the department.
  - c. Submit all required paperwork to FAU's Graduate College to form the Supervisory Committee and finalize the student's Plan of Study.
  - d. Membership of the Supervisory Committee and the revised Plan of Study (if any) must be approved by the department's graduate advisor.
4. Present a general outline of the proposed dissertation project at a Physics Colloquium.
5. Pass a Comprehensive Oral Exam administered by the Supervisory Committee. The exam will cover topics from graduate-level coursework that the Committee considers relevant to the student's proposed research.

### **Doctoral Research**

Ph.D. candidates in Physics are expected to demonstrate consistent progress toward timely graduation, typically within six years of entering the Ph.D. program. Accordingly, candidates shall organize a meeting at least once per year with their Supervisory Committee. Candidates shall prepare a one-page, written report describing progress in their dissertation research project since the Supervisory Committee last met, which shall be sent to the Committee members and the department's graduate advisor at least one week prior to the Committee meeting.

Candidates must complete a significant program of original research, participate in advanced seminars in their area of specialization and defend completed dissertations in the Physics Department Colloquium Series. Each dissertation must be clearly written, complete and demonstrate an original contribution to the sum of existing knowledge. Each completed dissertation must be approved by the candidate's Supervisory Committee, the department chair and the deans of the Charles E. Schmidt College of Science and of the Graduate College.

## **PSYCHOLOGY**

## Faculty:

Vallacher, R. R., Interim Chair.; Bjorklund, D. F., Associate Chair; Rosselli, M., Associate Chair; Alexander, W.; Anzures, G.; Barenholtz, E.; Barnhardt, T.; Darby, K.; Forbes, C; Gerstein, E.; Hoff, E.; Hong, S. W.; Hughes, K. M.; Jakubow, J.; Jones, L.; Jones, N.; Kelso, J. A. S.; Kersten, A.; Laursen, B.; Maniaci, M.; Marion, D.; Mavica, L. W.; Nowak, A.; Perry, G. W.; Sheremata, S.; Stackman, R.; Varela Castro, M.; Vertes, R.; Wetherell, G.; Wilcox, T., Wolgin, D. L.

Psychology in the Charles E. Schmidt College of Science defines itself as a science that focuses on mental processes and cognition, social influences on the individual and the biological and neural bases of human and animal behavior. The main mission of the faculty in psychology is to prepare students for graduate training and professional work in psychology as well as to provide a sound undergraduate education for students wishing to work in areas outside of psychology, such as business, law or education.

The department offers the Bachelor of Arts (B.A.) degree in Psychology and the [Bachelor of Science \(B.S.\) degree in Neuroscience and Behavior](#), as well as an upper-division [Honors Program in Psychology](#), the [FAU Max Planck Honors Program](#), a [minor in Psychology](#) and a certificate in [Applied Mental Health Services](#).

In the graduate area, the Department of Psychology offers the Master of Arts (M.A.) degree in Psychology and the Doctor of Philosophy (Ph.D.) degree in Experimental Psychology.

Two [combined programs](#) - a Bachelor of Arts (B.A.) in Psychology to a Master of Arts (M.A.) in Psychology and a Bachelor of Science (B.S.) in Neuroscience and Behavior to a Master of Arts (M.A.) in Psychology - offer ways in which interested students may earn both a bachelor's and master's degree within five years.

**Note:** The Department of Psychology considers scientific misconduct, including such activities as inventing or intentionally misrepresenting data, as interfering with its educational mission and subject to the same penalties and procedures as other Honor Code violations and academic irregularities

[Link to Combined Programs](#)

[Link to Master's Program](#)

[Link to Doctoral Program](#)

## **PSYCHOLOGY**

### **BACHELOR OF ARTS (B.A.)**

*(Minimum of 120 credits required)*

The B.A. degree in Psychology is intended for students interested in pursuing graduate study in psychology (experimental psychology, clinical or counseling psychology, applied psychology). The departmental program offers a focus in psychology and maximum flexibility in choice of electives. Thus, it may be tailored to the interests of the individual student and to further professional plans. A grade of "C-" or better (unless otherwise noted in the course description) is required in all psychology and cognate courses taken as part of the requirements for a B.A. with major in Psychology. However, students must maintain a "C" average in departmental major courses. Facilities are available for experimental research in cognitive psychology, neuroscience and behavior, social/personality psychology and developmental psychology. Qualified students are strongly encouraged to become involved in such research (normally via a Directed Independent Research or a special research course).

#### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

In addition to the University and College requirements, all students are required to complete at least 40 credits in college-level psychology coursework, and a minimum of 31 credits of the 40 credits must be upper-division (3000/4000) level. A minimum of 28 of the upper-division credits must be taken at Florida Atlantic University. Up to 12 credits of transfer psychology coursework may be applied to the psychology major, upon approval of the department. Please note that no more than 9 credits of the

transfer coursework applied to the major can be at the lower-division level.

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## General Psychology Requirements

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*Nine core courses are required of all majors.*

Psychology of Human Development	DEP 3053*	3
Cognition	EXP 3505*	3
Biological Bases of Behavior	PSB 3002*	3
General Psychology	PSY 1012	3
Research Methods in Psychology	PSY 3213*	3
Experimental Design and Statistical Inference	PSY 3234*	3
Social Psychology	SOP 3004*	3
Intermediate Statistics Lab	STA 3163L*	1
Laboratory in Psychology (see below)**		3

\* For transfer students: If a lower-division course has been taken in any of the core areas that have an upper-division course requirement, the student may, with the approval of a psychology advisor, substitute a different upper-division course in the same content area for the original course.

### \*\*Laboratory Requirement

The laboratory requirement may be met with any of the following:

- Existing laboratory courses: DEP 4797C, Human Development Lab; EXP 4934C, Cognition Laboratory; PSB 3002L, Computer Lab in Psychobiology; SOP 4230C, Social Behavior Laboratory; OR
- Special topics laboratory courses with the words “Research in…” or “Laboratory in…” in the title, e.g., PSY 4930, Research in (Varied Topics); OR
- Upper-division, Directed Independent Research lab courses taken for 3 credits (PSY 4915 or PSY 4916); OR
- An Honors Thesis, PSY 4970.

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## Psychology Elective Requirements

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*A minimum of 15 additional credits are to be chosen from the following.*

Comparative Animal Behavior	CBH 4024	3
Psychopathology	CLP 4144	3
Clinical Psychology	CLP 4343	3
Forensic Psychology	CLP 4390	3
Personality and Social Development	DEP 4095	3
Infant Development	DEP 4115	3
Language Acquisition	DEP 4130	3
Cognitive Development	DEP 4163	3
Psychology of Adolescence	DEP 4305	3
Human Development Laboratory	DEP 4797C	3
Human Perception	EXP 4204	3
Psychology of Motivation	EXP 4304	3
Psychology of Learning	EXP 4404	3
Human Memory	EXP 4525	3
Cognition Laboratory	EXP 4934C	3
Industrial Organizational Psychology	INP 4003	3
Interpersonal Processes	PCO 4734	3
Personality Theories	PPE 4003	3
Experimental Studies of Personality	PPE 4700	3
Computer Lab in Psychobiology	PSB 3002L	3
Biological Bases of Behavior 2	PSB 4006	3
Neuropsychology	PSB 4240	3
Human Psychophysiology	PSB 4323	3

Psychopharmacology	PSB 4444	3
Developmental Psychobiology	PSB 4504	3
RI: Neurobiology of Learning and Memory	PSB 4810	3
Neuroscience of Sleep	PSB 4842	3
University Honors Seminar in Psychology	PSY 1930	3
Special Topics	PSY 2930	1-3
Careers in Psychology	PSY 3070	3
Cooperative Education	PSY 3949	1-3
Psychometrics and Psychological Testing	PSY 4302	3
History and Systems of Psychology	PSY 4604	3
Evolutionary Psychology	PSY 4810	3
Directed Independent Study*	PSY 4906	1-3
Directed Independent Research in Psychology**	PSY 4915	1-3
Directed Independent Research in Psychology**	PSY 4916	0-3
Special Topics in Psychology	PSY 4930	1-3
Honors Seminar***	PSY 4932	3
Honors Critical Questions in Psychology***	PSY 4935	3
Psychology Study Abroad	PSY 4957	1-6
Honors Thesis***	PSY 4970	1-3
Psychology of Women	SOP 3742	3
Social Behavior Laboratory	SOP 4230C	3
Police Psychology	SOP 4750	3

Psychology and the Law	SOP 4751	3
Current Issues in Social Psychology	SYP 4002	3

\* Maximum of 3 credits of Directed Independent Study may be counted as a psychology elective for the major.

\*\* Maximum of 3 credits of Directed Independent Research may be counted as a psychology elective for the major.

\*\*\* Enrollment is limited to students in the Honors Program.

The same course section cannot be used to satisfy two different requirements for the major at the same time. A course counted as a Psychology laboratory cannot be counted as a Psychology elective simultaneously.

### Cognate Area Requirements

All students must have 6 credits of biological science (to be chosen from BSC 1010, BSC 1011 , BSC 2085, BSC 2086 or equivalents) and 6 credits of mathematics at the level of college algebra or higher (in addition to statistics). The following math courses are accepted as meeting the math graduation requirement for the B.A. in psychology:

College Algebra	MAC 1105	3
Trigonometry	MAC 1114	3
Precalculus Algebra	MAC 1140	3
Precalculus Algebra and Trigonometry	MAC 1147	4 or 5
Methods of Calculus	MAC 2233	3
Calculus with Analytic Geometry 1	MAC 2311	4
Calculus with Analytic Geometry 2	MAC 2312	4
Calculus with Analytic Geometry 3	MAC 2313	4

Laboratories for the cognate courses are NOT required for the major, but students should check with their academic advisors and the controlling departments to determine whether laboratories are needed in order to satisfy (other) departments' requirements or general graduation requirements.

## UPPER-DIVISION HONORS PROGRAM IN PSYCHOLOGY

Qualified students are invited to participate in an Honors Program within the undergraduate Psychology major programs. Students may be admitted to the Honors Program after completion of 45 credits and prior to the completion of 105 hours. Students must have a grade point average of 3.2 overall and in the major for all college-level coursework to be admitted to and to be retained in the Honors Program. Both B.A. Psychology and B.S. Neuroscience and Behavior students are eligible to participate in the Honors Program.

Students in the Honors Program must complete Honors Seminar (PSY 4932, 3 credits), Honors Critical Questions in Psychology (PSY 4935, 3 credits) and Honors Thesis (PSY 4970, normally 1 credit taken one semester and 2 credits the other semester). The Honors Seminar and Honors Critical Questions in Psychology courses may be taken in a student's junior or senior year, either before, after or simultaneously with completion of the Honors Thesis.

Students in the Honors Program are also strongly encouraged to enroll for a Directed Independent Research (PSY 4915 or PSY 4916 for Psychology majors and PSB 4915 or PSB 4917 for Neuroscience and Behavior majors) as soon as they have identified a faculty member to work with to develop their thesis ideas. This should be done as early as possible, but no later than the start of the senior year.

Students must find a faculty member who agrees to supervise them in conducting an honors thesis. An honors thesis is typically an empirical project in which the student participates in all aspects of the research and prepares a written, APA-style report of the project. Alternative options may be approved by the student's faculty advisor.

## THE FAU MAX PLANCK HONORS PROGRAM (MPHP)

Eligible College of Science majors in Biology, Psychology, and Neuroscience and Behavior may apply to participate in this Jupiter-specific honors program for undergraduates. For students pursuing the MPHP, 3 to 6 of the elective credits in their individual program must be applied toward the requirements of the MPHP. These include successful completion of a Capstone experience (1 to 3 credits) and three different MPHP Enrichment courses (1 credit each) from those listed below. A minimum grade of "B" must be achieved in graded courses ("S" in non-graded courses) among these exclusive MPHP course options for the credits to count toward the requirements of the MPHP. Visit the [MPHP website](#) to apply.

## **PSYCHOLOGY**

### UNDERGRADUATE MINOR

*(Minimum of 18 credits required)*

A minor in Psychology is available for students who complete a minimum of 18 credits in psychology, including the following required courses. Of the 18 credits, at least 15 must be earned from FAU. A grade of "C-" or better (unless otherwise noted in the course description) is required in all courses taken as part of the requirements for a minor in Psychology.

Psychology of Human Development	DEP 3053	3
Cognition	EXP 3505	3
Biological Bases of Behavior 1	PSB 3002	3
General Psychology	PSY 1012	3
Experimental Design and Statistical Inference	PSY 3234	3
Social Psychology	SOP 3004	3

## **NEUROSCIENCE AND BEHAVIOR**

### BACHELOR OF SCIENCE (B.S.)

*(Minimum of 120 credits required)*

The B.S. degree in Neuroscience and Behavior is administered jointly by the Department of Psychology and the Department of Biological Sciences. The Neuroscience and Behavior program provides undergraduate preparation for students interested in pursuing graduate degrees in behavioral neuroscience, neurobiology and/or behavioral biology, or in pursuing professional degrees in medicine or veterinary medicine. Qualified students are strongly encouraged to become involved in neuroscience and behavior research projects (normally via a Directed Independent Study, Directed Independent Research or special research course). An optional Honors Thesis, PSY 4970, is available to those students who meet the academic requirements. A grade of "C-" or better (unless otherwise noted in the course description) is required in all psychology, biology and cognate courses taken as part of the requirements for a B.S. with major in Neuroscience and Behavior. However, students must maintain a "C" average in departmental major courses.

## Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or community college or through equivalent coursework at another regionally accredited institution. Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) .

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

In addition to the University and College requirements, students are expected to complete all of the following courses. A minimum of 24 of the upper-division credits in the B.S. Neuroscience and Behavior program must be taken at Florida Atlantic University.

## Core Requirements

Biological Principles	BSC 1010	3
Biological Principles Lab	BSC 1010L	1
Biodiversity	BSC 1011	3
Biodiversity Lab	BSC 1011L	1
Comparative Animal Behavior	CBH 4024	3
General Chemistry 1	CHM 2045	3
General Chemistry 1 Lab	CHM 2045L	1
General Chemistry 2	CHM 2046	3
General Chemistry 2 Lab	CHM 2046L	1
Math through Calculus	MAC 2233, 2311, 2312 or 2313	3

Genetics	PCB 3063	4
Organic Chemistry 1 and 2	CHM 2210 and CHM 2211	6
General Physics 1 and 2* or College Physics 1 and 2*	PHY 2048 and PHY 2049 or PHY 2053 and PHY 2054	8
Organic Chemistry Lab	CHM 2211L	2
Biochemistry	BCH 3033	3
Biological Bases of Behavior	PSB 3002	3
General Psychology	PSY 1012	3
Research Methods in Psychology	PSY 3213	3
Experimental Design and Statistical Inference	PSY 3234	3
Intermediate Statistics Lab	STA 3163L	1

\* This degree program does not require that students take Physics lab courses. However, students considering medical school should take the lab sequences. The Physics Department may require labs as corequisites for lecture courses.

### Elective Requirements

Students are expected to complete a minimum of 12 credits of elective courses. Students are free to choose their elective courses from those listed below.

#### *Behavioral Neuroscience*

Cognition	EXP 3505	3
Human Perception	EXP 4204	3
Practical Cell Neuroscience	PCB 4843C	3
Comparative Animal Physiology	PCB 4723	3

Comparative Animal Physiology Lab	PCB 4723L	1
Biological Bases of Behavior II	PSB 4006	3
Neuropsychology	PSB 4240	3
Human Psychophysiology	PSB 4323	3
Psychopharmacology	PSB 4444	3
Developmental Psychobiology	PSB 4504	3
RI: Neurobiology of Learning and Memory	PSB 4810	3
Neuroscience of Sleep	PSB 4842	3
Special Topics*	BSC 4930	1-3
Special Topics*	PSY 4930	1-3
Special Topics in Neuroscience and Behavior*	PSB 4930	3
Developmental Neurobiology	PSB 6515	3
Principles of Human Neuroanatomy	ZOO 4742	3
Directed Independent Research in Neuroscience and Behavior**	PSB 4915	1-3
Directed Independent Research in Neuroscience and Behavior**	PSB 4917	0-3
<b><i>Cellular Molecular Neuroscience</i></b>		
Cellular Neuroscience and Disease	PCB 4842	3
Practical Cell Neuroscience	PCB 4843C	3
Human Morphology and Function 1	PCB 3703	3
Human Morphology and Function 1 Lab	PCB 3703L	1
Human Morphology and Function 2	PCB 3704	3

Human Morphology and Function 2 Lab	PCB 3704L	1
Cell Biology	PCB 3023	3
Comparative Animal Physiology	PCB 4723	3
Comparative Animal Physiology Lab	PCB 4723L	1
RI: Neurobiology of Learning and Memory	PSB 4810	3
Special Topics*	BSC 4930	1-3
Special Topics*	PSY 4930	1-3
Special Topics in Neuroscience and Behavior*	PSB 4930	3
Directed Independent Research in Neuroscience and Behavior**	PSB 4915	1-3
Directed Independent Research in Neuroscience and Behavior**	PSB 4917	0-3
<b><i>Ethology/Comparative Psychology</i></b>		
Psychology of Motivation	EXP 4304	3
Marine Biology	OCB 4043	2
Marine Biology Field Studies and Lab	OCB 4043L	2
Principles of Ecology	PCB 4043	3
Evolution	PCB 3674	3
Comparative Animal Physiology	PCB 4723	3
Comparative Animal Physiology Lab	PCB 4723L	1
Computer Laboratory in Psychobiology	PSB 3002L	3
Developmental Psychobiology	PSB 4504	3
Invertebrate Zoology	ZOO 3205	3

Invertebrate Zoology Lab	ZOO 3205L	2
Ornithology	ZOO 4472	2
Ornithology Lab	ZOO 4472L	2
Vertebrate Structure Development and Evolution	ZOO 4690	3
Vertebrate Structure and Development Lab	ZOO 4690L	2
Special Topics*	BSC 4930	1-3
Special Topics*	PSY 4930	1-3
Special Topics in Neuroscience and Behavior*	PSB 4930	3
Directed Independent Research in Neuroscience and Behavior**	PSB 4915	1-3
Directed Independent Research in Neuroscience and Behavior**	PSB 4917	0-3

***Upper-Division Honors Program in Psychology Sequence \*\*\****

Honors Seminar	PSY 4932	3
Honors Critical Questions in Psychology	PSY 4935	3
Honors Thesis	PSY 4970	1-3

\* Applies to Special Topics courses that are relevant to the neurosciences. Interested students should confirm with the B.S. degree program faculty advisors.

\*\* Maximum of 3 credits of Directed Independent Research may be counted as an elective for the major.

\*\*\* Enrollment is limited to students in the Psychology Honors Program.

**APPLIED MENTAL HEALTH SERVICES  
UNDERGRADUATE CERTIFICATE**

*(Minimum of 17 credits required)*

The undergraduate certificate in Applied Mental Health Services, offered jointly by the Department of Psychology and by the Department of Counselor Education in the College of Education, provides a curricular experience for students who wish to pursue careers in clinical psychology, mental health counseling and allied human services that enhances the student's chosen major. This program is also specialized training for students who wish to pursue graduate degrees in these critical-need careers. For details, see the [Interdisciplinary](#) section of this catalog.

## COMBINED PROGRAMS

### PSYCHOLOGY

#### BACHELOR OF ARTS (B.A.) TO MASTER OF ARTS (M.A.) COMBINED PROGRAM

*(Minimum of 156 credits required)*

### NEUROSCIENCE AND BEHAVIOR TO PSYCHOLOGY

#### BACHELOR OF SCIENCE (B.S.) TO MASTER OF ARTS (M.A.) COMBINED PROGRAM

*(Minimum of 156 credits required)*

The combined bachelor's/master's programs in Psychology will allow highly qualified students to complete the requirements for both a B.A. degree in Psychology or a B.S. degree in Neuroscience and Behavior and an M.A. degree in Psychology in five years. The programs require 156 credits, of which 120 are for the bachelor's degree and 36 credits are for the master's degree. Students apply to the programs in the second semester of their junior year or upon completion of 60 credits in the bachelor's program at FAU. Once admitted, students may take up to 12 credits of graduate coursework in their senior year, which may be used to satisfy the requirements of both the undergraduate and graduate degrees.

### Admissions Requirements

To be eligible for the programs, students must have a minimum GPA of 3.6 in upper division coursework. In addition, they must have research experience either through Directed Independent Research (PSB 4917, PSB 4915, PSY 4915, PSY 4916) or an equivalent research venue (e.g., as a grant-funded research assistant). Finally, students must have secured the agreement of a faculty

member to serve as their graduate mentor prior to applying to the program. The Graduate Record Exam (GRE) is not required.

### Shared Graduate Courses

All graduate courses must be at the 5000 level or higher. Students may enroll in graduate courses from any of the core areas of the program (Behavioral Neuroscience, Cognition, Developmental or Social) only after completing the corresponding undergraduate core course in that area (PSB 3002, Biological Bases of Behavior; EXP 3505, Cognition; DEP 3053, Psychology of Human Development; SOP 3004, Social Psychology, respectively). Similarly, students may enroll in graduate statistics courses (e.g., PSY 6206) only after completing PSY 3234, Experimental Design and Statistical Inference, and STA 3163L, Intermediate Statistics Laboratory.

### Degree Requirements

Students admitted to the programs will fulfill all of the requirements for both the bachelor's and master's degrees, including a master's thesis.

### Funding Opportunities

Students admitted to the programs are eligible for financial support in the form of *Pathways Scholarships* offered through the Graduate College.

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#### Behavioral Neuroscience

Principles of Neuroscience	PSB 6037	3
Seminar in Behavioral Neuroscience	PSB 6058	3
Cellular and Molecular Neuroscience	PSB 6345	3
Systems and Integrative Neuroscience	PSB 6346	3
Developmental Neuropsychology	PSB 6516	3
Special Topics in Behavioral Neuroscience	PSB 6930	3

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#### Cognition

Seminar in Cognitive Development	DEP 6067	3
Seminar in Individual Differences in Children's Thinking	DEP 6932	3

Seminar in Human Perception	EXP 6208	3
Seminar in Cognition	EXP 6609	3
Special Topics in Cognition	EXP 6930	3
Cognitive Neuroscience	ISC 5465	3
Special Topics (Cognition)	PSY 5930	3

### **Developmental**

Seminar in Cognitive Development	DEP 6067	3
Parent-Child Relationships	DEP 6609	3
Evolutionary Developmental Psychology	DEP 6610	3
Special Topics in Developmental Psychology	DEP 6930	3
Seminar in Development of Social Cognition	DEP 6931	3
Seminar in Individual Differences in Children's Thinking	DEP 6932	3

### **Social/Personality**

Special Topics in Personality/Social Psychology	PPE 6930	3
Advanced Social Behavior	SOP 6079	3

## **MASTER'S PROGRAM**

### **PSYCHOLOGY**

#### **MASTER OF ARTS (M.A.)**

*(Minimum of 36 credits required)*

#### **Admission Requirements**

In addition to meeting all of the University and College admission requirements for graduate study, applicants for the Master of Arts (M.A.) degree must meet each of the following criteria:

1. The student must have a baccalaureate degree from an accredited college or university. It is not essential for this to be a degree in psychology.
2. The student must have a score of at least 150 on the verbal component and 150 on the quantitative component of the Graduate Record Examination.
3. The student must have a minimum 3.0 GPA in the last 60 credits of undergraduate work.
4. The student must attain approval for graduate admission from the Department of Psychology.

### **Degree Requirements**

A minimum of 30 credits of coursework and 6 M.A. thesis credits are required to complete the M.A. program.

Three quantitative courses (7 credits) are required, including the 3-credit Experimental Design I course (PSY 6206), the 1-credit Experimental Design 1 Lab course (PSY 6206L) and an additional 3-credit quantitative course approved by the Department of Psychology graduate committee chair. Only courses offered by the Department of Psychology (or other units in the College of Science) can be used to satisfy this additional 3-credit quantitative course requirement.

An additional seven courses (21 credits) are required. Of this total, at least 6 courses must consist of approved Department of Psychology graduate seminars, including a minimum of one regularly offered seminar in each of the following areas: behavioral neuroscience, cognition, developmental and social/personality. Any single course will satisfy the requirement of only one area (e.g., Seminar in Personality and Social Development can fulfill the developmental or social/personality area requirement, but not both). With the approval of the Department of Psychology graduate committee chair, one course taken outside the department may be included in this seven-course requirement.

A total of 6 M.A. thesis credits (PSY 6971) is required. Students must register for M.A. thesis credits the semester after the M.A. thesis proposal is approved by the supervisory committee and during each subsequent regular academic (fall and spring) semester.

An additional 2 credits are required, which may be filled with electives and/or Directed Independent Study (EXP 6908). Students are encouraged (but not required) to take at least 1 credit of Directed Independent Study.

Students are required to maintain a grade point average of "B" (3.0) or better. Courses with grades of

"C+" or lower will not satisfy program requirements.

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### Quantitative Requirements - 7 credits

Experimental Design 1	PSY 6206	3
Experimental Design 1 Lab	PSY 6206L	1
Third quantitative course approved by advisor		3

### Thesis - 6 credits

Master's Thesis ( <i>may be taken over multiple terms</i> )	PSY 6971	1-6
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### Psychology Graduate Seminars and Electives - 23 credits

*Choose seven courses (21 credits) from the following four areas. At least one seminar course must come from each of the four areas. An additional 2 credits of electives must be taken, which can include EXP 6908, Directed Independent Study.*

#### Cognition

Seminar in Cognitive Development	DEP 6067	3
Seminar in Individual Differences in Children's Thinking	DEP 6932	3
Seminar in Human Perception	EXP 6208	3
Seminar in Cognition	EXP 6609	3
Special Topics in Cognition	EXP 6930	3
Cognitive Neuroscience	ISC 5465	3
Special Topics (Cognition)	PSY 5930	3

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#### Developmental

Seminar in Cognitive Development	DEP 6067	3
Parent-Child Relationships	DEP 6609	3
Evolutionary Developmental Psychology	DEP 6610	3

Special Topics in Developmental Psychology	DEP 6930*	3
Seminar in Development of Social Cognition	DEP 6931	3
Seminar in Individual Differences in Children's Thinking	DEP 6932	3

\* Special Topics courses (DEP 6930) must be reviewed and approved by the Developmental area coordinator and the student's faculty advisor.

### **Social/Personality**

Special Topics in Personality/Social Psychology	PPE 6930	3
Advanced Social Behavior	SOP 6079	3

### **Behavioral Neuroscience**

Principles of Neuroscience	PSB 6037	3
Seminar in Behavioral Neuroscience	PSB 6058	3
Cellular and Molecular Neuroscience	PSB 6345	3
Systems and Integrative Neuroscience	PSB 6346	3
Developmental Neuropsychology	PSB 6516	3
Special Topics in Behavioral Neuroscience	PSB 6930	3

### **Transfer Students**

Students may transfer up to 6 credits of graduate coursework completed at other institutions toward their M.A. degree. Approval for such transfer is made by the Department of Psychology graduate committee chair.

### **Thesis Advisor and Thesis Committee**

By the end of the first semester of enrollment in the program, students must identify an M.A. thesis advisor. Students are responsible for securing their own advisors. By the second semester, all students

must have an advisor to continue in the program. Students without an advisor will be subject to dismissal.

Students are encouraged to file an M.A. plan of study during the second semester of enrollment in the program. Students pursuing an M.A. along the way to a Ph.D. should also file a Ph.D. plan of study at the same time.

By the end of the second semester of enrollment, students must hold a meeting of their supervisory committee for the purpose of approving the M.A. thesis prospectus. There must be a minimum of three faculty members on the supervisory committee, and at least half of the supervisory committee must be graduate faculty in the Department of Psychology, including the committee chair. Committee composition must be approved by the Department of Psychology graduate committee.

Approval of a written thesis proposal by the supervisory committee must precede the experimental work required for thesis. Approval of the thesis proposal must be obtained during a meeting of the full committee. Additional meetings of the thesis supervisory committee should be held at least once a year to review the student's progress toward the degree. Approval of a written thesis during a full meeting of the supervisory committee is required.

### **Annual Review**

All M.A. students will be evaluated by the entire graduate faculty during an annual meeting. Students who receive two consecutive unsatisfactory evaluations will be subject to dismissal.

## **DOCTORAL PROGRAM**

### **EXPERIMENTAL PSYCHOLOGY DOCTOR OF PHILOSOPHY (PH.D.)**

*(Minimum of 81 credits required)*

The Department of Psychology offers graduate study leading to a Doctor of Philosophy in Experimental Psychology. Students may select major and minor areas of study from four areas of psychology: behavioral neuroscience, cognition, developmental psychology and social/personality.

### **Admission to Doctoral Study**

In addition to meeting all of the University and College admission requirements for graduate study, applicants for the Doctor of Philosophy (Ph.D.) degree must meet each of the following criteria:

1. The student must have a baccalaureate degree from an accredited college or university. It is not essential for this to be a degree in psychology.
2. The student must have a score of at least 153 on the verbal component and 152 on the quantitative component of the Graduate Record Examination.
3. The student must have a minimum 3.0 GPA in the last 60 credits of undergraduate work.
4. The student must attain approval for graduate admission from the Department of Psychology.

An admitted applicant will usually have a strong record of achievement that is higher than the minimum requirements. In considering applications for admission to the Ph.D. program, the decision of the graduate admissions committee will be based on an evaluation of a student's record and the likelihood of success in the program. The committee will consider a number of factors that include, but are not limited to:

1. The applicant's record of achievement based on GPA, GRE scores and letters of recommendation;
2. The applicant's promise for research productivity while in graduate school; and
3. The availability and willingness of a faculty member to serve as a mentor for the student.

Students admitted to the Ph.D. program will be assigned an advisor by the Department of Psychology graduate committee who will supervise their research and chair their M.A. thesis and Ph.D. dissertation committees. Considerable effort is devoted to matching students with advisors. As a consequence, few students change advisors. Changing advisors is not generally recommended because it slows progress toward graduation. The best time to change advisors is after completion of the M.A. degree but before admission to doctoral status. Students who change advisors must do so in consultation with the Department of Psychology graduate committee chair. Students without an advisor cannot continue in the program.

## **Course Requirements**

Ph.D. students will complete the M.A. degree requirements as described above.

A total of 81 credits is required to complete the Ph.D. program. Up to 36 credits (30 credits of coursework and 6 thesis credits) that were used to satisfy the M.A. degree requirements are typically counted toward the Ph.D. degree requirements. No more than 6 M.A. thesis credits may be transferred to satisfy the doctoral degree requirements.

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## **Quantitative Requirements - 10 credits**

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Experimental Design 1	PSY 6206	3 <b>or</b>
Experimental Design 2	PSY 6207	3
Experimental Design 1 Lab	PSY 6206L	1
Additional 6 credits at the 6000 level from the College of Science		6

**OR**

Experimental Design 1	PSY 6206	3
Experimental Design 2	PSY 6207	3
Experimental Design 1 Lab	PSY 6206L	1
Additional 3 credits at the 6000 level from the College of Science		3

**Thesis - 6 credits**

Master's Thesis ( <i>may be taken over multiple terms</i> )	PSY 6971	1-6
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**Major Requirements - 15 credits**

*Choose five courses (21 credits) from the following four areas. Must choose at least one course from each of the four areas. Fifth course can be from any area.*

**Cognition**

Seminar in Cognitive Development	DEP 6067	3
Seminar in Individual Differences in Children's Thinking	DEP 6932	3
Seminar in Human Perception	EXP 6208	3
Seminar in Cognition	EXP 6609	3
Special Topics in Cognition	EXP 6930	3
Cognitive Neuroscience	ISC 5465	3
Special Topics (Cognition)	PSY 5930	3

**Developmental**

Seminar in Cognitive Development	DEP 6067	3
Parent-Child Relationships	DEP 6609	3
Evolutionary Developmental Psychology	DEP 6610	3
Special Topics in Developmental Psychology	DEP 6930*	3
Seminar in Development of Social Cognition	DEP 6931	3
Seminar in Individual Differences in Children's Thinking	DEP 6932	3

\* Special Topics courses (DEP 6930) must be reviewed and approved by the Developmental area coordinator and the student's faculty advisor.

**Developmental Psychology Doctoral Students Only:** Psychology graduate courses not listed above may count toward one of the developmental psychology graduate courses required to complete the area requirements in the major field of study, with the permission of the student's faculty advisor.

### **Social/Personality**

Special Topics in Personality/Social Psychology	PPE 6930	3
Advanced Social Behavior	SOP 6079	3

### **Behavioral Neuroscience**

Principles of Neuroscience	PSB 6037	3
Seminar in Behavioral Neuroscience	PSB 6058	3
Cellular and Molecular Neuroscience	PSB 6345	3
Systems and Integrative Neuroscience	PSB 6346	3
Developmental Neuropsychology	PSB 6516	3
Special Topics in Behavioral Neuroscience	PSB 6930	3

### **Electives - 9 credits**

*Select three courses (9 credits), one from each of the areas not in the student's major area.*

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**Dissertation - 9 credits (minimum)**

Dissertation	PSY 7980	1-9
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**Additional Electives and Dissertation - 32 credits**

*Choose 32 credits of electives (from areas above), dissertation credits (PSY 7980), Advanced Research in Psychology, (PSY 7978), or Directed Independent Study (EXP 6908).*

A total of four quantitative courses (10 credits) is required. All doctoral students must take the 3-credit Experimental Design I course (PSY 6206) or the 3-credit Experimental Design 2 course (PSY 6207), but they need not take both. The 1-credit Experimental Design 1 Lab course (PSY 6206L) is required, but this requirement may be waived with the written approval of the advisor. All quantitative courses outside of the Experimental Design sequence must be approved by the Department of Psychology graduate committee chair. For students who take both Experimental Design I and Experimental Design 2, the third 3-credit quantitative course must be a course offered by the Department of Psychology (or another unit in the College of Science).

Students must take five courses (15 credits) in their major area.

An additional three courses (9 credits) are required, consisting of one regularly offered Department of Psychology seminar in each the following areas of study (excluding the student's major area): behavioral neuroscience, cognition, developmental and social/personality. Any single course will satisfy the requirement of only one area (e.g., Seminar in Personality and Social Development can fulfill the developmental or social/personality area requirement, but not both).

A minimum of 9 Ph.D. dissertation credits (PSY 7980) are required. Students must register for dissertation credits starting the semester after they are admitted to candidacy and during each subsequent regular academic (fall and spring) semester.

An additional 32 credits are required, which may be filled with electives, dissertation credits, Advanced Research in Psychology (PSY 7978) and Directed Independent Study (EXP 6908).

Taken together, doctoral students must complete a minimum of 10 graduate courses (30 credits) in the Department of Psychology (excluding thesis and dissertation credits, advanced research in psychology

and directed independent study).

Students are required to maintain a grade point average of "B" (3.0) or better. Courses with grades of "C+" or lower will not satisfy program requirements.

### **Transfer Students**

Students admitted to the Ph.D. program may transfer up to 30 graduate credits taken at other institutions. Transfer courses must be relevant to the student's program of study and must be approved by the student's advisor and the Department of Psychology graduate studies director. Requests to transfer credits into the student's area of study are not typically approved.

Doctoral students who have completed an M.A. thesis at another university or in another department at FAU may substitute this thesis for the M.A. thesis as part of the requirement for admission to doctoral candidacy if it is approved by the student's advisor and the Department of Psychology graduate committee chair.

### **Admission to Doctoral Status**

Admission to doctoral status requires successful completion of Ph.D. coursework, successful completion and approval of a written M.A. thesis, the formation of a doctoral dissertation supervisory committee and approval of a written dissertation proposal by the doctoral dissertation committee.

In addition, comprehensive exams must be completed before a doctoral student is admitted to candidacy. Comprehensive exams are designed to demonstrate a breadth of knowledge in the student's area. A student's comprehensive exam committee must include at least three members of the graduate faculty in the FAU Department of Psychology. The comprehensive exam committee is chaired by the student's advisor. The minimum comprehensive exam includes an eight-hour, closed-book essay exam, which may be spread across two separate, preferably consecutive, days. Exams may be separated by no more than 72 hours. The student must complete at least two written essays for each member of the committee. Additional evaluation material (e.g., more essays, short answer questions, oral questions) may be requested by the comprehensive exam committee. Exams are graded as follows: pass, fail or conditional pass (a pass grade contingent on successful demonstration of competence not evident in the initial exam). A unanimous pass vote from the committee is required to complete the comprehensive exam degree requirement. Conditional pass results must be satisfactorily addressed within one month of receipt of written feedback or they will be treated as a fail.

### **Dissertation Advisor and Dissertation Committee**

The doctoral dissertation committee must consist of at least five members. At least half of the

committee must be graduate faculty in the Department of Psychology, including the committee chair. At least one member of the doctoral committee must be a faculty member from outside of the Department of Psychology. Committee composition must be approved by the Department of Psychology graduate committee chair. As per University policy, outside committee members must be appointed affiliate members of the graduate faculty. Candidates and advisors must work with the department chair and the director of graduate studies to ensure that the appointment is made in a timely manner.

A central requirement for the Ph.D. degree is submission and defense of a dissertation based on original work in an area of specialization acceptable to the student's doctoral dissertation supervisory committee. The dissertation must be approved by the doctoral dissertation supervisory committee, the department chair and the Graduate College.

Doctoral dissertation supervisory committee approval of a written dissertation proposal must precede the experimental work required for the dissertation. Approval of the dissertation proposal must be obtained during a meeting of the full doctoral dissertation supervisory committee. Additional meetings of the doctoral dissertation supervisory committee should be held at least once a year to review the student's progress toward the degree.

Students who change supervisory committee members after a dissertation proposal has been approved must obtain permission to change the committee from the Graduate College and the Department of Psychology graduate committee chair. A meeting of the new dissertation committee is required to review and approve of the dissertation proposal.

Approval of a written dissertation during a full meeting of the doctoral dissertation supervisory committee is required. A publicly announced departmental lecture summarizing the Ph.D. dissertation research is expected upon successful defense of the dissertation.

### **Annual Review**

All Ph.D. students will be evaluated by the entire graduate faculty during an annual meeting. Students who receive two consecutive unsatisfactory evaluations will be subject to dismissal.

## **URBAN AND REGIONAL PLANNING**

### **Faculty:**

Bourassa, S., Director; Besser, L.; Dumbaugh, E.; Henn, P.; Li, Y.; Merlin, L.; Mitsova, D.; Renne, J.;

Saginer, J.

### **Mission**

The Department of Urban and Regional Planning is a locus of scholars, teachers, practitioners, agents and students committed to the continuous improvement of urban regions and the planning enterprise through research, teaching and service.

The Department provides an environment to discuss, develop and disseminate new ideas and concepts and contribute to the practice of planning directed toward a future that is environmentally, economically and humanly beneficial. The focus of work relies on the recognition and use of multi-scalar connections and interactions of systems and planning activities. The Department encourages involvement in a range of governance activities, including policy framework development, participatory decision-making and community stewardship. It also seeks to exploit the potential of emerging technologies and collaborative engagement in creative and innovative ways.

Current initiatives include global urban networks, climate change, metropolitan form, disaster management, place making, healthy cities and housing market issues.

### **Information**

Students who seek additional information should contact the Department of Urban and Regional Planning at 954-762-5652.

[Link to Bachelor of Urban Design](#)

[Link to Honors Program](#)

[Link to Advanced Standing Bachelor's/Master's Programs](#)

[Link to Master's Program](#)

[Link to Graduate Certificates](#)

## **URBAN AND REGIONAL PLANNING** **BACHELOR OF URBAN AND REGIONAL PLANNING (B.U.R.P.)**

*(Minimum of 120 credits required)*

The Bachelor Urban and Regional Planning (B.U.R.P.) is a professional program that provides students with the knowledge base and analytical and design skills to address issues that affect the quality of life in neighborhoods, suburbs, cities and regions. The curriculum consists of planning lecture courses, design courses and professional practice courses that give students real-world planning experience. Students select courses from a wide variety of electives that allow them to focus on topics of particular interest. Graduates of the program qualify for positions in a variety of public and private organizations, including local and state planning departments, nonprofit organizations and private-sector planning and development firms.

### **Admission Requirements**

All students must meet minimum admission requirements of the University. Please refer to the [Admissions section](#) of this catalog for a more detailed discussion.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or state college or through equivalent coursework at another regionally accredited institution.

Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) . All prerequisite courses must be completed by the Department's designated date or within the first year after transferring to FAU and before reaching senior status (90 total credits).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Degree Requirements**

All students in the Bachelor of Urban and Regional Planning program must complete a minimum of 120 credits, including the following:

1. Satisfaction of all University requirements for baccalaureate degrees;
2. The last 30 upper-division credits (3000/4000-level courses) must be earned in residence at FAU;
3. At least 39 credits of Planning Core courses;

4. At least 9 credits of approved upper-division Elective courses from specific departments, see list below;
5. At least 12 credits of Free Electives;
6. A minimum grade of "C" is required for each core course.

## Urban and Regional Planning Program

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### Planning Core Courses - 39 credits

Introduction to Urban Planning and Design	URP 3000	3
Planning Methods	URP 4011	3
City Structure and Change	URP 4055	3
Planning Implementation Strategies	URP 4120	3
Public Budgeting and Finance	PAD 4223	3
Introduction to Mapping and GIS	GIS 3015C	3
Introduction to Visual Planning Technology	URP 4254	3
Plan Making and Zoning (1)	URP 4343	3
Sustainable Cities	URP 4403	3
Capital Facilities Planning	URP 4730	3
Site Planning	URP 4870	3
RI: Planning Capstone (3)	URP 4979	3
Advanced Visual Planning Technologies (2)	URP 4255	3

### Notes:

1. URP 3000 is a prerequisite or must be taken at the same time.
2. URP 4254 is a prerequisite.
3. URP 4570 is a prerequisite.

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### Elective Courses - 9 credits

Students must choose two upper-division electives appropriate to their field of study; these may be

any 3000/4000-level course from the following departments/schools: Architecture, Civil Engineering, Criminal Justice, Communications, Economics, Finance, Geosciences, History, Public Administration, Political Science, Sociology, Urban and Regional Planning or other departments with approval. Below is a list of suggested electives.

American Environmental History	AMH 3630	3
Economics of the Public Sector	ECO 4504	3
Urban and Regional Economics	ECP 3603	3
Environmental Economics	ECP 4302	3
Environmental Issues in Atmospheric and Earth Science	EVR 3019	3
Tourism and Commercial Recreation	GEO 4542	3
Introduction to Mapping and GIS	GIS 3015C	3
Remote Sensing of Environment	GIS 4035C	3
Coastal and Marine Sciences	GLY 3731	3
Earth Systems and Resources	GLY 4012C	3
Public Management and Administration	PAD 3003	3
Managing for Excellence in the Public and Nonprofit Sectors	PAD 4332	3
Administrative Process and Ethics	PAD 4604	3
State and Local Government Administration	PAD 4806	3
Environmental Ethics	PHI 3640	3
Law and American Society	POS 3691	3
Politics of Community Development	PUP 4623	3
Principles of Real Estate	REE 3043	3
The Urban Community	SYD 4602	3

Environmental Planning Methods	URP 4420	3
Planning for Hazards/Disasters	URP 4430	3
Urban Development Planning Methods	URP 4546	3
Housing Policy and Planning	URP 4741	3
Urban Design: Theories and Methods	URP 4883	3
Urban Design Studio 1	URP 4920	3
Planning Internship	URP 4945	3
Planning Abroad	URP 4955	3

### **Free Electives - 12 credits**

### **Second Bachelor's in Urban and Regional Planning**

A second bachelor's in Urban and Regional Planning requires 39 credits of urban and regional planning core courses.

## **URBAN DESIGN**

### **BACHELOR OF URBAN DESIGN (B.U.D.)**

*(Minimum of 120 credits required)*

The Bachelor of Urban Design (B.U.D.) program provides a broad knowledge of the principles and practices of urban design. It is ideal for students who are interested in design of the built environment at the neighborhood, community and city scale, with an emphasis on sustainable development. The program offers an interdisciplinary approach for students who plan to pursue a professional career in an urban discipline, such as urban and regional planning, urban development policy, real estate development, municipal and planning law, as well as design disciplines, including architecture and landscape architecture at the graduate level.

The program utilizes the South Florida metropolitan region as an "urban living laboratory" for the students to exercise their urban design creativity, but also covers national and global context. Students' experience will also benefit from partnerships forged between the B.U.D. program and practitioners from private design and consulting firms in the South Florida metropolitan area, with both local and international experience.

## Admission Requirements

All students must meet minimum admission requirements of the University. Please refer to the [Admissions section](#) of this catalog for a more detailed discussion.

## Prerequisite Coursework for Transfer Students

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or state college or through equivalent coursework at another regionally accredited institution.

Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#). All prerequisite courses must be completed by the Department's designated date or within the first year after transferring to FAU and before reaching senior status (90 total credits).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

## Degree Requirements

The interdisciplinary nature of the program allows students the option to take electives from a variety of different departments and schools. The core courses are offered in the Department of Urban and Regional Planning and the School of Architecture. There are three types of core courses: lectures, studio/lab and participation in professional seminars. All students in the Bachelor of Urban Design program must complete a minimum of 120 credits, including the following:

1. Satisfaction of all University requirements for baccalaureate degrees;
2. The last 30 upper-division credits (3000/4000-level courses) must be earned in residence at FAU;
3. At least 36 credits of Urban Design Core courses;
4. At least 12 credits of upper-division-approved Elective courses from specific departments, see list below;
5. At least 12 credits of Free Elective courses; and
6. A minimum grade of "C" is required for each core course.

The course materials taught in the core courses build upon each other. Therefore, students are highly

recommended to follow the term schedules identified below. Following the term schedule is also very important in order to ensure the timely graduation of the students.

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### **Urban Design Core Courses - 36 credits**

Introduction to Mapping and GIS	GIS 3015C	3
Introduction to Urban Planning and Design	URP 3000	3
City Structure and Change	URP 4055	3
Introduction to Visual Planning Technology	URP 4254	3
Advanced Visual Planning Technologies (1)	URP 4255	3
Plan Making and Zoning (2)	URP 4343	3
Sustainable Cities	URP 4403	3
Site Planning	URP 4870	3
Urban Design: Theories and Methods	URP 4883	3
Urban Design Studio 1 (2)	URP 4920	3
RI: Urban Design Studio 2 (3)	URP 4922	3
RI: Urban Design Capstone (4)	URP 4923	3

### **Notes:**

1. URP 4254 is a prerequisite.
2. URP 3000 is a prerequisite or must be taken at the same time.
3. URP 4920 is a prerequisite.
4. URP 4922 is a prerequisite.

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### **Elective Courses - 12 credits**

Students must select at least 12 credits of upper-division electives appropriate to their field of study; these may be any 3000/4000-level course from the following departments/schools: Architecture, Civil Engineering, Criminal Justice, Communications, Economics, Finance, Geosciences, History, Public Administration, Political Science, Sociology, Urban and Regional Planning or other departments with

approval. Below is a list of suggested electives.

Planning Methods	URP 4011	3
Planning Implementation Strategies	URP 4120	3
Environmental Planning Methods	URP 4420	3
Capital Facilities Planning	URP 4730	3
Directed Independent Study	URP 4905	3
Planning for Hazards/Disasters	URP 4430	3
Urban Development Planning Methods	URP 4546	3
Housing Policy and Planning	URP 4741	3
Planning Internship	URP 4945	3
Planning Abroad	URP 4955	3
Dynamic Design Methods 1	ARC 4057	3
Ethics and Architecture	ARC 4202	3
Contemporary Design Theories	ARC 4220	3
Designing Safer Communities with CPTED	ARC 4384	3
Architecture and Urbanism Study Abroad	ARC 4950	3
American Cultural Landscape	GEO 4422	3
Tourism and Commercial Recreation	GEO 4542	3
Urban Geography	GEO 4602	3
Transportation and Spatial Organization	GEO 4700	3
Introduction to Mapping and GIS	GIS 3015C	3
Environmental Ethics	PHI 3640	3
The Urban Community	SYD 4602	3

Introduction to the Nonprofit Sector	PAD 4144	3
Principles of Real Estate	REE 3043	3
Law and American Society	POS 3691	3
Politics of Community Development	PUP 4623	3

Note.

1. URP 3000 is a prerequisite or must be taken at the same time.

### **Free Electives Course - 12 credits**

Free electives are taken in other FAU Colleges. Students are advised to consider additional courses listed under "Suggested Elective Courses," although other choices are permitted.

## **HONORS PROGRAM**

The Honors Program provides FAU students the opportunity to achieve academic excellence beyond the level of standard coursework by completing honors-level enrichment in Urban and Regional Planning or Urban Design.

Students interested in pursuing honors designation in Urban and Regional Planning or Urban Design are required to meet the eligibility and admission requirements noted below. Each student's honors program of study will include at least six credits in honors coursework in upper-level planning/urban design courses.

There are two pathways to attaining Honors in the Major in Urban and Regional Planning or Urban Design. Undergraduate students who successfully fulfill all requirements associated with one of the pathways noted below and have a final cumulative GPA of 3.0 or greater at the time of degree conferral will receive a designation of Honors in the Major on their transcripts. The transcript notations are:

Honors in the Major in Urban and Regional Planning or Urban Design: Honors Capstone Thesis  
or

Honors in the Major in Urban and Regional Planning or Urban Design: Honors Capstone Research

### **Requirements for Eligibility and Admission to the Honors Program in Urban and Regional Planning or Urban Design:**

(Program entry is limited to 20 percent of students within the Urban and Regional Planning or Urban Design major.)

1. Completed at least five upper-level (4000) courses in B.U.R.P. or B.U.D.;
2. Cumulative undergraduate GPA of at least 3.3 in core courses;
3. Cumulative undergraduate GPA of at least 3.0 overall;
4. Formal application form, [which may be found here](#), must be submitted after completion of 90 credits no later than three weeks prior to the beginning of the semester for which the student seeks to enroll in the Honors Program.

***The application package should include:***

1. Application form to be signed by the mentoring faculty;
2. Unofficial transcript;
3. Résumé;
4. Personal statement;
5. A letter of support by the mentoring faculty.

**Requirements to Maintain Eligibility in the Honors Program in Urban and Regional Planning or Urban Design:**

1. Maintain good academic and ethical standing;
2. Maintain cumulative undergraduate GPA of at least 3.3 in core courses;
3. Maintain cumulative undergraduate GPA of at least 3.0 overall;
4. In the beginning semester, complete at least one **Honors Compact** in upper-level planning/urban design courses with a grade of “B” or higher to prepare for independent research and honors-level enrichment;
5. For the thesis option, B.U.R.P. students must complete URP 4978, RI: Honors Planning Capstone (3 credits), in lieu of URP 4979, RI: Planning Capstone, with a grade of "B" or higher. B.U.D. students must complete URP 4924, RI: Honors Urban Design Capstone (3 credits), in lieu of URP 4923, RI: Urban Design Capstone, with a grade of "B" or higher.

If any of the above standards for maintaining eligibility in the program are not met, the student will be advised accordingly on how to undertake remedial actions.

Students will not be allowed to continue in the Honors Program for:

1. Violation of the Code of Academic Integrity;
2. Any grade of less than “C” in core courses and less than “B” in the honors course and/or Honors

Compact.

## **Honors in the Major in Urban and Regional Planning or Urban Design: Honors Capstone Thesis**

### ***Honors Level Enrichment***

Honors level enrichment is provided in the form of extensive mentoring in practical research by departmental faculty or approved departmental-affiliated faculty culminating in production of a thesis.

Three credits are achieved through an Honors Compact with the mentoring faculty in a regularly taught course where the student will have the opportunity to participate in honors-level enrichment activities, prepare for individual research and demonstrate academic excellence. Students must complete the Honors Compact Proposal and Approval Form and submit it to the department chair (or the director of the honors program to which the course will be applied) no later than the "last day to drop/add courses without consequences," according to FAU's Academic Calendar, for the term in which the Honors Compact will be completed. Guidelines for completing an Honors Compact and the form may be found [here](#).

A student who successfully completes an Honors Capstone Thesis in the B.U.R.P. or B.U.D. program will receive the degree with departmental honors, to be noted on the student's transcript, along with the title of the Honors Capstone Thesis. The Honors Capstone Thesis will be preserved in a separate collection in the FAU Wimberly Library.

### ***Honors Capstone Thesis Experience***

B.U.R.P. students must complete URP 4978, RI: Honors Planning Capstone (3 credits), in lieu of URP 4979, RI: Planning Capstone, with a grade of "B" or higher. B.U.D. students must complete URP 4924, RI: Honors Urban Design Capstone (3 credits), in lieu of URP 4923, RI: Urban Design Capstone, with a grade of "B" or higher. In case students fail to complete URP 4978 or URP 4924 with a grade of "B" or higher, the credits earned may count toward their bachelor's degree without the honors designation, as long as the student meets the requirements for successful completion of the capstone course in the B.U.R.P. or B.U.D. program.

The honors thesis will be supervised by a thesis committee of at least two faculty with a terminal degree in the discipline and affiliation with the Department of Urban and Regional Planning. The committee will review the thesis and if the student's work is judged to meet the standards for an honors thesis, the student will be allowed to proceed with the oral defense.

If the committee determines that the student's work on the thesis does not meet the minimal standard

required for successful completion of an honors-level course, the following steps will be undertaken: The faculty supervisor will discuss with the student the specific nature of the issues that need to be addressed AND the committee will request that the student make substantive changes to the thesis within a specified period of time (typically prior to the graduation date).

If the requirements are still not met, students will receive a grade for the course that will count toward their degree in Urban and Regional Planning or Urban Design, but will not receive the honors designation, as long as they meet the requirements for a successful completion of the capstone course in B.U.R.P. or B.U.D.

Students will be encouraged to seek topics that can be incorporated in service learning, interdisciplinary research and inquiry, creativity, civic engagement and collaboration with South Florida communities.

Students will be encouraged to seek opportunities for publication/presentation such as participation in the *Undergraduate Research Symposium*, *Distinction through Discovery* competitions, *FAU Undergraduate Research Journal*, and National Collegiate Honors Society conference, among others.

### **Honors in the Major in Urban and Regional Planning or Urban Design: Honors Capstone Research**

The Department of Urban and Regional Planning offers an Honors Research program that recognizes outstanding research accomplishments of undergraduate students. Eligible students must meet the requirements for eligibility, admission and the maintenance of eligibility as noted above. Students usually begin, then conduct independent supervised research in their junior and senior years. Presentation of a poster session or seminar at a local, regional, national or international research conference/symposium describing the results of students' research is required.

#### ***Honors Level Enrichment***

Honors level enrichment is provided in the form of extensive mentoring in practical research by departmental faculty or approved departmental-affiliated faculty culminating in one or more of the following: production of a report for an external agency or internal use, a journal article, or a grant application. The research results will be disseminated via a research poster session or a conference/symposium presentation.

#### ***Honors Capstone Research Experience***

The Honors Capstone Research Experience consists of two options:

Option 1: At least two semesters of URP 4910, Directed Independent Research, with a confirmed faculty mentor in the junior or senior year.

Option 2: At least one semester of a designated research-intensive (RI) course with a grade of “B” or higher and at least one semester of URP 4910, Directed Independent Research, with a confirmed faculty mentor in the junior or senior year.

In order to qualify for Honors Designation, the credits mentioned in Options 1 and 2 must be achieved through an Honors Compact with the mentoring faculty as explained above. Note that students choosing the Honors Capstone Research option must complete either URP 4979, RI: Planning Capstone, or URP 4923, RI: Urban Design Capstone, with an Honors Compact.

### ***Honors Capstone Research Outcomes***

1. Production of a high-quality report for an external agency or internal use, a research grant application, conference paper or journal article
2. Dissemination of research results via a presentation or poster session at a local, regional, national or international research conference/symposium.

If the requirements are not met, the student will receive a grade for the course that will count toward her/his degree in Urban and Regional Planning or Urban Design, but will not receive the honors designation, as long as the student meets the requirements for a successful completion of the capstone course in B.U.R.P. or B.U.D.

Students will be encouraged to seek topics that can be incorporated in service learning, interdisciplinary research and inquiry, creativity, civic engagement and collaboration with South Florida communities.

Students will be encouraged to seek opportunities for publication/presentation such as participation in the *Undergraduate Research Symposium*, *Distinction through Discovery* competitions, *FAU Undergraduate Research Journal*, and National Collegiate Honors Society conference, among others.

## **ADVANCED STANDING PROGRAMS**

### **ARCHITECTURE TO URBAN AND REGIONAL PLANNING**

#### **BACHELOR OF ARCHITECTURE (B.ARCH.) TO**

#### **MASTER OF URBAN AND REGIONAL PLANNING (M.U.R.P.)**

#### **ADVANCED STANDING PROGRAM**

This program offers FAU Bachelor of Architecture students the opportunity to complete the M.U.R.P. degree program in less time than would be required normally after graduating with the B.Arch. B.Arch. students complete up to 12 credits of M.U.R. P. core courses during their senior and thesis (fourth and fifth) years. These courses count as electives toward the the B.Arch. The remaining 36 credits required for the M.U.R.P. may be completed in as few as 15 months following graduation with the B.Arch.

### Admission Requirements and Academic Standing

1. Applications to the advanced standing program may be submitted by B.Arch. students during their senior or thesis (fourth or fifth) year of study. Applicants must have no academic deficiencies a the time of application.
2. Applicants must have a minimum undergraduate FAU GPA of 3.25 in order to be admitted to the program. The GRE will be waived for these students. Students who meet the GPA requirement, provide a positive letter of support from a full-time School of Architecture faculty member and provide a strong letter of intent will be eligible for admission. Other students will follow graduate application procedures as well as departmental requirements for admission to this program.
3. Students must graduate with the B.Arch. as soon as all of the requirements for that degree have been met. Students must maintain a minimum GPA of 3.0 across all courses applied to the M.U.R. P., including the credits that apply to both the B.Arch. (as electives) and the M.U.R.P. Both degrees require a total of 207 credits: 159 for the undergraduate degree and 48 for the master's degree, with a maximum of 12 graduate, URP credits used to satisfy requirements for both degrees.

### Degree Requirements

The following course schedule gives an example of how B.Arch. students who enroll in the advanced standing M.U.R.P. program could complete the requirements for that program.

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#### Required M.U.R.P. courses

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##### *B.Arch. Senior Year - Fall - 3 credits*

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History and Theory of Planning	URP 6101*	3
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##### *B.Arch. Senior Year - Spring - 3 credits*

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Sustainable Cities	URP 6406*	3
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##### *B.Arch. Thesis Year - Spring - 3 credits*

Planning Methods	URP 6200*	3
<b><i>B.Arch. Thesis Year - Fall - 3 credits</i></b>		
Legal Aspects of Planning	URP 6873*	3
<b><i>Receive B.Arch. degree</i></b>		
<b><i>Master Year - First Summer - 6 credits</i></b>		
Planning Internship	URP 6945	3
Graduate elective		3
<b><i>Master Year - Fall - 12 credits</i></b>		
Urban Spatial Structure	URP 6840	3
Introduction to GIS in Planning	URP 6270	3
Urban Governance	URP 6115	3
Planning Workshop	URP 6920	3
<b><i>Master Year - Spring - 12 credits</i></b>		
Site Planning	URP 6873**	3
Statistics for Urban Planning	URP 6211	3
Graduate elective		3
Planning Project	URP 6979	3
<b><i>Master Year - Second Summer - 6 credits</i></b>		
Graduate elective		3
Graduate elective		3
<b>Receive M.U.R.P. degree</b>		

\* Graduate courses used as electives toward the bachelor's degree.

\*\* B.Arch. students with a grade of "B" or better in ARC 3374 may substitute a graduate elective for URP 6873.

**URBAN DESIGN TO URBAN AND REGIONAL PLANNING  
BACHELOR OF URBAN DESIGN (B.U.D.) TO  
MASTER OF URBAN AND REGIONAL PLANNING (M.U.R.P.)  
ADVANCED STANDING PROGRAM**

**URBAN AND REGIONAL PLANNING  
BACHELOR OF URBAN AND REGIONAL PLANNING (B.U.R.P.) TO  
MASTER OF URBAN AND REGIONAL PLANNING (M.U.R.P.)  
ADVANCED STANDING PROGRAM**

This program allows FAU Bachelor of Urban Design and Bachelor of Urban and Regional Planning students the opportunity to complete the M.U.R.P. in less time than would be required normally after completing the B.U.D. or B.U.R.P. B.U.D. and B.U.R.P. students may complete up to 12 credits of M.U.R.P. core courses during their senior year. These courses count as electives toward the B.U.D. or B.U.R.P. The remaining 36 credits required for the M.U.R.P. may be completed in as few as 15 months following graduation with the B.U.D. or B.U.R.P.

**Admission Requirements and Academic Standing**

1. Applications to the advanced standing program may be submitted by B.U.D. or B.U.R.P. students during their senior year of study. Applicants must have no academic deficiencies at the time of application.
2. Applicants must have a minimum undergraduate FAU GPA of 3.25 in order to be admitted to the program. The GRE will be waived for these students. Students who meet the GPA requirement, provide a positive letter of support from a full-time Department of Urban and Regional Planning faculty member and provide a strong letter of intent will be eligible for admission. Other students will follow graduate application procedures as well as departmental requirements for admission to this program.
3. Students must graduate with the B.U.D. or B.U.R.P. as soon as all of the requirements for those degrees have been met. Students must maintain a minimum GPA of 3.0 across all courses applied to the M.U.R.P., including the credits that apply to both the B.U.D. or B.U.R.P. (as electives) and the M.U.R.P. Both degrees require a total of 168 credits: 120 for the undergraduate degree and 48 for the master's degree, with a maximum of 12 graduate, URP credits used to satisfy requirements for both degrees.

**Degree Requirements**

The following course schedule gives an example of how B.U.D. and B.U.R.P. students who enroll in the advanced standing M.U.R. P. program could complete the requirements for that program.

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### **Required M.U.R.P. courses**

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#### ***B.U.D. or B.U.R.P. Senior Year - Fall - 6 credits***

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Planning Methods	URP 6200*	3
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History and Theory of Planning	URP 6101*	3
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#### ***B.U.D. or B.U.R.P. Senior Year - Spring - 6 credits***

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Graduate elective		3
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Legal Aspects of Planning	URP 6873*	3
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### **Receive B.U.D. or B.U.R.P. degree**

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#### ***Master Year - First Summer - 6 credits***

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Planning Internship	URP 6945**	3
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Graduate elective		3
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#### ***Master Year - Fall - 12 credits***

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Urban Spatial Structure	URP 6840	3
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Introduction to GIS in Planning	URP 6270	3
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Urban Governance	URP 6115	3
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Planning Workshop	URP 6920	3
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#### ***Master Year - Spring - 12 credits***

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Site Planning	URP 6873**	3
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Statistics for Urban Planning	URP 6211	3
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Sustainable Cities	URP 6406**	3
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Planning Project	URP 6979	3
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***Master Year - Second Summer - 6 credits***

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Graduate elective 3

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Graduate elective 3

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**Receive M.U.R.P. degree**

\* Graduate courses used as electives toward the bachelor's degree.

\*\* B.U.R.P. students who have completed URP 4945 with a grade of "S" may substitute a graduate elective for URP 6945. B.U.R.P. students with a grade of "B" or better in both URP 4254 and URP 4870 may substitute a graduate elective for URP 6873. B.U.D. students with a grade of "B" or better in both ARC 3374 and URP 4254 may substitute a graduate elective for URP 6873. B.U.D. and B.U.R.P. students with a grade of "B" or better in URP 4403 may substitute a graduate elective for URP 6406.

## MASTER'S PROGRAM

### URBAN AND REGIONAL PLANNING

### MASTER OF URBAN AND REGIONAL PLANNING (M.U.R.P.)

*(Minimum of 48 credits required)*

The Master of Urban and Regional Planning (M.U.R.P.) is a fully accredited professional degree designed for individuals interested in careers as urban and/or regional planners. Individuals from a wide variety of undergraduate backgrounds, including architecture, design, applied arts, engineering, humanities, social sciences, geography and urban and environmental studies, are encouraged to apply.

#### **Admission Requirements**

Applicants for admission must hold a bachelor's degree from an accredited school. Each applicant should have a grade point average (GPA) of 3.0 or higher in the last 60 credits. A personal statement of no more than 1,000 words is also required. A Graduate Record Examination (GRE) is not required but may be submitted as additional evidence of an applicant's readiness for the program.

An international student for whom English is a second language is required to achieve a minimum score of 550 (IBT of 61 or higher) on the Test of English as a Foreign Language (TOEFL). A graduate of a college or university outside of the United States who has completed an academic program equivalent to an American bachelor's degree may apply for admission. All international applicants

whose transcripts are from non-U.S. institutions must have their credentials evaluated course by course, including the GPA, by a professional evaluation service. A service may be found at [www.NACES.org](http://www.NACES.org).

## Degree Requirements

The M.U.R.P. curriculum is a two-year, 48-credit program. It is designed and structured to allow timely completion for both full-time (9-12 credits per semester) and part-time (6 credits per semester) students.

The M.U.R.P. curriculum is structured into three components: core courses (27 credits), electives (15 credits) and synthesis (6 credits).

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### Core Courses - 27 credits

History and Theory of Planning	URP 6101	3
Urban Governance	URP 6115	3
Legal Aspects of Planning	URP 6131	3
Planning Methods 1	URP 6200	3
Statistics for Urban Planning	URP 6211	3
Introduction to GIS in Planning	URP 6270	3
Urban Spatial Structure	URP 6840	3
Site Planning	URP 6873	3
Sustainable Cities	URP 6406	3

### Synthesis - 6 credits

#### *Thesis Option* (two semesters of 3 credits each)

Master's Thesis	URP 6971	3
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#### *Non-Thesis Option*

Planning Workshop	URP 6920	3
Planning Project	URP 6979	3

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## **Electives - 15 credits**

*Choose five courses in consultation with advisor.*

**The core component** provides planning knowledge, skills and values. Planning knowledge includes: the structure and functions of urban settlements, history and theory of planning processes and practices, and administrative, legal and political aspects of plan-making and policy implementation. Planning skills focus on: problem formulation, research skills and data gathering; quantitative analysis and computers; written, oral and graphic communications; collaborative problem solving, plan-making and program design; and the synthesis and application of knowledge to practice. Discussion of planning values provides students with the basis for becoming ethical practitioners who are aware of, and responsible for, the ways their activities affect and promote societal and individual concerns.

**Electives** permit advanced study in planning subfields. Elective courses are offered in such areas as:

- Environmental Planning
- Housing, Community and Economic Development
- Urban Design
- Transportation and Land Use Planning

## **Academic Standing**

Students are considered to be in good academic standing if they are making satisfactory progress toward the M.U.R.P. degree. Students are expected to maintain a minimum 3.0 cumulative average throughout the course of study; failure to maintain this average for two successive semesters will result in recommended dismissal. Students admitted conditionally shall satisfy all the conditions prior to earning 18 M.U.R.P. credits to avoid recommended dismissal. Only grades of "C" or higher are acceptable ("C-" is not acceptable) in fulfilling the requirements for the M.U.R.P. degree. Students may not graduate with more than one grade below a "B-" in core courses (in such cases, these courses must be repeated for a grade of "B-" or higher).

Acceptance of transfer credits from approved institutions is dependent upon the pertinence of the work to the M.U.R.P. degree requirements. Transfer of credit should normally occur at the time of admission and is limited to 6 credits. Transfer credit can be given only for courses that have not been applied to another degree or preparatory work.

Waivers from specific course (but not the associated credit) requirements may be granted upon approval of the Department Director.

## CERTIFICATE PROGRAMS

Urban and Regional Planning participates in interdisciplinary certificate programs in conjunction with the College of Science, including the graduate [Geographic Information Systems](#) certificate and the graduate [Environmental Restoration](#) certificate. The Department also offers two certificate programs described below; however, these are currently on hiatus.

### **ECONOMIC DEVELOPMENT AND TOURISM** GRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

**This program is on hiatus and currently not accepting students.**

This certificate provides students with the knowledge and skills needed to help cities with their built and natural attractions to enhance their revenue base and improve their citizens' quality of life. The role of the economic development planner today is frequently directed at tourism in the form of urban entertainment centers, reinvigorated downtowns and waterfronts or assessing the potential value to the cost of a convention center or stadium. Urban physical attributes like greenways, urban river trails and parks also provide a base for enhancing economic development while contributing to the area's quality of life.

Students pursuing this program are required to maintain a 3.0 cumulative grade point average throughout the completion of the certificate. Students cannot complete a certificate program with more than one grade below a "B-."

The Economic Development and Tourism certificate program requires three courses that emphasize the varied inputs to a good economic development plan and an approved elective. The courses are:

Urban Revitalization Strategies	URP 6545
Economic Development Planning	URP 6549
Elective	URP

## **SUSTAINABLE COMMUNITY PLANNING** **GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

**This program is on hiatus and currently not accepting students.**

This certificate is directed at practicing planners, public administrators, civic leaders and neighborhood activists with social science backgrounds who wish to improve existing skills or gain new skills in reviving urban core areas, encouraging economic development and creating sustainable communities. Community revitalization is a critical element that will ultimately determine how our cities cope with increasing challenges associated with growth and change.

Students pursuing this program are required to maintain a 3.0 cumulative grade point average throughout the completion of the certificate. Students cannot complete a certificate program with more than one grade below a "B-."

The certificate program consists of three required courses covering economic development, environmental planning and site planning, and one elective course. They are:

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Environmental Analysis in Planning	URP 6425
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Urban Revitalization Strategies	URP 6545
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Site Planning	URP 6873
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Elective	
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[Link to Course Descriptions for the Charles E. Schmidt College of Science](#)







# UNIVERSITY CATALOG

## SUB MENU



### ACADEMIC PROGRAMS

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### GENERAL INFORMATION

### COURSE DESCRIPTIONS

## COLLEGE OF SOCIAL WORK AND CRIMINAL JUSTICE

- [Bachelor's Program Information](#)
- [Combined Program Information](#)
- [Master's Program Information](#)
- [Doctoral Program Information](#)
- [Certificate Programs](#)

### Schools

- [School of Criminology and Criminal Justice](#)
- [Phyllis and Harvey Sandler School of Social Work](#)

[Link to Course Descriptions for the College of Social Work and Criminal Justice](#)

## **Academic Mission**

At our core, we are change-makers driven to transform and empower individuals, families and communities by advocating for justice, mobilizing resiliency and promoting equality across our one human race. This is the mission that propels us forward as we inspire and prepare tomorrow's social work and criminal justice leaders, scholars, practitioners and policymakers to effect positive change in the world.

The immense faculty expertise and strong community partnerships within our two schools – the Phyllis and Harvey Sandler School of Social Work and the School of Criminology and Criminal Justice – produce graduates who are prepared to make a difference. Our alumni enter the fields of social work and criminal justice fully trained to analyze, implement and evaluate criminal justice and social welfare policies and practices; address discriminatory systems and processes; provide direct services to vulnerable populations; restore justice and promote equal access to care.

## **Degree Programs**

- Bachelor of Arts in Criminal Justice (B.A.)
- Bachelor of Social Work (B.S.W.)
- Bachelor of General Studies (B.G.S.)
- Master of Science in Criminology and Criminal Justice (M.S.)
- Master of Social Work (M.S.W.)
- Doctor of Social Work (D.S.W.)

## **General Studies Degree Program**

The Bachelor of General Studies (B.G.S.) degree program enables students to design a plan of study tailored to their personal interests and specific career goals. The 120-credit program includes 15 credits of upper-division coursework in one discipline, which students select in consultation with an advisor. For more B.G.S. details and degree requirements, refer to the [Degree Programs section](#) of this catalog.

Details for all other degree programs are included beneath their respective school headings below.

## **Specialization Certificates**

- Graduate Certificate in Addictions
- Graduate and Undergraduate Child Welfare Certificates
- Graduate and Undergraduate Healthy Aging Certificates
- Graduate Sexuality and Gender Education Certificate
- Graduate and Undergraduate Social Justice Certificates

Details for all certificate programs are included beneath their respective school headings below.

## BACHELOR'S DEGREE PROGRAM INFORMATION

### **Admission Requirements and Recommendations**

Applicants for admission to the College of Social Work and Criminal Justice must meet the general freshman or transfer admission requirements of the University. Consult the [Admissions section](#) of this catalog for specific requirements.

Students applying to the College of Social Work and Criminal Justice must have a minimum cumulative grade point average of 2.0 and have completed the necessary prerequisite coursework associated with the particular prospective degree program. For additional admission requirements for each school, consult the appropriate sections below.

Should there be any outstanding requirements at the time of application to the College, attempts should be made to complete these deficiencies early in the junior year.

Successful achievement of the educational objectives of degree programs is based upon the assumption that students have attained general education competencies. Excessive enrollments in lower-level (1000/2000) courses should be avoided, unless these credits are to fulfill prerequisites. In addition, transfer students should have fulfilled the University's writing requirement (WAC) and math requirement (Gordon Rule); see the [Degree Requirements section](#) of this catalog for details.

### **Degree Requirements**

All candidates for a baccalaureate degree from the College of Social Work and Criminal Justice must satisfy all:

1. General baccalaureate degree requirements of the University, with a minimum of 120 approved credits in academic courses.

2. Requirements for the degree as specified by the school in which the program is offered. These requirements are listed in the sections describing the various degree programs below.
3. Requirements of the College of Social Work and Criminal Justice outlined below.

## Requirements of the College of Social Work and Criminal Justice

1. Students must declare a major as early as possible.
2. Students must complete each course and the number of credits required in the major as prescribed by the particular degree program. Courses in the major must be completed with a grade of "C" or better. A grade of "C-" does not satisfy any graduation requirement and does not count toward the 120 credits required for a degree. Any coursework in the major's field transferred from another institution must be approved by the major's school.
3. Outstanding prerequisites should be satisfied early in the junior year.
4. Third attempts in core courses require completion of the College of Social Work and Criminal Justice Undergraduate Petition. The petition is reviewed by the program coordinator for the student's major in consultation with advising personnel. Denial of the third attempt for a course requires the student to meet with Academic Advising to discuss changing the student's major.
5. A minimum FAU grade point average of 2.0 in all coursework attempted is required, except in the Bachelor of Social Work, which requires a minimum FAU GPA of 2.5 to begin the practice class sequence and to be eligible for field education.
6. Students in the Sandler School of Social Work must complete required field internship hours as outlined in the school's graduation requirements. Internship credits earned by students in the School of Criminology and Criminal Justice can be counted as elective hours, but they are not required to graduate. Consult with the appropriate faculty internship coordinator for more information and internship planning.
7. **Students seeking waivers from any given requirement must still fulfill the credit requirement.** For example, students waived from a required SOW course must take a SOW course in its place that is offered for the same amount of credits as the waived course. Waivers must be approved according to school procedures. **Students should consult with their faculty program coordinator.**
8. A minimum of 45 credits toward the degree must be at the upper-division (3000/4000-level courses), and the final 30 upper-division credits must be earned in residence at FAU.
9. Students should be aware of curriculum changes pertinent to their academic year but subsequent to the publishing of this catalog.
10. As students prepare for program completion and graduation from the University, they must consult with an academic advisor to review their degree audit during the semester prior to intended graduation.

## **Curriculum Progression and Advisement**

The College of Social Work and Criminal Justice seriously regards its responsibility and partnership with its students to ensure efficient and effective progression through the various curricula. Appropriate academic advising is one means by which such progression occurs. Upon entry into the College, students must consult with an academic advisor for initial program review and planning. During the course of the student's tenure in the College, each student must seek academic advisement in the respective major. Faculty and professional advisors are available to assist students in appropriate curriculum progression, which includes ensuring the fulfillment of state and program requirements.

## **Foreign Language Requirements**

All students must satisfy the foreign language requirement for admission to the University. Students in the baccalaureate Criminal Justice degree program need to satisfy the University's foreign language graduation requirement (see the [Degree Requirements section](#)).

## **Graduation Requirements**

Students in the College of Social Work and Criminal Justice may not cross-enroll at another institution during their graduation semester. Students should make advising appointments in a timely manner to ensure requirements are complete for graduation.

Students may not graduate with incomplete ("I") grades. Please note the Incomplete Grades policy listed under The Grading System link in the [Academic Policies and Regulations section](#) of this catalog.

## **Student Responsibility**

1. Students are responsible for reading this University Catalog and the Academic Calendar and registering, adding, dropping and/or withdrawing from courses in a timely manner. Students must meet all course prerequisites and corequisites.
2. Students who are enrolled at another institution are responsible for having their grades transferred to FAU at the end of each semester.
3. All social work students are required to meet with their advisor prior to registration each semester.
4. An Application for Degree must be submitted to the academic advisor within the first two weeks of the intended semester of graduation. See the University's [Academic Calendar](#) for important dates. Faculty and staff are not responsible for reminding students of deadlines.

## **Students Targeted for Academic Retention (STAR) Program**

Students Targeted for Academic Retention (STAR) is a program for students who have a low FAU

GPA or otherwise fall under an academic standing category that is less than satisfactory. These categories include: placed on probation, continued on probation, suspension and dismissal. Within the program, students with a low GPA or unsatisfactory academic standing receive a registration hold on their account and are contacted to fulfill the required criteria in order to have the hold removed. A combination of the following need to be met before a student is cleared to register: 1) workshop targeting academic deficits and student support; 2) advising appointment for a strategic academic plan; and 3) additional requirements (ad-hoc basis) will be required. The Advisor for Student Engagement for the College is the point person for the STAR program.

### **Disruptive Student Behavior**

The College of Social Work and Criminal Justice honors the individual and collective pursuits and outcomes that are facilitated by its faculty and engaged in by its students. A positive learning environment is essential for the provision of a quality education. The classroom must be respected as a place of individual dignity and educational growth and development. Consequently, any interference with or obstruction of the educational process is considered disruptive and will not be tolerated. Disruptive conduct is a violation of the Florida Atlantic University Student Code of Conduct and will be treated as such.

### **Student Services**

The College of Social Work and Criminal Justice encourages student success and excellence and strives to make the University experience all that it can be. [The College's advising center](#) provides professional staff to assist students throughout their academic experience at FAU. Staff members are located at four campuses for easy access; appointments and walk-in days are available.

### **Student Success Conference**

The Sandler School of Social Work is committed to ensuring the integrity of its degree program and the certifiability of its majors as future social workers. To this end, the School has established a Student Success Conference to address difficulties by which a student's academic progression in the field may be hindered. Complete information regarding the Student Success Conference is found [online](#). Refusal to attend the Student Success Conference will result in the student's automatic dismissal from the Sandler School of Social Work.

## **COMBINED DEGREE PROGRAM INFORMATION**

The School of Criminology and Criminal Justice offers a [combined degree program](#) where students receive a Bachelor of Arts with Major in Criminal Justice and a Master of Science with Major in

Criminology and Criminal Justice in as little as five years. See the program's full description under the [School of Criminology and Criminal Justice](#) heading.

An Advanced Standing program is also available for a limited number of Master of Social Work (M.S.W.) students who have completed their Bachelor of Social Work (B.S.W.) degree within the last five years. See the program's full description under the [School of Social Work](#) heading later in this section.

## MASTER'S DEGREE PROGRAM INFORMATION

Specific requirements for master's degree programs in the College of Social Work and Criminal Justice are detailed within each school's description in this College section.

## DOCTORAL DEGREE PROGRAM INFORMATION

The Sandler School of Social Work offers a Doctor of Social Work (D.S.W.). Specific program requirements are detailed within the School's description later in this section.

## CERTIFICATE PROGRAMS

The Sandler School of Social Work offers [undergraduate](#) and [graduate](#) certificates in Child Welfare, [undergraduate](#) and [graduate](#) certificates in Healthy Aging, and [undergraduate](#) and [graduate](#) certificates in Social Justice. Additional graduate certificates include the [Addictions](#) certificate and the [Sexuality and Gender Education \(SAGE\)](#) certificate. The SAGE certificate is a collaborative program between the Sandler School of Social Work and the Center for Women, Gender and Sexuality Studies that provides a flexible curricular framework for a focus on Sexuality and Gender Studies within social work and related professions. Requirements for all certificate programs are listed later in this section (the SAGE certificate is detailed in the [Dorothy F. Schmidt College of Arts and Letters](#) catalog section). Students must apply for the certificate through their advisors upon completion of the coursework.

### **Undergraduate Research Certificate**

To recognize undergraduate students' excellence in undergraduate research, the Office of Undergraduate Research and Inquiry (OURI) has established the [Undergraduate Research Certificate](#). Requirements for the Research Certificate include completion of 12 credits of research exposure, skill-

building and intensive courses as well as dissemination of the outcomes of students' research and inquiry through a research presentation or exhibition.

## SCHOOL OF CRIMINOLOGY AND CRIMINAL JUSTICE

### **Faculty and Instructors:**

Guastafarro, W., Interim Director; Arneklev, B. J.; Atkin-Plunk, C.; Cain, C.; Cesar, G.; Crichlow, V.; Dario, L.; Deuchar, R.; Dobrin, A.; Fallik, S.; Hinduja, S.; Kalinich, D., Emeritus; Langlois, R.; Rothe, D.; Rubin, S.; Schiff, M.; Sloas, L.; Stinchcomb, J., Emeritus.

[Link to B.S. with Major in Data Science and Analytics](#)

[Link to Honors in Criminal Justice Research](#)

[Link to Criminal Justice Minor](#)

[Link to Combined B.A. with Major in Criminal Justice/M.S. with Major in Criminology and Criminal Justice](#)

[Link to Master's Program](#)

### **CRIMINAL JUSTICE BACHELOR OF ARTS (B.A.)**

*(Minimum of 120 credits required)*

The Bachelor of Arts degree (B.A.) with a major in Criminal Justice provides students with knowledge about the nature and causes of crime and delinquency, law and the legal system for juveniles and adults in American society, and the decision processes of criminal justice agencies. A Criminal Justice major is broadly educated within a general education framework in the liberal arts and also provided with courses that directly apply to careers within the criminal and juvenile justice systems and the study of law. The baccalaureate degree in Criminal Justice provides the student with a suitable foundation for graduate study in criminal justice, criminology and other graduate school programs. The program is offered in person or fully online. The School also offers a Criminal Justice minor.

### **Admission Requirements**

For admission to this program, the student must meet the general admission requirements of the

University as described in the [Admissions section](#) of this catalog.

In some instances, students may be admitted without having completed general education requirements. In such cases, those courses must be completed early in the junior year. The student may be required to complete additional courses to satisfy degree requirements.

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or state college or through equivalent coursework at another regionally accredited institution.

Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the [Transition Guides](#) . All prerequisite courses must be completed by the School's designated date or within the first year after transferring to FAU and before reaching senior status (90 total credits).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

### **Degree Requirements**

The Criminal Justice curriculum requires a minimum of 120 credits. To earn the degree, students must complete all of the University degree requirements in the [Degree Requirements section](#) of this catalog.

The program for Criminal Justice consists of 27-30 credits of 3000- and 4000-level coursework. Students may apply CCJ 2002 (Law, Crime and the Criminal Justice System) toward their 30 degree credits. Furthermore, students must complete successfully the statistics prerequisite (STA 2023, Introductory Statistics) to be certified as completing the requirements for the Criminal Justice major.

Additionally, major core courses must be completed with a grade of “C” or better. A grade of “C-“ or lower in major core courses does not satisfy any major requirement and does not count toward the 120 credits required for the degree. Elective courses in the major must be completed with a grade of “C-“ or better. A grade of “D+” or lower in general elective courses does not satisfy any graduation requirement and will not count toward the 120 credits required for a degree. Finally, students must

maintain a “C” average in all courses applied to the major.

To earn a bachelor of arts degree from a state university in Florida, students must demonstrate proficiency in a foreign language at the college level. Earning college credit at the Language 2 level (courses such as FRE 1121 or SPN 1121) satisfies this mandate. Students meeting the FAU foreign language admission requirement with two years of high school language have not satisfied the graduation requirement. Students must demonstrate additional proficiency either by earning Language 2-level college credit or by satisfying the requirement through other means, such as the College Level Examination Program (CLEP) exam.

**NOTE:** All undergraduate Criminology and Criminal Justice courses are **also available online**, with the exception of CCJ 4905 and CCJ 4940.

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### **Criminal Justice Core Courses - 9 credits**

Criminology	CCJ 3014* <sup>^</sup>	3
Ethics and the Justice System	CCJ 4054 <sup>^</sup>	3
Methods of Research in Criminal Justice	CCJ 4700**	3

\* Requires CCJ 4700 as a prerequisite.

\*\* Requires STA 2023 as a prerequisite.

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### **CJ Required Electives - 21 credits**

*Choose seven of the following elective courses.*

Law, Crime and the Criminal Justice System	CCJ 2002 <sup>^</sup>	3
Crime in the Schools	CCJ 3660	3
Victimology	CCJ 3666	3
Restorative Community Justice	CCJ 4141	3
Drug Courts	CCJ 4293	3
Death Penalty	CCJ 4361	3
Criminal Justice Management	CCJ 4450 <sup>^</sup>	3
Gangs, Groups and Justice	CCJ 4508	3

Teen Technology Misuse	CCJ 4554	3
Studying Violence	CCJ 4623^	3
Serial Homicide	CCJ 4627	3
Media and Crime	CCJ 4631	3
Drugs and Crime	CCJ 4642	3
White Collar Crime	CCJ 4644^	3
Race, Ethnicity and Criminal Justice	CCJ 4662^	3
Women and Criminal Justice	CCJ 4670^	3
Violence in Relationships	CCJ 4679^	3
Human Trafficking: A Global Social Justice Issue	CCJ 4694	3
Issues in Criminal Law	CCJ 4931	3
Special Topics	CCJ 4934^	3
Corrections	CJC 4310^	3
Introduction to Forensic Science	CJE 3674	3
Criminal Justice Technology	CJE 3692C^	3
International Criminal Justice Systems	CJE 4174^	3
Policing in America	CJE 4352^	3
Problem Solving in Crime Situations	CJE 4412	3
Crime Prevention	CJE 4444^	3
Fundamentals of Criminal Investigation	CJE 4610	3
Crime Analysis	CJE 4663	3
Computer Crime	CJE 4668	3
Juvenile Justice Administration	CJJ 4010^	3

Judicial Administration and the Criminal Courts	CJL 4510 <sup>^</sup>	3
Criminal Law and the Constitution	CJL 4064	3
Terrorism	DSC 4012 <sup>^</sup>	3

### Additional Choices

*Students may also complete an internship or directed independent study; certain restrictions would apply.*

Directed Independent Study	CCJ 4905	1-3
Criminal Justice Field Experience 1	CCJ 4940 <sup>++</sup>	0-4

<sup>++</sup> Grading: S/U

<sup>^</sup> The online version of this course has received [QM designation](#).

## DATA SCIENCE AND ANALYTICS BACHELOR OF SCIENCE (B.S.)

### Data Science in the Natural Sciences Concentration

### Data Science and Engineering Concentration

### Data Science in Business Concentration

*(Minimum of 120 credits required)*

The Bachelor of Science with Major in Data Science and Analytics (BSDSA) program is a multi-college, interdisciplinary program administered jointly by the Department of Mathematics and Statistics in the Charles E. Schmidt College of Science, the Department of Electrical Engineering and Computer Science in the College of Engineering and Computer Science, the Department of Information Technology and Operations Management (ITOM) in the College of Business, the Department of Political Science in the Dorothy F. Schmidt College of Arts and Letters and the School of Criminology and Criminal Justice in the College of Social Work and Criminal Justice. For details about this program, see the [Interdisciplinary Programs](#) section of this catalog.

## HONORS IN CRIMINAL JUSTICE RESEARCH

To recognize the research accomplishments of undergraduate scholars in the School of Criminology

and Criminal Justice (SCCJ), the School provides an opportunity to demonstrate academic excellence in research for students who complete honors research enriched experiences beyond their standard coursework. The mission of this program is to:

1. Promote honors research opportunities and experiences;
2. Provide enriching honors research-related experiences to undergraduate students;
3. Create a pathway for students to received recognition for their specialized research;
4. Allow undergraduate students to apply classroom knowledge in research-rich environments; and
5. Distinguish honors research achievements beyond the standard coursework.

In doing so, this program offers mentorship to students in developing their knowledge, skills and abilities in honors research that are fitting for graduate school and careers in evidence-based practices. To achieve the Honors in Criminal Justice Research designation on their transcripts, students need to meet the eligibility standards, satisfy the program requirements and complete the deliverables specified below.

### **Eligibility Requirements**

To be eligible for the Honors in Criminal Justice Research designation, undergraduate students shall demonstrate:

1. Progress toward satisfying the criminal justice major (9 credits completed at the time of application, with 6 of these credits from courses listed in #2);
2. A 3.5 GPA in completed CCJ core courses; students must have completed two of the following at the time of application: CCJ 3014, Criminology; CCJ 4054, Ethics and the Justice System; CCJ 4700, Methods of Research in Criminal Justice; and
3. A GPA of 3.2 or higher in their coursework at the time of application and maintained through degree conferral.

### **Getting Started**

Upon satisfying the eligibility requirements, interested students should contact the [SCCJ faculty member](#) whose research interests are closest to those the student wishes to pursue in an intensive Directed Independent Study or Directed Independent Research (DIS or DIR) experience.

Students are responsible for reviewing the Department's DIS and DIR guidelines and encouraged to think about research topics that are creative, collaborative, interdisciplinary and civically engaging. Students usually begin the program in their sophomore or junior year and conduct independent but supervised research during their junior and senior year.

## Application Requirements

These materials should be submitted no later than three weeks prior to the beginning of the semester in which students seek to be enrolled in the program:

1. An unofficial transcript;
2. Curriculum Vitae or résumé; and
3. An Honors in Criminal Justice Research program application form signed by a full-time faculty member.

## Program Requirements

To maintain compliance with the Honors in Criminal Justice Research program, students should:

1. Maintain good academic and ethical standing;
2. Complete Collaborative Institutional Training Initiative certificates in
  - a. Social and Behavioral Research Investigations;
  - b. Responsible Conduct of Research; and
  - c. Conflicts of Interest.

The modules for these courses can be completed online in a few hours.

3. Must complete one set of course options in Directed Independent Study (DIS), Directed Independent Research (DIR) and Research Intensive (RI) courses:
  - a. 6 DIS credits with a 3.5 GPA,
  - b. 6 DIR credits with a 3.5 GPA,
  - c. 3 DIS and 3 DIR credits with a 3.5 GPA,
  - d. 3 DIS and a 3-credit RI CCJ eligible course with a 3.5 GPA,
  - e. 3 DIR and a 3-credit RI CCJ eligible course with a 3.5 GPA,
  - f. Two RI courses, 3 credits minimum each.

**Students will receive the designation “Honors in Criminal Justice Research” at the time of graduation upon satisfactory completion of two of the following three requirements:**

1. Internal or external grant/fellowship application submission with input from a CCJ professor;
2. Faculty advisor approved submission for an oral presentation at University, regional, national or international symposium, consortium or conference; or
3. Significant contribution, as determined by a CCJ faculty co-author, to a publishable manuscript in peer-review outlet.

For more information, contact [Shawn Backer](#), Instructor.

## CRIMINAL JUSTICE UNDERGRADUATE MINOR

*(Minimum of 15 credits required)*

A minor in Criminal Justice consists of a minimum of 15 credits in criminal justice courses. Of the 15 credits, at least 12 must be earned from FAU.

The core course must be completed with a minimum grade of "C." Elective courses in the minor may be completed with a minimum grade of "C-." Students must maintain a "C" average in all Criminal Justice minor courses.

For the minor in Criminal Justice, students must take five criminal justice courses in the following manner.

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### Required Core Course - 3 credits

Ethics and the Justice System	CCJ 4054 <sup>^</sup>	3
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### CJ Required Electives - 12 credits

*Students choose four courses from the CJ Required Electives category listed above.*

<sup>^</sup> The online version of this course has received [QM designation](#).

## UNDERGRADUATE RESEARCH UNDERGRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

To recognize undergraduate students' excellence in undergraduate research, the Office of Undergraduate Research and Inquiry (OURI) has established the [Undergraduate Research Certificate](#). Requirements for the Research Certificate include completion of 12 credits of research exposure, skill-building and intensive courses as well as dissemination of the outcomes of students' research and inquiry through a research presentation or exhibition.

## **CRIMINAL JUSTICE TO CRIMINOLOGY AND CRIMINAL JUSTICE BACHELOR OF ARTS (B.A.) TO MASTER OF SCIENCE (M.S.) COMBINED PROGRAM**

The B.A./M.S. combined degree program enables outstanding students to graduate with both a Bachelor of Arts with Major in Criminal Justice and a Master of Science with Major in Criminology and Criminal Justice in as little as five years. The program is 153 credits (B.A./M.S. with thesis or non-thesis options). Students complete 120 credits for the undergraduate degree and 33 credits for the graduate degree. Students complete the undergraduate degree first, taking no more than 12 credits of graduate coursework in their senior year, which may be used to satisfy requirements for both degrees. Prospective students must formally apply to this program and meet all admission requirements.

### **Admission Requirements and Academic Standing**

1. Applications to the combined degree program may be submitted by students at the end of their junior year of study and no later than July 1.
2. Applicants must have no academic deficiencies at the time of application.
3. Applicants must have a minimum undergraduate FAU GPA of 3.5 in the most recent 60 credits of undergraduate coursework, as well as a grade of "B" or better in both undergraduate research methods and the statistics course, STA 2023, in order to be admitted to the program.
4. Students must provide a letter of intent, a letter of recommendation from a professor and a strong academic writing sample.
5. It is strongly recommended that Criminology (CCJ 3014) and Methods of Research (CCJ 4700) be completed prior to beginning the B.A./M.S. combined degree program. At a minimum, Methods of Research should be in progress by the time the student applies to the program. Criminology and Ethics and the Justice System (CCJ 4054) must be completed before spring of a student's senior year.
6. Continued involvement in the B.A./M.S. combined degree program is contingent upon good academic standing in both programs. This includes maintenance of an overall 3.0 cumulative GPA in the master's program. Student progress is evaluated every semester. Students who do not maintain good academic standing in both programs and/or who drop below the required 3.0 overall GPA in the master's program may be placed on academic probation during the semester immediately following the one in which their cumulative GPA dropped below 3.0. Failure to regain a 3.0 cumulative GPA within two successive semesters thereafter, results in dismissal from the program. Students may also be dismissed at any time they are not making satisfactory progress toward completion of the combined degrees or for serious violations of academic integrity.

## Degree Requirements

The following course schedule gives an example of how B.A. students who enroll in the combined degree program could complete the requirements for both degrees.

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### Required Graduate Courses

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#### *B.A. Senior Year - Fall - 3 credits*

Criminal Justice Research and Policy Foundations	CCJ 6902*	3
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#### *B.A. Senior Year - Spring - 6 credits*

Understanding Criminal Behavior	CCJ 6056*	3
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#### **Graduate Elective**

3

Receive B.A. Degree

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#### *M.S. Year - First Summer - 6 credits*

<b>Graduate Electives</b>		6
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#### *M.S. Year - Fall - 9 credits*

Research Methods	CCJ 6704*	3
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<b>Graduate Electives</b>		6
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#### *M.S. Year - Spring - 9 credits*

Applying Criminal Justice Theory, Research and Policy	CCJ 6485**	3
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<b>Graduate Electives</b>		6
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Receive M.S. Degree

\* Indicates required graduate courses.

\*\*Indicates required graduate course for non-thesis option.

Note. With permission from the graduate coordinator, a student may start in the summer prior to their senior year by taking a graduate course.

# MASTER'S PROGRAM

## CRIMINOLOGY AND CRIMINAL JUSTICE MASTER OF SCIENCE (M.S.)

*(Minimum of 33 credits required)*

This graduate master's degree program is designed for students who are:

1. Seeking intermediate-level administrative or research positions;
2. Employed in the criminal justice system and wish to broaden their perspectives and advance within the system;
3. Pursuing a teaching career at a community or state college;
4. Planning to continue in a doctoral program;
5. Preparing to enter law school.

The purpose of the program is to provide graduate-level learning opportunities to students interested in advancing their knowledge in the areas of criminological theory and administrative theory as applied to the criminal justice system. Students may advance their skills and knowledge in research in applied aspects of criminology and criminal justice. This program allows students to develop a personal curriculum consistent with their academic and career goals. Students focus on the theoretical or administrative aspects of the criminal justice system or create a more research-oriented program geared toward future doctoral study.

### **Admission Requirements**

Admission to the Master of Science (M.S.) with major in Criminology and Criminal Justice program requires:

1. A baccalaureate degree from an regionally accredited institution;
2. A GPA of 3.0 or higher in the last 60 credits of undergraduate coursework;
3. A grade of "B" or better in both an undergraduate research methods and a statistics course;
4. A letter of application explaining the student's interest in the program and reasons for applying;
5. An example of the student's written work (e.g., a literature review or research paper with at least five references);
6. A letter of recommendation from a professor. Alternatives to this requirement may be granted by the graduate coordinator. Application materials 4, 5, and 6 above must be uploaded together with the online application. Meeting minimal standards does not guarantee admission as all

requirements will be considered cumulatively by the School's admission committee.

### **Transfer Credit**

Acceptance of transfer credits from regionally accredited institutions is dependent upon relevance of the coursework to the Master of Science with a major in Criminology and Criminal Justice Program. Transfer of credits should occur at the time of admission and is limited to 9 credits with a minimum grade of "B" in each course (3.0 in a 4.0 grading system). A review of the course syllabi must be done for approval of transfer. Credits applied toward other degrees and/or those older than seven years may not be transferred to the graduate program. No graduate credit is granted for correspondence, life experience or extension work.

### **Admission Requirements for International Students**

Graduates of colleges or universities outside of the United States who have completed an academic program equivalent to an American regionally accredited bachelor's degree may apply for admission. International applicants for whom English is a second language are required to submit a score of 550 or higher (IBT of 61 or higher) on the Test of English as a Foreign Language (TOEFL) or a score of 6.0 or higher on the International English Testing System (IELTS) as part of the application process.

All international applicants whose transcripts are from non-U.S. institutions must have their credentials evaluated course by course, including the GPA, by a professional foreign credentials evaluation service. A service may be found at [www.NACES.org](http://www.NACES.org). Additionally, applicants have the option to have their transcripts evaluated by FAU.

### **Time Limitations**

Candidates for the Master of Science in Criminology and Criminal Justice must complete all degree requirements within a seven-consecutive-year period after initial enrollment in the program.

### **Academic Standing**

Continuation in the program requires satisfactory progress toward degree completion. Evidence of such progress includes maintenance of an overall 3.0 program GPA. For each course, no grade lower than "C" is acceptable to fulfill program requirements. That is, a "C-" would not be acceptable.

Students who do not maintain the required 3.0 program GPA are placed on academic probation during the semester immediately following the one in which their program GPA dropped below 3.0. Failure to regain a 3.0 cumulative GPA within two consecutive semesters thereafter can result in dismissal from the program. Students may also be dismissed at any time that they are not making satisfactory progress toward completion of the degree or for serious violations of academic integrity.

## Prerequisites

Students lacking any upper-division undergraduate criminal justice courses are strongly advised to take CCJ 3014, Criminology, or a substitute approved by a faculty advisor. Students are required to take an undergraduate statistics course, such as STA 2023, and an undergraduate research methods course, such as CCJ 4700, for admission. Prerequisite coursework is not applied toward degree requirements.

## Degree Requirements

The program consists of a total of 33 credits: 12 required course credits, 15 elective credits, and 6 exit requirement credits (thesis or non-thesis options). Some courses are delivered onsite, others are completely online and still others are a hybrid combination.

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### Core Requirements - 12 credits

Understanding Criminal Behavior	CCJ 6056	3
Research Methods	CCJ 6704	3
Class, Race and Gender in Criminal Justice	CCJ 6669	3
Criminal Justice Research and Policy Foundations	CCJ 6902	3

### Electives - 15 credits

*Choose five of the following electives.*

Corrections Research, Policy and Practice	CJC 6021	3
Juvenile Justice Research, Policy and Practice	CJJ 6046	3
Social Disorganization and Crime Prevention	CCJ 6063	3
Crime Analysis in Policing	CCJ 6079	3
Restorative Justice Research, Policy and Practice	CCJ 6142	3
Courts, Sentencing and the Judicial Process	CCJ 6295	3
Prisoner Re-entry Policy and Practice	CCJ 6335	3
Police Research, Policy and Practice	CJE 6426	3

Applying Criminal Justice Theory, Research and Policy	CCJ 6485	3
Serial Homicide	CCJ 6608	3
Crime in Everyday Life	CCJ 6619	3
Violence Research and Policy	CCJ 6624	3
Victims and the Justice Process	CCJ 6675	3
Computer Crime Research and Policy	CJE 6688	3
Sex Offender Research and Policy	CCJ 6699	3
Advanced Research and Evaluation for Criminal Justice	CCJ 6712	3
Directed Independent Study	CCJ 6905	3
Special Topics	CCJ 6934	3

With approval of the program coordinator, students may take one to three graduate courses (3-9 credits) from outside the MSCCJ program that are relevant to their path of study and/or career plans. To apply toward graduation, any outside courses must be approved by the program coordinator *before registering for these courses*.

### Exit Requirements

(6 credits required; two options are available)

### Non-Thesis Option

This option is for students who do not wish to continue with their graduate education or research-related employment. In addition to fulfilling core and elective requirements (27 credits), students in the non-thesis option are required to take CCJ 6485 (3 credits) and one additional elective (3 credits). CCJ 6485 guides students through a project that comprehensively applies the theoretical concepts learned throughout the program. This course will be taken in either the last or next-to-last semester before graduation, provided that all required core courses have been completed.

### Thesis Option

This option is for students who anticipate continuing on to doctoral-level studies and/or who seek research positions within the criminal justice system. Thesis students will take the three core courses (9 credits), six electives of their choice (18 credits), and CCJ 6971, Master's Thesis, (6 credits) to

complete a thesis according to policies of the University's Graduate College and School of Criminology and Criminal Justice. Thesis credits will be taken in either the last or next-to-last semester before graduation, provided that all required core courses have been completed. Note: Students opting to complete a thesis may take CCJ 6485, Applying Criminal Justice Theory, Research and Policy, as one of their electives.

Students considering the thesis option should recruit a faculty member early in the program to be their advisor and chair of their thesis committee. The program coordinator can advise on specific Departmental policies and procedures regarding thesis requirements.

## PHYLLIS AND HARVEY SANDLER SCHOOL OF SOCIAL WORK

### **Faculty:**

Thompson, H., Interim Director; Alperin, D., Emeritus; Ambris, E.; Barsky, A.; Brown, G.; Cooley, M.; DeRigne, L.; Dochterman, S.; Drucker, D.; Gonzalez, M.; Greenfield, W., Emeritus; Groton, D.; Gustafsson, P.; Hamlin, E., Emeritus; Hawkins, M.; Hawkins, W.; Horton, G.; Howard, H.; Kane, M.; Kaplan, A.; Landsman-Wohlsifer, D.; Luna, N.; Martinez, P.; McClellan, J.; McCormic, K.; Park, J.; Platt, K.; Rubin, R.; Ryan, E.; Sherman, D.; Skinner-Osei, P.; Spadola, C.; Suttentberg, L.

[Link to Master's Program](#)

[Link to Doctoral Program](#)

[Link to Social Work Minor](#)

[Link to Certificates \(Undergraduate\)](#)

[Link to Certificates \(Graduate\)](#)

## **SOCIAL WORK** **BACHELOR OF SOCIAL WORK (B.S.W.)**

*(Minimum of 120 credits required)*

**Mission**

The mission for the Sandler School of Social Work's B.S.W. program is to provide an undergraduate education that contributes to the well-being of the communities of Florida.

The B.S.W. program's mission to educate competent and compassionate social workers for entry-level practice and as a foundation for further professional development and growth. Graduates will possess critical thinking skills and engage in evidence-based practice, with a deep respect for human diversity and strengths, and with a desire to continue lifelong learning and professional development.

The B.S.W. program's four primary goals are as follows:

**Goal 1 (evidence-based, generalist social work practice):**

To prepare competent and compassionate B.S.W. graduates for evidence-based generalist social work practice, based on the integration of self-awareness, knowledge, professional values and ethics, critical thinking and interpersonal skills.

**Goal 2 (community-engaged/located):**

To prepare B.S.W. graduates to become community-engaged practitioners who understand and can work effectively with diverse populations and contemporary societal issues in South Florida.

**Goal 3 (ongoing learning):**

To provide B.S.W. graduates with an appreciation for how knowledge is discovered, challenged and transformed, including a desire to pursue continued professional development through lifelong learning.

**Goal 4 (preparation for graduate education):**

To prepare B.S.W. graduates who wish to pursue an M.S.W. with the foundational knowledge, skills and experiences that they will need to pursue graduate education.

**Admission Requirements**

Admission requirements for the Social Work program include completion of the general education requirements and fulfillment of the following prerequisites (required by all social work programs statewide):

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Human Biology	(BSC 1005, BSC 1010, BSC 1085, BSC 2010, BSC 2085, BSC 2086	3
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	or PCB 2099)	
General Psychology	(PSY 1012 , PSY 2012 or PSY 2020)	3
Introductory Sociology	(SYG 1000, SYG 2000 or SYG 2010)	3
United States Government	(POS 1041 or POS 2041)	3
Introduction to Micro or Macroeconomics	(ECO 1000, ECO 2000, ECO 2013, ECO 2023 or ECO 3040)	3
Statistics	PSY 3234 or STA 2023	3

If students are admitted without these courses, they must be completed by the end of their junior year or two semesters before entering SOW 4510.-

### **Prerequisite Coursework for Transfer Students**

Students transferring to Florida Atlantic University must complete both lower-division requirements (including the requirements of the General Education Program) and requirements for the college and major. Lower-division requirements may be completed through the A.A. degree from any Florida public college, university or state college or through equivalent coursework at another regionally accredited institution.

Before transferring and to ensure timely progress toward the baccalaureate degree, students must also complete the prerequisite courses for their major as outlined in the *Transition Guides* . All prerequisite courses must be completed by the School's designated date or within the first year after transferring to FAU and before reaching senior status (90 total credits).

All courses not approved by the Florida Statewide Course Numbering System that will be used to satisfy requirements will be evaluated individually on the basis of content and will require a catalog course description and a copy of the syllabus for assessment.

Students who are dismissed from the Social Work program may not return to take any Social Work classes.

## **Degree Requirements**

The Social Work program consists of 39 credits of required social work courses, including Field Education, and 21 credits of electives for a total of 60 credits. Ample opportunity exists for each student to select those courses that support their field of practice interests.

## ***Class Requirements***

1. Students are required to meet with an academic advisor every semester prior to registering for courses.
2. Students are required to attend the first day of any SOW-prefixed course. If a student misses the first day of classes for any reason, he or she may be administratively withdrawn from the course.
3. A 2.5 FAU GPA is required for enrollment in SOW 4300, Social Work Practice with Individuals; SOW 4304, Social Work Practice with Families; SOW 4322, Social Work Practice with Groups; SOW 4343, Social Work Practice with Communities and Organizations; and SOW 4510, Field Education in Social Work.

## **Prerequisite Coursework**

Students are required to satisfy prerequisite coursework either prior to or during their junior year in the B.S.W. program. Guidelines for the prerequisites are as follows:

1. American National Government: This requirement may be satisfied with a course that focuses on government such as POS 1041, POS 2041 or POS 2112.
2. Economics: This requirement may be satisfied with an introductory course in Macro or Micro Economics such as ECO 2013 or ECO 2023.
3. Biology: This requirement may be satisfied with an introductory class in Biology. The recommended class is Life Science, BSC1000 or BSC1005. BSC 2085, Anatomy and Physiology 1, BSC 2086, Anatomy and Physiology 2, are acceptable, as well as a Human Biology course.
4. General Psychology: This requirement is satisfied with an introductory class in Psychology. At FAU, the course is PSY 1012.
5. Introduction to Sociology: This requirement is satisfied with an introductory class in Sociology. At FAU, the courses are SYG 1000 or SYG 2010.
6. Statistics: This requirement is satisfied with an introduction to statistics course. At FAU, the courses are STA 2023 or PSY 3234.

## **Required Social Work Core Coursework**

1. The student is advised to speak to an academic advisor about specific courses and the order in which to take them.
2. By the time a student has completed SOW 4300, the student must have completed all prerequisites and general education requirements.
3. Students must complete each SOW-prefixed course with a grade of "C" or better. A grade of "C-" will not be counted as credit toward the Social Work degree. Any core course with a grade of "C-" or lower must be retaken.
4. All degree requirements must be completed before a student is eligible for SOW 4510, Field Education in Social Work. This means that the student must have completed the Foreign Language Admission requirement, Gordon Rule requirements, all General Education requirements as well as all Social Work courses. The student must also have an FAU GPA of 2.5 in order to enter Field Education. A satisfactory grade in Field Education is required to receive the Social Work degree.

### **Approved Elective Coursework**

1. Students are advised to select approved elective coursework from the pre-approved set of electives listed in this catalog. Any SOW course that is not counted as part of the SOW Core or SOW Elective sections may count as approved elective credit with a grade of "C" or better. Any deviation from the courses listed requires approval from the Sandler School of Social Work.
2. Students who have met the College admissions criteria and SOW prerequisites transferring from another degree program into the B.S.W. with upper-division credits may transfer up to 21 credits of 3000- and 4000-level credits, 6 credits of these must be pre-approved. This provision ensures that every SOW graduate will have obtained a minimum of 39 credits of either SOW-prefixed or faculty pre-approved elective coursework.
3. Students must complete each upper-division elective with a grade of "C" or better. A grade of "C-" will not be counted as credit toward the Social Work degree.

### **Free Elective Coursework**

1. This section is satisfied with 1000- to 4000-level College or University coursework not previously counted as credit toward the 120-hour SOW degree.
2. Students must complete 15 credits of free electives.
3. Free electives may be used to fulfill FAU Admissions, Foreign Language, Gordon Rule and/or SOW prerequisite deficiencies.

### **SOW Field Experience**

1. All prerequisite coursework and general education requirements must be completed two semesters

prior to beginning field internship.

2. All SOW majors must satisfy the Field Education requirement, SOW 4510. Students must meet certain requirements to be eligible to enroll in Field Education. Students must complete all admission, general education and Gordon Rule requirements prior to eligibility. Field Education may only be taken at the end of the student's coursework. No other courses can be taken while a student is enrolled in SOW 4510.
3. Students should consult with an academic coordinator or the Director of Field Education Program to discuss eligibility for entrance to Field Education. Students must attend an orientation session regarding Field Education and complete appropriate paperwork.
4. Students are required to graduate after completing SOW 4510, Field Education.

### **Field Education Requirements**

The Social Work student is assigned to a community-based social service agency during the last semester of the B.S.W. program to fulfill Field Education requirements. To be eligible for Field Education, a student must have completed all other degree requirements including fulfilling all of the social work courses' prerequisites, having a minimum FAU GPA of 2.5, having a "C" or better in all required social work courses and having no "I" (incomplete) grades.

Academic credit for previous work experience will not be given in lieu of the Field Education internship. Students found to be out of compliance with the NASW Code of Ethics will not be permitted to enter the field. Prior to applying to Field Education, students must exhibit appropriate professional behavior in the academic setting.

Students must apply for Field Education online by the 4th Friday of the semester prior to when they want to enter the field. They must also attend a field orientation on campus the semester prior to entering the field and meet individually with field faculty. See Sandler School of Social Work [website](#) for complete eligibility criteria.

Field Education involves a minimum of 26 hours per week of generalist practice under the direction of an agency-based field instructor and attendance at a three-hour-per-week integrative seminar. Due to the limited number of agencies that can provide evening and weekend hours for internships, the School of Social Work cannot guarantee that an appropriate internship can be found unless students can devote weekday daytime hours (Monday through Friday, 8 a.m. to 5 p.m.) to their internships. Students who do not have weekday hours may be required to complete their internship over two semesters. However, all students must complete at least 8 hours per week during daytime hours in their internships.

Criminal background checks and/or substance abuse testing may be required by the field agency prior to or during Field Education. Prior criminal history, limited daytime hours and/or positive substance abuse test results can jeopardize placement in a field internship, and the student may be unable to obtain a Social Work degree. Students who receive a positive substance abuse test result may face disciplinary action or action in accordance with the CSWE Core Competencies and Practice Behaviors.

Students who abandon or leave their internship without permission from the field educator or faculty may be asked to leave the Social Work program.

### **Students Transferring with Upper-Division Credits**

1. Students may transfer up to 21 credits of upper-division elective credits into the approved elective section and free elective section. However, 6 credits must come from a pre-approved list of electives.
2. Students who have completed SOW credits at another institution may bring these credits into their program at the discretion of the SOW faculty. FAU requires that the last 30 credits of upper-division courses be completed at FAU to receive a degree from FAU.

### **Double Major and Dual Degree**

1. Students pursuing a double major must satisfy the SOW prerequisites and complete 39 credits of SOW coursework.
2. Students pursuing a Dual or Second Bachelor degree must meet the University requirement of an additional 30 credits beyond a 120-credit degree program. For a Second Bachelor in SOW, the student must satisfy the program prerequisites and 39 credits of SOW coursework.
3. During the first week of the last semester of the program, students are required to submit an application for graduation, which notifies FAU of their intent to graduate and begins the process of degree approval. It also enables the graduating student to receive commencement ticket information. If a student is attempting to use any courses from their previous degree toward the Second Bachelor's degree in Social Work, all Social Work courses must have been completed within a five-year period prior to receiving the Second Bachelor's degree.

A minimum grade of "C" is required for all SOW-prefixed courses. If a grade below "C" (such as "C-") is earned in a SOW-prefixed course, the course will not count toward any portion of the minimum 120-credit degree program.

All social work courses must be completed within the five-year period prior to graduation. (For example, students enrolled in Field in fall 2011 must have begun core social work coursework no

earlier than fall 2006.)

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### Social Work Major Requirements - 39 credits

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Social Welfare Policy and Provisions	SOW 3232 * (1)	3
Profession of Social Work	SOW 3302 *	3
Human Behavior and the Social Environment 1	SOW 4101 (1) ^	3
Human Behavior and the Social Environment 2	SOW 4102 (1) ^	3
Social Work Practice with Individuals	SOW 4300 (2) (6) *	3
Social Work Practice with Families	SOW 4304 (3) (6) *	3
Social Work Practice with Groups	SOW 4322 (3) (6) *	3
Social Work Practice with Communities and Organizations	SOW 4343 (3) (6) *	3
Research Methods in Social Work	SOW 4403 (4) * ^	3
Field Education in Social Work	SOW 4510 (5) (6) *	12

\* Social Work majors only.

^ This course is available online.

(1) SOW 3302 is the prerequisite or corequisite.

(2) SOW 3302 and SOW 3232 are the prerequisites. SOW 4101 and SOW 4102 are the prerequisites or corequisites.

(3) SOW 4300 is the prerequisite.

(4) SOW 3302 is the prerequisite. A statistics course, such as STA 2023, is recommended prior to SOW 4403.

(5) See the Director of Field Education Internships.

(6) A 2.5 FAU GPA is required for enrollment in this course.

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### Recommended Upper Division Social Work Elective

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Family Violence	SOW 4141	3
Issues in Counseling Women	SOW 4357 ^	3

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Evidence Based Diversity Practice in Social Work	SOW 4620 ^	3
Social Work With Aging Populations	SOW 4643	3
Child Welfare	SOW 4650 ^	3
Social Work Practice with Vulnerable Children and Families	SOW 4654	3
Substance Use Disorders in Social Work	SOW 4700 ^	3
Introduction to Human Trafficking in Social Work Practice	SOW 4783 ^	3
Social Work and Positive Well-Being	SOW 4802	3
Spiritual Dimensions of Social Work Practice	SOW 4844	3
Special Topics	SOW 4930	3

^ This course is available online.

### **Required Upper-Division Electives - 6 credits**

Three credits must come from Group 1. Three credits must come from Group 2. A Social Work elective can be used to substitute for either Group 1 or Group 2. The remaining 15 elective credits may be chosen from other disciplines of study in consultation with an advisor.

**Elective Group 1:** Community and Society Analysis Electives. Choose a minimum of one course (3 credits) from the following. Any SOW upper- division elective may also count toward these electives.

#### ***Criminal Justice***

Criminology	CCJ 3014	3
The Criminal Justice System	CCJ 3024	3
Crime in the Schools	CCJ 3660	3
Victimology	CCJ 3666	3
Restorative Community Justice	CCJ 4141	3
Drug Courts	CCJ 4293	3
Violence in Relationships	CCJ 4679	3

Juvenile Justice Administration	CJJ 4010	3
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***Health Administration***

Health Delivery Systems	HSA 3111	3
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Issues and Trends in Health Care	HSA 4113	3
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***Political Science***

Florida Politics and Government	POS 3182	3
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The U.S. Congress	POS 4424	3
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Constitutional Law 1	POS 4603	3
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Policy Making and Administration	PUP 4004	3
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***Sociology***

Any 3000/4000-level SYD, SYO or SYP courses.

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**Elective Group 2: Human Behavior, Administrative Processes and Organizational Behavior**

Electives. Choose a minimum of one course (3 credits) from the following. Any SOW upper-division elective may also count toward these electives.

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***Communication***

Professional Writing	ENC 3213	3
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Intercultural Communication	SPC 3710	3
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***History***

History of U.S. Women	AMH 3560	3
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African American History to 1877	AMH 3571	3
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African American History since 1877	AMH 3572	3
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American Indian History	AMH 4580	3
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Modern Latin American History	LAH 3200	3
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***Nursing***

***Psychology***

Any 3000/4000 level CLP, DEP, EXP, PCO, PPE, PSY or SOP course

***Public Administration***

Public Management and Administration	PAD 3003	3
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Organizational Behavior and Administrative Communication	PAD 3104	3
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Introduction to the Nonprofit Sector	PAD 4144	3
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Managing Change in Nonprofit Organizations	PAD 4151	3
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Funding for Nonprofit Organizations	PAD 4202	3
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Financial Management of Nonprofit Organizations	PAD 4203	3
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State and Local Government Administration	PAD 4806	3
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***Urban and Regional Planning***

Introduction to Urban Planning and Design	URP 3000	3
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Planning Implementation Strategies	URP 4120	3
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**Recommended Upper-Division Social Work Elective**

May be used for either Elective Group 1 or Elective Group 2 noted above.

Family Violence	SOW 4141	3
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Issues in Counseling Women	SOW 4357	3
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Evidence Based Diversity Practice in Social Work	SOW 4620	3
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Social Work With Aging Populations	SOW 4643	3
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Child Welfare	SOW 4650	3
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Social Work Practice with Vulnerable Children and Families	SOW 4654	3
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Substance Use Disorders in Social Work	SOW 4700	3
Introduction to Human Trafficking in Social Work Practice	SOW 4783	3
Social Work and Positive Well-Being	SOW 4802	3
Spiritual Dimensions of Social Work Practice	SOW 4844	3
Special Topics	SOW 4930	3

The above electives are strongly recommended. Students are strongly encouraged to select Social Work electives to fulfill these requirements. Any deviation should be made in consultation with an advisor.

### **Free Electives - 15 credits**

Students are strongly encouraged to take SOW electives as their free electives. Free electives may be chosen from other disciplines of study in consultation with an advisor.

### **Student Success Conference**

The Sandler School of Social Work is committed to ensuring the integrity of its degree program and the certifiability of its majors as future social workers. To this end, the School has established a Student Success Conference to address difficulties by which a student's academic progression in the field may be hindered. Complete information regarding the Student Success Conference is found [online](#). Refusal to attend the Student Success Conference will result in the student's automatic dismissal from the Sandler School of Social Work.

### **Second Bachelor's in Social Work**

A second bachelor's in Social Work requires 39 core Social Work credits. All prerequisites must be met two semesters prior to entering the field. All Social Work courses must be completed within a five-year period prior to obtaining a Second Bachelor's degree.

## **SOCIAL WORK UNDERGRADUATE MINOR**

*(Minimum of 15 credits required)*

The minor is open to all undergraduate students at FAU and awarded upon graduation from an FAU undergraduate program. It is not awarded independently of these degrees.

Requirements for the minor include completion of five courses (15 credits) with a grade "C" or better and a 2.5 GPA. Students must also complete 12 of the 15 credits at FAU. Students will be required to complete SOW 3232, Social Welfare Policy and Provisions, and four Social Work electives chosen from the table below (SOW 1005, an [General Education Program](#) course, may be used as one of the elective courses).

In addition to the University minimum requirements for a minor:

1. Students will not be allowed to enroll in Social Work core courses due to enrollment caps and reservations for majors;
2. Students will not be allowed to complete an internship through the School of Social Work Field Education department;
3. Students will not qualify for the Child Welfare or Healthy Aging certificates; and
4. Students will not qualify for advanced standing placement in the M.S.W. graduate program.

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### **Requirements - 15 credits**

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#### Required Course

Social Welfare Policy and Provisions	SOW 3232	3
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### **Electives - Choose four courses**

Global Perspectives of Social Services	SOW 1005	3
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Family Violence	SOW 4141	3
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Ethical Issues in Social Work Practice	SOW 4290	3
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Issues in Counseling Women	SOW 4357	3
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Evidence-Based Diversity Practice in Social Work	SOW 4620	3
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Social Work with Aging Populations	SOW 4643	3
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Child Welfare	SOW 4650	3
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Social Work Practice with Vulnerable Children and Families	SOW 4654	3
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Social Work and Emergency Relief	SOW 4679	3
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Substance Use Disorders in Social Work	SOW 4700	3
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Introduction to Human Trafficking in Social Work Practice	SOW 4783	3
Social Work and Positive Well-Being	SOW 4802	3
Special Topics in Social Welfare	SOW 4930	3

[Link to Graduate Certificates](#)

## **CHILD WELFARE** UNDERGRADUATE CERTIFICATE

*(Minimum of 18 credits required)*

The Sandler School of Social Work offers an undergraduate certificate in Child Welfare, limited to Social Work majors. The certificate provides a foundation of knowledge in practice, policy and programs that impact the lives of vulnerable children. Students develop skills in areas relevant to children's services, including substance abuse and family violence. To apply for this program, call 561-297-3234. Students may also refer to the certificate description [online](#).

### **Program Requirements**

A student may earn the Child Welfare certificate by completing:

1. Child Welfare (SOW 4650), 3 credits, with a minimum grade of "B."
2. Social Work Practice with Vulnerable Children and Families (SOW 4654), 3 credits, with a minimum grade of "B."
3. One bachelor-level field education internship (SOW 4510) with the Department of Children and Families (DCF) or a private agency approved by the Sandler School of Social Work that has contracted with DCF to provide the same child protection services as the public agency;
4. Be currently enrolled in the Bachelor of Social Work degree at FAU.

## **HEALTHY AGING** UNDERGRADUATE CERTIFICATE

*(Minimum of 21 credits required)*

Undergraduate Social Work majors interested in working with elders may do so through the Sandler School of Social Work's Healthy Aging certificate. Completion of this program will provide students with a specific knowledge and skill base for a range of job opportunities with a diverse elder

population. To apply for this program, call 561-297-3234. Students may also refer to the certificate description [online](#).

### Program Requirements

A student may earn the Healthy Aging certificate upon completion of the following:

1. Be currently enrolled in the Bachelor of Social Work degree at FAU;
2. The 3-credit course Social Work with Aging Populations (SOW 4643);
3. Two additional, approved 3-credit courses in the Healthy Aging certificate program;
4. One B.S.W. field internship, approved by the Sandler School of Social Work, with specialized service outreach to diverse elders.

## **SOCIAL JUSTICE** UNDERGRADUATE CERTIFICATE

*(Minimum of 12 credits required)*

An undergraduate certificate in Social Justice prepares students to address current issues of social justice through inclusive practice and policy advocacy within the larger societal systems. The certificate:

1. Prepares students for evidence-based practice in assessing and addressing issues related to social justice through community development, advocacy, policy formation and other social work strategies.
2. Provides students with community-engaged learning and reflective practice with regard to social justice and inclusive-practice methods.

### Program Requirements

Students enrolled in the Bachelor of Social Work degree program at FAU may earn the undergraduate certificate by completing the following courses.

Social Welfare Policy and Provisions	SOW 3232	3
Social Justice and Social Work: Issues and Responses	SOW 4212	3
Social Work Practice with Communities and Organizations	SOW 4343	3
Inclusive Social Work Practice	SOW 4346	3

# MASTER'S PROGRAM

## SOCIAL WORK

### MASTER OF SOCIAL WORK (M.S.W.)

*(Requires 60 credits, Regular Program; 30 credits, Advanced Standing Program)*

#### **Mission and Goals**

The mission of the M.S.W. program is to educate competent and compassionate social workers for advanced clinical social work practice with children, adolescents, adults, elders, couples, families and groups. M.S.W. graduates possess critical thinking skills and engage in evidence-based clinical practice, with a deep respect for human diversity and strengths and with a desire to continue lifelong learning and professional development.

#### **The M.S.W. program has five goals:**

##### **Goal 1 (evidence-based, clinical social work practice):**

To prepare competent and compassionate M.S.W. graduates for evidence-based clinical social work practice for clients across the lifespan, based on the integration of self-awareness, knowledge, professional values and ethics, critical thinking and interpersonal skills.

##### **Goal 2 (community-engaged/located):**

To prepare M.S.W. graduates to become community-engaged practitioners and leaders who understand and can work effectively with diverse populations and contemporary societal issues in South Florida.

##### **Goal 3 (state licensure):**

To prepare M.S.W. graduates with the academic foundation for obtaining state licensure for clinical social work practice.

##### **Goal 4 (lifelong learning):**

To provide M.S.W. graduates with an appreciation for how knowledge is discovered, Challenged and transformed, including a desire to pursue continued professional development through lifelong learning.

##### **Goal 5 (post-M.S.W. studies):**

To provide M.S.W. graduates with the intellectual and practical foundation that they will need if they choose to pursue post-M.S.W. studies, such as a Ph.D., D.S.W. or other advanced social work

education and training.

The student will acquire a foundation of theoretical knowledge, practice skills and professional values necessary for delivering quality social work services. Additionally, the student will acquire an advanced level of knowledge and skill in clinical-community practice. Clinical-community practice refers to an integrated approach to social work assessment and intervention in which practitioners use a variety of advanced theories for understanding and practice at the macro, mezzo and micro levels. Within the clinical-community area of study, students will take advanced clinical courses in serving children, adolescents, adults, elders and families. Coursework focuses on practice, social welfare history and policy, human behavior and the social environment, research, advanced practice and field education. The M.S.W. curriculum provides the opportunity to meet the educational requirements for licensure in the State of Florida as a Licensed Clinical Social Worker.

### **Admission Requirements**

An undergraduate degree from an accredited institution is required for admission. No particular undergraduate major is required, but a broad liberal arts preparation is essential. While a major in Social Work is seen as desirable, other undergraduate majors are given equal consideration for the two-year program. A grade point average (GPA) of 3.0 or higher in the last 60 credits of undergraduate coursework is required. In addition to the University application, M.S.W. applicants must also submit the M.S.W. application, including a personal statement and three recommendations (on School of Sandler Social Work forms). The supplemental M.S.W. application will be completed online. Meeting minimal standards does not guarantee admission. The total application packet will be considered in making admission decisions.

Students are admitted for the fall, spring and summer semester each academic year. The application deadline for fall is May 1, for spring is October 1 and for summer is February 1 of each year. For international students, it is six weeks earlier. Selection for admission to FAU's M.S.W. program is a highly competitive process. Contingent upon the admission committee's holistic assessment of each individual application packet, offers of admission may be awarded on a full-time or part-time basis. If accepted for admission into the M.S.W. program, all incoming students are required to attend an M.S.W. orientation conducted during the week prior to the beginning of their admission term.

All students applying for spring admission to the M.S.W. program apply to the part-time program, whether traditional or advanced standing. They are eligible to apply for the relevant field placement, generalist or specialist, that fall or the following fall.

Students not admitted to the M.S.W. program will not be permitted to take SOW courses. Exceptions

may be made for individuals with L.C.S.W. from out of state who need to satisfy Florida licensing requirements. Permission must be granted by M.S.W. program coordinator.

Students who are dismissed from the Social Work program may not return to take any Social Work classes.

### **Admission Requirements for Advanced Standing Students**

The Advanced Standing Program is available to applicants who have completed their Bachelor of Social Work (B.S.W.) degree within the last five years. The B.S.W. must have been earned from a Council on Social Work Education (CSWE)-accredited program or an equivalent program recognized through CSWE's international Social Work Degree Recognition and Evaluation Service, or must be covered under a memorandum of understanding with international social work accreditors.

Applicants must meet previously stated admission requirements and have a GPA of 3.5 or better in the last 60 credits of undergraduate coursework. Also, one of the letters of recommendation must be an outstanding recommendation from the student's program director of field education. Students admitted to this program will follow the Advanced Year Curriculum, which consists of 30 credits.-

Undergraduate coursework will be examined by the admissions committee. Meeting minimal standards does not guarantee admission. The total application packet will be considered in making admissions decisions. Highly promising applicants who do not precisely meet the GPA admission requirements may petition the Sandler School of Social Work graduate admissions committee for exceptional consideration.

### **Admission Requirements for International Students**

Graduates of colleges or universities outside of the United States who have completed an academic program equivalent to a regionally accredited American bachelor's degree may apply for admission. All international applicants whose transcripts are from non-U.S. institutions must have their credentials evaluated course by course, including the GPA, by a professional evaluation service. A service may be found at [www.NACES.org](http://www.NACES.org) or applicants may request to have their credentials evaluated by FAU. Click [here](#) for more information.

Non-native speakers of English must provide evidence of proficiency in English from: Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS). The minimum University requirement for TOEFL is 500 (paper-based test) and 61 (Internet-based test). The minimum University requirement for IELTS is a band score of 6.0. Please note: Applicants are

responsible for making arrangements to schedule the test(s).

In addition, international applicants must have had previous experience in the social welfare field in their own countries prior to application to the M.S.W. program.

Lastly, international applicants must also possess and provide a sound financial plan to cover the costs of tuition, living expenses and round-trip transportation, as determined by the FAU Graduate College.

### **Transfer Credit**

Students transferring from another CSWE-accredited M.S.W. program may transfer a maximum of 30 graduate credits for the 60-credit program. No transfer credits are accepted for the Advanced Standing Program. M.S.W. courses completed at other universities must be evaluated as to their relevance and similarity to FAU courses prior to review of the student's application. All courses that are applied to the degree must have been successfully completed within five years of entrance into the FAU program, and the student must have earned a grade of "B" or above. A grade of "B-" or below does not meet this requirement and is not accepted. No graduate credit is granted for life experience or work experience.

### **Course Scheduling**

The Sandler School of Social Work endeavors to schedule classes to accommodate full-time and part-time students. Note that the School makes no guarantees regarding class meeting times or days.

### **Enrollment in M.S.W. Courses**

M.S.W. courses are limited to those students who have been fully admitted to the M.S.W. program. The School of Social Work closely manages its accredited, licensed graduate program to ensure that its students are functioning within cohorts based upon admission year and program type. Non-matriculated students who register for an M.S.W. course will be instructed to withdraw from the course. It is the student's responsibility to seek any associated fee refunds through other University channels.

### **Attendance on First Day of Class**

All students enrolled in the M.S.W. program are required to attend the first class in all M.S.W. courses.

### **Time Limitation**

Candidates for the Master of Social Work degree must complete all degree requirements within five consecutive years after initial registration.

### **Academic and Professional Standards**

Continuation in the M.S.W. program requires satisfactory progress toward degree completion. This

includes registering for courses from the approved curriculum, following the proper program structure, earning grades of at least "B-" or above in all courses, maintaining a 3.0 cumulative GPA and adhering at all times to the National Association of Social Workers (NASW) Code of Ethics.

Students who receive one grade of "C-" or below may be recommended for dismissal regardless of their cumulative GPA. Students who receive a grade of "C+" or below are not automatically permitted to re-take the course. Under exceptional circumstances, and only with prior permission from the M.S.W. program coordinator, are students permitted to re-take the course.

Students who fail to meet the academic standards of the program or violate the NASW Code of Ethics may be recommended for dismissal.

### **Additional Academic Standard for 60-Credit Program**

Students admitted to the regular 60-credit program are allowed a maximum of two "C+" or "C" grades, and with faculty permission, may retake the course and continue in the program. Students who receive more than two "C+" or "C" grades may be recommended for dismissal regardless of their cumulative GPA.

### **Additional Academic Standard for Advanced Standing Program**

Students admitted with advanced standing are allowed a maximum of one "C+" or "C" grade, and with permission, may retake the course and continue in the program. Students who receive more than one "C+" or "C" grade may be recommended for dismissal regardless of their cumulative GPA.

### **Grades below "C"**

Grades below "C" (e.g., "C-" to "F") reflect unsatisfactory progress toward the degree. Students earning such grades are therefore recommended for dismissal from the Master of Social Work degree program. Students dismissed from the M.S.W. program subject to University Regulation 4.001 for academic and/or behavioral reasons shall not be permitted to enroll in the Bachelor of Social Work program.

### **Degree Requirements**

The Master of Social Work degree is a two-year, 60-credit program. It is designed for full-time or planned part-time students. Full-time students take 15 credits each semester, which includes coursework within the classroom and a field practicum.

The M.S.W. contains two program options: the regular 60-credit program and the Advanced Standing Program. The regular 60-credit program consists of the Generalist Year Curriculum (30 credits) and the Specialist Year Curriculum (30 credits). The Advanced Standing Program consists of the Advanced

Year Curriculum (30 credits). In addition to these program options, students may enroll either full-time or part-time. Students designate the program for which they are applying. Requests for changes after being admitted must be made in writing and approved by the M.S.W. coordinator. Program options and associated academic progression are configured as follows:

**The Regular M.S.W. Program (60 credits).** Students may enroll and progress as either:

Full-time — graduate within two years of initial program registration; or

Part-time — graduate within four years of initial program registration.

**The Advanced Standing Program (30 credits).** Students may enroll and progress as either:

Full-time — graduate within two semesters of initial program registration; or

Part-time — graduate within two years of initial program registration.

The full- and part-time Master of Social Work degree is designed as follows:

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### **Full-Time Regular Program - Two-year program, 60 credits**

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#### ***Generalist Year - Fall Semester***

Generalist Social Work Practice with Individuals	SOW 6305	3
Human Behavior and the Social Environment 1	SOW 6105 ^	3
Human Behavior and the Social Environment 2	SOW 6106 ^	3
Social Work Research	SOW 6404 ^	3
Field Instruction and Integrative Seminar 1	SOW 6532 ^	3

#### ***Generalist Year - Spring Semester***

Clinical Social Work with Groups	SOW 6618	3
Social Welfare History and Policy	SOW 6235	3
Generalist Social Work Practice with Organizations and Communities	SOW 6306	3
Psychopathology in Clinical Social Work Practice	SOW 6125	3
Field Instruction and Integrative Seminar 2	SOW 6533 ^	3

***Specialist Year - Fall Semester***

Advanced Theory and Social Work Practice with Adults and Families	SOW 6348	3
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Advanced Theory and Social Work Practice with Elders and Families	SOW 6646	3
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Advanced Year Field Instruction and Integrative Seminar 1	SOW 6535 ^	3
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Elective	SOW	3
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Elective	SOW	3
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***Specialist Year - Spring Semester***

Advanced Theory and Social Work Practice with Children, Adolescents and Families	SOW 6655	3
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Advanced Year Field Instruction and Integrative Seminar 2	SOW 6536 ^	3
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Clinical Social Work Practice with Families	SOW 6611	3
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Elective	SOW	3
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Elective	SOW	3
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**Part-Time Regular Program - Four-year program, 60 credits*****Generalist Year One - Fall Semester***

Human Behavior and the Social Environment 2	SOW 6106 ^	3
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Social Work Research	SOW 6404 ^	3
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***Generalist Year One - Spring Semester***

Psychopathology in Clinical Social Work Practice	SOW 6125	3
Social Welfare History and Policy	SOW 6235	3
<b><i>Generalist Year One - Summer Semester</i></b>		
Human Behavior and the Social Environment 1	SOW 6105 ^	3
<b><i>Generalist Year Two - Fall Semester</i></b>		
Generalist Social Work Practice with Individuals	SOW 6305	3
Field Instruction and Integrative Seminar 1	SOW 6532 ^	3
<b><i>Generalist Year Two - Spring Semester</i></b>		
Generalist Social Work Practice with Organizations and Communities	SOW 6306	3
Clinical Social Work with Groups	SOW 6618	3
Field Instruction and Integrative Seminar 2	SOW 6533 ^	3
<b><i>Specialist Year Three - Fall Semester</i></b>		
Elective	SOW	3
Elective	SOW	3
<b><i>Specialist Year Three - Spring Semester</i></b>		
Elective	SOW	3
Advanced Theory and Social Work Practice with Elders and Families	SOW 6646	3

***Specialist Year Three - Summer Semester***

Advanced Theory and Social Work Practice with Adults and Families	SOW 6348	3
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Elective	SOW	3
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***Specialist Year Four - Fall Semester***

Advanced Year Field Instruction and Integrative Seminar 1	SOW 6535 ^	3
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Advanced Theory and Social Work Practice with Children, Adolescents and Families	SOW 6655	3
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***Specialist Year Four - Spring Semester***

Advanced Year Field Instruction and Integrative Seminar 2	SOW 6536 ^	3
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Clinical Social Work Practice with Families	SOW 6611	3
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**Full-Time Advanced Standing Program - 30 Credits*****Advanced Year - Fall Semester***

Psychopathology in Clinical Social Work Practice	SOW 6125	3
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Advanced Theory and Social Work Practice with Adults and Families	SOW 6348	3
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Advanced Year Field Instruction and Integrative Seminar 1	SOW 6535 ^	3
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Advanced Theory and Social Work Practice with Elders and	SOW 6646	3
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## Families

Elective	SOW	3
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*Advanced Year - Spring Semester*

Advanced Theory and Social Work Practice with Children, Adolescents and Families	SOW 6655	3
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Advanced Year Field Instruction and Integrative Seminar 2	SOW 6536 ^	3
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Clinical Social Work Practice with Families	SOW 6611	3
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Elective	SOW	3
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Elective	SOW	3
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**Part-Time Advanced Standing Program - 30 Credits***Advanced First Year - Fall Semester*

Psychopathology in Clinical Social Work Practice	SOW 6125	3
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Elective	SOW	3
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*Advanced First Year - Spring Semester*

Elective	SOW	3
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Advanced Theory and Social Work Practice with Children, Adolescents and Families	SOW 6655	3
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*Advanced First Year - Summer Semester*

Advanced Theory and Social Work Practice with Adults and Families	SOW 6348	3
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Elective	SOW	3
<b><i>Advanced Second Year - Fall Semester</i></b>		
Advanced Year Field Instruction and Integrative Seminar 1	SOW 6535 ^	3
Advanced Theory and Social Work Practice with Elders and Families	SOW 6646	3
<b><i>Advanced Second Year - Spring Semester</i></b>		
Advanced Year Field Instruction and Integrative Seminar 2	SOW 6536 ^	3
Clinical Social Work Practice with Families	SOW 6611	3
<b>Electives*</b>		
<b><i>SOW courses may be used to fulfill any elective credit requirement above. Students may select from among the following courses:</i></b>		
Social Work and Trauma	SOW 6116	3
Cognitive-Behavioral Theory and Techniques for Social Work	SOW 6128	3
Social Work and Human Sexuality	SOW 6153	3
Social Work and Positive Well-Being	SOW 6156	3
Conflict Resolution	SOW 6158	3
Social Justice and Social Work: Issues and Responses	SOW 6214	3
Ethical Issues in Contemporary Social Work Practice	SOW 6296	3
Case Management	SOW 6349 #	3
Administration and Supervision	SOW 6377 #	3

Advanced Context of Social Work Practice within Healthcare	SOW 6605 #	3
Social Work and Spirituality	SOW 6626	3
Social Work with Aging Populations	SOW 6641	3
Social Work Practice with Vulnerable Children and Families	SOW 6653 ^	3
Child Welfare	SOW 6656 ^	3
Inclusive Social Work Practice	SOW 6671	3
Loss and Grief: Individual, Family and Cultural Perspectives	SOW 6678 #	3
Intervention in the Field of Addictions	SOW 6712 #	3
Social Work Practice in Behavioral/Process Addictions	SOW 6714	3
Social Work Practice with Survivors of Human Trafficking	SOW 6786 # +	3
Mindfulness and Social Work Practice	SOW 6803	3
Special Topics	SOW 6930	3

\* Electives may be taken outside the College with permission from the M.S.W. program coordinator. A syllabus must be provided for review.

^ This course is also available online.

# This is an online course.

+ This online course is also [QM designated](#).

### Field Education Requirements

Prior to applying to Field Education, students must exhibit appropriate professional behavior in the academic setting. Students found to be out of compliance with the NASW Code of Ethics will not be permitted to enter the field. Academic credit for previous work experience will not be given in lieu of the Field Education internship.

Students will review a mandatory field orientation the spring/summer semester prior to entering the field and meet individually with field faculty. See [www.fau.edu/ssw](http://www.fau.edu/ssw) for complete eligibility criteria.

The internship for Generalist students involves 16 hours per week of generalist practice under the direction of an agency-based field instructor and attendance at a three-hour-per-week integrative seminar. The Generalist student participates at the foundational level in the [Office of Interprofessional Education and Practice](#) in the fall and spring semesters. The internship for Specialist and Advanced Standing students consists of approximately 20 hours per week of advanced clinical practice under the direction of an agency-based field instructor and attendance at a three-hour-per-week integrative seminar. The Specialist and Advanced Standing student participates in two interprofessional activities: One in the fall and one in the spring. Dates are shared in advance for all interprofessional activities. Students are expected to make arrangements to be in attendance. Part-time Specialist and Advanced Standing students have the option to extend their internship beginning in the fall of Year 3 and completing 16 hours per week through the following summer semester, graduating in August.

Due to the limited number of agencies that can provide evening and weekend hours for internships, as well as appropriate social work activities and supervision after hours, the Sandler School of Social Work requires that students set aside a minimum of eight weekday/daytime hours (Monday through Friday, 8 a.m. to 5 p.m.) for their internships each week. Generalist M.S.W. students (part-time and full-time) participate in an interprofessional program with the colleges of Medicine and Nursing that requires daytime hours.

Criminal background checks and/or substance abuse testing may be required by the field agency and the Sandler School of Social Work prior to or during Field Education. Prior criminal conviction may negatively impact the ability of the Sandler School of Social Work Field Education to place the student with an agency for the purpose of completing a field education and thus the student may be unable to obtain a Social Work degree. Within the State of Florida, a felony history may make an individual ineligible to become a licensed social worker.

Students who receive a positive substance abuse test result may face disciplinary action or action in accordance with the [CSWE Core Competencies and Practice Behaviors](#).

Students who abandon or leave their internship without permission from the field educator or faculty may be asked to leave the Social Work program.

## **ADDICTIONS**

### **GRADUATE CERTIFICATE**

*(Minimum of 27 credits required)*

In an effort to combat the growing crisis of addiction in our country, the Sandler School of Social Work has collaborated with the Florida Certification Board (FEC) to offer the Addictions certificate. Through this 27-credit certificate, students interested in specializing in this field may have a jump start on earning their credential as either a Certified Addiction Professional (CAP) or a Master's Level Addiction Professional (MCAP). An MCAP credential identifies a practitioner as a specialist in the field of addiction and meets the requirements for a qualified professional under Chapter 397, Florida Statutes, allowing practitioners to make substance use disorder diagnoses and bill under Florida's State Medicaid.

### **Admission Requirements**

The certificate is offered to second year (Specialist) or Advanced Standing M.S.W. students only.

### **Curriculum**

The MCAP designated competency has been obtained through content-specific training in the domains of Clinical Evaluation; Treatment Planning; Counseling; Case Management and Referral; Client, Family and Community Education; Documentation; Clinical Supervision; and Professional Responsibility.

The FCB approved the following courses to meet the 350 hours of content-specific training required for certification. All courses must be completed with a grade of "B."

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#### **Required Courses - 27 credits**

Psychopathology	SOW 6125	3
Advanced Theory and Social Work Practice with Adults and Families	SOW 6348	3
Advanced Year Field Instruction and Integrative Seminar 1	SOW 6535	3
Advanced Year Field Instruction and Integrative Seminar 2	SOW 6536	3
Clinical Social Work with Families	SOW 6611	3
Advanced Theory and Social Work Practice with Elders	SOW 6611	3

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Cognitive-Behavioral Theory and Techniques for Social Work Interventions	SOW 6128	3
Interventions in the Field of Addictions	SOW 6712	3
Social Work Practice in Behavioral/Process Addictions	SOW 6714	3

In addition to the approved coursework, students will receive 600 hours of specialized clinical training through their field internship, which may be applied toward the 4,000 hours of required related work experience.

### CAP/MCAP Certification Requirements

CAP	MCAP
Content Specific Training – 350 total clock hours met by the approved course list	Content Specific Training – 350 total clock hours met by the approved course list
Related Work Experience – 6,000 hours (approximately three years of full-time work) of addiction-specific, professional-level work experience	Related Work Experience – 4,000 hours (approximately two years of full-time work) of addiction-specific, professional-level work experience. 600 hours of clinical field placement will go toward the 4,000 hours
On-the-Job Supervision – 300 hours of direct one-on-one clinical supervision	On-the-Job Supervision – 200 hours of direct one-on-one clinical supervision
Recommendations – three professional letters of recommendation for certification	Recommendations – three professional letters of recommendation for certification
Exam – Florida Certified Addiction Professional Exam	Exam – Florida Master’s Level Certified Addiction Professional Exam
	16 hours of training in supervision

(FIST – 12 hours plus 4 hours  
approved through SOW 6535)

## **CHILD WELFARE** **GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

The graduate-level Child Welfare certificate program, open only to students enrolled in the Sandler School of Social Work, prepares students for a career in working with abused or neglected children and their families. The 12-credit certificate, available in person or fully online, provides a foundation of knowledge in practice, policy and programs that impact vulnerable children's lives. Students develop practice skills in areas relevant to children's services, including substance abuse and family violence. Depending on funding, internships may be available. Call 561-297-3234 for information.

### **Program Requirements**

1. Six credits of SOW courses that focus on child welfare;
2. Six credits of master's level Field Education placements (SOW 6535 and SOW 6536) with the Department of Children and Families (DCF) or a private agency approved by the Sandler School of Social Work that has contracted with the DCF to provide the same child protection services as the public agency;
3. Completion of a Master of Social Work degree.

## **HEALTHY AGING** **GRADUATE CERTIFICATE**

*(Minimum of 15 credits required)*

With the continuing increase in aging populations in Florida and throughout the United States, the delivery of social work services for diverse groups of elders will become increasingly critical. Service needs currently exist and will continue to develop along a continuum of care in public, private-not-for-profit and private-for-profit settings. In response to these evolving needs, the Sandler School of Social Work developed a certificate program to ensure that there are competently prepared, master's-level social workers to meet the biopsychosocial and spiritual needs of South Florida's diverse elder

populations. This certificate program is open only to M.S.W. students.

### **Program Requirements**

1. SOW 6646, Advanced Theory and Social Work Practice with Elders and Families;
2. Two approved SOW graduate-level courses related to practice with elders;
3. One master's-level Field Education placement (6 credits) specializing in service outreach to diverse elders;
4. A Master of Social Work degree.

## **SEXUALITY AND GENDER EDUCATION GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

This collaborative certificate program between the Sandler School of Social Work and the Center for Women, Gender, and Sexuality Studies is available for master's and doctoral students. It provides a flexible curricular framework for a focus on Sexuality and Gender Studies within social work and related professions. More information can be found [here](#).

## **SOCIAL JUSTICE GRADUATE CERTIFICATE**

*(Minimum of 12 credits required)*

A graduate certificate in Social Justice prepares students to address current issues of social justice through inclusive practice and policy advocacy change within the larger societal systems. This 12-credit certificate:

1. Prepares students for evidence-based practice in assessing and addressing issues related to social justice through community development, advocacy, policy formation and other social work strategies.
2. Provides students with community-engaged learning and reflective practice with regard to social justice and inclusive practice methods.

### **Program Requirements**

Students enrolled in the Master of Social Work degree program at FAU may earn the graduate

certificate by completing the following courses.

Social Welfare Policy and Provisions	SOW 3232	3 <b>or</b>
Social Welfare History and Policy	SOW 6235	3
Social Welfare Practice with Communities and Organizations	SOW 4343	3 <b>or</b>
Generalist Social Work Practice with Organizations and Communities	SOW 6306	3
Social Justice and Social Work: Issues and Responses	SOW 6214	3
Inclusive Social Work Practice	SOW 6671	3

## DOCTORAL PROGRAM

### SOCIAL WORK

#### DOCTOR OF SOCIAL WORK (D.S.W.)

*(Minimum of 50 credits required)*

#### Mission and Goals

The mission of the D.S.W. program is to provide doctoral-level practitioners with educational experiences that will allow them to engage in advanced clinical social work practice, conduct advanced clinical research, teach evidence-based social work clinical practice courses and assume social work leadership roles in the social work profession.

#### The D.S.W. program has six goals:

##### Goal 1

Integrate social work, social and behavioral sciences with other disciplines as the basis for the highest level of evidence-based social work practice.

##### Goal 2

Demonstrate professionalism, leadership, ethical principles and scientific integrity in advanced social work practice, education, and research.

### **Goal 3**

Provide collaborative leadership in the development of social work evidence-based practice models and standards of care for diverse populations.

### **Goal 4**

Generate client, systems, practice and outcomes research.

### **Goal 5**

Analyze theory, empirical research and other evidence to guide improvements in social work practice.

### **Goal 6**

Utilize information systems and technology to enhance social work education and practice.

### **Admission Criteria**

1. An M.S.W. degree from a Council on Social Work Education (CSWE) accredited institution.
2. A minimum of three years post-M.S.W. experience is required.
3. Copy of current license (LCSW), license eligibility or registration as a Florida social work intern.
4. A grade point average (GPA) of 3.5 or higher in their M.S.W. is required. In addition to the University application, D.S.W. applicants must also submit the Social Work supplemental materials that include the personal statement describing the applicant's goals for the doctorate in Social work (no more than 500 words), submission of the names and contact information of three references (doctoral-level practitioners or educators) and a current résumé. Meeting minimal standards does not guarantee admission. The total application packet will be considered in making admission decisions.
5. Background check, completed upon admission.
6. Satisfactory oral interview as requested by members of the D.S.W. Admissions Committee.

If accepted for admission into the D.S.W. program, all incoming students are required to attend a D.S.W. orientation conducted during the week prior to the beginning of the fall term. Failure to attend this orientation session will result in admission deferment to the following year.

Students not admitted to the D.S.W. program will not be permitted to take doctoral-level SOW courses. Exceptions may be made for individuals with an out-of-state L.C.S.W. who need to satisfy Florida licensing requirements. Permission must be granted by D.S.W. program coordinator.

Students who are dismissed from the Social Work program may not return to take any Social Work classes.

## **Admission Requirements for International Students**

Graduates of colleges or universities outside of the United States who have completed an academic program equivalent to an American M.S.W. degree may apply for admission. All international applicants whose transcripts are from non-U.S. institutions must have their credentials evaluated course by course, including the GPA, by a professional evaluation service. A service may be found at [www.NACES.org](http://www.NACES.org).

International applicants for whom English is a second language are required to submit a score of 600 or higher (IBT of 92-93) on the Test of English as a Foreign Language (TOEFL) before enrolling in coursework. Applicants must write to Test of English as a Foreign Language, Educational Testing Service, Princeton, New Jersey, U.S.A. 08540, or visit [www.ets.org/toefl](http://www.ets.org/toefl) for assistance.

In addition, international applicants must have had previous experience in the social welfare field in their own countries prior to application to the D.S.W. program.

Lastly, international applicants must also possess and provide a sound financial plan to cover the costs of tuition, living expenses and round-trip transportation, as determined by the FAU Graduate College.

## **Transfer Credit**

Students transferring from another D.S.W. program may transfer a maximum of 12 graduate credits for the 50- credit program. No transfer credits are accepted for courses taken at the M.S.W. level. All courses that are applied to the degree must have been successfully completed within three years of entrance into the FAU program, and the student must have earned a grade of "B" or above. A grade of "B-" or below does not meet this requirement and is not accepted. No graduate credit is granted for life experience or work experience.

## **Doctoral Degree Requirements**

The D.S.W. degree requires at least 80 credits beyond the baccalaureate degree.

## **D.S.W. Capstone Committee**

The D.S.W. Capstone Committee is a standing school committee responsible for curriculum changes and supporting each student's capstone progress. While instructors of each of the three capstone courses are responsible for evaluating students' capstones, the D.S.W. Capstone Committee supports the process by providing feedback to students in their proposal, implementation and defense stages of the capstone.

The D.S.W. Capstone Committee comprises graduate faculty in the Sandler School of Social Work.

## **Plan of Study for Doctoral Degrees**

1. All degree-seeking graduate students should have an approved Plan of Study on file with the FAU Graduate College no later than halfway through their required coursework and before enrolling in the capstone courses of the D.S.W. program. Students must have an approved Plan of Study on file with the Graduate College prior to the term in which they intend to graduate. All students receive written confirmation when their Plan of Study is approved by the dean of the Graduate College.
2. Changes to an approved Plan of Study require the online submission of a revision to the existing Plan of Study. . Revisions need only be filed once and may be submitted during the final term in which the student plans to graduate.
3. A completed Form 12-Research Compliance and Safety must be attached to the Plan of Study form. Any federally mandated research compliance issues must be approved by the appropriate University committee prior to the collection of data.

## **Admission to Candidacy for Doctoral Degrees**

1. Graduate students become candidates for the doctoral degree once they are granted formal admission to candidacy. Such admission requires the successful completion of the Capstone Proposal course, as well as the approval of the student's D.S.W. Curriculum committee, the department chair, the college dean and the dean of the FAU Graduate College. The approval must be based on (a) the academic record of the student, (b) the opinion of the D.S.W. Curriculum committee concerning overall fitness for candidacy, and (c) an approved research topic.
2. Application for admission to candidacy should be made as soon as the Capstone Proposal course has been passed. By completing Form 8-Admission to Candidacy for the Doctoral Degree, applicants are formally admitted to candidacy. Students must be admitted to candidacy at least one semester before applying for graduation.

## **Course Scheduling**

The Sandler School of Social Work endeavors to schedule classes to accommodate students. Note that the School of Social Work makes no guarantees regarding class meeting times or days.

## **Enrollment in D.S.W. Courses**

D.S.W. courses are limited to those students who have been fully admitted to the D.S.W. program. Non-matriculated students who register for a D.S.W. course will be administratively withdrawn from the course by the Sandler School of Social Work. If withdrawn, it is the student's

responsibility to seek any associated fee refunds through other University channels.

### **Attendance on First Day of Class**

All students enrolled in the D.S.W. program are required to attend the first class in all D.S.W. courses.

### **Time Limitation**

Candidates for the D.S.W. degree must complete all degree requirements within six consecutive years after initial registration.

### **Academic and Professional Standards**

Continuation in the D.S.W. program requires satisfactory progress toward degree completion. This includes registering for courses from the approved curriculum, following the proper program structure, earning grades of at least "B" or above in all courses (except as noted below), maintaining a 3.0 cumulative GPA and adhering at all times to the National Association of Social Workers (NASW) Code of Ethics.

Students who fail to meet the academic standards of the program or violate the NASW Code of Ethics may be recommended for dismissal.

### **Additional Academic Standards**

Grades below "B" (e.g., "B-" to "F") reflect unsatisfactory progress toward the degree. Students earning such grades are therefore subject to dismissal from the D.S.W. degree program. Students dismissed from the D.S.W. program are subject to University Regulation 4.001 for academic and/or behavioral reasons and shall not be permitted to enroll in another FAU Social Work program. Students may also be dismissed at any time if they are not making satisfactory progress toward completion of the degree.

### **Overview of the D.S.W. Curriculum**

In addition to the core curriculum, D.S.W. students take two electives at the University to supplement their studies. At least one elective must be doctoral level (7000 level). Students may take a master's level course for their second elective, if (a) the content is clearly linked to their capstone topic or their capstone methods, (b) it is a course the student has not previously taken, and (c) the course is not duplicative of previous MSW courses (i.e., the course is not the equivalent of a completed M.S.W. course in a different department). Electives must be approved as part of a student's Plan of Study

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## **D.S.W. Courses**

### ***Core Courses - 44 credits***

Psychopathology in Advanced Clinical Social Work	SOW 7129	3
Advanced Clinical Social Work Practices with Individuals, Groups and Families	SOW 7369	3
Quantitative Research in Clinical Social Work	SOW 7494	4
Qualitative Research in Clinical Social Work	SOW 7496	3
7000-level course approved by Advising and Program Coordinator		3
Advanced Clinical Social Work Capstone: Proposal Writing	SOW 7498	4
Clinical Social Work Supervision and Administration	SOW 7619	3
Interpersonal Neuroscience and Advanced Clinical Social Work	SOW 7696	3
Emerging Theories and Methods in Clinical Social Work	SOW 7698	3
Theories and Epistemology of Advanced Clinical Social Work Practice	SOW 7757	3
Social Work Pedagogy	SOW 7776	3
Advanced Clinical Social Work Capstone: Defense and Dissemination	SOW 7910	6
Advanced Clinical Social Work Capstone: Implementation	SOW 7913	3
<b><i>Two Electives</i></b>		<b>6</b>
<b>Total Credits</b>		<b>50</b>

[Link to Course Descriptions for the College of Social Work and Criminal Justice](#)





# UNIVERSITY CATALOG

## SUB MENU



### COURSE DESCRIPTIONS

[Arts and Letters](#)

[Business](#)

[Education](#)

[Engineering and Computer Science](#)

[Honors College](#)

[Medicine](#)

[Nursing](#)

[Science](#)

[Social Work and Criminal Justice](#)

### GENERAL INFORMATION

### ACADEMIC PROGRAMS

# DOROTHY F. SCHMIDT COLLEGE OF ARTS AND LETTERS

## COURSE DESCRIPTIONS

- [Anthropology](#)
- [Architecture](#)
- [Caribbean and Latin American Studies](#)
- [Communication and Multimedia Studies](#)
- [Comparative Studies](#)

- [English](#)
  - [Ethnic Studies](#)
  - [Film and Video](#)
  - [History](#)
  - [Honors](#)
  - [Humanities](#)
- 
- [Interdisciplinary Studies](#)
  - [Jewish Studies](#)
  - [Languages, Linguistics, and Comparative Literature](#)
  - [Philosophy](#)
  - [Political Science](#)
  - [Public Administration](#)
  - [School of the Arts](#)
    - [Music](#)
    - [Theatre and Dance](#)
    - [Visual Arts and Art History](#)
  - [Sociology](#)
  - [Women, Gender and Sexuality Studies](#)

[Link to College of Arts and Letters Programs](#)

## ANTHROPOLOGY

**Undergraduate Courses/ [link to graduate courses](#)**

### **University Honors Seminar in Anthropology (ANT 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in anthropology.

### **Introduction to Anthropology (ANT 2000) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

In this course, students learn the foundations of anthropology as the study of human variation in its

biological, social and cultural dimensions. Students learn about anthropological concepts, principles and methodologies to understand and explore past and present human behavior. They will apply the anthropological approach to analyze issues pertaining to past and contemporary cultures, and develop intellectual skills and habits to understand behavioral, social and cultural issues from multiple disciplinary perspectives. This is a General Education course.

### **Culture and Society (ANT 2410) 3 credits**

Perspective on the human condition by examining some of the principal cultural differences between traditional and modern societies. Using ethnographic materials, examination of how people formulate their world views (cosmology) and live by the social logics of reciprocity and kinship. These are compared with world views and social logics of markets and bureaucracy in industrial societies. This is a General Education course.

### **Introduction to Biological Anthropology (ANT 2511) 3 credits**

*Corequisite: ANT 2511L*

Students learn about the general topics in biological anthropology, including genetics, primatology, comparative anatomy and paleoanthropology. This is a General Education course.

### **Introduction to Biological Anthropology Lab (ANT 2511L) 1 credit**

*Corequisite: ANT 2511*

Students perform procedures similar to those used by professional anthropological researchers and engage in hands-on activities designed to reinforce the material presented in the lecture section. This is a General Education course.

### **Directed Independent Research (ANT 2912) 1-3 credits**

*Prerequisites: ANT 2000 or ANT 2410 or ANT 2511, 2511L with a minimum grade of "C" or permission of instructor*

Students work closely with faculty members on a specific research project. Course requirements and evaluation are determined by the supervising faculty member for each student project.

### **Directed Independent Research (ANT 2913) 0-3 credits**

*Prerequisites: ANT 2000 or ANT 2410 or ANT 2511, 2511L with a minimum grade of "C" or permission of instructor*

Students work closely with faculty members on a specific research project. Course requirements and evaluation are determined by the supervising faculty member for each student project. Grading: S/U

### **Anthropology Study Abroad (ANT 2952) 1-6 credits**

*Prerequisite: Freshman or sophomore standing*

Credit for enrollment in approved study abroad programs.

**Note:** The courses above (ANT 1930, 2000, 2410, 2511, 2952) may not be counted for credit in minimum major.

**Frauds, Myths and Mysteries: Science and Pseudoscience in Archaeology (ANT 3016) 3 credits**

This course is a critical examination of why people make off-the-wall claims about the human past and how professional archaeologists go about addressing them. The course assesses the flaws in such claims by applying scientific reasoning.

**Stones and Bones: Unearthing the Past (ANT 3114) 3 credits**

Archaeology, the study of the material culture of past peoples, is packed with (literally) groundbreaking research. In this course, students explore archaeology's greatest discoveries and most famous sites and learn about the cutting-edge science behind the study of the ancient world.

**Archaeology of Europe (ANT 3143) 3 credits**

This course presents a broad overview of the archaeology of Europe from the continent's earliest settlement to the post-Medieval period. Students examine aspects of past lifeways, including economics, trade, social stratification, conflict and human-environment interactions through analyses of material culture.

**The Maya and Their Neighbors (ANT 3163) 3 credits**

Investigates the ancient cultures of Mexico and northern Central America with an emphasis on the ancient Maya, their calendar and hieroglyphic writing. Also studies their Olmec predecessors and contemporary civilizations in central Mexico, such as Teotihuacan, the Toltecs and Aztecs.

**South America Before Columbus (ANT 3165) 3 credits**

An introduction to the archaeology and people of ancient South America. Early hunters/gatherers, origins of agriculture and complex societies to the rise and fall of the great Inca civilization.

**Real Archaeology (ANT 3190) 3 credits**

Course contributes to professional development of archaeology students by teaching them the theory, methods and techniques of public archaeology and cultural resources management. Course includes a review of health, safety and ethics issues in archaeology; international, federal, state and local statutes affecting public archaeology; and hands-on instruction in practical methods.

**Peoples Around the World (ANT 3212) 3 credits**

A course in world ethnography involving an inspection of cultural developments, in all their variety, throughout the world. The indigenous culture areas of each continent will be considered, with a focus

on livelihood, the social order, religion, music and art.

### **Anthropology of Religion (ANT 3241) 3 credits**

A cross-cultural study of magic and religion with emphasis on belief systems and rituals and their practitioners.

### **Native-American Culture and Society (ANT 3312) 3 credits**

A description and analysis of aboriginal and contemporary North-American-Indian cultures in their historical and ecological contexts.

### **Cultures of South Asia (ANT 3361) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

The cultural variation in South Asia, comprising the nations of India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan and the Maldives. Religion (Hinduism, Islam and Buddhism), caste and social structure, village dynamics, tribal groups, colonialism and culture change.

### **Anthropology of Film: An Introduction to Visual Anthropology (ANT 3391) 3 credits**

A history and analysis of selected ethnographic films and film makers that give valuable insights into culture and human behavior.

### **Human Variation (ANT 3516) 3 credits**

An examination of the biological and sociological meaning of race in its application to humans. Processes affecting biological variation in human populations: the mechanisms of biological evolution and the interaction of human genetic factors with culture and the natural environment.

### **Human Evolution (ANT 3586) 3 credits**

An investigation of the biological evolution of the human species. The hominid fossil record is surveyed in conjunction with explanation in terms of the principles of evolution and genetics.

### **Human and Cultural Rights (ANT 4006) 3 credits**

The course focuses on the definition of human and cultural rights by international bodies and cultural organizations. The starting point for the discussion is the UN Universal Declaration of Human Rights. The course explores how the declaration has been received, implemented, debated or ignored in cultures around the world.

### **The Anthropology of Death (ANT 4025) 3 credits**

This course takes an anthropological perspective on how humans understand death. The course explores examples from various time periods and locations through ethnography, archaeology,

bioarchaeology and social theory perspectives.

### **Anthropological Analysis (ANT 4090) 3 credits**

Introduction to the process of conducting quantitative research in anthropology. The course considers the types of questions anthropologists ask, the kinds of data they collect and the kinds of analyses they carry out.

### **Archaeological Research Methods (ANT 4116) 3 credits**

This course focuses on what archaeologists actually do in the field and laboratory to learn about ancient societies. Methods are placed in context through discussion of scientific research design in archaeology, which determines what methods are chosen, including field methods, analytical methods and laboratory methods.

### **Development of Ancient Civilization (ANT 4141) 3 credits**

An analysis of human cultures from the emergence of humanity through the rise of civilization. An ecological orientation will focus on the close interplay among early humans, their paleoenvironments and the dynamics of culture change. Relevance for modern times in understanding the past and projecting the future. Examination of major archaeological concepts.

### **Florida Archaeology (ANT 4158) 3 credits**

Native-American peoples and cultures of Florida in pre-Columbian times as revealed by the archaeological record. The development of Florida's indigenous cultures is traced from earliest known human occupancy to their disappearance after the European conquest.

### **Research Methods in Bioarchaeology (ANT 4192) 3 credits**

*Prerequisite: ANT 2511 or ANT 3516 or ANT 3586 or ANT 4520*

Training in the research methodology of biological anthropology and archaeology. Application to an original research project and the presentation of a written research report.

### **Economic Anthropology (ANT 4266) 3 credits**

The exploration and application of economic anthropology as a subfield of anthropology. The course employs a comparative methodology to cultures as well as the study of economic theory as it applies to the analysis of culture.

### **The Anthropology of Politics (ANT 4274) 3 credits**

This course examines how anthropology has used the concept of politics and applied it to its studies and fieldwork. Focus is on how power and politics have been organized in cultures and examining the contours of an emergent and dynamic global politics.

### **Gender and Culture (ANT 4302) 3 credits**

An examination of the variation of gender roles in non-Western societies across different levels of social organization. Femininity, masculinity and additional genders are examined within the context of anthropological theory.

### **African-American Anthropology (ANT 4315) 3 credits**

A review of the most important theoretical issues in African-American anthropology, including Africanisms, the family, matrifocality and religion, with the reading of ethnographic studies of African Americans in the United States.

### **Asian Medical Systems (ANT 4365) 3 credits**

Asia is home to some of the world's oldest continuing medical systems that serve the health care needs of hundreds of millions of people. Students will better understand the peoples and cultures of Asia from the perspective of health, illness and healing by focusing primarily on the theories, nosologies, diagnostic principles and therapies of three medical systems. These include Ayurvedic medicine, Tibetan medicine and Chinese medicine and subfields of practice like yoga and meditation. Students are introduced to the main theories, diagnostic techniques and therapies for each system.

### **Anthropology of Peace and Violence (ANT 4409) 3 credits**

Explores the meaning and forms of peace and violence that are a part of our daily lives, in cultures and globally. These are subjects that have engendered many debates about human behavior. The course also explores some general and directed questions about peace and violence.

### **The Anthropology of Sex and Gender (ANT 4413) 3 credits**

This course explores the cultural construction of sex and gender. It focuses on the United States as a central geographic site to explore these constructions, although examples from other parts of the world are used as comparisons to our own experience and beliefs.

### **Cultural Anthropology (ANT 4414) 3 credits**

Culture: its nature, structure and dynamics; its relation to society and the individual. Tribal cultures as contrasted with state formations, exemplified by several widely varied case studies.

### **Anthropology of Nature (ANT 4419) 3 credits**

Using theory from cultural anthropology, this course examines the relationship between culture and the physical environment or "nature," focusing on political, medical, religious, linguistic/discursive, ecological, development and gender issues in a variety of communities and countries around the world.

### **Systems, Institutions in Anthropological Perspective (ANT 4425) 3 credits**

This course investigates the social institutions that serve to organize our lives – schools, hospitals, workplaces and others. Systems and institutions are shaped by norms, rules and regulations, and people create and recreate their spaces within the institutions. Utilizing ethnography as a method of closely studying everyday interactions, students explore the theoretical and empirical avenues of their lives within systems and institutions.

### **Psychological Anthropology (ANT 4433) 3 credits**

A study of culture and personality with emphasis on anthropological approaches to childhood development, Oedipus complex, consciousness, rationality and other topics across world cultures.

### **Environment and Disease (ANT 4463) 3 credits**

A study of the evolution of human diseases from ancient times to the present. The influence of culture, society and personal behavior will be explored, along with the relationship between the environment and human genetics.

### **Culture, Gender and Health (ANT 4469) 3 credits**

The course examines in a variety of cultures how sex differences and gender inequalities impact the health status of women and men, their access to health care resources and their roles as health care providers. Focused attention is paid to culturally constructed knowledge of the body, gender-based political economy of health care in developing countries, reproductive health, indigenous medical systems and children's health.

### **Global Health and Culture (ANT 4480) 3 credits**

This course examines the historical interdependencies of, and the current issues related to, medical anthropology and global health. The objective of the course is to provide students an in-depth examination of the relationships of culture, health and illness from a global perspective. The course features perspectives from anthropologists as well as others working in the fields of global health and medicine.

### **Research Methods in Cultural Anthropology (ANT 4495) 3 credits**

Training in the research methodology of cultural/social anthropology. Application to an original research project and the presentation of a written research report.

### **Biological Anthropology (ANT 4514) 3 credits**

Biological (physical) anthropology as the study of human biology: human genetics and genetic variation, human anatomy and physiology, human growth and adaptation, and the biological evolution of the human species, together with primatology.

### **Forensic Anthropology (ANT 4520) 3 credits**

Course covers the application of scientific and anthropological techniques to criminal investigations in support of law enforcement, focusing on the skills necessary to carry out a basic analysis of human skeletal remains to determine identity of the decedent and the manner and cause of death.

### **Epidemics: Culture, Science and Policy (ANT 4532) 3 credits**

This course explores the evolving relationship between humans and non-human microbiota. Beginning with the modern era, we will study infectious disease epidemics and the critical contexts in which they occur (e.g., ecological, political, social, and cultural).

### **Primate Behavior (ANT 4552) 3 credits**

*Prerequisite: ANT 2511*

Examination of the types of living primates, their distribution and ecology. Students study general primate behavior as well as behaviors specific to particular groups of living primates.

### **Ethnographic Fieldwork (ANT 4802) 3-6 credits**

Prerequisites: Anthropology major, junior or senior standing and permission of instructor  
Supervised fieldwork includes construction of research design, data gathering, interviewing techniques and development of other research skills in a field situation.

### **Fieldwork in Archaeology (ANT 4824) 3-6 credits**

*Prerequisites: ANT 2000 and permission of instructor*

On-site field experience in methods of archaeological fieldwork, recovery techniques, recording, sampling strategy and survey. The course may include attendance at field schools directed by qualified faculty outside the University, with permission of the department.

### **Directed Independent Study (ANT 4905) 1-3 credits**

*Prerequisite: For Anthropology majors only or by permission of instructor*

### **Directed Independent Research (ANT 4917) 1-3 credits**

*Prerequisites: ANT 2000 or ANT 2410 or ANT 2511, 2511L or permission of instructor*

Students work closely with faculty members on a specific research project. Course requirements and evaluation are determined by the supervising faculty member for each student project.

### **Directed Independent Research (ANT 4918) 0-3 credits**

*Prerequisites: ANT 2000 or ANT 2410 or ANT 2511, 2511L or permission of instructor*

Students work closely with faculty members on a specific research project. Course requirements and evaluation are determined by the supervising faculty member for each student project. *Grading: S/U*

### **Special Topics (ANT 4930) 1-3 credits**

Selected topics in Anthropology. Special topics will be categorized by subfield. May be repeated as topics vary.

### **Internship in Anthropology (ANT 4940) 1-3 credits**

*Prerequisite: Permission of department*

This internship provides an opportunity for students to participate in a hands-on experience, one in which they are exposed to working environments where they can put anthropological knowledge and technical skills into effect.

### **Anthropology Study Abroad (ANT 4957) 1-6 credits**

*Prerequisite: Junior or senior standing*

Credit for enrollment in approved study abroad programs.

### **Honors Thesis in Anthropology (ANT 4972) 3 credits**

*Prerequisite: Permission of instructor*

Includes studies of research design, the conduct of field laboratory and library research and the writing of an honors thesis in anthropology.

### **Introduction to Asian Studies (ASN 3006) 3 credits**

This course introduces students to some of the major issues and themes in Asian regional studies. The course combines humanities and social science approaches to the study of Asia to enable students to explore the variety of Asian culture/societies.

## **Anthropology Graduate Courses**

### **Special Topics (ANG 5930) 1-3 credits**

Selected topics in anthropology.

### **Internship in Anthropology (ANG 5940) 2-4 credits**

Apprenticeship experience in museums, nonprofit institutions, governmental agencies or business settings, supervised by an on-site supervisor and Anthropology Department faculty sponsor.

### **Seminar in Anthropological Theory (ANG 6034) 3 credits**

This course examines in depth the development of anthropological theory from the establishment of anthropology as a discipline in the mid-20th century. The course focuses on major schools of thought that crosscut the four subfields of anthropology and covers important theoretical works written by prominent figures of those schools. Introduction to the history and development of anthropological

theory and the interrelationships of theory across the four disciplines of anthropology.

### **Advanced Anthropological Research 1 (ANG 6090) 3 credits**

Advanced application of anthropological methods through active application in both field- and lab-based settings.

### **Advanced Anthropological Research 2 (ANG 6092) 3 credits**

*Prerequisite: ANG 6090*

Course focuses on active student participation in the application of subdiscipline-based research methodologies

### **Proposal Development and Writing (ANG 6095) 3 credits**

This course provides the student with knowledge about, and skills in, the construction of research proposals in the fields of biological anthropology, archaeology and cultural anthropology.

**Note:** The prerequisite to each graduate-level seminar below is the completion of the corresponding 4000-level course or its equivalent. (This prerequisite does not apply to ANG 6486.)

### **Seminar in Archaeology (ANG 6115) 3 credits**

Archaeological method and theory as well as reconstruction and description of prehistoric cultures.

### **Research Methods in Archaeology (ANG 6199) 3 credits**

This course provides graduate students with a review of archaeological methods to assist them in conceiving and planning research projects. Methods are placed in context through discussion of scientific research design and theory in archaeology.

### **Ethnographic Perspectives on Health (ANG 6390) 3 credits**

*Prerequisite: Graduate standing*

Culture's role in shaping health and medicine across a range of societies and institutions is critically assessed through in-depth ethnographic examination of the impact ethnicity, gender, politics, technology, religion and class have on people's health status, their access to health care resources and their roles as health care providers.

### **Quantitative Reasoning in Anthropological Research (ANG 6486) 3 credits**

Introduction to the process of conducting quantitative research in anthropology and developing an anthropological database suitable for statistical application.

### **Seminar in Cultural Anthropology (ANG 6490) 3 credits**

Cultural theory is historical perspective. This seminar is organized as a foray into contemporary social

and cultural anthropology, with an emphasis on journal literature of the recent past. The readings chosen from major anthropological journals reflect the currents present in the state of the discipline and cover the following major topical areas as well as others: political economy (globalization, human rights), ecology/political ecology (environmentalism), humanistic approaches, medical anthropology, feminist approaches and ritual and religion.

### **Research Methods in Cultural Anthropology (ANG 6496) 3 credits**

This course is designed as a graduate level introduction to research methodologies in sociocultural anthropology. It focuses on hypothesis and research question development, adapting research methods to goals and using interpretive/analytic frameworks.

### **Research Methods in Bioarchaeology (ANG 6535) 3 credits**

Training in the research methodology of biological anthropology and archaeology. Application to an original research project and the presentation of a written research report.

### **Seminar in Biological Anthropology (ANG 6587) 3 credits**

Biology and environment in human existence: theoretical considerations. This course provides master's students with a foundation in the core principles of biological anthropology, which involves the synthesis of research from the subfields of evolutionary theory, genetics, primate behavior and ecology, and paleontology.

### **Advanced Global Health and Culture (ANG 6732) 3 credits**

This course examines the historical interdependencies of, and the current issues related to, medical anthropology and global health. The objective of the course is to provide students an in-depth examination of the relationships of culture, health and illness from a global perspective. The course features perspectives from anthropologists as well as others working in the fields of global health and medicine.

### **Directed Independent Study (ANG 6905) 1-4 credits**

### **Special Topics (ANG 6930) 1-3 credits**

Selected topics in anthropology.

### **Master's Thesis (ANG 6971) 1-6 credits**

*Grading: S/U*

# ARCHITECTURE

**Undergraduate Courses/ [link to graduate courses](#)**

**A minimum grade of "C" is required for each architecture (ARC-prefixed) course.**

All studios (Architectural Design 5 through Comprehensive Design Project) apply the pedagogical benefits of individual tutoring ("desk crits") and group dynamics. On several occasions, with participation of internal and/or external critics, pinups or juries are conducted to evaluate the products of the studio. Students are required to participate in the entire jury process for their own studio. Observation of other studios' juries is highly recommended.

## **Architectural Design 1 (ARC 1301) 4 credits**

Introduction to methods of architectural design and representation.

## **Architectural Design 2 (ARC 1302) 4 credits**

*Prerequisites: ARC 1301 and 2208; Corequisite: ARC 2461*

Study of proportions—both natural and derived—and the relationships between the human body and the physical parameters of the built environment.

## **Architectural Theory 1 (ARC 2201) 3 credits**

*Prerequisites: ARC 1302, ARC 2208; Corequisite: ARC 2303*

Students explore how ideas and knowledge are related to form and space by developing an understanding of the elements and principles of architecture used in the manifestation of the built environment. Course work emphasizes the methods and strategies used in the research and analysis of architecture.

## **Culture and Architecture: The Master Builder (ARC 2208) 3 credits**

Holistic approach to the evolution of architecture as an empirical element of culture from prehistoric humankind to the present. Course is based on the interaction between the principles and concepts of architectural design and technology and the world cultures that produced and utilized them in their built environments. This is a General Education course.

## **Architectural Design 3 (ARC 2303) 4 credits**

*Prerequisites: ARC 1302, ARC 2461; Corequisite: ARC 2201*

Emphasizes graphic presentation, descriptive communication, and analysis pertaining to architectural design. Students develop strategies for the manifestation of form and space by building upon the material previously encountered in earlier design studios. Projects place special emphasis on the

interpretation and analysis of local and regional conditions.

### **Architectural Design 4 (ARC 2304) 4 credits**

*Prerequisites:* ARC 2201, ARC 2303, ENC 1101, and *ENC 1102 or substitute*; *Corequisite:* ARC 2580

Through a series of analytical and architectural design exercises, this course focuses on interpretation and analysis of structural systems and their application in various design exercises and on the relationship between the human body/site/climate and architectural form.

### **Materials and Methods 1 (ARC 2461) 3 credits**

*Prerequisite:* ARC 1301; *Corequisite:* ARC 1302

Introduction to the relationship between architecture and construction, emphasizing the basic principles of how buildings are built.

### **Architectural Structures 1 (ARC 2580) 3 credits**

*Prerequisites:* MAC 2233 with minimum grade of "C"; PHY 2053 with minimum grade of "D-"

*Corequisite:* ARC 2304

This course is an introduction to structural design and statics. Course work examines design issues relating to various structural systems and materials. Student work is assessed through written exercises, case studies, exams, and structural design models.

### **Special Topics (ARC 2930) 1-4 credits**

Special topics taught during the first two years of the architecture degree program.

### **Architectural Research Methods and Analysis (ARC 3091) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite:* Acceptance into the upper-division architecture program; Junior standing

*Corequisite:* ARC 3320

Students in this WAC course are introduced to various types of research relevant to the discipline, as well as university resources relevant to research and writing activities. Students perform a major case study of a building in order to develop abilities to perform research and analysis (both written and graphic) that are important to the discipline.

### **Architectural Visualization Methods 1 (ARC 3133) 3 credits**

*Prerequisites:* ARC 1301, 1302, 2303, 2304, with minimum grades of "C"

This course explores computational design thinking including algorithmic methods and parametric principles for architectural design. Analog and digital methods are examined with an emphasis on logical underpinnings, their processes and visual communication of design intentions.

### **Architectural Visualization Methods 2 (ARC 3185C) 3 credits**

*Prerequisites: ARC 1301, 1302, 2303, 2304 and 3133, with minimum grades of "C"*

A continuation of ARC 3133, this course explores advanced generative design strategies that leverage the importance of data in design decision making. The impact of the current state-of-the-art methods on architectural production are examined relative to their theory and application.

### **Architectural Design 5 (ARC 3320) 4 credits**

*Prerequisites: Minimum grade of "C" in all preprofessional design studio courses. Completion of all required lower-division preprofessional and general education course work, and approved portfolio.*

*Corequisite: ARC 3133*

This course focuses on the use of basic principles of design that reflect meaningful concepts related to use, materials, structure, experience and surrounding physical and social context. This includes developing environmentally responsive solutions to regional climatic conditions, working at architectural scales from the detail to the landscape.

### **Architectural Design 6 (ARC 3321) 4 credits**

*Prerequisites: ARC 3091 and ARC 3320 and ARC 3133, or permission of department*

This course focuses on the integration of structural expression and principles of architectural ordering and composition of space. Student projects develop a critical approach to the program and physical, social and historical context through research in order to develop a meaningful rationale for their design process.

### **Site Planning and Engineering (ARC 3374) 3 credits**

Site planning and construction engineering considerations in architectural decision-making.

### **Materials and Methods of Construction (ARC 3463) 3 credits**

Building materials, their manufacture and assemblies, with emphasis on investigating the theories and practical applications of materials in both contemporary and historical precedents.

### **Architectural Structures 2 (ARC 3503) 3 credits**

Structural analysis and design in wood, masonry, and steel with reference to integration of technical systems and architectural design decisions. Through studio consultation, theories are applied to studio projects.

### **Environmental Technology 1 (ARC 3610) 3 credits**

Develops an understanding of fundamental building physics. Investigates technologies and design strategies to control heat, air, light and sound.

### **Pre-Modern Architectural History and Theory (ARC 3710) 3 credits**

Survey of the development of architectural and urban form from the Renaissance period through the Industrial Revolution. Particular emphasis is placed on the theoretical aspects of the interrelationships among culture, architecture, urban form and technology throughout the world.

### **Digital Fabrication (ARC 4181) 3 credits**

This course helps students develop an understanding of the issues pertinent to the growing digital design culture in relation to its potential manifestation into building and making. This understanding is developed through discussion of selected theoretical writings and their application into architectural design using CNC manufacturing technologies.

### **Ethics and Architecture (ARC 4202) 3 credits**

*Prerequisites: Senior standing or higher*

Course addresses the main notions and issues in ethics so as to situate and capture the particular nature of architecture as a discipline in regards to its intentional and engaged character. The course aims to provide a range of means for developing awareness and understanding of the ethical dimension of architectural design leading to reflective and conscious moral responsibility in architecture praxis.

### **Architectural Theory (ARC 4219) 3 credits**

Basic philosophical considerations in architecture as manifested in the works and writings of recognized authorities in the field.

### **Vertical Studio (ARC 4322) 4 credits**

*Prerequisite: Preceding design studio (e.g., ARC 3320 or 3321 or 4326)*

Holistic architectural responses to different human activities in a given context interspersed with existing and planned buildings and green areas.

### **Architectural Design 7 (ARC 4326) 4 credits**

*Prerequisites: ARC 3321 and ARC 3133 and ARC 3185C, all with a minimum grade of "C"*

This course focuses on systems of structure, circulation, enclosure and programmatic organization within a specific context. Each system acts as a generative tool responsive to the context and the sequencing of design processes. Such processes, manifested through the appropriate means of architectural representation, act as modes for identifying and understanding the possible correlations and oppositions among the above systems and context. Coursework introduces advanced design research, building analysis and study of the social and physical attributes of an architectural project.

### **Architectural Design 8 (ARC 4327) 4 credits**

*Prerequisites: ARC 4326, ARC 3374, ARC 4620, with a minimum grades of "C"*

This course focuses on architecture in the urban context. A continuation of Architectural Design 7 and its emphasis on design processes, this course investigates the relationship of buildings and spaces to the public realm through the development of an urban design plan and a complex building intervention. Coursework includes advanced design research, urban analysis and study of the social and physical attributes of public space.

### **Designing Safer Communities with CPTED (ARC 4384) 3 credits**

The course teaches the methodology of designing for security using Crime Prevention Through Environmental Design (CPTED). The premise is that proper design and effective use of the built environment can lead to reduction in the opportunity of predatory stranger-to-stranger crime, with the result of improving quality of life and reducing fear.

### **Architectural Detail Generation (ARC 4482) 3 credits**

*Prerequisite: ARC 3463*

Research, analysis and interpretation of selected case studies documenting a specified range of construction types explore how the architectural detail is developed in the praxis of building design as a connection between utility and art.

### **Architectural Structures 3 (ARC 4504) 3 credits**

Structural analysis and design in concrete and composite materials with reference to integration of technical systems and architectural design decisions in small, medium, and large buildings. Theories applied, through consultation, to studio projects.

### **Environmental Technology 2 (ARC 4620) 3 credits**

Introduces students to building services systems. Theoretical and practical applications of the building services systems will be investigated.

### **Modern Architectural History and Theory (ARC 4712) 3 credits**

Continuation of the study of the development of architecture and urban form from the Industrial Revolution to the present. Particular emphasis is placed on the theoretical aspects of design as revealed in the interrelationships among cultures, architecture, urban development and technology throughout the world.

### **Architects and Engineers: Histories of a Relationship (ARC 4742) 3 credits**

Course examines the ever-changing relationship between architecture and engineering. It discusses both the scientific/technological and artistic/expressive aspects of architectural engineering, focusing on major points of technological innovation.

### **Historic Preservation (ARC 4801) 3 credits**

An introduction to historic preservation, including the language, concept, history, and other aspects of historic preservation that have made it an economical and political force in today's society at the local, state, national, and international levels.

### **Directed Independent Study (ARC 4907) 1-6 credits**

Independent study, research, or other project to extend and integrate the student's knowledge, directed and approved by faculty.

### **Directed Independent Research (ARC 4915) 3 credits**

*Prerequisite: Permission of instructor*

Students work closely with research mentors to conduct research and inquiry in Architecture. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student.

### **Special Topics (ARC 4930) 1-6 credits**

Study relating to special topics in Architecture, directed and approved by faculty.

### **Architecture and Urbanism Study Abroad (ARC 4950) 3 credits**

*Prerequisite: Approval from the International Programs Office*

This course surveys the history of architecture and urban development in Venice. The recognition and urban characteristic will be emphasized, and in particular, the symbols and meanings distinct to historical periods, including the Byzantine, Medieval, Gothic, Renaissance, High Renaissance, and Baroque. Other cities in the Veneto and other regions of Italy, such as Florence, Siena, Milan, and/or Rome are studied.

### **Architecture Study Abroad (ARC 4955) 1-6 credits**

*Prerequisites: Minimum GPA of 2.0; Architecture majors only*

Students study abroad in order to gain greater insight into the architecture of various world cultures, studying historical and modern examples of architecture.

### **Introduction to Interior Design (IND 2022) 3 credits**

Rooms and interiors of buildings defining our well being, serving our convenience, and providing the stage for our activities from leisure to work. Different categories of interiors (residential, commercial, office, resort, etc.) are presented and discussed.

## **Architecture Graduate Courses**

**A minimum grade of "C" is required for each architecture (ARC-prefixed) course.**

**Literature and Criticism in Architecture (ARC 5221) 3 credits**

Investigations into the ways architecture is encompassed in other art fields and humanities. A critical analysis of the major theoretical positions influencing contemporary architectural thought.

***Professional Practice: Project Versus Practice (ARC 5271) 1 credit***

*Prerequisite: ARC 3321*

One of a family of six one-credit courses focused upon the professional practice of architecture. This module introduces principles of project management and its role within the practice of architecture.

**Professional Practice: Craft and Collaboration in Design and Making (ARC 5272) 1 credit**

*Prerequisite: ARC 3321*

One of a family of six one-credit courses focused upon the professional practice of architecture. This module introduces principles focused on the craft of making, collaboration with design team members and stakeholders, delivering design intent within a project as well as the respective role of each in the discipline of architecture.

**Professional Practice:**

**Financial and Business Management for the Practice of Architecture (ARC 5275) 1 credit**

*Prerequisite: ARC 3321*

One of a family of six one-credit courses focused upon the professional practice of architecture. Various practice management strategies are examined including strategic actions of founding a new firm along with a thorough analysis of practice management and financial analysis.

**Professional Practice: Principles of Practice (ARC 5280) 1 credit**

*Prerequisite: ARC 3321*

One of a family of six one-credit courses focused upon the professional practice of architecture. This module examines the development of sound principles with which to conduct an ethical, moral, professional, reflective and innovative architectural practice.

**Professional Practice: Communication Methods for Design and Construction (ARC 5283) 1 credit**

*Prerequisite: ARC 3321*

One of a family of six one-credit courses focused upon the professional practice of architecture. This module introduces various types of communication methods for design and construction, focusing upon the appropriate application of analysis and method to achieve clear communication.

### **Professional Practice: Contractual Relationships and Risk Management (ARC 5287) 1 credit**

*Prerequisite: ARC 3321*

One of a family of six one-credit courses focused upon the professional practice of architecture. This module introduces various types of design and construction contracts, conditions of the contract for construction dependent upon project delivery method, dispute resolution, risk management, insurance and indemnification.

### **Advanced Architectural Design 1 (ARC 5328) 6 credits**

*Prerequisites: ARC 3463, ARC 4327 and ARC 4504*

*Corequisite: ARC 6305*

This advanced level studio focuses on the integration of the creative and technical design of a building. Coursework includes advanced design research within a complex architectural project. Projects require broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems and building envelope systems and assemblies. Clear communication through drawing, writing and speaking is practiced through public presentations and workshops.

### **Topical Design Studio (ARC 5352) 6 credits**

*Prerequisite: ARC 5328*

This topical research studio focuses on a project for a complex urban and/or building design and site location. Projects must demonstrate competent design research, a balance of convention and invention and a high level of knowledge of building technology, site development and graphic and linguistic modes of communicating a design solution.

### **Directed Independent Study (ARC 5907) 1-6 credits**

Independent study, research, or other project to extend and integrate the student's knowledge, directed and approved by faculty.

### **Project Research Methods (ARC 5910) 3 credits**

Research and data gathering, analysis, organization, and evaluation of information and observation of the design process, in preparation for the Thesis Phase design project.

### **Special Topics (ARC 5930) 1-6 credits**

Study relating to special topics in Architecture, directed and approved by faculty.

### **Ethics in Architecture (ARC 6203) 3 credits**

*Prerequisite: Graduate standing*

Using the AIA Code of Ethics as a guide, course examines standards of ethical conduct in a variety of

situations such as those found in a contemporary architectural practice. Studying a variety of case studies concerning topics such as conflicts of interest, safety, and confidentiality conveys an understanding of the profession's standards of conduct and ethics so that students are prepared to uphold those standards.

### **Introduction to Urban Design (ARC 6305) 3 credits**

This course examines various urban theories and architectural conceptualizations, and their relationship to the spatial structure of the urban environment. Lectures and seminar presentations will permit investigation and critical evaluation of urbanism as seen through various professional contexts and philosophies. By situating the analyses in the wider domain of culture, architecture, planning and governance, discussions will range from personal to institutional.

### **Sustainability and Tropical Architecture (ARC 6598) 3 credits**

*Prerequisite: Graduate standing*

Introduction to sustainable design concepts related to the climactic conditions of the local region. Topics cover old/new technologies, protection of the environment, health and safety of occupants, and durability of materials that are affected by the tropical climate. Students develop a set of design guidelines incorporating these concepts in response to a location in the south Florida/Caribbean region.

### **Design Research Studio (ARC 6970) 6 credits**

Advanced design research is conducted through independent student projects leading to a concise design hypothesis and an approved research plan in preparation for the design thesis.

### **Design Thesis Studio (ARC 6972) 6-12 credits**

Advanced design research is conducted through independent student projects leading to an original and distinctive design research project and thesis.

### **Art Courses**

(Listed following the **Women, Gender and Sexuality Studies** courses, under **School of the Arts** , Visual Arts and Art History)

## CARIBBEAN AND LATIN AMERICAN STUDIES

### **Undergraduate Courses**

#### **The Maya and Their Neighbors (ANT 3163) 3 credits**

South America Before Columbus (ANT 3165) 3 credits

[\(See Anthropology courses, this section\)](#)

**Latin American Politics (CPO 4303) 3 credits**

[\(See Political Science courses, this section\)](#)

**Geography of Latin America and the Caribbean (GEA 4405) 3 credits**

[\(See Geosciences courses, College of Science section\)](#)

**Colonial Latin American History (LAH 3100) 3 credits**

**Latin American Independence (LAH 3133) 3 credits**

**Modern Latin American History (LAH 3200) 3 credits**

**History of Mexico (LAH 4430) 3 credits**

**History of the Caribbean (LAH 4470) 3 credits**

**History of Cuba (LAH 4480) 3 credits**

**Special Topics in Latin American History (LAH 4930) 3 credits**

[\(See History courses, this section\)](#)

**Introduction to Latin American Studies (LAS 2000) 3 credits**

This course is a required introductory course for the Caribbean and Latin American Studies Certificate and is designed to provide students with an understanding of the history, literature and culture of the Latin American region. While drawing on examples from specific Latin American nations, the course is broadly comparative, considering a number of substantive themes as they apply to the entire region and as they are related to world powers, multinational actors and global economic structures. This is a General Education course.

**Honors Introduction to Caribbean and Latin American Studies (LAS 2000) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: ENC 1101 and ENC 1102 with minimum grades of "C" or permission of instructor*

This course is a required introductory course for the Caribbean and Latin American Studies Certificate and is designed to provide students with an understanding of the history, literature and culture of the Latin American region. While drawing on examples from specific Latin American nations, the course is broadly comparative, considering a number of substantive themes as they apply to the entire region and as they are related to world powers, multinational actors and global economic structures. This is a General Education course.

**Caribbean Literatures in English (LIT 4192) 3 credits**

[\(See English courses, this section\)](#)

**Latin American Culture and Civilization (SPN 3501) 3 credits**

**Latin American Literature in Translation (SPT 4130) 3 credits**

**Introduction to Hispanic Literature (SPW 3030) 3 credits**

*Prerequisite: SPN 2220 or permission of instructor*

**Special Topics in Spanish or Latin American Literature (SPW 4930) 1-3 credits**

(See [Languages, Linguistics, Comparative Lit. courses, this section](#))

## COMMUNICATION AND MULTIMEDIA STUDIES

**Undergraduate Courses/ [link to graduate courses](#)**

**University Honors Seminar in Communication (COM 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in communication.

**Introduction to Communication and Civic Life (COM 2053) 3 credits**

An overview of major approaches to the analysis and criticism of contemporary cultural concerns, situating these within the broader historical contexts of communication and cultural theory.

**Communication Study Abroad (COM 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Communication, Gender and Language (COM 3014) 3 credits**

Investigation of the role of language in communication by and about women from linguistic, rhetorical and literary perspectives as they relate to differences in female/male communication styles and their implications for female/male gender roles and relationships.

**Organizational Communication (COM 3120) 3 credits**

Microlevel, institutional and macrolevel analysis of the communication process in organizations. Organizational communication theories, including political economy, critical and poststructuralist approaches.

**Human Communication Theory (COM 3405) 3 credits**

*Prerequisite: COM 2053*

An examination of communication theory from interpersonal, small group, intercultural and organizational viewpoints.

### **Conflict and Communication (COM 3462) 3 credits**

A study of theories and research in interpersonal conflict. Conflict management within personal relationships and in the workplace. The nature of conflict, assumptions arising from conflict, power, styles and tactics, negotiation and transformation.

### **Political Communication (COM 3500) 3 credits**

The role of ideology, language, symbolism and mediation in the practice of American political communication.

### **Communication Internship (COM 3945) 3 credits**

*Prerequisites: 18 credits in Communication; 3.0 GPA in Communication courses and overall; permission of department*

Practical experience working 12-16 hours per week in a communication-related business or industry. Course culminates in a research paper or project in which student evaluates the experience by methodologies learned in other communication classes. May be repeated for a free elective credit.

### **Women and Storytelling (COM 4031) 3 credits**

*Prerequisite: Junior or senior standing*

Explores how women tell stories and the ways in which women have been controlled through narrative and have themselves controlled narratives about themselves and others, particularly, but not only, with respect to Western history and culture. Through texts, film and in-class activities, we observe the power of master and counter narratives.

### **Media and Sexual Identities (COM 4094) 3 credits**

Examines the media representations of the modern America lesbian/gay/bisexual/transgender community and movement in the context of both its own development and the changing American social/sexual/political environment.

### **Strategic Communication (COM 4150) 3 credits**

The course addresses strategic interpersonal, group and public communication within an organizational format. In addition to learning and practicing basic workplace communication skills, students conduct an interview, write a résumé and develop an individual strategic plan and presentation that can be used in professional portfolios.

### **Corporate Communication (COM 4201) 3 credits**

Instruction and practice in the planning and production of selected modes of oral and written communication common within large corporations, with emphasis on employee newsletters and

personal presentations.

### **Studies in New Media (COM 4332) 3 credits**

This course examines the key theoretical works and arguments in the field of new media and considers moments of collision and convergence between media forms.

### **Rhetoric and Aesthetics of Contemporary Culture (COM 4411) 3 credits**

Analyzes ways our world is informed by rhetorical discourses as they are informed and shaped by contemporary aesthetics and the production, management and distribution of style, particularly as it is portrayed in popular culture. Considers the relationship between rhetoric and aesthetics and arenas of life undergoing renewed stylization.

### **Non-Verbal Communication in a Diverse Society (COM 4461) 3 credits**

Course focuses on the significance of non-verbal behavior when communicating across cultures. Non-verbal messages from a variety of cultures are examined. These cultures include, but are not limited to, age, race, gender, ethnicity, religion, sexual orientation, the physically and mentally challenged or any groups that have not received peripheral attention in discussions of non-verbal communication.

### **New Media and Civic Discourse (COM 4603) 3 credits**

*Prerequisite: COM 2053*

Explores how new media technologies change what communities we can be members of and how we perform our roles in those communities. Also explores the potential of new media to affect citizenship and alter what it means to be a member of a democratic society and electorate.

### **News Media Ethics (COM 4621) 3 credits**

A critical examination of news media ethical issues and dilemmas through the use of case studies and current news reports. Course also includes critique of print, broadcast and online news coverage using ethical theory and standard journalistic ethical principles.

### **Storytelling in Popular Culture (COM 4703) 3 credits**

This course examines the ways in which storytelling is woven into the fabric of popular culture. From poems to films/movies, to commercials, to songs, to books, storytelling is all around us and shapes how we see ourselves and the world. Ultimately, this course challenges the notion that storytelling is simply the act of individuals using flowery language to create narratives solely to entertain people. Conversely, it invites students to examine the various ways storytelling is a communicative practice and mode of embodied inquiry that enables individuals to craft narratives as a way to understand, cope with, communicate and critically analyze social experiences and the world.

**Peace, Conflict and Oral Narrative (COM 4707) 3 credits**

Theory and methodology behind conflict resolution and peace-building techniques that employ storytelling, with a strong emphasis on learning and creating stories.

**Directed Individual Project (COM 4903) 1-2 credits**

An individual communication project, approved in advance by the directing faculty member. Grading: S/U

**Directed Independent Study (COM 4905) 1-3 credits**

*Prerequisites: Permission of instructor and 16 credits in Communication*

Opportunity for extensive library study in a specific area of communication. Research paper required.

**Directed Independent Honors Study (COM 4907) 3 credits**

Reading and research in selected areas of communication done in context of individualized Honors Program of study.

**Special Topics (COM 4930) 1-3 credits**

*Prerequisite: Some Special Topics courses may require permission of instructor*

The study of a special area in communication. Topics will vary. May be repeated for credit.

**Communication Study Abroad (COM 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Senior Honors Thesis in Communication (COM 4970) 3 credits**

Completion of an honors thesis under faculty supervision. Permission of instructor required.

**Digital Culture (DIG 2202) 3 credits**

This course introduces key concepts and practices related to studies of digital culture and technologies. It examines the origins of "the digital" in early computing practices, infrastructures and ecologies of digital systems. It also examines how digital technology shapes personal and collective identities and practices. Students interrogate their own relationships to the digital environment. This is a General Education course.

**Fundamentals of Digital Media Practice (DIG 3110) 4 credits**

This production course explores a range of ideas and processes incorporated in multimedia projects. Class assignments introduce elements of image making, multipage sequencing and interface design. The class develops a combination of critical, technical and design skills.

### **Digital Film Editing (DIG 3207) 4 credits**

*Prerequisite: RTV 3531 or DIG 3110 or DIG 3305C with minimum grades of "C"*

An intensive study of the technical and aesthetic elements of non-linear digital video editing. Students learn strategies for media management, image capture, sequence creation, title creation, working with audio, video effects and compositing.

### **Digital Audio Recording and Editing (DIG 3253C) 4 credits**

*Prerequisites: DIG 3110 or DIG 3305C or RTV 3531 with minimum grades of "C"*

Comprehensive overview of the basics of using digital audio equipment in a studio environment to record and edit audio. Students are introduced to audio systems, audio/video post-production, audio editing and surround sound mixing using software packages. Sound design theory is covered.

### **Fundamentals of 3D Computer Animation (DIG 3305C) 4 credits**

An exploration of the basic creative principles and techniques of 3D computer character modeling and animation.

### **Advanced 3D Computer Animation (DIG 3306C) 4 credits**

*Prerequisite: DIG 3305C*

Teaches the fundamental principles of animation, both computer and classical, including advanced techniques in character animation and dynamic scene design using advanced software. Emphasis on techniques such as keyframes, motion paths, inverse kinematics, procedural animation and scripting. Includes storyboarding for animation.

### **Advanced 3D Computer Modeling for Animation (DIG 3323C) 4 credits**

*Prerequisite: DIG 3305C*

Provides a thorough foundation of 3D modeling, texturing and rendering techniques for computer animation using advanced software. Emphasis placed on such techniques as 3D curves, patches, meshes, surfaces, B-splines, polygonal tools, digital scene development, computer sculpture, texture mapping, shading and rendering.

### **3D Video Game Design (DIG 3725C) 4 credits**

*Prerequisite: DIG 3110 or DIG 3305C with minimum grade of "C"*

Comprehensive introduction to working in a 3D game engine to design an engaging interactive experience. Production techniques include 3D terrain building, media asset creation, graphical user interface design and coding dynamic events.

### **Immersive Media for Games and Virtual Reality (DIG 3773C) 4 credits**

*Prerequisite: DIG 3725C with minimum grade of "C"*

Explores the use of a 3D game engine to design immersive experiences for virtual reality, augmented reality and mixed reality devices. Project work includes 360 cinematic environments, educational games and spatial computing.

### **History and Theory of Computer Arts and Animation (DIG 4026) 4 credits**

A detailed overview of history, development and theories behind the medium of animation from the beginning of the 20th century, with cel animations to the latest advances in computer graphics. Each student writes a critical essay concerning the importance of a specific animation to the development of computer art.

### **Visual Design for Film, and Animation and Games (DIG 4122C) 4 credits**

*Prerequisite: DIG 3305C, DIG 3110 or RTV 3531 with minimum grade of "C;" admission to Film, Video and New Media concentration*

Students learn to apply visual design principles and techniques to create concept art, storyboards, character design and animated prototypes to visualize a narrative concept for production.

### **Advanced Digital Compositing for Animation (DIG 4394C) 4 credits**

*Prerequisite: DIG 3305C*

Trends and techniques in digital compositing to combine photographic video imagery with computer-generated animation. Students gain a thorough understanding of matting, keying, transitions, timing, color manipulation, compression and special effects. Advanced animation and related compositing software are used.

### **Producing and Directing Fiction Film (DIG 4412) 4 credits**

*Prerequisites: RTV 3531 with minimum grade of "C;" Multimedia Studies majors only*

Explores the methods of narrative film and video production and facilitates the development of personal voice and point of view. Students will develop their communicative skills and their unique visual styles through film and video, exploring and transmitting their raw, personal experience and utilizing the medium in a manner that effectively communicates their original ideas as filmmakers and media artists.

### **Video Game Studies (DIG 4713) 3 credits**

An overview of the interdisciplinary academic study of video games, analyzing games as interactive media, rule-based systems, cultural and social texts, designed learning spaces, arenas of play and products of industrial discourse and design.

### **Web Research for Journalists (DIG 4820) 3 credits**

The course offers students the opportunity to explore the vast amount of information available on the

Internet and immerse themselves in online research. This enables students to evaluate web sites to determine which sites are trustworthy and have reliable sources of data that could add depth and context to news stories.

### **Special Topics (DIG 4930) 3 credits**

This special topics course is reserved for new subjects in the area of digital media.

### **Senior Seminar: Portfolio in Computer Arts in Animation (DIG 4950C) 4 credits**

*Prerequisite: Senior standing in studio art*

Prepares students for a career in computer arts or to seek graduate admission. Expands skills in 3D modeling, animation, and digital compositing. Students interview industry professionals on-site, present a class seminar, and organize a video/multimedia exhibit. Guest lecturers review student work and advise on career opportunities.

### **Film Appreciation (FIL 2000) 3 credits**

Introduction to film as an art form, cultural product and social artifact. Basic analytical and technical terms, concepts and issues. Development of critical skills. This is a General Education course.

### **Honors Film Appreciation (FIL 2000) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: ENC 1101 and ENC 1102 with minimum grades of "C" or permission of instructor; for students in the University Honors Program only*

This foundational course in film studies introduces students to elements of film form and how they create meaning. In doing so, the course also studies major stylistic movements in film history. Students learn basic vocabulary and concepts necessary for analyzing individual films and groups of films. They are expected to use these terms to describe films critically. Based on those observations, students develop detailed analytical and expositional arguments in essays about films. This is a General Education course.

### **New Hollywood (FIL 3674) 3 credits**

Examines Hollywood as an industry, its structures and policies in the production, distribution and exhibition sectors. Global expansion of Hollywood and its power relations between the U. S. government, Canada and other governments are considered.

### **Film Theory (FIL 3803) 4 credits**

*Prerequisite: FIL 2000*

Examination of the major topics in film theory, including structuralism, psychoanalysis, feminism and Marxism, as well as debates about realism. Historical perspective on film theory and insight into its

intersection with other disciplines.

### **Film to the 1940s (FIL 4036) 4 credits**

*Prerequisite: FIL 2000*

History of film, 1890s to 1940s. Theoretical, industrial and social aspects of film in a variety of national and cultural contexts. Emphasis on narrative and avant-garde styles and traditions.

### **Film since the 1940s (FIL 4037) 4 credits**

*Prerequisite: FIL 2000*

May be taken before FIL 4036. History of film, 1940s to the present. Theoretical, industrial and social aspects of film in a variety of national and cultural contexts. Emphasis on the dominant tradition of narrative realism and various modernist alternatives.

### **Women and Film (FIL 4056) 3 credits**

Examination and history of film representations of and by women as they relate to issues of feminism, psychoanalysis, ideology and film style. Narrative, documentary and avant-garde forms in historical context. Feminist film theory. May be taken for credit in Women's Studies Program.

### **Radical Film, New Media and Social Movements (FIL 4058) 4 credits**

Explores political activism and the socioaesthetic media processes and products of various activist media groups. Interrogates the pitfalls and promises that accompany such radical media movements and analyzes the ways in which they employ film and new media as more than simple commodities.

### **Scriptwriting (FIL 4106) 4 credits**

Formal elements of writing for film and television; preparation of proposals and scripts with emphasis on conception, structure, characterization and format.

### **Traditions of Documentary Film (FIL 4364) 4 credits**

Survey of the diverse forms and historical functions of non-fiction films and video throughout the world, Analysis of representative and significant texts; discussion of issues of style, ideology, technology, determination.

### **Digital Documentary (FIL 4378) 3 credits**

Examination of how digital technologies and platforms have impacted non-fiction filmmaking and media production. Analysis of examples from around the world; includes discussion of topics such as ideology, technology, forms, surveillance, crowdsourcing, immersion, interactivity and seriality.

### **Exhibition Practices in Film, Video and Media (FIL 4613) 4 credits**

*Prerequisite: RTV 3531 or DIG 3110 or DIG 3305C with a minimum grade of "C"*

This class introduces students to a number of exhibition techniques and practices for film, video, media, sound and installation art. It explores the fundamental forms, structures, and ideas behind film and video exhibition. Students are exposed to the processes involved in curatorial duties, administrative responsibilities and programming detail for screenings. This is an Academic Service Learning (ASL) course.

**Production Management for Film and TV (FIL 4647) 3 credits**

*Prerequisite: FIL 4106 or TPP 4600 with a minimum grade of "C"*

Course examines the role of the production manager in traditional film and television productions, explores production management theories and tools, and applies these lessons to examples of multimedia production in the digital age.

**RI: Hollywood, Censorship, and Regulation (FIL 4672) 4 credits**

*Prerequisite: FIL 2000*

A research-intensive (RI) course that embeds U.S practices of film production, distribution and exhibition within a wider sociocultural framework of censorship and regulation to reveal the domestic and international pressures that affect not only what U.S. audiences see but also how they will see it.

**Studies in Asian Cinema (FIL 4843) 3-4 credits**

Intensive introduction to a style, director, genre, national tradition or other aspect of Asian cinema. Topics will vary. May be repeated for credit.

**Film Criticism (FIL 4851) 3 credits**

*Prerequisite: FIL 2000*

An overview of major approaches to film criticism such as filmmaker, genre, national cinema, political criticism and cultural studies. Students will apply critical models to analysis of films.

**Sound in the Cinema (FIL 4866) 3 credits**

*Prerequisites: FIL 2000 or introductory FAU music or visual arts courses; open to Film, Video and New Media Concentration students*

This course trains students in qualitative analysis and forms of critical thinking in the use of sound in the cinema, a major, often overlooked aspect of film production and an emerging field of research methodology. Students' research will contribute to an ongoing, periodically updated database that will eventually provide increasingly complex patterns of audio visual techniques.

**Special Topics (FIL 4930) 3 credits**

This special topics course is reserved for new subjects in the discipline of film studies.

### **News and News Reporting (JOU 3101) 3 credits**

*Prerequisites: ENC 1101, ENC 1102*

Advanced practice in news gathering and reporting. Readings in journalism.

### **Sports Journalism (JOU 3313) 3 credits**

This course introduces students to the fundamentals of sports journalism. Emphasis is on the broadcaster's simultaneous responsibilities to report, to inform and to entertain with a focus on preparation and the development of a comfortable and conversational on-air style. In addition to the principles of play-by-play, topics of discussion include the many hats a sports broadcaster must wear in the modern multimedia world, the rapidly evolving business of sports broadcasting.

### **U.S. Journalism (JOU 4004) 3 credits**

How news is defined and managed in the United States. Close analysis of newspapers, television news and magazines. Historical development of journalistic practices within cultural formations.

### **Coverage of Public Affairs (JOU 4181) 3 credits**

*Prerequisite: JOU 3101, Multimedia Journalism majors only and passing score on Journalism Skills Test*

Instruction and experience covering government, school, the courts and other major institutions. Critical analysis of examples of public affairs reporting. Projects in investigative reporting.

### **Feature and Freelance Writing (JOU 4308 ) 3 credits**

The writing of newspaper features and magazine articles of professional quality. Analysis of conventional and alternative journalistic forms.

### **Environmental Journalism (JOU 4314) 3 credits**

This course introduces environmental reporting, with emphasis on the Everglades and the rest of South Florida's ecosystem. Topics include writing about nature, dealing with public agencies and private activist groups and obtaining and using government data.

### **International Reporting (JOU 4316) 3 credits**

This course is designed to give students an in-depth look at the challenges and realities faced by foreign correspondents, journalists who cover international affairs and reporters who focus on foreign policy or other areas of global interest.

### **Multimedia Journalism (JOU 4342) 3 credits**

*Prerequisites: JOU 3101 and JOU 4181 with grades of "C" or better; Multimedia Journalism majors only*

Teaches the skills and understanding necessary to produce news stories across media platforms—print, broadcast and online. As the technical boundaries among media become less distinct, students must be prepared to enter the rapidly changing media environment.

**Photojournalism (JOU 4601) 4 credits**

A practical and critical overview of photojournalism through exploratory photo essays, with an emphasis on multimedia applications. Training in still camera and digital media, with a consideration of the basic principles and ethics of visual journalism and its role in social and political change.

**Special Topics (JOU 4930) 3 credits**

This special topics course is reserved for new subjects in the area of journalism.

**Introduction to Media Studies (MMC 1540) 3 credits**

An introduction to the transformation of newspapers, magazines, film and video to digital multimedia platforms - based on technological innovations and internet advertising strategies.

**Writing for Mass Media (MMC 2121C) 3 credits**

This course is designed to introduce students to the mechanics of writing for various professional communication genres and to provide them with a foundation on which to build in more advanced classes. This course provides students with an introduction to professional mass communication. It begins with the basics and gradually combines those elements into more advanced projects as the semester progresses.

**Introduction to Media Production (MMC 2130) 3 credits**

An introduction to media production for filmmakers, journalists and digital content creators, covering fiction and nonfiction storytelling, image creation, sound, editing, writing, research and more. Includes practice-based assignments that prepare students for more advanced production classes.

**Mass Communication Theory (MMC 3403) 3 credits**

*Prerequisite: MMC 1540*

A study of the research and various theories dealing with the structure of media and its social impact.

**Minorities and the Media (MMC 3601) 3 credits**

A historical analysis of images of minorities in television programming and in motion pictures; the origin of social stereotypes, their relationship to societal development and an examination of other alternatives.

**Interactive Digital Media (MMC 3711) 4 credits**

An introduction to the basics of interactive multimedia production. Class projects explore the potential

of interactive media to communicate, express and challenge cultural ideas. The course seeks to develop a combination of critical, technical and design skills.

### **Political Podcasting (MMC 4127C) 3 credits**

*Prerequisite: For Communication and Multimedia Studies majors and Political Science majors or permission of instructor*

Systematic analysis of and instruction in the essential elements of political podcasting. Includes assessment of competition; development of concept and format; execution of concept and format through effective vocal delivery; interviewing, writing and technical production; and strategic distribution.

### **Mass Communication Law and Regulation (MMC 4200) 3 credits**

A study of the relationship of the mass media to contemporary law. Topics covered include the First Amendment, libel, privacy, reporters' rights and broadcast and advertising regulation.

### **Media, Culture and Technology (MMC 4263) 3 credits**

An examination of the historical relationship between technology, society and the development of the mass media. An examination of the social, technological, economic and cultural factors shaping the development of media technology with particular emphasis on current new media.

### **International Communication (MMC 4301) 3 credits**

An examination of current issues in international communication with particular emphasis on political, communication and media relations.

### **Media Criticism (MMC 4501) 3 credits**

*Prerequisite: MMC 1540 or FIL 2000*

Introduction to social and critical cultural analysis of visual media culture.

### **Public Opinion (MMC 4640) 3 credits**

*Prerequisite: MMC 3403 with a grade of "C" or better*

Conceptual and historical study and analysis of the construction and representation of public opinion as idea and sociopolitical formation in the West from the 1800s to the present.

### **Media, Representation and Diversity (MMC 4704) 3 credits**

A theoretical and critical exploration of representation in or related to media institutions, texts, technologies and users, exploring race/ethnicity, nationality, gender, class, age, sexuality and ability.

### **New Media Narrative (MMC 4713) 4 credits**

Explores traditional and alternative storytelling using new media tools and paradigms. Encourages experimentation while developing critical, technical and design skills. Taking inspiration from film, video, animation, comics, art and literature, the class creates collaged, multiperspective, modular and multiparticipant narratives.

### **Special Topics (MMC 4930) 3 credits**

This special topics course is reserved for new subjects in the discipline of multimedia communication.

### **Public Relations and the Press (PUR 3009) 3 credits**

This course examines the current and historical interaction of journalism and public relations (PR), primarily in the United States. It takes a critical and balanced look at these two collaborative and conflicting professions.

### **Sports Communication (PUR 3463) 3 credits**

This course covers fundamentals of communicating in a sports environment. It includes the basics of communicating for print and broadcast news, as well as communicating in teams, small groups and organizations and for public relations and sports information. The course also covers ethical considerations and the role of sports in American culture.

### **Public and Community Relations (PUR 4411) 3 credits**

Public relations writing and campaign planning, including audience analysis, persuasive strategies, campaign management, media relations, evaluation of outcomes.

### **Experimental Cinema (RTV 3229) 4 credits**

*Prerequisite: RTV 3531 with minimum grade of "C"*

Investigation of video as an experimental art form through exploratory production exercises. A guide through the fundamental issues in the theory and practice of video art, with an introduction to the history of the medium.

### **Producing and Directing Documentary Film (RTV 3332C) 4 credits**

*Prerequisite: RTV 3531 with minimum grade of "C"*

Research, writing and production challenges of non-fiction video. Organizing and writing proposals, treatments and scripts, with basic training in equipment and techniques of video production.

### **Digital Film Production (RTV 3531) 4 credits**

Basic principles of visual and audio communication with an introduction to field production techniques and equipment. Hands-on projects facilitate the development of personal voice and point of view.

### **Television Production (RTV 3543C) 4 credits**

A lecture-laboratory course with active participation in the planning and production of broadcast programming. An introduction to studio equipment and operations with an emphasis on the aesthetics and politics of both network and non-commercial TV.

### **Broadcast Journalism (RTV 4301) 4 credits**

*Prerequisites: JOU 3101 and JOU 4181 with grades of "C" or better; Multimedia Journalism majors only*

Instruction in gathering, writing, editing and delivering of broadcast news. Analysis of broadcast journalism as organizational activity.

### **Advanced Broadcast Journalism (RTV 4304) 4 credits**

*Prerequisite: RTV 4301 with a grade of "C" or better*

Advanced instruction in gathering, writing, editing and delivery of broadcast news. Advanced analysis of broadcast journalism as organizational activity.

### **Gender and Television (RTV 4412) 3 credits**

Historical, theoretical and analytical exploration of gender and television in terms of the structures, preferences and commercial imperatives of media institutions, representational dimensions of texts, producers and creators, and viewer readings and uses in everyday life.

### **Interpersonal Communication (SPC 2300) 3 credits**

Readings, exercises and projects in dyadic communication. Analysis of interpersonal interaction with focus on message variables.

### **Public Speaking (SPC 2608) 3 credits**

Introduction to the theory and practice of public speaking. Students develop practical skills in preparing, presenting and critiquing various forms of public discourse. This is a General Education course.

### **Classical Rhetoric (SPC 3233) 3 credits**

*Prerequisite: COM 2053*

A historical and theoretical survey of rhetoric in Western civilization from Homer to the Renaissance.

### **Contemporary Rhetoric (SPC 3235) 3 credits**

*Prerequisite: COM 2053*

A historical and theoretical survey of rhetoric from the Enlightenment through the 21st century.

### **Rhetorical Foundations of Publics and Counterpublics (SPC 3272) 3 credits**

*Prerequisite: COM 2053 with minimum grade of "C"*

Introduces students to the broad range of theoretical perspectives on publics and counterpublics. Topics include the public sphere, identity, social advocacy and public judgment.

### **Small Group Processes (SPC 3425) 3 credits**

Readings, exercises and projects in dyadic and small group analysis involving interpersonal attraction, message variables, personal perception, leadership and problem-solving techniques.

### **Rhetorical Theories of Persuasion (SPC 3542) 3 credits**

*Prerequisite: COM 2053 with minimum grade of "C"*

Introduces students to the broad range of theoretical perspectives on persuasion as it operates to structure human relationships, shape attitudes and perceptions and constitute various cultural formations.

### **Communication and Social Change (SPC 3632) 3 credits**

*Prerequisite: Acceptance into the Barb Schmidt Fellowship and permission of department*

This course serves as the first semester of the Barb Schmidt Fellowship: Cultivating Community Involvement, Advocacy and Social Change. Faculty and peer-to-peer interactive workshops present the theory and practice of effective communication strategies for social movement work.

### **American Multicultural Discourse (SPC 3704) 3 credits**

An exploration of the rhetorical practices of multicultural Americans utilizing rhetorical criticism as a tool to study the persuasive efforts of multicultural discourse in the United States.

### **Intercultural Communication (SPC 3710) 3 credits**

Examination of the intracultural and intercultural communication differences within and between culturally diverse groups in the United States.

### **Intercultural Theory (SPC 3717) 3 credits**

*Prerequisite: COM 2053*

Students observe the nature of intercultural theory, review various dialogues and theories among scholars of differing perspectives on this topic and explore the knowledge, motivation and skills needed for developing and/or enhancing intercultural competence.

### **Studies in Rhetoric (SPC 4232) 3 credits**

A sustained critical treatment of select rhetorical practices. Topics will vary. May be repeated for credit.

### **Capstone in Communication and Civic Life (SPC 4271) 3 credits**

*Prerequisites: COM 2053 and 18 credits in the major; Communication Studies majors only, Senior level*

Provides the experienced student of communication with an opportunity to reflect on disciplinary concepts and examine the influential role communication plays in nurturing democratic practices, recognizing and valuing diversity and training active, responsible citizens. Includes a semester-long civic engagement project.

### **Rhetorical Analysis of Democracy (SPC 4273) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: COM 2053 with minimum grade of "C"*

Surveys major methodological perspectives that consider the constitutive relationship between rhetorical practice and democratic politics, political culture, rhetorical citizenship and civic engagement.

### **Leadership and Communication (SPC 4443) 3 credits**

This course is an analysis of the function of communication and its influence on leadership from a global perspective. Students are exposed to leadership as a product of symbolic communication by using both theories and practice to demonstrate that leadership competence results from communication competence.

### **Argumentation and Debate (SPC 4513) 3 credits**

A preliminary survey/review of principles of argument followed by an in-depth study of and practice in oral argument and formal debate.

### **Rhetoric of Argument (SPC 4517) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Study of selected classical and contemporary theories of argument and style as a means of improving student's ability to understand, analyze and create argumentative discourse.

### **Propaganda (SPC 4540) 3 credits**

The theories and dynamics of persuasion and the history and techniques of propaganda in democratic societies.

### **Rhetoric of Social Protest (SPC ) 3 credits**

An examination of the various approaches—psychological, sociological, historical—to the study of social and political movements with special emphasis on rhetorical criticism of movements. In-depth

analysis of protest in the United States and its effect on politics and culture.

### **Rhetorical Criticism (SPC 4680) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: COM 2053*

An overview of major contemporary approaches to the analysis and criticism of public discourse. Students apply the methods by writing critiques of contemporary oral and written discourse.

### **Gender, Race and Communication (SPC 4712) 3 credits**

An investigation of the relationships between discursive practices and cultural concepts of gender and race. Theories of gender and race differences as well as cultural myths, hegemony and personal, political and religious power are examined.

### **Ethnicity and Communication (SPC 4718) 3 credits**

A comparative analysis focusing on communication patterns among different cultural groups living within the United States.

### **Special Topics (SPC 4930) 3 credits**

This special topics course is reserved for new subjects in the discipline of speech communication.

### **Multimedia Practicum (VIC 4943) 4 credits**

*Prerequisite: Permission of instructor*

This interactive multimedia practicum brings video, audio, text, animation and new media to a multifunction, Department-hosted website. As part of this capstone experience, students create cross-media content, producing works engaged with art, culture and cross-disciplinary critical inquiry.

## **Communication and Multimedia Studies Graduate Courses**

### **Exhibition Practices in Film, Video and New Media (ART 6684) 4 credits**

*Prerequisite: M.F.A. graduate standing in Media, Technology and Entertainment*

Introduces students to a number of exhibition techniques and practices for film, video, media, sound and installation art. Course explores the fundamental forms, structures and ideas behind film and video exhibition. It exposes students to the process involved in curatorial duties, administrative responsibilities and programming detail for screenings.

### **The Dark Side of Communication at Work (COM 5725) 3 credits**

*Prerequisites: Graduate standing; Admission to M.A. program in Communication*

This course explores destructive relationships and processes in organizations. Topics include emotional

labor, bullying. Sexual harassment, discrimination, microaggressions, stress, burnout and more.

### **Quantitative Communication Research (COM 6316) 3 credits**

Quantitative research in communication, emphasizing experimental design and statistical methods in content analysis and survey study.

### **Communication Research and Design (COM 6318) 3 credits**

This course presents foundational concepts and research strategies in communication studies, those which transcend the boundaries of communication, rhetoric and media studies. These basic concepts include crafting and narrowing one's research questions, the collection of data and objects of analysis, their interpretation, and statement of conclusions. The course engages current theoretical perspectives as applied to communication research practices.

### **Qualitative Communication Research (COM 6340) 3 credits**

Qualitative research in communication, with emphasis on ethnographic, focus group, interview and semiotic methods.

### **Introduction to Graduate Study in Communication (COM 6400) 3 credits**

An examination of the nature of human communication through analysis of major areas of advanced study, theories of the field and forms of research utilized in communication study.

### **Intercultural Communication Theory (COM 6415) 3 credits**

An overview of the theories about intercultural communication between people of different cultures. Theories will be generated to describe or explain how communication varies across cultures.

### **Communication Theory (COM 6424) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

Broadly surveys theoretical traditions in film studies, intercultural studies, media studies and rhetorical studies. Topics include communication traditions, texts, audiences, practices and contributions to social change.

### **Political Communication (COM 6511) 3 credits**

Analysis of communicative factors in the facilitation, manipulation and discouragement of public political involvement.

### **Directed Independent Study (COM 6906) 1-3 credits**

*Prerequisites: Graduate standing and permission of department*

(FIL 6906) (RTV 6906) (MMC 6906) (JOU 6906) (SPC 6906)

Intensive studies in areas of Communication mutually agreed upon by student and instructor.

### **Special Topics (COM 6931) 3 credits**

*Prerequisite: Graduate standing or permission of department*

(FIL 6931) (MMC 6931) (SPC 6931) (JOU 6931) (RTV 6931)

Theory and Practice of Teaching Communication (COM 6944) 3 credits

Required of and restricted to Graduate Assistants. Helps teaching assistants develop skills in introductory courses taught or assisted by teaching assistants under faculty supervision.

### **Master's Thesis (COM 6971) 1-6 credits**

*Prerequisite: Admission to degree candidacy*

(FIL 6971) (MMC 6971) (SPC 6971) (JOU 6971) (RTV 6971)

### **Digital Media Storytelling (DIG 5027) 3 credits**

*Prerequisites: Graduate standing; Admission to M.A. program in Communication*

Students examine the history and current uses of digital media storytelling, as well as how stories fit into broader social narratives. Through experimentation with a range of creative tools and publishing platforms, students design and produce their own digital storytelling projects to achieve a personal or professional aim.

### **Survey in Digital Media Techniques (DIG 6436) 4 credits**

*Prerequisite: Admission to M.F.A. in Media, Technology and Entertainment*

This production class explores ideas of visual storytelling in space and time, taking inspiration from personal history, games, scientific theories and the cultural shifts of digital technology. The class encourages the development of a personal voice and artistic experimentation. The technical and aesthetic elements using composition/visual effects software are explored.

### **Preproduction, Prototyping and Previsualization (DIG 6546) 4 credits**

*Prerequisite: Admission to M.F.A. in Media, Technology and Entertainment*

Explores preproduction techniques in the production of large-scale creative projects. Students visualize a concept through illustrations, storyboards, animatics and interactive prototypes.

### **3D Production for Interactivity (DIG 6547) 4 credits**

*Prerequisite: Admission to M.F.A. in Media, Technology and Entertainment*

This course provides a broad overview of the 3D modeling, texturing, rigging and animation pipeline for use in most interactive 3D environments. Specifically, students adapt these 3D production techniques to the creation of game assets to be implemented in a visual demo of their game concept, assets, animation tests and other artwork for interactive applications.

### **Graduate Media Technology Studio (DIG 6575L) 4 credits**

*Prerequisite: Open to students enrolled the M.F.A. in Media, Technology and Entertainment*

Students complete practical research in digital media and interactive techniques using the MTEN lecture-laboratory resources. With faculty guidance and supervision, they prepare creative works and submit them for consideration in an M.F.A. exhibition. All students prepare a written synopsis of creative goals and research.

### **Portfolio Workshop (DIG 6589) 4 credits**

*Prerequisite: Admission to M.F.A. in Media, Technology and Entertainment*

Students develop projects ranging from creative coding to narrative-based 3D animation that will be completed by the end of the semester. Student works-in-progress are presented each week for critical evaluation and analysis.

### **Immersive XR Design (DIG 6605) 4 credits**

Creative exploration of immersive design frameworks in a game engine for extended reality (XR) and interfaces such as the latest mobile devices and headsets. Projects bridge the gap between design, technology, engineering and art.

### **Film History and Historiography (FIL 6026) 3 credits**

*Prerequisites: A study of film at the undergraduate level and the completion of an undergraduate degree with at least the equivalent of a minor in film or media studies*

Seminar where students present talks on selected topics and write papers of publishable length on issues in film history and historiography. This is a core requirement in most university-level graduate film programs in the US.

### **Video Production Workshop (FIL 6365) 4 credits**

*Prerequisite: Graduate students in M.F.A. in Media, Technology and Entertainment*

Explores the basics of film and video production in its most fundamental form. Gives participants a general introduction to film and video production, providing historical, technical, conceptual, artistic, aesthetic and theoretical insight into the medium. A number of video projects will be produced throughout the term.

### **Producing and Directing Documentary Film (FIL 6366C) 4 credits**

*Prerequisite: Graduate standing or permission of instructor*

This course gives graduate students insight into documentary film, providing historical, conceptual, technical, artistic, aesthetic and theoretical insight into the genre. Students are required to produce and direct short, non-fiction documentary films.

### **Experimental Cinema (FIL 6409) 4 credits**

*Prerequisite: Graduate students in M.F.A. in Media, Technology and Entertainment*

Introduces students to nonfiction experimental and abstract film and video. Explores the fundamental forums, structures and ideas behind experimental film and video. Students are exposed to the processes involved in experimental production and develop the skills involved in the research and planning of nonfiction, abstract film and video.

### **Film Theory and Criticism (FIL 6807) 3 credits**

Advanced introduction to the field of film studies surveying various approaches, including neoformalism, feminism, poststructuralism, neo-Marxism and cultural studies. Dominant and oppositional modes.

### **Studies in Film and Television (FIL 6935) 3 credits**

An examination of current issues in film and television studies, to include new approaches in theory, history and criticism. Topics will vary. May be repeated for credit.

### **Programming for Interactivity (IDC 6506) 4 credits**

Covers the creation of new media artwork and the use of creative coding. Explores the artists that utilize code, the significance of this work and how their work has been created. Also explores designing hardware and software with the goal of exhibiting this work as interactive art.

### **Mass Media Theory (MMC 6408) 3 credits**

Study of theories of mass media and their application and development through research.

### **Public Opinion and Modernity (MMC 6645) 3 credits**

Discussion of conceptual and historical construction and representation of public opinion and the public sphere and their relationships to modern mass media and popular democracy from the 18th century to the present, particularly the 20th century.

### **Creating Interactive Culture (MMC 6707) 4 credits**

*Prerequisite: Graduate standing*

Course explores the intersection of expressive and communicative media with technology, as well as the new aesthetics and practices that are emerging around user interaction. Through collaboration and experimental production, candidates examine interactive media and culture from the perspective of hybrid processes and structures, often expanding the notions of performance, installation, intervention and presentation.

### **Studies in New Media (MMC 6715) 3 credits**

A critical examination of key theoretical works and arguments in the field of new media and an investigation of the cultural implications of new technologies.

**Gender and Screen Cultures (RTV 6417) 3 credits**

Exploration of intersections between and among cultures of film, television, video, computer-mediated communication and everyday life as they manifest, maintain and/or challenge power relations of gender.

**Classical Rhetorical Theory (SPC 6234) 3 credits**

An in-depth examination of primary texts and central issues in rhetorical theory in Western civilization from Homer through St. Augustine.

**Contemporary Rhetorical Theory (SPC 6236) 3 credits**

An in-depth examination of primary texts and central issues in the development of rhetorical theory in the 19th and 20th centuries.

**Seminar on Kenneth Burke (SPC 6239) 3 credits**

Examines the life and work of American rhetorical theorist and critic Kenneth Burke (1897-1993). It takes a developmental approach to studying Burke, with emphasis on his understanding of rhetoric and symbolic actions as they are reflected in his theories of “Dramatism” and “Logology” as well as his approaches to critical practice.

**Feminist Rhetorical Theory (SPC 6639) 3 credits**

A study of feminist rhetorical history, theory and expression. Readings and discussion will (a) reveal the absence of women's voices in rhetorical history and theory; (b) investigate contextual factors that created this absence; and (c) introduce feminist constructs of rhetorical theory that reclaim women's place in the rhetorical tradition.

**Rhetoric and Democracy in Societies in Transition (SPC 6648) 3 credits**

A study of the relationship of rhetoric and democracy in communist and post-communist countries in eastern and central Europe. Readings and discussion examine dissent and democratic discourse as part of the contemporary rhetorical tradition.

**Rhetorical Criticism (SPC 6682) 3 credits**

An overview and analysis of contemporary methods of rhetorical criticism. Presentation and critique of student work.

### **Intercultural Communication (SPC 6715) 3 credits**

An examination of intracultural and intercultural similarities and differences in communication patterns of various specified groups.

### **Studies in Rhetoric (SPC 6934) 3 credits**

An examination of current issues in the field of rhetorical studies. Topics will vary. May be repeated for credit.

### **Topics in Intercultural Communication Studies (SPC 6935) 3 credits**

An examination of current issues in the field of intercultural communication. Topics will vary. May be repeated for credit.

## COMPARATIVE STUDIES

### **Graduate Courses**

*Prerequisites for all courses in this program: Admission to Ph.D. program in Comparative Studies or permission of instructor.*

### **Theory and Criticism (CST 7309) 3 credits**

Examines critical and theoretical perspectives relevant to various analyses of texts of different types from an historical and comparative point of view. "Texts" may include literary or philosophical texts, architectural structures, works of art, musical compositions, theatrical or musical performances, design elements, political or social discourse, political or sociological structures and others, depending on the concentration served by the course. Topics may include, but are not limited to (post)structuralism, semiotics, Marxism, political theory or philosophy, gender, race and ethnicity, (post)colonialism, design, aesthetics, music, film and picture theory. Variable subtitle. May be repeated up to four times.

### **Directed Independent Study (CST 7905) 1-3 credits**

Directed doctoral-level study in an area of comparative studies.

### **Advanced Research and Study (CST 7910) 1-9 credits**

Course for Ph.D. students who have completed all required courses but have not been admitted to candidacy. Intended for preparation of dissertation topic. May be repeated, and may be taken for variable credit. *Grading: S/U*

### **Research Design in Social Science (CST 7912) 3 credits**

*Prerequisite: Admittance to Ph.D. program in Comparative Studies*

The goal of this course is to introduce graduate students to the basics of social science research, including the logics of inquiry, core methodological assumptions and strengths and limitations of various research designs typically used for such research.

### **Special Topics (CST 7931) 1-3 credits**

Doctoral-level study in a selected area of comparative studies. May be repeated for credit under variable titles and content.

### **Seminar in Aesthetics (CST 7935) 3 credits**

*Prerequisite: Permission of department*

This seminar focuses on two key topics in philosophical aesthetics: The definition of art and the concept of aesthetics. Treating the topic historically, philosophically and through interdisciplinary perspectives, it focuses on key approaches and theorists, including but not limited to, the traditional canon of Plato, Aristotle, Hume, Kant, Hegel and Nietzsche, but also contemporary thinkers such as Adorno, Danto and Arendt, as well as non-western thinkers like Confucius, Xunzi, Zhuangzi and Zeami.

### **Interdisciplinary Perspectives (CST 7936) 3 credits**

*Prerequisite: Graduate standing in the College of Arts and Letters or permission of instructor*

Variable topic course emphasizing the interdisciplinary focus that is at the foundation of the concentrations in the the Ph.D. in Comparative Studies. Content varies from semester to semester but invariably serves to guide students in approaching cultural texts and formations from a multidisciplinary perspective. May be repeated up to four times.

### **Practicum (CST 7940) 3-9 credits**

Engagement and collaboration with agencies and organizations in the public arena, as defined by the student's research interests. Projects initiated by the student may also be considered. *Grading: S/U*

### **Dissertation (CST 7980) 1-12 credits**

## ENGLISH

**Undergraduate Courses/ [link to graduate courses](#)**

### **American Literature to 1865 (AML 2010) 3 credits**

An overview of American literature, including representative writers of the Colonial, Enlightenment

and Romantic periods.

**American Literature from 1865 (AML 2020) 3 credits**

An overview of American literature including representative writers of the Realist, Naturalist, Modernist and Postmodernist movements.

**American Novel: 19th Century (AML 3111) 3 credits**

Major novels by such writers as Hawthorne, Melville, Twain, Crane and James.

**American Novel: 20th Century (AML 3121) 3 credits**

Major novelists selected to reflect a wide range of 20th-century experience; typically: Faulkner, Hemingway, Steinbeck, Singer, Hurston and Erdrich.

**Literature of the South (AML 3263) 3 credits**

Course covers writers of the U.S. South from pre-Civil War plantation cultures (and their hemispherical reach) through the Southern Literary Renaissance, Grit Lit and the contemporary: Douglass, Poe, Cable, Murfree, Caldwell, Hurston, Faulkner, O'Connor, Welty, Williams, Crews, Allison, Vernon, Howe and Tretheway.

**Florida Women Writers (AML 3264) 3 credits**

Course explores 19th- and 20th-century women writers in Florida, including Douglas, Rawlings, Hurston, Smith and others.

**Florida Writers (AML 3265) 3 credits**

An exploration of authors associated with and/or writing about Florida, such as John James Audubon, William Bartram, Harry Crews, Ernest Hemingway, James Weldon Johnson and Wallace Stevens. Topics and approaches vary. The course may draw upon FAU's Bessie DuBois Floridiana Collection.

**Colonial and Early American Literature (AML 4213) 3 credits**

*Prerequisite: [ENC 1102](#) or substitute with a grade of "C" or better*

A study of colonial and early American literature from 1600 to 1800.

**American Literature: 19th-Century Traditions (AML 4223) 3 credits**

Close reading of representative works exemplifying the major traditions in American literature, including naturalism, romanticism, realism and others.

**American Literature: 20th-Century Movements (AML 4242) 3 credits**

Overview of selected texts relevant to the emergence and definition of 20th-century American literary movements, such as modernism and postmodernism. Writers will be studied in social and historical

contexts and may include James, Cather, Eliot, Faulkner, O'Connor, Bellow, Morrison and Nabokov.

**Major American Writers: 19th Century (AML 4311) 3 credits**

Significant works of poetry, long and short fiction and non-fiction prose from 1800-1900, by significant American writers.

**Major American Writers: 20th Century (AML 4321) 3 credits**

Works representing main currents of modern American thought and literature.

**African-American Literature to 1895 (AML 4604) 3 credits**

An introduction to African-American literature and culture through prose and poetry from 1746-1895.

**African-American Literature 1895 to Present (AML 4607) 3 credits**

An introduction to African-American literature from the late 19th century to contemporary times.

**U.S. Latino/a Literatures (AML 4630) 3 credits**

An introduction to U.S. Latino/a literatures, with emphasis on Cuban-American, Puerto Rican and Mexican-American traditions.

**American-Indian Literature (AML 4640) 3 credits**

Interpretation of traditional oral narratives, songs and oratory as well as contemporary fiction and poetry. Emphasizes both cultural continuity and creative adaption of Euro-American presence.

**Jewish-American Literature (AML 4663) 3 credits**

An introduction to Jewish-American literature and culture through the work of several major and emergent 20th-century Jewish-American writers.

**Asian-American Literatures (AML 4673) 3 credits**

An introduction to Asian-American literary traditions and histories.

**Directed Independent Research (AML 4915) 1-3 credits**

*Prerequisites: ENG 3822, LIT 3213, for English majors and permission of instructor*

Students work closely with research mentors to conduct research and inquiry in American Literature. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student.

**Directed Independent Research (AML 4916) 0-3 credits**

*Prerequisites: ENG 3822, LIT 3213, for English majors and permission of instructor*

Students work closely with research mentors to conduct research and inquiry in American Literature.

Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

### **Special Topics (AML 4930) 3 credits**

Special topics in North American literature in English. May be repeated for credit.

### **Creative Writing (CRW 3010) 3 credits**

Guidance and criticism for beginners in writing prose fiction and poetry.

### **Fiction Workshop 1 (CRW 4120) 3 credits**

*Prerequisite: CRW 3010*

Concentrates on essentials of the short story form through emulations of varied modern authorial styles. Point of view, narrative form, voice, creating characters, tone and atmosphere are some of the topics covered. Students write several stories, revise and critique. Reading consists of single-author collections and anthology selections. Course may be repeated for credit once.

### **Fiction Workshop 2 (CRW 4121) 3 credits**

*Prerequisite: CRW 3010*

Workshop for advanced students. Reading consists of single-author works and anthology selections. Students may be asked to write in a variety of forms and will critique peer work. Course may be repeated for credit once.

### **Creative Writing: Non-Fiction (CRW 4211) 3 credits**

*Prerequisite: CRW 3010*

Application of creative techniques to non-fiction subjects in essay and autobiographical writing. Includes study of works by master non-fiction writers and themes in non-fiction literature. Course may be repeated for credit once.

### **Poetry Workshop 1 (CRW 4310) 3 credits**

*Prerequisite: CRW 3010*

Offers a thorough grounding in the fundamentals of writing poetry. By the end of the semester the student will have been introduced to such tools of poetic language as diction, connotation and word music; such techniques of poetic form as meter, stanza, enjambment and free-verse lineation; and such tools of poetic vision as image, metaphor and analogy. Course may be repeated for credit once.

### **Poetic Forms (CRW 4311) 3 credits**

*Prerequisite: CRW 3010*

Students develop appreciation for poetic forms by writing sestinas, sonnets, villanelles, blank verse and

a variety of other forms. Emphasis on contemporary poets experimenting in medieval, Renaissance, 17th-century forms and romantic forms such as the ode.

### **Poetry Workshop 2 (CRW 4321) 3 credits**

*Prerequisite: CRW 3010*

Workshop for advanced students. Individual projects critiqued in workshop sessions and in conference with the instructor. Visiting writers may participate in workshop sessions. To stimulate the student's development, other arts, especially music and the visual arts, may be explored. Course may be repeated for credit once.

### **Literary Editing and Publishing (CRW 4723) 3 credits**

*Prerequisite: CRW 3010 with minimum grade of "C" or permission of instructor*

This course offers a combination of theoretical background and practical, hands-on experience in the field of literary magazine editing and publishing. Students produce Coastlines, FAU's undergraduate literary journal. Duties include evaluating submissions, editing, publicity, research, budget proposals and more.

### **Special Topics: Creative Writing (CRW 4930) 3 credits**

*Prerequisite: CRW 3010*

Selected special topics, e.g., visions of nature or special readings and techniques. May be repeated for credit.

### **Honors Creative Writing Seminar (CRW 4932) 3 credits**

*Prerequisites: CRW 3010 and two 4000-level workshops with minimum grades of "B+" and permission of instructor*

Provides a structured framework for students in the Creative Writing Honors track to complete their honors thesis (either a work of fiction, nonfiction or a collection of poetry). Provides information about post-graduate opportunities for creative writers. Examines works of fiction, poetry and creative nonfiction in more depth and with more of an eye toward craft than may have been possible in previous coursework.

### **College Writing 1 (ENC 1101) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

This course introduces students to rhetorical concepts and audience-centered approaches to writing including composing processes, language conventions and style, and critical analysis and engagement with written texts and other forms of communication. This is a General Education course.

### **College Writing 2 (ENC 1102) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: ENC 1101 with a grade of "C" or better*

A continuation of College Writing 1. This is a General Education course.

**Honors College Writing 2 (ENC 1102) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: Permission of department*

This is a Writing Across Curriculum (WAC) course where students explore examples of academic expository prose and write essays practicing forms of rhetoric. The course expands beyond ENC 1102 by exposing students to a range of writings found across the discipline, to basic competence in information literacy and research and to oral and visual as well as written communication. The goal is to prepare students for the types of critical reading and writing tasks they will need to master as emerging scholars in their individual disciplines. This is a General Education course.

**University Honors Seminar in Writing (ENC 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: ENC 1101 with a grade of "C" or better*

A seminar in the University Honors Program on topics in writing. This is a General Education course.

**Special Topics: College Writing 2 (ENC 1939) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: ENC 1101 with grade of "C" or above*

Selected special topics for College Writing 2, e.g. Southern Cultures or Contemporary Creative Non-Fiction. This is a General Education course.

**Professional Writing (ENC 3213) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: [ENC 1102 or substitute](#) with a grade of "C" or better*

Prepares the student to write professionally for audiences within and outside a corporation or nonprofit enterprise. Proofreading skills stressed.

**Advanced Exposition (ENC 3310) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: [ENC 1102 or substitute](#) with a grade of "C" or better*

A study of rhetorical techniques, including principles of classical rhetoric.

**Principles of Research Writing (ENC 4138) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: ENC 1102 or substitute with a grade of "C" or better*

Provides an introduction to communicating research through writing.

### **Writing for Nonprofits (ENC 4354) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: ENC 1101 and ENC 1102 or substitute with a grades of "C" or better*

Engages students in the study and practice of professional writing activities with local nonprofit organizations. Students receive Academic Service-Learning credit by working with a local nonprofit organization for at least two hours each week. They become familiar with the kinds of writing necessary to support nonprofit organizations and the various rhetorical circumstances that shape organizations working and writing for social change. Students also research a specific community issue or problem related to their partnering organization.

### **Directed Independent Research (ENC 4915) 1-3 credits**

*Prerequisites: ENG 3822, LIT 3213, for English majors and permission of instructor*

Students work closely with research mentors to conduct research and inquiry in Writing and Rhetoric. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student.

### **Directed Independent Research (ENC 4916) 0-3 credits**

*Prerequisites: ENG 3822, LIT 3213, for English majors and permission of instructor*

Students work closely with research mentors to conduct research and inquiry in Writing and Rhetoric. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. Grading: S/U

### **Special Topics: Composition (ENC 4930) 3 credits**

Special topics in composition studies. May be repeated for credit.

### **Introduction to Literary Studies (ENG 3822) 3 credits**

A prerequisite for English majors that must be taken before or concurrently with any 4000-level course. Prepares students to enter the field of literary studies by introducing three genres and key literary concepts. Course emphasizes close textual analysis and basic research skills. Topics vary depending on instructors.

### **Studies in Writing and Rhetoric (ENG 4020) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: ENC 1101, ENC 1102 or substitute with grades of "C" or better*

Examines the theory and practice of rhetoric with special attention to contemporary developments in

rhetoric and their applicability to writing.

### **Literature and Film (ENG 4114) 3 credits**

The study of film representations of British and American literary works. Emphasizes narrative techniques and strategies for adapting literary works for the cinema.

### **Directed Independent Study (ENG 4904) 1-4 credits**

This course allows students to conduct specialized research under the supervision of a faculty member.

### **RI: Honors Research (ENG 4910) 3 credits**

*Prerequisites: ENG 4932, Honors in English students only and department permission required*

The course facilitates the completion of a 20-40 page honors thesis that makes an original contribution to the discipline through a series of assignments designed to enable research in literary studies. This course is research intensive (RI).

### **Honors Seminar (ENG 4932) 3 credits**

*Prerequisites or Corequisites: ENG 3822 and LIT 3213*

Required for honors students but open to those interested in more advanced literary study. Allows students to synthesize literary knowledge and critical skills gained in the English major. More intensive and interactive than the Department's other courses and organized in ways that anticipate graduate-level courses. Topics of the seminar change from year to year. Offered once a year in the fall.

### **English Internship (ENG 4940) 1-6 credits**

*Prerequisites: 18 credits in the major; 3.0 GPA overall and in English; permission of instructor*

Practical experience working 10-15 hours per week in a writing and/or reading oriented position relevant to the English major. Possible internship sites include publishing houses, government agencies, public relations firms, museums, libraries, computer information systems, advertising agencies, and law firms.

### **British Literature to 1798 (ENL 2012) 3 credits**

Major works, writers and movements of early British literature.

### **British Literature since 1798 (ENL 2022) 3 credits**

Major works, writers and movements of modern British literature.

### **English Study Abroad (ENL 2952) 1-6 credits**

**Prerequisite: Sophomore standing**

Credit for enrollment in approved study abroad programs.

**British Novel: 18th Century (ENL 3112) 3 credits**

Selected novelists from Daniel Defoe to Ann Radcliffe.

**British Novel: 19th Century (ENL 3122) 3 credits**

Selected novelists from Jane Austen to Thomas Hardy.

**British Novel: 20th Century (ENL 3132) 3 credits**

Major British and Irish novelists from Conrad to the present; emphasis on innovations in technique.

**Backgrounds for British and American Literature (ENL 3425) 3 credits**

Provides crucial backgrounds, allusions, themes, "histories" and other elements that are contexts for British and American literary works. Topics include the Bible as literature, Greek and Roman classics, epic, mythology, diaspora, ancient literary criticism, ancient non-Western literature, science and literature and metamorphosis.

**Medieval Literature (ENL 4210) 3 credits**

From Old English epic (Beowulf) to Middle English courtly romance (Sir Gawain).

**Renaissance Literature (ENL 4220) 3 credits**

Selected readings that may be organized by genre (drama, poetry, epic, romance), theme (the lover as hero, the rise of humanism, classical revisions) or as a broad-based historical overview of the period and concept of the Renaissance. Writers may include Spenser, Marlowe, Sidney, Jonson.

**17th-Century Literature (ENL 4221) 3 credits**

Representative writers from Donne through Dryden.

**18th-Century Literature (ENL 4230) 3 credits**

Major prose, poetry, drama and satire of the 18th century.

**British Romanticism (ENL 4243) 3 credits**

A study of major poets of the Romantic period, including prose writing, theory and fiction.

**Victorian Literature (ENL 4251) 3 credits**

A study of Victorian literature and culture from Dickens to Kipling. Major works of poetry and prose of the Victorian period are studied in their historical and cultural contexts.

**Victorian Genres and Themes (ENL 4264) 3 credits**

A study of major literary genres and themes of the Victorian period. Content varies by semester.

### **20th-Century British Literature (ENL 4273) 3 credits**

Focuses on British literature from World War I to the end of the 20th century, concentrating on the major movements of modernism and postmodernism. Literary works by Lawrence, Woolf, Eliot, Pinter, Lessing and others will be studied in social and historical contexts, such as the women's and working-class movements, race and immigration and the end of empire.

### **Chaucer (ENL 4311) 3 credits**

The Canterbury Tales, Troilus and Criseyde, the dream allegories.

### **Shakespeare (ENL 4333) 3 credits**

Representative plays.

### **Milton (ENL 4341) 3 credits**

Paradise Lost, Paradise Regained, and Samson Agonistes and other works, including the prose.

### **Directed Independent Research (ENL 4915) 1-3 credits**

*Prerequisites: ENG 3822, LIT 3213, for English majors and permission of instructor*

Students work closely with research mentors to conduct research and inquiry in British Literature.

Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student.

### **Directed Independent Research (ENL 4916) 0-3 credits**

*Prerequisites: ENG 3822, LIT 3213, for English majors and permission of instructor*

Students work closely with research mentors to conduct research and inquiry in British Literature.

Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

### **Special Topics: British Literature (ENL 4930) 3 credits**

Special aspects of British Literature. May be repeated for credit.

### **English Study Abroad (ENL 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Structure of Modern English (LIN 4680) 3 credits**

Comparative grammatical analysis of the structure of English prose styles of major writers; traditional, structuralist and transformational approaches critically examined.

### **University Honors Seminar in Literature (LIT 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in literature.

### **Interpretation of Fiction (LIT 2010) 3 credit**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: ENC 1102 or substitute with grade of "C" or above*

An introduction to close reading of fiction. This is a General Education course.

### **Interpretation of Poetry (LIT 2030) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: ENC 1102 or substitute with grade of "C" or above*

An introduction to close reading of poetry. This is a General Education course.

### **Interpretation of Drama (LIT 2040) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: ENC 1102 or substitute with grade of "C" or above*

An introduction to close reading of drama. This is a General Education course.

### **Interpretation of Creative Nonfiction (LIT 2070) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: ENC 1102 or substitute with minimum grade of "C"*

An introduction to the history and interpretation of nonfiction. Focuses on a variety of sub-genres of creative nonfiction, such as autobiography and memoir and literary journalism and the essay (including non-traditional forms like the lyric or graphic essay). Provides students with the tools to read, analyze, think critically and write about creative nonfiction and to communicate their insights in oral and written forms. This is a General Education course.

### **Introduction to World Literature (LIT 2100) 3 credits**

A variable topics course focusing on perennial aspects of human experience through the comparative study of world literature. This is a General Education course.

### **Special Topics in Literature (LIT 2931) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: ENC 1101 and ENC 1102 with minimum grades of "C"*

This course is focused specifically on teaching students to better understand literature as a written art form. Students also learn to employ academic writing to critically analyze the formal qualities that give

meaning to literature. This class focuses on a special topic or theme. This is a General Education course.

### **Literature Study Abroad (LIT 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Modern Drama (LIT 3043) 3 credits**

Traditions in dramatic literature: Realist, Naturalist, poetic, experimental (absurdist, etc.).

### **Irish Literature (LIT 3184) 3 credits**

An exploration of the developments of the Irish literary tradition. Selections may include Irish language literature in translation, folklore, fiction, poetry and drama from writers such as Merriman, Swift, Joyce, Yeats, Bowen, Beckett, Heaney, Boland and Ni Dhomhnaill.

### **Literary Theory (LIT 3213) 3 credits**

Introduces various schools of critical and literary theory to bear upon the interpretation of literary texts, such as new criticism, psychoanalysis, myth studies, poststructuralism, phenomenology, feminism, postcolonialism, Marxism and more.

### **Fantasy Literature (LIT 3312) 3 credits**

Selected readings in 19th- and 20th-century fantasy, drawn from Lord Dunsany, George MacDonald, Charles Williams, C.S. Lewis, J.R.R. Tolkien, Lewis Carroll, E.R. Eddison, L. Frank Baum, Fritz Leiber, Ursula K. Le Guin, Jane Yolen.

### **Science Fiction (LIT 3313) 3 credits**

Selected readings in 19th- and 20th-century science fiction, drawn from Mary Shelley, Jules Verne, H.G. Wells, Arthur C. Clarke, Robert Heinlein, Isaac Asimov, Ray Bradbury, Theodore Sturgeon, Samuel Delany, Ursula K. Le Guin, Orson Scott Card.

### **Literature of Adolescence (LIT 3333) 3 credits**

A survey and selection of literature representing genres and themes appropriate for the adolescent reader. Issues and research chosen from available scholarship. Intended to assist meeting teacher certification requirements.

### **Detective Fiction (LIT 3344) 3 credits**

Analysis of short stories and novels from Edgar Allan Poe to modern times; division into classical, hard-boiled and contemporary forms.

**Literary Genres (LIT 4001) 3 credits**

Analysis of a literary genre in historical context. May be repeated for credit.

**Modern Poetry (LIT 4032) 3 credits**

Formal and semantic aspects of 20th-century poetry in English.

**Comparative Literature (LIT 4061) 3 credits**

Selected topics requiring investigation of related literary and intellectual movements across national boundaries, with particular attention to writers of international significance.

**Contemporary Drama (LIT 4094) 3 credits**

Dramatic literature of the 20th and 21st centuries; playwrights may include Churchill, Mamet, Parks, Pinter, Ruhl, Shepard, Stoppard, A. Wilson.

**Caribbean Literatures in English (LIT 4192) 3 credits**

Focuses on the critical and analytical study of representative Caribbean authors writing in English.

**World Literature: Critical Approaches (LIT 4225) 3 credits**

Critical approaches to selected works in major world literatures, Eastern and Western, including, e.g., archetypal, traditional or contemporary interpretations.

**Postcolonial Literature (LIT 4233) 3 credits**

An introduction to the field of postcolonial studies, especially the historical development and major debates surrounding the genre.

**Major Writers of World Literature in English (LIT 4244) 3 credits**

Course allows an in-depth exploration of particular major English-language writers from Africa, Asia, Canada, the Caribbean, Ireland and/or Oceania.

**Black Literatures (LIT 4355) 3 credits**

*Prerequisite: ENC 1102 or substitute with grade of "C" or better*

Introduces students to literature of the African Diaspora and seeks to make connections between diverse works from various countries that speak to issues such as identity, blackness, ancestry and the relationship between nation and diaspora. Also focuses on debates in African Diasporic studies, including how scholars should define and think about the African Diaspora.

**Women and Literature (LIT 4383) 3 credits**

An examination of literary representations of and/or literature and criticism by women and cultural

events/movements/histories that have informed the emergence of a women's literary tradition. Topics, national traditions and period may vary. May fulfill pre-1800 requirements depending on the course focus.

### **Literature and Environment (LIT 4434) 3 credits**

An exploration of literary engagements with the natural and/or constructed environment, which may include, but is not limited to, the Ancient, Medieval, Early Modern, Romantic, Victorian, Modern, Postmodern and Colonial traditions.

### **Literature and Social Movements (LIT 4484) 3 credits**

Considers how literature has influenced and been influenced by social movements. Topics may include literature in relation to such movements as abolition, the British labour movement, women's suffrage, the Civil Rights movement, anticolonialism and decolonization, the gay rights movement, Third Wave feminism, the anti-globalization movement or the rise of the New Left.

### **LGBTQ+ Literature (LIT 4523) 3 credits**

An introduction to literature by and/or about LGBTQ people as well as cultural events/movements/histories that have informed the emergence and establishment of a queer literary tradition. Topics, national traditions and/or chronological period may vary.

### **Comparative European Romanticism (LIT 4604) 3 credits**

*Prerequisite: Reading knowledge of French, German, Spanish or Italian*

Romanticism as a European movement. Study of representative poetry and prose in French, German and English literatures with emphasis on literary and intellectual relations. Readings in Rousseau, Goethe, Novalis, Chateaubriand, Coleridge, Wordsworth, Keats, Mary Shelley, Eichendorff, Lamartine, Hugo.

### **Literature of War (LIT 4605) 3 credits**

Examines major themes, genres and stylistic modes in war writing. Considers works from American, British and other literatures. Topics may include the history of war literature, war poetry, propaganda and reportage, black humor and literature and culture of the World Wars, the Vietnam War and other wars.

### **Asian Literature in English (LIT 4832) 3 credits**

Focuses on the critical and analytical study of representative Asian authors writing in English.

### **Directed Independent Research (LIT 4915) 1-3 credits**

*Prerequisites: ENG 3822, LIT 3213, for English and Languages, Linguistics and Comparative*

*Literature majors and permission of instructor*

Students work closely with research mentors to conduct research and inquiry in Genre Studies or Non-British and American Literature. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student.

**Directed Independent Research (LIT 4916) 0-3 credits**

*Prerequisites: ENG 3822, LIT 3213, for English and Languages, Linguistics and Comparative Literature majors and permission of instructor*

Students work closely with research mentors to conduct research and inquiry in Genre Studies or Non-British and American Literature. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

**Special Topics (LIT 4930) 3 credits**

Special topics in comparative literature. May be repeated for credit.

**Literature Study Abroad (LIT 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**English Graduate Courses**

All graduate courses in the Department of English have the following prerequisite: Admission to a graduate program in Arts and Letters or permission of instructor. This prerequisite is in addition to any prerequisite listed with the courses below.

**\* With different content may be repeated for credit.**

**\* Literary Genres and Themes (AML 5937) 3 credits**

*Prerequisites: Admission to graduate program in Arts and Letters or permission of instructor*

(U.S.) Might include, e.g., U.S. Hard-boiled Detective Fiction, The American Novel, American Drama, U.S. Utopian/Dystopian Fiction.

**\* Individual Author (AML 6305) 3 credits**

Intensive study of one American writer, e.g., Faulkner, Dickinson, Twain, James, O'Connor, Morrison.

**\* Directed Independent Study (AML 6905) 1-3 credits**

**\* Special Topics (AML 6934) 3 credits**

Special topics in American literature.

**\* Seminar: American Literature (AML 6938) 3 credits**

More than one author is considered, but the focus is intensive, often concentrating on literature of one region and/or ethnic group, e.g., Southern, Wharton and Chopin, Jewish American, African American, Native American. With different content, may be repeated for credit.

**Master's Thesis (AML 6971) 1-6 credits**

*Grading: S/U*

**\* Creative Writing Workshop (CRW 5025) 3 credits**

Concentration on a mode of writing fiction, poetry or drama.

**\* Creative Writing: Genre and Form (CRW 6024) 3 credits**

Literary theory, criticism, literature and creative writing considering forms, genres and styles not covered in the genre workshops, e.g., writing the poetic sequence, libretti, novella, novel in verse, translation, dramatic monologue.

**\* Fiction Writing Workshop (CRW 6130) 3 credits**

Advanced composition in fiction writing, consideration of significant examples of novel and story forms. Aims at perfecting a series of short stories or novel chapters, improving critical abilities.

**\* Creative Non-Fiction Workshop (CRW 6236) 3 credits**

Advanced composition in creative non-fiction writing, consideration of significant examples of memoir, essay and literary journalism forms. Course aims at perfecting a series of personal essays or chapters in a book-length non-fiction narrative, improving critical abilities.

**\* With different content may be repeated for credit.**

**\* Poetry Writing Workshop (CRW 6331) 3 credits**

Advanced composition in poetry writing, consideration of significant examples of poetic forms. Aims at perfecting a series of poems, improving critical abilities.

**Literary Publishing and Editing (CRW 6726) 3 credits**

*Prerequisite: Permission of instructor*

This course provides a combination of theoretical background and practical, hands-on experience in the field of literary magazine editing and publishing. Graduate students mentor undergraduates in the production of Coastlines literary magazine as well as work on Swamp Ape Review, FAU's online national literary magazine.

### **Creative Writing Symposium (CRW 6920) 1 credit**

A creative writing workshop focusing on areas relevant to the M.F.A. curriculum. Course topics vary by semester and instructor and are offered in fiction, poetry and creative non-fiction.

### **Master's Thesis (CRW 6971) 1-6 credits**

*Grading: S/U*

### **Studies in Composition Methodology and Theory (ENC 6700) 3 credits**

Review and discussion of recent scholarship in the teaching of composition, with an emphasis on practical applications in the classroom. Required for and restricted to graduate assistants teaching composition for the first time. May count toward the 24 credits of coursework required for the MA degree.

### **\* Topics in Rhetoric and Composition (ENC 6930) 3 credits**

Composition theory and practice across a range of topics, such as reading/writing connections, sites or praxis, computers and composition, research in composition studies, literary theory and social consequences, writing in the disciplines, assessment and evaluation, history of composition studies and survey of composition theories.

### **Master's Thesis (ENC 6971) 1-6 credits**

*Grading: S/U*

### **Literary Criticism 1 (ENG 5018) 3 credits**

Literary critical theory from Plato to the 18th century.

### **Literary Criticism 2 (ENG 5019) 3 credits**

Major themes and theoretical statements of the 19th and 20th centuries.

### **Research Methods for Advanced Literary Study (ENG 6009) 3 credits**

*Prerequisite: Required before enrollment in thesis or exam courses*

Research, presentation, publication and professional practices of the discipline of literary studies.

### **\* Seminar: Theory and Criticism (ENG 6049) 3 credits**

Focuses on theoretical approaches to literature, e.g., structuralism, deconstruction, formalism, gender studies, Marxism, New Historicism, postcolonialism, speech acts; or critical themes such as Mimesis or the Sublime.

### **\* Directed Independent Study (ENG 6906) 1-3 credits**

**English Symposium (ENG 6920) 1 credit**

Focuses on a specific topic in areas relevant to the English master's program.

**\* Research Colloquium (ENG 6924) 3 credits**

For increasing research skills and developing methodological approaches, anticipating formal work in master's thesis. May count as an elective beyond the 24 credits of coursework specified in the catalog.

*Grading: S/U*

**\* Colloquium in English (ENG 6925) 3-6 credits**

For English Department teaching assistants, discussion and evaluation of materials and methods of undergraduate English instruction; participation in appropriate Departmental workshops and colloquia.

May count as an elective beyond the 24 credits of coursework specified in the catalog. *Grading: S/U*

**\* Seminar: Writing, Rhetoric and Literacy (ENG 6933) 3 credits**

Focuses on the theory and practice of written composition as it affects issues such as the teaching of writing, the relationship of rhetoric and poetics and the development of cultural literacies. Variable content.

**Master's Thesis (ENG 6971) 1-6 credits**

*Grading: S/U*

**\* Literary Genres and Themes (ENL 5937) 3 credits**

*Prerequisites: Admission to graduate program in Arts and Letters or permission of instructor*

(British) Might include, e.g., Rise of the Novel, Renaissance Lyric, Renaissance Drama, Gothic Literature.

**\* Individual Author (ENL 6305) 3 credits**

Intensive study of one British writer, e.g., Chaucer, Jane Austen, George Eliot, William Blake, Virginia Woolf.

**\* Seminar: British Literature (ENL 6455) 3 credits**

More than one author is considered, but the focus is intensive, often concentrating on literature of one region and/or ethnic group, e.g., Scottish Literature, Sidney and Spenser, Celtic Literary Culture.

**\* Directed Independent Study (ENL 6905) 1-3 credits**

**\* Special Topics (ENL 6934) 3 credits**

Special topics in British literature.

**Master's Thesis (ENL 6971) 1-6 credits**

*Grading: S/U*

**History of the English Language (LIN 6107) 3 credits**

Development of the language from Old English to the present, utilizing modern linguistics.

**Structure of Modern English (LIN 6676) 3 credits**

Comparative grammatical analysis of the structure of English prose styles of major writers; traditional, structuralist and transformational approaches are critically examined.

**\* Special Topics (LIN 6934) 3 credits**

**Master's Thesis (LIN 6971) 1-6 credits**

*Grading: S/U*

**\* With different content may be repeated for credit.**

**\* Seminar: World Literature in English (LIT 6105) 3 credits**

More than one Anglophone author is considered, but the focus is intensive, often concentrating on literature of one region and/or ethnic group, e.g., Caribbean, Canadian, Irish, Asian.

**Comparative Caribbean Idea(s) (LIT 6198) 3 credits**

Prerequisite: For master's students in English and Languages, Linguistics and Comparative Literature  
This course explores recurring themes and ideological debates regarding identity formation (creolization, hybridity, sexuality, beliefs and gender), and the commodification of island culture in Caribbean literature.

**\* Individual Author (LIT 6246) 3 credits**

Intensive study of one Anglophone writer, not U.S. or British, e.g., Yeats, Walcott, Atwood.

**Theorizing Science Fiction/Fantasy (LIT 6318) 3 credits**

The use of science fiction metaphors by contemporary theorists as informed by contemporary science fiction texts.

**Reading for Comprehensive Exams (LIT 6900) 1-6 credits**

*Prerequisite: Permission of department*

Course provides graduate students who have elected to pursue the comprehensive exam option in the English M.A. program rigorous guidance in preparing for that exam. In close consultation with their exam committee chair, students work through at least half of their reading list during each semester

taking this course. May be repeated for credit.

**\* Directed Independent Study (LIT 6905) 1-3 credits**

**Capstone Project in Literary Translation (LIT 6914) 0-3 credits**

*Prerequisite: Permission of instructor*

The final translation project is typically a continuation of a project the student has already begun in the translation workshop. The project results in a document of 20 to 30 pages of either poetry or prose. *Grading: S/U*

**\* Special Topics in Science Fiction and Fantasy (LIT 6932) 3 credits**

*Prerequisite: Admission to graduate program in Arts and Letters or permission of instructor*

A selection of science fiction/fantasy exploring a theme or motif, such as cyborg culture, utopia/dystopia, urban fantasy/mythology, etc.

**\* Seminar: Special Topics (LIT 6934) 3 credits**

Specialized aspects of literature, including non-British or non-American Anglophone literature and world literature in English translation.

**\* Seminar: Literature and Other Fields (LIT 6936) 3 credits**

Literature and, e.g., film, visual art, history, philosophy, psychology, linguistics.

**Master's Thesis (LIT 6971) 1-6 credits**

*Grading: S/U*

**\* With different content may be repeated for credit.**

## ETHNIC STUDIES

### **Undergraduate Courses**

**History of American Immigration and Ethnicity (AMH 3530) 3 credits**

**African-American History to 1877 (AMH 3571) 3 credits**

**African-American History since 1877 (AMH 3572) 3 credits**

**The Civil Rights Movement (AMH 4575) 3 credits**

[\(See History courses, this section\)](#)

**African-American Literature to 1895 (AML 4604) 3 credits**

**African-American Literature 1895-Present (AML 4607) 3 credits**

**U.S. Latino/a Literatures (AML 4630) 3 credits**

**American-Indian Literature (AML 4640) 3 credits**

**Jewish-American Literature (AML 4663) 3 credits**

**Asian-American Literatures (AML 4673) 3 credits**

[\(See English courses, this section\)](#)

**Native-American Culture and Society (ANT 3312) 3 credits**

**Cultures of South Asia (ANT 3361) 3 credits**

**Gender and Culture (ANT 4302) 3 credits**

**African-American Anthropology (ANT 4315) 3 credits**

**Cultural Anthropology (ANT 4414) 3 credits**

[\(See Anthropology courses, this section\)](#)

**Islamic History (ASH 3222) 3 credits**

**Women in Asian History (ASH 3384) 3 credits**

[\(See History courses, this section\)](#)

**Storytelling in Popular Culture (COM 4703) 3 credits**

[\(See School of Communication and Multimedia Studies courses, this section\)](#)

**Religions and World Politics (CPO 3761) 3 credits**

**Comparative Politics: Middle East (CPO 4403) 3 credits**

**The Comparative Politics of Ethnic Conflict (CPO 4724) 3 credits**

[\(See Political Science courses, this section\)](#)

**Education in a Multicultural Society (EDF 3610) 3 credits**

[\(See Curriculum and Instruction courses, College of Education section\)](#)

**Slavery and Abolition in the Americas (HIS 4451) 3 credits**

[\(See History courses, this section\)](#)

**Italian-American Cinema (ITT 3522) 3 credits**

[\(See Languages, Linguistics, Comparative Lit. courses, this section\)](#)

**Classical Jewish Civilization (JST 3403) 3 credits**

**American-Jewish History, 1492-1990 (JST 4415) 3 credits**

**History of Hasidism (JST 4464) 3 credits**

**The Holocaust (JST 4701) 3 credits**

(See Jewish Studies courses, [this section](#))

**History of the Caribbean (LAH 4470) 3 credits**

(See History courses, [this section](#))

**Introduction to Latin American Studies (LAS 2000) 3 credits**

(See Languages, Linguistics, Comparative Lit. courses, [this section](#))

**Caribbean Literatures in English (LIT 4192) 3 credits**

(See English courses, [this section](#))

**Minorities and the Media (MMC 3601) 3 credits**

(See School of Communication and Multimedia Studies courses, [this section](#))

**Music Cultures of the World (MUH 3514) 3 credits**

**Jazz in American Society (MUH 3801) 3 credits**

(See Music courses, under School of the Arts at the end of [this section](#))

**Africana Philosophy (PHP 3781) 3 credits**

(See Philosophy courses, [this section](#))

**American Multicultural Discourse (SPC 3704) 3 credits**

**Intercultural Communication (SPC 3710) 3 credits**

**Gender, Race and Communication (SPC 4712) 3 credits**

**Ethnicity and Communication (SPC 4718) 3 credits**

(See School of Communication and Multimedia Studies courses, [this section](#))

**Race and Ethnic Relations (SYD 3700) 3 credits**

**Self and Society (SYP 3110) 3 credits**

**Social Change (SYP 4400) 3 credits**

(See Sociology courses, [this section](#))

**Intersectional Feminist Politics in the U.S. (WST 4404) 3 credits**

(See Women, Gender and Sexuality Studies courses, [this section](#))

## FILM AND VIDEO

**Undergraduate Courses/ [link to graduate courses](#)**

**Anthropology of Film: An Introduction to Visual Anthropology (ANT 3391) 3 credits**

[\(See Anthropology courses, this section\)](#)

**Literature and Film (ENG 4114) 3 credits**

[\(See English courses, this section\)](#)

**Film Appreciation (FIL 2000) 3 credits**

**Film Theory (FIL 3803) 3 credits**

**Film to the 1940s (FIL 4036) 4 credits**

**Film since the 1940s (FIL 4037) 4 credits**

**Women and Film (FIL 4056) 3 credits**

**Radical Film, New Media and Social Movements (FIL 4058) 4 credits**

**Scriptwriting (FIL 4106) 4 credits**

**Documentary Film and Video (FIL 4364) 4 credits**

**Hollywood, Censorship and Regulation (FIL 4672) 3 credits**

**Studies in Asian Cinema (FIL 4843) 3-4 credits**

**Film Criticism (FIL 4851) 3 credits**

**Media Criticism (MMC 4501) 3 credits**

**Experimental Video Production (RTV 3229) 4 credits**

**Producing and Directing Documentary Film (RTV 3332C) 4 credits**

**Video Production (RTV 3531) 4 credits**

**Television Production (RTV 3543C) 4 credits**

[\(See School of Communication and Multimedia Studies courses, this section\)](#)

**Introduction to the Business of Motion Pictures (GEB 3052) 3 credits**

[\(See Motion Pictures courses under Management, College of Business section\)](#)

**Italian Cinema: From Text to Screen (ITT 3520) 3 credits**

**Italian-American Cinema (ITT 3522) 3 credits**

**Spanish Literature and Film (SPT 4720) 3 credits**

[\(See Languages, Linguistics, Comparative Lit. courses, this section\)](#)

**Dramatic Writing for Stage and Screen 1 (TPP 4600) 3 credits**

[\(See Theatre and Dance courses, under School of the Arts toward the end of this section\)](#)

**Sex, Violence and Hollywood (WST 4337) 3 credits**

(See [Women, Gender and Sexuality Studies courses](#), this section)

## **Film and Video Graduate Courses**

**Film Theory and Criticism (FIL 6807) 3 credits**

**Studies in Film and Television (FIL 6935) 3 credits**

**Mass Media Theory (MMC 6408) 3 credits**

(See [School of Communication and Multimedia Studies courses](#), this section)

**Sex, Violence in Hollywood (WST 6339) 3 credits**

(See [Women, Gender and Sexuality Studies courses](#), this section)

## **HISTORY**

### **Undergraduate Courses/ [link to graduate courses](#)**

**History of the African Diaspora (AFH 3512) 3 credits**

This course explores the emergence of the Africa Diaspora and its political, racial and cultural significance. Beginning with the Middle Passage and the Atlantic Slave Trade, students learn how the institution of New World slavery constituted not only the making of the African Diaspora, but the modern world itself.

**Special Topics in African History (AFH 4930) 3 credits**

The study of a special area in African History. Topics will vary. May be repeated for credit.

**U.S. History to 1877 (AMH 2010) 3 credits**

In this course students examine United States history from before European contact to 1877. Topics include, but are not limited to Indigenous peoples, the European background, the Colonial Period, the American Revolution, the Articles of Confederation, the Constitution, issues within the new republic, sectionalism, manifest destiny, slavery, the American Civil War and Reconstruction. This is a General Education course.

**U.S. History since 1877 (AMH 2020) 3 credits**

In this course, students trace the history of the United States from the end of the Reconstruction Era to the contemporary era. Topics include, but are not limited to, the rise of industrialization, the United States' emergence as an actor on the world stage, constitutional amendments and their impact, the

Progressive Era, World War I, the Great Depression and New Deal, World War II, issues of civil and minority rights, the Cold War and the United States since 1989. This is a General Education course.

### **American Capitalism since 1890 (AMH 3371) 3 credits**

The course addresses the changing nature of U.S. capitalism and how it was conceived during the 20th century. Business history and case studies illustrate consumerism and its relationship to popular culture and highlight various views of capitalism in modern U.S. history.

### **History of American Technology (AMH 3372) 3 credits**

Introductory survey of American technological history. Chronological and topical in scope, including the Industrial Revolution, computer revolution and technology of the home.

### **The American South (AMH 3400) 3 credits**

A survey of the region from the colonial period through the modern era emphasizing the interaction between the South as a distinct region and the South as an inescapable part of the United States. The focus of the course is on the economic, political and social changes that shaped Southern culture.

### **History of Florida (AMH 3420) 3 credits**

A study of the history of the state from the time of the Spanish conquest to the present day.

### **Work and Workers in U.S. History (AMH 3500) 3 credits**

Work is fundamental to the experiences of most people. However, the nature of the work, the arrangement of labor and the experiences of those who do the work have all been historically contingent. This course explores work as a historical development in American history, from the earliest days to the present.

### **History of American Immigration and Ethnicity (AMH 3530) 3 credits**

An overview of the history of immigration to the United States and of the immigrant and ethnic experience in American society from colonial times to the present.

### **U.S. Constitutional History (AMH 3550) 3 credits**

Course examines U.S. constitutional and legal system history from the colonial period through the Civil Rights era. Ideological theories from Federalist era, Civil War/Reconstruction to Civil Rights are addressed. Course concludes by examining how the passage of the Democratic Republic from an agrarian society to an industrial state shaped the Constitution.

### **History of U.S. Women (AMH 3560) 3 credits**

The changing roles of U.S. women from colonial days to the present. Topics include work patterns, family life, education, the abolitionist and suffrage movements and feminism.

### **African-American History to 1877 (AMH 3571) 3 credits**

A survey of the African-American experience from West Africa through Reconstruction. Emphasis placed on African origins, the slave trade, colonial and antebellum slavery, origins of African-American culture, abolitionist movement, the Civil War and Reconstruction.

### **African-American History since 1877 (AMH 3572) 3 credits**

A survey of the African-American experience from Reconstruction to the present. Emphasis placed on the goals of Reconstruction, segregation and Jim Crow, the development of Black organizations, Black Nationalism, the Civil Rights and Black Power Movements, and contemporary issues facing the African-American community.

### **American Environmental History (AMH 3630) 3 credits**

History of the American Environment and the ways in which different cultural groups have perceived, used, managed, and conserved it, from colonial times to present.

### **Colonial North America (AMH 4110) 3 credits**

Old Worlds collided and a New World began when European explorers and Native Americans came face-to-face. This course explains how colonists settled and missionaries advanced, how some Indians welcomed them and others pushed back, and how fortunes grew and empires went to war. Prologue to the United States.

### **The American Revolution (AMH 4133) 3 credits**

This course investigates the history of the revolution from the colonial struggles of the Seven Years' War to the organization of the Early Republic, including not only the acts of generals and politicians but also the experiences and decisions of common people as they shaped the United States.

### **The Age of Jefferson and Jackson (AMH 4150) 3 credits**

A study of the early national period emphasizing the relationship between the economy and the political culture and how that relationship served to shape early 19th-century society and culture.

### **Civil War and Reconstruction (AMH 4170) 3 credits**

A study of the American Civil War and Reconstruction period assessing the causes of the war, the military aspects and the reconstruction following the war.

### **The US in the Era of World War I and World War II (AMH 4231) 3 credits**

Explores the history of the United States from 1900 to 1945. Surveys the transformation of American politics, economics, society and culture in this era of immense change. Charts the rise of the United

States as a world power.

### **U.S. since 1945 (AMH 4270) 3 credits**

An analysis of U.S. social, political, economic and diplomatic development since the end of the Second World War.

### **America in the 1960s (AMH 4273) 3 credits**

This course examines the economic, political, social, and cultural transformation of America in the 1960s.

### **American Material Culture to 1860 (AMH 4302) 3 credits**

A study of the physical aspects of American life: architecture, ceramics, clothing, art, etc., that provide insight into everyday life in early America.

### **American Material Culture from 1860 (AMH 4303) 3 credits**

A study of the physical aspects of American life: lighting, domestic appliances, clothing, television, etc., that provide a unique insight into everyday life of America since 1860.

### **History of U.S. Drug and Alcohol Use (AMH 4315) 3 credits**

Course follows patterns of the use of both alcohol and drugs from the 19th through 21st century and the problems and issues they have raised. Topics covered include the origin of the Temperance movement; the role of tobacco in the economic growth of the U.S.; revolutions in medicine and pharmacology that have made different drugs available; and changing ideas about alcoholism and drug addiction.

### **American Politics since 1750 (AMH 4350) 3 credits**

The origin and growth of national parties and the history of party struggles with emphasis upon presidential elections.

### **Shopping, Travel, and Leisure in 20th-Century America (AMH 4377) 3 credits**

Course covers the development of a republic of consumers by the U.S. government during the 20th century at the national level where political leaders enacted full employment and other growth policies. At the household level, ordinary residents then sought to improve their standard of living through shopping, travel, and leisure.

### **Urban History of the United State (AMH 4460) 3 credits**

The rise of urban culture from the colonial village to the present-day metropolis.

### **Diplomatic History of the U.S. (AMH 4512) 3 credits**

Emphasis on how America's development influences its world outlook.

### **Law in U.S. History (AMH 4558) 3 credits**

Course addresses major themes in the history of law in the area that became the United States from the foundations of English common law to the legal shifts of the period after the Civil War. Course considers the relationship between law and culture.

### **History of African-American Women (AMH 4574) 3 credits**

Traces the experiences, worldview and accounts of African-American women from slavery to freedom and examines black women's lives and labor within the context of major historical themes and periods in American history, such as slavery, the American Civil War, Reconstruction and the Civil Rights Movement.

### **The Civil Rights Movement (AMH 4575) 3 credits**

A survey of the African-American struggle for full citizenship and human rights. Students will study black leaders; their organizations; and the legal strategies, mainstream protest movements, and alternative (or radical) approaches they applied to solving the dilemmas of chronic discrimination and racism in 20th-century America.

### **American Sports History (AMH 4611) 3 credits**

Examines the history of American sports, connecting the development of sports to larger themes in U.S. History. The class shows how sports are a microcosm of American society and reflects the positives and negatives of America's legacy.

### **Religion in America (AMH 4620) 3 credits**

A history of American religious thought from the colonial period to the present, focusing on religious diversity, liberty, identity and politics.

### **America and the Sea (AMH 4694) 3 credits**

This course explores the maritime history of the United States from precolonial times to the present. Topics include the history of seafaring, maritime commerce, coastal history, and the environmental, social and cultural histories of America's relationship with the sea.

### **Special Topics in American History (AMH 4930) 3 credits**

The study of a special area of American history. Topics will vary. May be repeated for credit.

### **Islamic History (ASH 3222) 3 credits**

This course introduces students to both the history of the Islamic world from the seventh century to the rise of the Mongol Empire as well as to the nature of the modern study of this history. Topics addressed

include debates over origins, Islamic "sciences" and the nature of Islamic rule.

### **The Modern Middle East (ASH 3223) 3 credits**

The emphasis in this course is on the creation of the modern Middle East and addresses Arab nationalism, Arab/Palestinian-Israeli conflict, Islamist movements and Western involvement in the region.

### **The Ottoman Empire (ASH 3233) 3 credits**

Survey of the Ottoman Empire. Topics include Turkish origins in the region, the rise of the Ottomans, Ottoman society and culture, methods of succession, relations with external powers, decline factors and the "dissolution of empire." Historiographical issues are addressed throughout the course.

### **History of East Asia (ASH 3300) 3 credits**

An introduction to the culture and civilization of East Asia.

### **Women in Asian History (ASH 3384) 3 credits**

This course examines the social, political, economic, and cultural roles played by women in South Asia, Southeast Asia, and East Asia. Selective topics will include religious beliefs, political systems, women's work, ideologies shaping popular notions about women, sexuality, the roles of women in the family, feminism, patriarchy, imperialism, revolution, and nationalism.

### **The Crusades (ASH 4210) 3 credits**

Studies the Crusades from both Muslim and non-Muslim perspectives/sources. Focus is on the concepts surrounding the holy war, the events of the 11th- to 13th-century Crusades, Muslim society and the reaction at the time as well as the effects of the Crusades on Europe and the Islamic lands.

### **Modern Iran (ASH 4242) 3 credits**

History of Iran from Safavid period to the post-Khomeini period Although the survey nature of the course includes a chronological path, it moves beyond the political narrative to address cultural, social and religious developments (Constitutional Revolution, 1970s revolution, post-Khomeini Iran).

### **History of Modern China (ASH 4404) 3 credits**

A detailed study of the nature and development of modern Chinese History.

### **History of Modern Japan (ASH 4442) 3 credits**

An introduction to modern Japan.

### **History of Modern India (ASH 4550) 3 credits**

Consideration of the Indian Mutiny; British institutions in India; Nationalism; Hindu-Muslim

communalism; partition; government and politics; economic and cultural development; and foreign policy since independence.

### **Indian Civilization (ASH 4560) 3 credits**

Introduction to the civilization, culture, states, societies and religions of the South Asian subcontinent from 2500 BCE through the arrival of European trade companies. Areas covered include the Vedas, Buddhism, Hinduism, the caste system, the Kama Sutra and Mughal Islam.

### **History of Eastern Ideas (ASH 4600) 3 credits**

Eastern thought from Confucianism-Buddhism to Communism.

### **History of Chinese Thought (ASH 4602) 3 credits**

Introduces students to the history of Chinese thought. Covers the main three schools of thought in China, namely Confucianism, Daoism and Buddhism. These three schools are critical for understanding East Asia both as a historical phenomenon and as a part of our modern world.

### **Zen and Buddhism (ASH 4603) 3 credits**

Course provides a thorough introduction to Buddhism, one of the major religions of the world. There are 400 billion Buddhists in the world today, mostly in Asia, but they do have a significant presence on every continent. The course covers the origin and development of Buddhism as well as the current state of the religion.

### **Islamic Intellectual History (ASH 4624) 3 credits**

Development of Muslim thought from the pre-modern to the modern period (e.g., the tenets of faith, law, theology, philosophy, historiography and Islamic mysticism). The second half of the course addresses developments and changes in Muslim thought during the modern era.

### **Asia and the West (ASH 4630) 3 credits**

Course focuses on the cultural, religious, political, demographic, economic, and other exchanges between Europe/North America and Asia (including Southwest, South, Southeast, and Far East) from the 16th century to the present. Primary emphasis is on examples of interaction from multiple perspectives to understand modes of interaction and historical patterns of globalization.

### **Introduction to Asian Studies (ASN 2005) 3 credits**

Designed to provide an in-depth introduction to one area of Asia: East Asia, South Asia or West Asia. Because the Asian Studies Certificate is interdisciplinary, the course can be taught in any of the following Departments: Anthropology, English, History, Political Science, Sociology or Languages, Linguistics, and Comparative Literature.

### **Special Topics in Asian History (ASH 4930) 3 credits**

The study of a special area of Asian history. Topics will vary. May be repeated for credit.

### **European History Study Abroad (EUH 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **20th-Century Europe since World War II (EUH 3206) 3 credits**

An investigation of some of the problems confronting Europeans from the pre-World War II period to the present. Emphasis will be placed on the conflict of ideologies.

### **Modern Eastern Europe (EUH 3320) 3 credits**

This course addresses the methods for special educators to use data and knowledge of general and specialized curricula to improve special education programs for students with exceptionalities using evidence-based practices and effective teaching strategies.

### **20th-Century Europe to World War II (EUH 3343) 3 credits**

An investigation of the problems facing Europeans from the turn of the century to World War II. Emphasis will be placed on the conflict of ideologies.

### **History of Modern France (EUH 3451) 3 credits**

French history and its impact since 1789. Economic trends, social and cultural movements and religious issues will complement a study of major political developments. Underlying themes and their impact across time are stressed.

### **History of Modern Germany (EUH 3462) 3 credits**

A history of Germany. Emphasis will be placed on the period beginning with the close of the Napoleonic Wars to the present.

### **History of Modern Russia (EUH 3570) 3 credits**

Rise of radical movements under the tsars, the Bolshevik Revolution, the rise of Stalin and Stalinism, the Cold War and the reconstitution of Russian government and society in the post-Soviet era.

### **Women in European History (EUH 3619) 3 credits**

Course looks at reasons why women were written out of history and examines the social, political and economic roles played by women in Europe from the beginning of known civilization to the present.

### **Medieval History (EUH 4120) 3 credits**

The decline of the Roman Empire; the rise of Christianity; analysis of feudalism and manorialism; the

economic revival; and the origins of Western Society.

### **Renaissance Europe (1350–1500) (EUH 4140) 3 credits**

History of Europe between 1350 and 1500, including effects of the Black Death, growth of national monarchies, technological innovations, overseas expansion, Italian and northern humanist culture, popular culture, and gender roles.

### **Reformation Europe (1500–1650) (EUH 4144) 3 credits**

History of Europe between 1500 and 1650, including background and outbreak of Protestantism, Counter-reformation, religious wars, gender roles, witch hunts, economic and colonial expansion, political consolidations, and Baroque and popular cultures.

### **Early Modern Europe (EUH 4200) 3 credits**

History of Europe between 1648 and 1789, including creation of modern states system, rise and fall of absolutism in France, scientific and Enlightenment culture, constitutional conflict in England, and imperial rivalries and wars, focusing on the various perspectives of class and gender.

### **19th-Century Europe (EUH 4233) 3 credits**

History of Europe from the French Revolution to World War I. Themes will include the rise of liberalism, conservatism, nationalism, and socialism, the social and economic impact of the industrial revolution, the "new" imperialism, and developments in the arts and sciences.

### **History of Greek Civilization (EUH 4403) 3 credits**

From the 8th century B.C. to 400 A.D.

### **History of Roman Civilization (EUH 4411) 3 credits**

From the 8th century B.C. to 500 A.D.

### **Hitler and Nazi Germany (EUH 4465) 3 credits**

After a brief survey of German history from early times to 1933, course focuses on Hitler's rise to power, the politics and policies of the Nazi regime, the road to world war, the Holocaust and the Nazi legacy.

### **Medieval England (EUH 4500) 3 credits**

Consideration of the political, constitutional and institutional development of England from the 5th century to 1485.

### **Modern Britain (EUH 4502) 3 credits**

Industrialization: the English historical model; critiques of society; political reform; the emergence of

the welfare state; empire and commonwealth; the British and the origins of the two World Wars.

### **Tudor-Stuart England (EUH 4511) 3 credits**

England from 1485 to 1714 including constitutional development, popular and elite culture, religious change, civil wars, revolution, economic crisis, commercial expansion, and international relations.

### **British Empire (EUH 4530) 3 credits**

Great Britain's empire from acquisition to dissolution. Topics include motives for acquisition, theories of imperialism, transfer of ideas and institutions, histories of Australia, New Zealand, India, Canada and British Africa.

### **Modern Ireland (EUH 4538) 3 credits**

Provides students with a comprehensive survey of modern Irish history since 1692 with a focus on the period 1801-1923 and an emphasis on political and social developments. Topics include the Act of Union, the Great Famine, the Irish Diaspora and the Irish Revolution.

### **History of European Sexuality (EUH 4684) 3 credits**

Introduces students to the latest scholarship on the role of sexual desire in the cultural development of Europe and how associated ideas also impacted politics, society, economics and religion.

### **Special Topics in European History (EUH 4930) 3 credits**

The study of a special area of European history. Topics will vary. May be repeated for credit.

### **European History Study Abroad (EUH 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **University Honors Seminar in History (HIS 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in history.

### **Writing History (HIS 2050) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: ENC 1101 with a grade of "C" or better*

Introduces students to the discipline of History by working with them on developing their skills in critical thinking, reading and writing. The focus is on historical inquiry and the production of clear, effective written prose. As such, it acts as an official substitute for ENC 1102. This is a General Education course.

### **Topics in Historical Investigation (HIS 2934) 3 credits**

In-depth study of a particular historical problem, period, or event through lectures, discussions of readings, and writing assignments. Topics will vary.

### **History Study Abroad (HIS 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Introduction to Public History (HIS 3065) 3 credits**

Explores fields of endeavor outside of teaching. Includes museum work, preservation activities, public and private.

### **Introduction to Archives (HIS 3080) 3 credits**

This course introduces students to basic theoretical issues, archival principles and professional ethics. Students develop an understanding of archives and libraries by engaging with current issues, trends and theories that are shaping the field. The course attempts to create a balance between theory and practice. Students learn about archival responsibilities by working with materials, thereby gaining a deeper understanding of archival concepts.

### **Historic Preservation (HIS 3086) 3 credits**

This course helps foster the student's ability to think, read, write and talk about the American and world preservation movement from an informed and critical perspective. Students study site surveys, federal and local law, and the National Register as they relate to historic preservation.

### **RI: Historical Methods (HIS 3150) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: Open to declared History majors only or with permission of instructor*

This course teaches students how to be historians. Students conduct original research of libraries and digital collections, survey major historiographical trends and write a lengthy final research paper based on primary sources. This is a research-intensive (RI) course.

### **History of Human Rights (HIS 3204) 3 credits**

This course explores how people have defined human rights and have sought to protect them in different historical periods and cultural contexts from the ancient period through to the present. Using historical documents from a variety of cultures and time periods, the question, "What are human rights?" is explored.

### **History of Christianity to 1500 (HIS 3432) 3 credits**

History of the Christian church from origins in the Roman Empire to the dawn of the Reformation, with emphasis on heresy, persecution, doctrinal development, missionary movements, popular piety, and sectarianism.

### **History of Christianity since 1500 (HIS 3434) 3 credits**

History of the Christian church from the Reformation to the present, with emphasis on Protestant and Catholic reform movements, religious strife and persecution, confessionalism, worldwide growth, secularization, theological developments, and responses to modernity.

### **History of Science (HIS 3462) 3 credits**

This course introduces students to the history of "Natural History," as the study of science was called before it was broken up into individual subjects. The course addresses the development of scientific thought from prehistoric times through to the development of university-based scientific study in the late 19th century.

### **Aerospace History (HIS 4322) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: ENC 1101 and ENC 1102 or substitute*

The primary goal of this course is to learn about aviation history and its impact on the United States and the world. The course develops students' fundamental skills in critical and global thinking and in comparative analysis. It also develops their understanding of the interaction of race, ethnicity, gender, class, age, and technology.

### **History of Western Ideas HIS 4345) 3 credits**

Basic themes in Western philosophical, literary, scientific and artistic history since the 18th century are studied, together with their cultural background. The impact of ideas on each other and on human progress in the last two centuries is emphasized.

### **Magic and Superstition in the Atlantic World (HIS 4437) 3 credits**

This course traces the changing roles and understandings of magic in European culture, religion, politics and science from the late Middle Ages to the modern day.

### **Slavery and Abolition in the Americas (HIS 4451) 3 credits**

The rise and defeat of racial slavery in the Americas is a global story that is foundational to the American experience. Students explore connections between Africa, the United States, the Caribbean and Latin America, and study documents that illuminate lives of enslaved peoples.

### **Directed Independent Study (HIS 4906) 2-3 credits**

*Prerequisite: Permission of instructor*

Reading and research in a field of history, with program of study selected and reviewed in consultation with Department faculty members. Permission of instructor required.

**Special Topics (HIS 4930) 1-3 credits**

The study of a special area in history. Topics will vary. May be repeated for credit.

**RI: Senior Seminar (HIS 4935) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: HIS 3150*

Advanced research on topics related to theme chosen by the course instructor. Students discuss in-depth readings on the historical theme, present their preliminary research findings to the class and produce a lengthy research paper. This is a research-intensive (RI) course.

**Internship in Public History (HIS 4944) 1-3 credits**

*Prerequisite: HIS 3065 or permission of instructor*

Practicum in public history involving service at local museums, historical societies, and preservation agencies.

**History Study Abroad (HIS 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Senior Thesis in History (HIS 4970) 3 credits**

*Prerequisite: HIS 3150 and permission of instructor*

Completion of a substantial thesis under faculty supervision.

**Colonial Latin American History (LAH 3100) 3 credits**

Traces the development of society in Latin America from pre-Columbian and Iberian experiences until the Wars of Independence, and covers political, social, and economic topics.

**Latin American Independence (LAH 3133) 3 credits**

The history of Latin America from 1750 until 1850, including the causes of the independence movements, the wars for independence, and the ensuing political conflicts.

**Modern Latin American History (LAH 3200) 3 credits**

Studies the Latin American republics from the wars of independence to the present. Major problems facing the region are studied in their historical context.

### **Women in Latin American History (LAH 3721) 3 credits**

This course examines the changing roles and images of women in Latin American history from pre-Columbian times to the present.

### **Indians in Latin American History (LAH 4131) 3 credits**

Explores the complex processes by which Europeans came to dominate the indigenous peoples in the New World with emphasis on Latin America. Course also analyzes how Indians and Africans shaped the formation of New World religions and cultural traditions since 1492.

### **History of Mexico (LAH 4430) 3 credits**

The study of Mexican history from earliest times to the present. Focuses on the political, economic, and social history of the country.

### **History of the Caribbean (LAH 4470) 3 credits**

The study of the historical development of the Caribbean-Gulf of Mexico cultural area from earliest times to the present. Emphasis is on Hispanic legacy and the region's strategic importance since the 18th century.

### **History of Cuba (LAH 4480) 3 credits**

Studies in the development of the Cuban nation from Pre-Columbian times to the present.

### **Special Topics in Latin American History (LAH 4930) 3 credits**

The study of a special area in Latin American history. Topics will vary. May be repeated for credit.

### **History of Civilization 1 (WOH 2012) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: ENC 1101 with grade of "C" or better*

Survey of world societies from Paleolithic era to 1600. Lectures elucidate major events/traditions. Students discuss and write about first-hand accounts of events/topics. This is a General Education course.

### **History of Civilization 2 (WOH 2022) 3 credits**

Survey of world history from 1600 to the present. Focus on increasing world interconnections and interdependency. Themes include world wars, decolonization and globalization. This is a General Education course.

### **World War II (WOH 4244) 3 credits**

An examination of the background and waging of World War Two. Aspects explored will include the military, diplomatic, social, and economic dimensions.

### **Gandhi and Hitler (WOH 4405) 3 credits**

This course analyzes the approaches of Mohandas K. "Mahatma" Gandhi and Adolf Hitler in their political activities, contrasting their uses of nonviolence and violence. It explores biographical details, historical contexts, challenges, writings, approaches to problem-solving, leadership, goals, relations with their followers and opponents, and their legacies.

## **History Graduate Courses**

### **Readings in Florida History (AMH 5902) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

Readings on selected topics in the field of Florida history. May be repeated for credit.

### **Readings in American History (AMH 5905) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

Readings on selected topics and problems in United States history. May be repeated for credit.

### **Seminar in Florida History (AMH 6935) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

Group discussion and individual research on selected topics. May be repeated for credit.

### **Seminar in United States History (AMH 6939) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

Group discussion and individual research on selected topics. May be repeated for credit.

### **Readings in European History (EUH 5905) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

Readings on selected topics in a field or fields of European history. May be repeated for credit.

### **Seminar in European History (EUH 6939) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

Group discussion and individual research on selected topics. May be repeated for credit.

### **The Historical Experience (HIS 5060) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

A seminar designed to introduce the beginning graduate student to the technical aspects of the study of history; it treats the problems involved in the preparation of the master's thesis.

### **Readings in Public History (HIS 5903) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

Readings on selected topics in the field of public history. May be repeated for credit.

### **Readings in Comparative History (HIS 5904) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

Readings in selected topics in comparative history. May be repeated for credit.

### **Directed Independent Study (HIS 5909) 3 credits**

*Prerequisite: Permission of instructor*

Readings and research in a field of history.

### **Internship in Public History (HIS 5942) 1-3 credits**

*Prerequisite: Permission of instructor*

Practicum in public history involving service at local museums, historical societies, and preservation agencies. May be repeated for credit.

### **Teaching Practicum (HIS 5944) 3 credits**

Required of all History graduate assistants. This course is designed to help graduate assistants develop their skills as discussion leaders in introductory courses in which a faculty member has responsibility for course organization and lectures.

### **Directed Independent Study (HIS 6908) 1-3 credits**

Reading and research in a field of history, with a program of study selected and reviewed in consultation with the Department faculty members. Permission of instructor is required.

### **Seminar in Comparative History (HIS 6939) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

Group discussion and individual research on selected topics. May be repeated for credit.

### **Master's Thesis (HIS 6971) 1-6 credits**

*Grading: S/U*

### **Readings in Latin American History (LAH 5902) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

Readings on selected topics in a field or fields of Latin American history. May be repeated for credit.

### **Seminar in Latin American History (LAH 6938) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

Group discussion and individual research on selected topics. May be repeated for credit.

### **Readings in World History (WOH 5935) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

Readings on selected topics in a field or fields of non-Western history. May be repeated for credit.

### **Seminar in World History (WOH 6937) 3 credits**

*Prerequisite: Admission to graduate history program or permission of instructor*

Selected topics and problems. May be repeated for credit.

## HONORS

### **Undergraduate Courses**

#### **Honors Credit (IDH 4905) 1 credit**

*Prerequisites: Permission of instructor and admission to the designated Honors Program*

Honors Credit for students enrolled in the Honors Program. May be taken for repeated credit.

#### **Honors Reading Seminar (IDH 4931) 1-3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: Admission to the Honors Program*

Readings, discussions, projects, and field trips, culminating in an honors portfolio directed by Honors faculty.

#### **Honors Thesis (IDH 4970) 1-3 credits**

*Prerequisites: Permission of instructor and admission to the designated Honors Program*

Thesis hours for students enrolled in the Honors Program.

## HUMANITIES

### **Undergraduate Course**

#### **Cooperative Education - Humanities (HUM 3949) 1-4 credits**

Course may be taken up to four times for a maximum of 8 credits.

## INTERDISCIPLINARY STUDIES:

# ARTS AND HUMANITIES AND SOCIAL SCIENCE

Many courses for these majors are listed previously in this section; these courses draw from several departments in the Dorothy F. Schmidt College of Arts and Letters. Other interdisciplinary courses are listed below.

## **Undergraduate Courses**

### **Temporary Study Abroad (IDS 2957) 1-15 credits**

#### **Global Studies 1 (IDS 3313) 3 credits**

This course introduces students to interdisciplinary transnational methodologies in global studies. The course asks students to consider how global processes are implicated in our own lived experiences, and how our everyday practices are implicated in the social, cultural and political economies of the globe. Specifically, it considers how “the global” is narrated in ethnography and literature, favoring a critical engagement with how we study and consider the globe rather than an exhaustive catalogue of world issues in the era of globalization.

#### **Interdisciplinary Studies Seminar (IDS 3890) 3 credits**

*Prerequisite: For Interdisciplinary Studies majors only*

A capstone course for Interdisciplinary Studies majors with a focus on (1) reflection, (2) job market or further education preparation and (3) citizenship and civic mindedness.

#### **Professional Internship (IDS 3949) 0-4 credits**

*Prerequisites: Students must have completed one semester at FAU as evidenced by having an FAU GPA on record and permission of instructor*

This course offers students the opportunity to gain “real-world” exposure and supervised experience related to their major, specific field of study or career interests. Students integrate theories learned in the classroom with experiential activities acquired through direct involvement in on/off campus internship opportunities. Students develop marketable skills in preparation for future employment or graduate school studies. *Grading: S/U*

#### **Global Studies 2 (IDS 4314) 3 credits**

*Prerequisite: IDS 3313*

This advanced study of global connectedness builds from foundations toward refined analytical capabilities in understanding contemporary articulations of globality as they are experienced in and across human affairs, movement, trade, relationships and the environment. The course showcases ways to bring interdisciplinary insights and methods to bear on these and other concerns related to an

increasingly globalized world.

### **Cultural Study of Globality (IDS 4332) 3 credits**

This course offers students the basic tools that are needed to understand some of the core principles of cultural studies, which will assist students in negotiating, analyzing, and participating within the increasingly globalized cultures and practices of the twenty-first century. Cultural studies constitute an interdisciplinary endeavor that employs multiple methodological approaches and theoretical lenses in understanding the world.

### **Directed Independent Study (IDS 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

This is an open-enrollment independent study to be used to cover subject matter suitable for independent study but not currently offered by the various colleges.

### **Directed Independent Study (IDS 4907) 1-4 credits**

### **Liberal Studies Colloquium (IDS 4920) 1-3 credits**

A colloquium discussing knowledge and methods in the Arts and Sciences with frequent guest lectures by colleagues from the various disciplines within the University and culminating in the essay or project on a Liberal Arts theme.

### **Directed Independent Research (IDS 4915) 3 credits**

*Prerequisite: Permission of instructor*

Independent research project following protocols outlined by the Office of Undergraduate Research and Inquiry (OURI) guidelines.

### **Special Topics (IDS 4930) 1-3 credits**

This is an open-enrollment special topics course used to cover special subject matters not presently offered by the various colleges.

### **General Study Abroad (IDS 4957) 1-15 credits**

*Prerequisite: Sophomore standing*

### **Introduction to Peace Studies (PAX 3001) 3 credits**

Provides an overview and in-depth analysis, from varying perspectives, of the conceptual and theoretical framework of modern peace.

### **Advanced Research Project in Peace Studies (PAX 4912) 1-3 credits**

*Prerequisite: PAX 3001*

This advanced research project provides students with an opportunity to explore, in depth, any aspect of peace studies while working with a faculty member.

### **Special Topics (PAX 4930) 3 credits**

The study of a special topic in Peace Studies. Topics will vary. May be repeated for credit.

### **Professional Development (SLS 4342) 3 credits**

This course focuses on career planning and management skills, including self-assessment, occupational exploration and decision making. Organizational changes affecting careers, employability skills and strategies for implementing academic/career development plans are also covered.

## **JEWISH STUDIES**

### **Undergraduate Courses/ [link to graduate courses](#)**

#### **History of American Immigration and Ethnicity (AMH 3530) 3 credits**

#### **Religion in America (AMH 4620) 3 credits**

(See [History courses](#), this section)

#### **Jewish-American Literature (AML 4663) 3 credits**

(See [English courses](#), this section)

#### **Religions and World Politics (CPO 3761) 3 credits**

(See [Political Science courses](#), this section)

#### **Hitler and Nazi Germany (EUH 4465) 3 credits**

(See [History courses](#), this section)

#### **Beginning Hebrew Language and Culture 1 (HBR 1120) 4 credits**

#### **Beginning Hebrew Language and Culture 2 (HBR 1121) 4 credits**

#### **Intermediate Hebrew Language and Culture 1 (HBR 2220) 4 credits**

#### **Readings in Intermediate Hebrew (HBR 2240) 4 credits**

#### **Directed Independent Study (HBR 4905) 1-4 credits**

#### **Special Topics (HBR 4930) 1-4 credits**

(See [Languages, Linguistics, Comparative Lit. courses](#), this section)

### **Global Jewish Communities (JST 2452) 3 credits**

This course surveys the global Jewish world, from the 19th century to the present, including diverse Jewish experiences in Europe before the Holocaust and now, in the State of Israel and the United States. It also covers past and present Jewish connections to Arabic-speaking lands and to Islam and draws on examples from different nations. This is a General Education course.

### **Jewish Literature Through the Centuries (JST 3102) 3 credits**

Surveys Jewish literature from the Bible to recent times, providing a sense of its range and richness in different centuries and cultures. Course reviews literary technique in prose and poetry as well as analyzes how texts express religious, cultural, and political meaning.

### **Classical Jewish Civilization (JST 3403) 3 credits**

A survey of Judaic studies from Biblical times to the beginning of Jewish Emancipation in the late 1700s. Topics include Jewish holy texts, Jewish history in Temple times, Judaism and the foundations of Christianity and Islam; Medieval Jewish history, the changing role of women in Jewish culture, Hasidism, and the Jews of Eastern Europe.

### **Modern Jewish Civilization (JST 3404) 3 credits**

A survey of Jewish history, religion, and culture from the beginning of Jewish Emancipation in the late 1700s to issues of the 21st century. Topics include the development of denominationalism, modern Antisemitism, Zionism and the state of Israel, the Holocaust, American Jewish life, and the rebirth of Jewish mysticism.

### **Jewish Wisdom: An Introduction to Classical Jewish Thought (JST 3513) 3 credits**

An introduction to traditional Jewish thought and civilization through the medium of Rabbinic texts. Areas of inquiry will include Jewish metaphysics, theology, ethics, mysticism, and gender politics.

### **American-Jewish History, 1492-1990 (JST 4415) 3 credits**

A survey of major issues and themes in American-Jewish history set within the context of North America, from the first Jewish settlers to the National Jewish Population survey of 1990.

### **The Jews of Spain and the Middle East (JST 4417) 3 credits**

The geography, history, culture, languages, literature, and emigration patterns of the Jews who originated in medieval Spain and spread throughout the Mediterranean Basin, including Greece, Turkey, and the Balkan peninsula, living under the religious and legal influences of Islam.

### **Ancient Israel (JST 4424) 3 credits**

The history of ancient Israel during the Old Testament period, including its culture and religion, in the

light of archaeological discoveries.

### **History of Zionism and the State of Israel, 1880-1990 (JST 4425) 3 credits**

An in-depth examination of the modern State of Israel and its development from the birth of modern Zionism to the end of the 20th century.

### **Women and Judaism (JST 4510) 3 credits**

The first part of this course surveys the history of women in Judaism from Biblical times, considering social and religious factors. The second part covers women in Judaism in the 20th and 21st centuries, including both feminist theory and the different perspectives of many individual women.

### **The Holocaust (JST 4701) 3 credits**

An in-depth study of the Holocaust from its political, religious, and ideological roots in Antisemitism through the Nazi Final Solution to post-Holocaust issues of ethics, theology, and moral choice.

### **Directed Independent Study (JST 4905) 1-4 credits**

*Prerequisite: Permission of instructor*

Directed independent study on approved topics in Holocaust and Judaic studies.

### **Special Topics (JST 4930) 3 credits**

### **Jewish Studies Senior Seminar (JST 4935) 3 credits**

*Prerequisite: Senior standing*

This seminar is devoted to scholarly study of aspects of Jewish civilization.

### **Old Testament (REL 3213) 3 credits**

An introduction to the contents of the Old Testament (Hebrew Bible) and the methods modern scholars use to understand it.

### **Image of Woman in the Bible (REL 4218) 3 credits**

The role and treatment of femininity in the Bible, with particular emphasis on the Old Testament (Hebrew Bible) including a variety of contemporary approaches and concerns.

## **Jewish Studies Graduate Courses**

### **Readings in American History (AMH 5905) 3 credits**

[\(See History courses, this section\)](#)

### **Readings in European History (EUH 5905) 3 credits**

(See [History courses](#), [this section](#))

**Seminar: Special Topics (LIT 6934) 3 credits**

**Seminar: Literature and Other Fields (LIT 6936) 3 credits**

(See [English courses](#), [this section](#))

## LANGUAGES, LINGUISTICS, AND COMPARATIVE LITERATURE

Students should direct questions concerning the University Foreign Language requirement and placement in language courses to the Chair of the Department of Languages, Linguistics, and Comparative Literature. The Department enforces a non-audit policy in its language courses.

**Undergraduate Courses/ [link to graduate courses](#)**

**Beginning Arabic Language and Culture 1 (ARA 1120) 4 credits**

Beginning study of Modern Standard Arabic language and Arabic culture. For students with little or no experience in the language. Not open to native speakers or the equivalent.

**Beginning Arabic Language and Culture 2 (ARA 1121) 4 credits**

*Prerequisite: ARA 1120 or permission of instructor*

Emphasis on speaking and aural comprehension. Practice in reading and writing. For students with some experience in the language. Not open to native speakers or the equivalent.

**Beginning Arabic Language and Culture for Heritage Learners 1 (ARA 1140) 4 credits**

For students who can understand and speak informal Arabic (Moroccan, Egyptian, Syrian, etc.), have no or very limited exposure to formal Arabic (known as Modern Standard Arabic or Fusha), and cannot read or write the Arabic alphabet. Emphasis is on (1) developing reading and writing skills through exposure to the vocabulary and grammar of formal Arabic, and (2) expanding knowledge of historical and contemporary Arabic culture through the study of written and oral media. The course is conducted in Arabic.

**Beginning Arabic Language and Culture for Heritage Learners 2 (ARA 1141) 4 credits**

*Prerequisite: ARA 1140 or placement by instructor*

For students who can understand and speak informal Arabic (Moroccan, Egyptian, Syrian, etc.) but have minimal exposure to formal Arabic (known as Modern Standard Arabic or Fusha). Emphasis is on

(1) developing reading and writing skills through exposure to the vocabulary and grammar of formal Arabic, and (2) expanding knowledge of historical and contemporary Arabic culture through the study of written and oral media. The course is conducted in Arabic. Completion of this course satisfies FLEX.

**Intermediate Arabic Language and Culture 1 (ARA 2220) 4 credits**

*Prerequisite: ARA 1121 or permission of instructor*

Emphasis on communication skills and grammar. Not open to native speakers or the equivalent.

**Intermediate Arabic Language and Culture 2 (ARA 2221) 4 credits**

*Prerequisite: ARA 2220 or permission of instructor*

Continuation of emphasis on communication skills with special attention to grammar review. Not open to native speakers or the equivalent.

**Beginning Chinese Language and Culture 1 (CHI 1120) 4 credits**

Beginning study of Chinese language and culture. Not open to native speakers or the equivalent.

**Beginning Chinese Language and Culture 2 (CHI 1121) 4 credits**

**Prerequisite: CHI 1120 or permission of instructor**

Emphasis on speaking and aural comprehension. Practice in reading and writing. Not open to native speakers or the equivalent.

**Beginning Foreign Language and Culture 1 (FOL 1120) 4 credits**

Greek, Hebrew, Latin, Russian, Yiddish and others to be offered according to the needs of students and availability of instructors.

**Beginning Foreign Language and Culture 2 (FOL 1121) 4 credits**

*Prerequisite: FOL 1120 or equivalent*

Greek, Hebrew, Latin, Russian, Yiddish and others to be offered according to the needs of students and availability of instructors.

**Intermediate Foreign Language (FOL 2203) 4 credits**

*Prerequisite: FOL 1121 or equivalent*

Classical and contemporary foreign languages to be offered according to the needs of students and availability of instructors. Continuation of emphasis on communication skills in a cultural context with special attention to grammar review. Not open to native speakers.

**Foreign Language Study Abroad (FOL 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Research and Bibliographic Methods (FOL 3880) 3 credits**

Teaches how to find and evaluate print, electronic and online scholarly sources and how to outline, write, edit, critique, revise and evaluate a research paper in literary studies or linguistics. Required of all undergraduate majors in the Department of Languages, Linguistics, and Comparative Literature, preferably during the student's first semester of study.

**Special Topics (FOL 4933) 3 credits**

Intensive study of variable special topics in the culture, civilization and language of Russia, Israel, Sweden and other countries. To be offered according to the needs of students and availability of instructors.

**Senior Honors Seminar in Languages and Linguistics (FOL 4935) 3 credits**

*Prerequisite: Senior standing in honors program*

A small seminar for students admitted to Honors in Languages and Linguistics, within 30 credits of graduation. Intensive study of theoretical issues and practical problems in critical reading and writing. Preparation of research papers.

**Foreign Language Study Abroad (FOL 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Senior Honors Thesis (FOL 4970) 3 credits**

*Prerequisite: FOL 4935*

Closely supervised research and writing of the Senior Honors Thesis.

**Beginning French Language and Culture 1 (FRE 1120) 4 credits**

Beginning study of French language and culture. For students with little or no experience in the language. Not open to native speakers or the equivalent.

**Beginning French Language and Culture 2 (FRE 1121) 4 credits**

Emphasis on speaking and aural comprehension. Practice in reading and writing. For students with little or no experience in the language. Not open to native speakers or the equivalent.

**Intermediate French Language and Culture 1 (FRE 2220) 4 credits**

*Prerequisite: FRE 1121 or equivalent*

Students continue to develop basic communicative skills in French and use those skills to expand their

knowledge of the cultures of the French-speaking peoples of the world. Not open to native speakers or equivalent.

### **Intermediate French Language and Culture 2 (FRE 2221) 4 credits**

*Prerequisite: FRE 2220 or equivalent*

Continuation of emphasis on communication skills, with special attention to grammar review. Not open to native speakers or equivalent.

### **French Language and Culture Study Abroad (FRE 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Francais de Perfectionnement: French for Bilinguals (FRE 3340) 4 credits**

*Prerequisite: Permission of instructor*

Designed for native speakers of French whose knowledge of formal written French is lacking. Development of reading and writing skills, with special focus on the formal standard language for general and professional use.

### **Culture et Societe: Cinema (FRE 3393) 3 credits**

*Prerequisite: FRE 2221 or permission of instructor*

Course provides intensive practice in spoken and written French through an examination of selected cultural topics in contemporary French and francophone culture as highlighted in recent French-language films.

### **Advanced French Language and Culture 1 (FRE 3400) 4 credits**

Composition and conversation based on selected texts. Review of grammar. Not open to native speakers.

### **Advanced French Language and Culture 2 (FRE 3401) 4 credits**

*Prerequisite: FRE 2221 or permission of instructor*

Composition and conversation based on selected texts. Review of grammar. FRE 3401 may be taken before 3400. FRE 3400 is not open to native speakers (who should substitute FRE 3340).

### **Commercial French (FRE 3440) 3 credits**

*Prerequisite: FRE 2221 or permission of instructor*

Fundamentals of commercial and administrative French usage and correspondence. Introduction to relevant aspects of French commerce.

### **Advanced Commercial French (FRE 3442) 3 credits**

*Prerequisite: Permission of instructor*

A continuation of FRE 3440; advanced study of business French and preparation for the Chambre de Commerce et d' Industrie de Paris exam, leading to certificate in Commercial French.

**Prononciation et Phonetique (FRE 3780) 3 credits**

Targeted pronunciation practice using the phonetic alphabet with the objective of improving production of standard French pronunciation. Provides students with the tools to systematically improve French pronunciation and understand spoken French in various contexts.

**French Culture Study Abroad (FRE 3952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Structure of Modern French (FRE 4850) 3 credits**

*Prerequisite or Corequisite: LIN 3010 or permission of instructor*

Modern French from the point of view of descriptive linguistics. Structural analysis of the phonology, semantics, morphology, and syntax, with theoretical and practical applications.

**Special Topics in French Language Studies (FRE 4930) 1-3 credits**

*Prerequisite: FRE 3400 or equivalent*

Intensive study of aspects of the French language. Since content will vary, course may be repeated for credit.

**French Language and Culture Study Abroad (FRE 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Literature in Translation: The French Tradition (FRT 3140) 3 credits**

Reading and discussion in English of selected works from the full range of French literature, including major and minor traditions, genres and individual authors. Course content will vary from such genres as the novel and movements as Realism, to single authors such as Proust.

**French Culture Study Abroad (in Translation) (FRT 3956) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Introduction to the Study of French-Language Literature (FRW 3001) 3 credits**

*Prerequisite: FRE 3400 or permission of instructor*

Introduction to a variety of approaches to understanding and analyzing French-Language literature: the major genre distinction, multiple types, analysis of prose, poetry, plays.

**French Civilization and Literature: Middle Ages to Revolution (FRW 3102) 3 credits**

Study of major literary, intellectual and cultural developments from the Middle Ages through 1789, including verse epic, the troubadours, Arthurian cycles, Renaissance poetics, Humanism, Neoclassicism, Jansenism, comedy, satire, Enlightenment, epistolary novel, Conte philosophique and political essay. Reading and discussion of representative texts.

**French Civilization and Literature: 19th and 20th Centuries (FRW 3122) 3 credits**

*Prerequisite: FRE 3400 or equivalent*

Study of major literary, intellectual, and cultural developments beginning in 1789 including Realism, Naturalism, Entre-Deux-Guerres, Existentialism, and the Theater of the Absurd. Reading and discussion of representative texts.

**Directed Independent Study (FRW 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

Reading and research in advanced subjects in French. For third- and fourth-year students in good standing only, with program of study prearranged in consultation with instructor.

**Special Topics in French Literature (FRW 4930) 1-3 credits**

Intensive study of authors, genres or literary movements. Since content will vary, course may be repeated for credit.

**Senior Seminar (FRW 4933) 3 credits**

*Prerequisites: FOL 3880 and two 3000-level LIT courses*

This seminar for advanced French major focuses on French cultural history as refracted through one cultural object, such as the medieval cathedral or the Eiffel Tower. Alterations to the object itself, and variations in literary/artistic trends in representing the object, are highlighted as indicative of shifting cultural paradigms. Since subject of study will vary, course may be repeated for credit.

**French Literature Study Abroad (FRW 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Honors Thesis in French (FRW 4972) 1-3 credits**

*Prerequisite: Permission of instructor*

Intense reading and writing leading to completion of an honors thesis on a topic related to a theoretical

or critical aspect of French and/or Francophone literature and/or culture.

### **Beginning German Language and Culture 1 (GER 1120) 4 credits**

For students with no previous knowledge of German. First part of an introductory German course emphasizing communicative competence in German, while increasing an understanding of contemporary German culture.

### **Beginning German Language and Culture 2 (GER 1121) 4 credits**

Second part of an introductory German course emphasizing communicative competence in German, while increasing an understanding of contemporary German culture.

### **Intermediate German (GER 2201) 4 credits**

*Prerequisite: GER 1121 or permission of instructor*

Intended to help students develop their German skills and express themselves more idiomatically and accurately in speaking as well as in writing. Emphasizes the ethnic and cultural complexities of contemporary society in the German-speaking world.

### **Intermediate German: Culture and Society (GER 2220) 4 credits**

*Prerequisite: GER 1121 or equivalent*

Emphasizes the ethnic and cultural complexity of contemporary German society through a wide range of authentic texts. Accompanied by an intermediate grammar, this course is intended to help students learn to speak, read, and write German with more confidence.

### **Intermediate German 2 (GER 2221) 4 credits**

*Prerequisite: GER 2220 or equivalent*

Continuation of Intermediate German based on a variety of texts. Accompanied by an intermediate grammar, this course is intended to help students learn to speak, read and write German with more confidence.

### **Advanced Intermediate German (GER 2225) 4 credits**

*Prerequisite: GER 1121*

Employing a set of individualized web-based learning platforms, this course develops intermediate-level proficiency via the reinforcement of speaking and listening comprehension, reading and writing skills, and an exploration of selected cultural topics. Students also read a novel in German. Designed for students comfortable working individually in an online learning environment.

### **German Language and Culture Study Abroad (GER 2952) 1-8 credits**

*Prerequisite: Sophomore standing*

Credit for approved study abroad programs.

**Advanced German: Reading and Composition (GER 3400) 4 credits**

Practice of reading and composition based on literary and culturally relevant authentic texts. Review of grammar.

**Advanced German: Culture and Society (GER 3503) 3 credits**

*Prerequisite: Two semesters of intermediate German*

Emphasizes the complexity of contemporary German society through a wide range of authentic texts. The course is intended to help students perfect their spoken and written German, while developing a deeper understanding of German culture and society.

**German Culture Study Abroad (GER 3952) 1-8 credits**

*Prerequisites: Sophomore standing*

Credit for approved study abroad programs.

**Special Topics in German Language Studies (GER 4930) 1-3 credits**

*Prerequisite: GER 3400 or equivalent*

Intensive study of special topics in German language studies. Course may be repeated for credit.

**German Language and Culture Study Abroad (GER 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for approved study abroad programs.

**German Literature in Translation (GET 3130) 3 credits**

Reading and discussion of German literature in English translation. Course content will vary. Course may be repeated for credit.

**German Culture Study Abroad (in Translation) (GET 3956) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Seminar in German Literature (GEW 3934) 3 credits**

*Prerequisite: Two semesters of intermediate German*

Students explore special topics in German literature by concentrating on a particular author, theme, genre, or period. Course may be repeated for credit.

**Directed Independent Study (GEW 4905) 1-3 credits**

Independent study in German literature in consultation with the instructor.

### **Special Topics in German Literature (GEW 4930) 1-3 credits**

Advanced seminar on topics in German literature, concentrating on a particular author, theme, genre, or period. Course may be repeated for credit.

### **German Literature Study Abroad (GEW 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for approved study abroad programs.

### **Beginning Classical Greek Language and Culture 1 (GRE 1120) 4 credits**

Beginning study of classical Greek. For students with little or no background in the study of the ancient Greek language.

### **Beginning Classical Greek Language and Culture 2 (GRE 1121) 4 credits**

*Prerequisite: GRE 1120 or equivalent*

Study of grammar and reading of classical Greek, primarily within the context of the ancient Greek civilization and culture. Acquisition of translation, reading, and writing skills. For students with little or no background in the study of the ancient Greek language.

### **Beginning Modern Greek Language and Culture 1 (GRK 1120) 4 credits**

The course teaches students how to communicate in Modern Greek, the language spoken in both Hellas and Cyprus, by placing equal emphasis on speaking, reading, listening, and writing. Students are also exposed to a variety of ideas pertaining Hellenic culture and society.

### **Beginning Modern Greek Language and Culture 2 (GRK 1121) 4 credits**

*Prerequisite: GRK 1120*

This course builds upon the knowledge of Modern Greek students acquire by taking GRK 1120. The course covers basic vocabulary and grammar by engaging students in virtual daily situations and by equally emphasizing speaking, listening, reading, and writing.

(The following four Hebrew courses are crosslisted with the Department of [Jewish Studies](#).)

### **Beginning Hebrew Language and Culture 1 (HBR 1120) 4 credits**

Beginning study of Hebrew language and culture. For students with little or no experience in the language. Not open to native speakers or the equivalent.

### **Beginning Hebrew Language and Culture 2 (HBR 1121) 4 credits**

*Prerequisite: HBR 1120 or equivalent*

Emphasis on speaking and aural comprehension. Practice in reading and writing. For students with little

or no experience in the language. Not open to native speakers or the equivalent.

### **Intermediate Hebrew Language and Culture 1 (HBR 2220) 4 credits**

*Prerequisite: HBR 1121 or equivalent*

Emphasis on communication skills and grammar. Not open to native speakers or equivalent.

### **Readings in Intermediate Hebrew (HBR 2240) 4 credits**

*Prerequisites: HBR 1121 or equivalent*

Course focuses on classic readings in intermediate Hebrew, helping students to read texts with particular emphasis on the Bible.

### **Directed Independent Study (HBR 4905) 1-4 credits**

*Prerequisites: Junior or senior level with program of study prearranged in consultation with instructor*

Reading and research in advanced subjects in Hebrew.

### **Special Topics (HBR 4930) 1-4 credits**

Intensive study of authors, genres, or literary movements. Content will vary; course may be repeated for credit.

### **Racism and Anti-Racism (HUM 2471) 3 credits**

This interdisciplinary course looks at the concepts of race, racism and anti-racism from a variety of disciplines and perspectives. It is designed as a series of units that each draw on the expertise of different faculty in the College of Arts and Letters. Students are invited to learn, examine and reflect on the complex relationships between race and racism and how they have shaped anti-racist movements from the 19th century until present.

### **Beginning Italian Language and Culture 1 (ITA 1120) 4 credits**

Beginning study of Italian language and culture. Not open to native speakers or the equivalent.

### **Beginning Italian Language and Culture 2 (ITA 1121) 4 credits**

*Prerequisite: ITA 1120 or equivalent*

Emphasis on speaking and aural comprehension. Practice in reading and writing. Not open to native speakers or the equivalent.

### **Intermediate Italian Language and Culture 1 (ITA 2220) 4 credits**

*Prerequisites: ITA 1121 or equivalent*

Emphasis on communication skills and grammar. Not open to native speakers or equivalent.

### **Intermediate Italian Language and Culture 2 (ITA 2221) 4 credits**

*Prerequisite: ITA 2220 or equivalent*

Continuation of emphasis on communication skills, with a special attention to grammar review. Not open to native speakers or equivalent.

### **Italian Language and Culture Study Abroad (ITA 2952) 1-6 credits**

Credit for enrollment in approved study abroad programs.

### **Italian Writing Workshop (ITA 3300) 3 credits**

*Prerequisite: ITA 2220 with minimum grade of "C"*

Learn to write Italian correctly and effectively. Written exercises and class discussions help students face several writing problems and train in the difficult art of writing. The objective is not only to write correctly but also to learn how to modulate the style of expression depending on the purpose of writing.

### **Reading the Italian Press (ITA 3412) 3 credits**

*Prerequisite: ITA 2220 with minimum grade of "C"*

A conversation-based intermediate-advanced Italian course. Uses original Italian material to spark a conversation that requires active participation. Taught in Italian and aims to develop vocabulary and Italian grammatical structures in both speaking and writing.

### **Advanced Italian 1 (ITA 3420) 4 credits**

*Prerequisite: ITA 2221 or equivalent*

This course further expands grammar and syntax through the reading and detailed analysis of a variety of texts targeting different registers of language. The texts are chosen in function of their Italian cultural or generally cross-cultural content, their relevance for practical use, and their ability to stimulate discussion. Ample opportunity to practice the Italian language both orally and in writing will be provided. Not open to native speakers.

### **Advanced Italian 2 (ITA 3421) 4 credits**

*Prerequisite: ITA 2221 or equivalent*

Composition and conversation based on selected texts. Review of grammar. ITA 3421 may be taken before ITA 3420. Not open to native speakers.

### **Readings in Intermediate-Advanced Italian Language and Culture (ITA 3430) 4 credits**

*Prerequisite: ITA 1121*

This gateway course to the upper division Italian language sequence emphasizes both written and spoken communication with special attention paid to contextual review of grammar. Course offers structured practice in reading and composition writing based on literary and culturally relevant authentic texts. Course may be repeated for credit.

### **Italian Culture Study Abroad (ITA 3952) 1-6 credits**

*Prerequisite: Permission of department*

Credit for enrollment in approved study abroad programs.

### **Tessere La Lingua/Weaving Language (ITA 4730) 3 credits**

*Prerequisite: ITA 2221 or permission of instructor*

Focuses on the morphology and syntax of the Italian language through the study of a variety of texts belonging to different linguistic registers, times and places.

### **Directed Independent Study (ITA 4905) 1-3 credits**

### **Special Topics (ITA 4930) 3 credits**

Intensive study of authors, genres, literary movements, or themes. May be repeated for credit.

### **Italian Language and Culture Study Abroad (ITA 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Italian Culture and Society (ITT 2502) 3 credits**

Introduction to Italian culture, with study of intellectual, social, historical, and literary trends. Discussion of representative texts and visual material.

### **Italian Culture Through Food (ITT 3003) 3 credits**

The course is an Italian culture course in translation. It offers an in-depth study of the relationship between Italy's food culture and other areas of the humanities, especially literature and the arts, showing its richness far beyond the stereotypes.

### **Reflessioni/Reflections: Italian Translation (ITT 3100) 3 credits**

*Prerequisite: ITA 2221 with minimum grade of "C"*

In-depth study of and reflection on the nuances of the Italian language through its translation to English via the study of unique and culturally relevant texts in multiple registers of language.

### **Literature in Translation: The Italian Tradition (ITT 3110) 3 credits**

Reading and discussion in English of selected works from the full range of Italian literature, including major and minor traditions, genres and individual authors. Course content will vary from such genres as the novella and movements such as Romanticism, to single works or authors, such as the Decameron or Dacia Maraini.

### **Love and Lovers in Italian Literature (ITT 3111) 3 credits**

Analyzes the concept of love and the figure of the Italian lover from the origins of Italian literature to the present. Students read some of the most exciting pages of Italian writers presenting seductive Italian women and men. Taught in English.

### **Italian Cinema: from Text to Screen (ITT 3520) 3 credits**

A study of the cinema–literature relationship from neorealism to postmodernism. Authors range from Boccaccio to Bassani and directors from De Sica to Nichetti.

### **Italian Film Classics (ITT 3521) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Overview of Italy’s rich cinematic tradition starting from the groundbreaking years of Neorealism to the end of the past century. Taught in English.

### **Italian-American Cinema (ITT 3522) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

This course offers an overview of the major filmmakers associated with the representation of Italian Americans in the United States film world. Students will view and discuss major filmmakers and their films, and will write critical essays on film topics. Conducted in English.

### **Italy in Lyrics (ITT 3600) 3 credits**

Uses songs and popular music to explore the last two hundred years of Italian history and its major cultural themes. Taught in English.

### **Italian Culture Study Abroad (in Translation) (ITT 3956) 1-6 credits**

Credit for enrollment in approved study abroad programs. This is an Academic Service Learning (ASL) course.

### **Dante: The Commedia in Translation (ITT 4440) 3 credits**

A close reading of a selection of canti from Dante's Divine Comedy with emphasis on the linguistic-philosophical and theological concerns of Dante Alighieri against the backdrop of the historical and political climate of his times.

### **Italian Literature and Civilization: Middle Ages and Renaissance (ITW 3100) 3 credits**

*Prerequisite: ITA 2221 or equivalent*

Study of major literary, intellectual, and cultural developments beginning in the Middle Ages and including readings from Dante, Boccaccio, the Neoplatonics, Machiavelli, Ariosto, and Tasso.

### **Italian Literature and Civilization: Baroque to Present (ITW 3101) 3 credits**

*Prerequisite: ITA 2221 or equivalent*

Study of major literary, intellectual, and cultural developments from 1700 to the present, with readings from Goldoni, Vico, Leopardi, D'Annunzio, Pirandello, and including Futurism, Existentialism, Postmodernism.

**Directed Independent Study (ITW 4905) 1-3 credits**

Reading and research in advanced subjects in Italian. For third- and fourth-year students in good standing only, with the program of study prearranged in consultation with instructor.

**Italian Literature Study Abroad (ITW 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Honors Thesis in Italian (ITW 4972) 1-3 credits**

*Prerequisite: Permission of instructor*

Intense reading and writing leading to completion of an honors thesis on a topic related to a theoretical or critical aspect of Italian literature and/or culture.

**Beginning Japanese Language and Culture 1 (JPN 1120) 4 credits**

Beginning study of Japanese language and culture. For students with little or no experience in the language. Not open to native speakers or the equivalent.

**Beginning Japanese Language and Culture 2 (JPN 1121) 4 credits**

*Prerequisite: JPN 1120 or equivalent*

Emphasis on speaking and aural comprehension in the cultural context. Practice in reading and writing. For students with little or no experience in the language. Not open to native speakers or equivalent.

**Intermediate Japanese Language and Culture 1 (JPN 2220) 4 credits**

*Prerequisite: JPN 1121 or equivalent*

Emphasis on communication skills in the cultural context and grammar. Not open to native speakers or the equivalent.

**Intermediate Japanese Language and Culture 2 (JPN 2221) 4 credits**

*Prerequisite: JPN 2220 or equivalent*

Continuation of emphasis on communication skills in the cultural context, with special attention to grammar review. Not open to native speakers or the equivalent.

**Japanese Language and Culture Study Abroad (JPN 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Directed Independent Study (JPN 4905) 1-4 credits**

*Prerequisite: Permission of instructor*

Reading and research in advanced subjects in Japanese. For third- and fourth-year students only, with a program of study prearranged in consultation with instructor.

**Special Topics (JPN 4930) 1-3 credits**

*Prerequisite: Permission of instructor*

Intensive study of various aspects of Japanese literature or language. Occasionally available in English for non-majors. May be repeated for credit.

**Japanese Language and Culture Study Abroad (JPN 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Japanese Culture Study Abroad (in Translation) (JPT 3956) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Japanese Literature Study Abroad (JPW 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Introduction to Latin American Studies (LAS 2000) 3 credits**

This course is a required introductory course for the Caribbean and Latin American Studies Certificate and is designed to provide students with an understanding of the history, literature and culture of the Latin American region. While drawing on examples from specific Latin American nations, the course is broadly comparative, considering a number of substantive themes as they apply to the entire region and as they are related to world powers, multinational actors and global economic structures. This is a General Education course.

**Honors Introduction to Caribbean and Latin American Studies (LAS 2000) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: ENC 1101 and ENC 1102 with minimum grades of "C" or permission of instructor; for students in the University Honors Program*

This course is a required introductory course for the Caribbean and Latin American Studies Certificate

and is designed to provide students with an understanding of the history, literature and culture of the Latin American region. While drawing on examples from specific Latin American nations, the course is broadly comparative, considering a number of substantive themes as they apply to the entire region and as they are related to world powers, multinational actors and global economic structures. This is a General Education course.

### **Beginning Latin 1 (LAT 1120) 4 credits**

Intensive introductory study of the Latin language with emphasis on reading, translation, grammatical analysis, and vocabulary. The translation of passages adapted from the ancient authors also provides an incidental acquaintance with Roman values, life, and culture.

### **Beginning Latin 2 (LAT 1121) 4 credits**

*Prerequisite: LAT 1120*

Intensive introductory study of the Latin language with emphasis on reading, translation, grammatical analysis, and vocabulary. Builds on knowledge and skills acquired in Latin 1. The translation of passages adapted from the ancient authors also provides an incidental acquaintance with Roman values, life, and culture.

### **Intermediate Latin 1 (LAT 2220) 4 credits**

*Prerequisite: LAT 1121 or equivalent*

For students who have successfully taken one year of college Latin, this course introduces advanced grammar, syntax, and stylistics of Latin prose. The focus is on translation with a parallel discussion of the texts in the historical frame of the late Republican and early Imperial periods.

### **Introduction to Language (LIN 2001) 3 credits**

This course explores fundamental questions about language such as: How do we acquire it? Can we think without it? Can computers learn it? Can language be used to profile and discriminate? Can language be used to manipulate how people think? Can offensive language be harmful? This is a General Education course.

### **Global Perspectives on Language (LIN 2607) 3 credits**

Course explores language from a global perspective. It addresses the complex relationship between language and culture, emphasizing the role of English as a global language, and also examines the U.S. as a multilingual society as this relates to race, ethnicity, the role of the media, and other issues. This is a General Education course.

### **Languages of the World (LIN 3006) 3 credits**

Introduction to the diversity of human languages around the world, which patterns and features exist in

different languages, how languages can be grouped together and what we can learn about the human past from linguistic data.

### **Introduction to Linguistics (LIN 3010) 3 credits**

The modern scientific study of pronunciation, word structure, syntax, semantics, language history, geographical and social dialects, first and second language acquisition, and writing systems. Open to non-majors.

### **Patterns of Language (LIN 3133) 3 credits**

Course offers insight into the basic theoretical principles and concepts of linguistic analysis, specifically phonology, morphology, syntax, and semantics as applied to written and oral texts.

### **Field Methods in Linguistics (LIN 4162) 3 credits**

*Prerequisite: LIN 3010 or permission of instructor*

Introduction to linguistic fieldwork. Collection and analysis of language data from speakers of under-described languages.

### **Phonetics and Phonology (LIN 4326) 3 credits**

*Prerequisite: LIN 3010 or permission of instructor*

Introduction to the physical properties of speech sounds and the patterning of sounds in the world's languages. Training in phonetic transcription and instrumental analysis of speech. Hypothesis testing in formal phonological frameworks.

### **Morphology and Syntax (LIN 4430) 3 credits**

*Prerequisite: LIN 3010*

Introduces students to basic concepts and issues in current morphological and syntactic theory. Focuses on knowledge of the structure of words, phrases and sentences, how such knowledge may be represented and what it reveals about the nature of human language.

### **Sociolinguistics (LIN 4600) 3 credits**

An introduction to the study of language and linguistic behavior as influenced by social and cultural factors.

### **Bilingualism (LIN 4620) 3 credits**

*Prerequisite: LIN 3010 or permission of instructor*

Language and cognition, language acquisition in the bilingual child, bilingual influences upon learning, the psychological and sociocultural aspects of bilingualism, especially in Spanish-English speaking communities.

### **Research Methods in Linguistics (LIN 4630) 3 credits**

*Prerequisite: LIN 3010 or permission of instructor*

Introduction to conducting, writing and presenting linguistic research.

### **Psycholinguistics (LIN 4701) 3 credits**

*Prerequisite: LIN 3010 or permission of instructor*

Psychology of language and communication; mechanics of language learning in relation to behavior and thinking.

### **Semantics and Pragmatics (LIN 4802) 3 credits**

*Prerequisite: LIN 3010 or permission of instructor*

An introduction to the basic approaches to the study of semantics and pragmatics. Includes fundamental notions of word meanings (lexical semantics), sentence meaning, logic and pragmatics.

### **Introduction to Semiotics (LIN 4810) 3 credits**

Why do people smoke? Why do women wear high heels? This course is intended to introduce students of all backgrounds to basic semiotic concepts and techniques of semiotic analysis.

### **Directed Independent Study (LIN 4905) 1-3 credits**

*Prerequisite: LIN 3010 or permission of instructor*

Reading and research in advanced subjects in Linguistics. For third- and fourth-year students in good standing only, with the program of study prearranged in consultation with instructor.

### **Special Topics (LIN 4930) 1-3 credits**

*Prerequisite: LIN 3010 or permission of instructor*

Intensive study of special topics in linguistics, such as the history and dialectology of a language, experimental phonetics, and trends in morphology and syntax. Since content will vary, course may be repeated for credit.

### **Honors Thesis in Linguistics (LIN 4972) 1-3 credits**

*Prerequisite: Permission of instructor*

Intense reading and writing leading to completion of an honors thesis on a topic related to linguistics.

### **University Honors Seminar in Literature (LIT 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in literature.

### **Introduction to World Literature (LIT 2100) 3 credits**

1930

A variable topics course focusing on perennial aspects of human experience through the comparative study of world literature. This is a General Education course.

### **Introduction to Comparative Literature (LIT 3060) 3 credits**

*Prerequisite: LIT 2100 or permission of instructor*

This course lays the foundation for the study of comparative approaches to literature and culture.

### **New Testament (LIT 3374) 3 credits**

An historical and literary approach to the Bible text and the methods modern scholars use to understand it. Covers the content and historical setting of the New Testament in Jewish and Greco-Roman culture, as well as the style and genre of different books.

### **Comparative Literature (LIT 4061) 3 credits**

*Prerequisite: Reading knowledge of French, German, Italian, or Spanish*

Selected topics requiring investigation of related literary and intellectual movements across national boundaries, with particular attention to writers of international significance.

### **Comparative Renaissance Studies (LIT 4250) 3 credits**

*Prerequisite: Reading knowledge of French, German, Italian, or Spanish*

Comparative Renaissance literature from Italian beginnings through Montaigne, with special attention to the role of humanism and to new narrative genres.

### **Comparative European Romanticism (LIT 4604) 3 credits**

*Prerequisite: Reading knowledge of French, German, Italian, or Spanish*

Romanticism as a European movement. Study of representative poetry and prose in French, German, and English literatures with emphasis on literary and intellectual relations. Readings in Rousseau, Goethe, Novalis, Chateaubriand, Coleridge, Wordsworth, Keats, Mary Shelley, Eichendorff, Lamartine, Hugo.

### **Special Topics (LIT 4930) 3 credits**

Specialized aspects of literature. May be repeated for credit.

### **Beginning Spanish Language and Culture 1 (SPN 1120) 4 credits**

Beginning study of Spanish language and culture. For students with little or no experience in the language. Not open to native speakers or the equivalent, who may substitute it with SPN 1340. Credit may not be awarded for SPN 1120 and SPN 1340.

### **Beginning Spanish Language and Culture 2 (SPN 1121) 4 credits**

Emphasis on speaking and aural comprehension. Practice in reading and writing. For students with some experience in the language. Not open to native speakers or equivalent, who may substitute it with SPN 1340. Credit may not be awarded for SPN 1121 and SPN 1340.

### **Beginning Spanish for Heritage Learners (SPN 1340) 4 credits**

For students who can understand casual spoken Spanish and have very limited speaking ability. Emphasis is placed on practicing basic grammatical structures, building vocabulary and developing or recovering initial oral, reading and writing skills while increasing awareness of Hispanic cultures and their diversity. Fulfills foreign language requirement.

### **Spanish for Careers (SPN 2161) 3 credits**

*Prerequisite: Placement test with a passing score (The test needs to be taken only once at FAU.)*

A variable topic course focusing on vocabulary and grammar to complete the basic and task-based practical skills for different careers. Knowledge of basic Spanish is a prerequisite. May be repeated for a maximum of 6 credits.

### **Spanish for Healthcare Professions (SPN 2162) 3 credits**

*Prerequisite: SPN 1121 or permission of instructor*

This course is for healthcare profession students with knowledge of basic Spanish. Emphasis is placed on the vocabulary needed for the workplace, the grammar to complete the basic skills sequence and task-based practical skills while fortifying critical awareness of Hispanic historical and cultural contexts.

### **Intermediate Spanish Language and Culture 1 (SPN 2220) 4 credits**

*Prerequisite: Placement test with a passing score (The test needs to be taken only once at FAU.)*

Emphasis on communication skills and grammar. Not open to native speakers or equivalent, who may substitute it with SPN 2341. Credit may not be awarded for SPN 2220 and SPN 2341.

### **Intermediate Spanish Language and Culture 2 (SPN 2221) 4 credits**

*Prerequisite: Placement test with a passing score (The test needs to be taken only once at FAU.)*

Continuation of emphasis on communication skills, with special attention to grammar review. Not open to native speakers or equivalent, who may substitute it with SPN 2341. Credit may not be awarded for SPN 2221 and SPN 2341. This is an Academic Service Learning (ASL) course.

### **Intermediate Spanish Conversation (SPN 2240) 3 credits**

*Prerequisite: Placement test with a passing score (The test needs to be taken only once at FAU.)*

Emphasis on aural comprehension and speaking facility, practice using topical materials. Not open to

students who have completed SPN 2221 or native speakers or equivalent.

### **Intermediate Spanish for Heritage Learners (SPN 2341) 4 credits**

*Prerequisite: Placement test with a passing score (The test needs to be taken only once at FAU.)*

For students who can understand casual spoken Spanish and have somewhat limited ability in speaking. Emphasis is placed on intermediate-level grammatical structures, building vocabulary, developing intermediate-level oral, reading and writing skills while increasing awareness of Hispanic cultures and their diversity. Fulfills foreign language requirement.

### **Spanish Language and Culture Study Abroad (SPN 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Advanced Spanish for Heritage Learners (SPN 3343) 4 credits**

*Prerequisite: Placement test with a passing score (The test needs to be taken only once at FAU.)*

For students who have already taken SPN 2341 or who have studied Spanish at an intermediate level and have functional abilities in understanding and speaking Spanish. Emphasis is placed on consolidating grammatical structures, vocabulary, oral reading and writing skills while increasing awareness of Hispanic cultures and their diversity. Fulfills foreign language requirement.

### **Advanced Spanish: Conversation (SPN 3400) 4 credits**

*Prerequisite: Placement test with a passing score (The test needs to be taken only once at FAU.)*

Intensive review of advanced grammar through written work and conversation. Students learn how to express themselves in writing and orally, using literary texts. SPN 3400 is not open to native speakers or heritage speakers (who may substitute SPN 2341 or SPN 3343, depending on ability). Credit may not be awarded for SPN 3400 and SPN 3343.

### **Advanced Spanish: Conversation (SPN 3410) 3 credits**

*Prerequisite: Placement test with a passing score (The test needs to be taken only once at FAU.)*

An advanced conversation class designed to develop students' ability to communicate more fluently in Spanish and discuss a wide variety of cultural topics relating to Spain and Latin America.

### **Introduction to Creative Writing in Spanish (SPN 3435) 3 credits**

*Prerequisites: SPN 3343 and SPN 3400, or permission of instructor*

This course provides a general overview of prominent ideas about the creative process in the Hispanic world and, through workshops, ample guided opportunities for the development of students' command of effective written expression in Spanish, with emphasis on prose (non/fiction) and poetry.

### **Commercial Spanish 1 (SPN 3440) 3 credits**

*Prerequisites: Placement test with a passing score (The test needs to be taken only once at FAU.)*

Fundamentals of commercial and administrative Spanish usage and correspondence. Introduction to relevant aspects of Spanish and Latin American commerce.

### **Commercial Spanish 2 (SPN 3441) 3 credits**

*Prerequisites: SPN 2221 or SPN 2341 or SPN 3343 or permission of instructor*

Fundamentals of commercial and administrative Spanish usage and correspondence. Introduction to relevant aspects of Spanish and Latin American commerce.

### **Spanish Peninsular Culture and Civilization (SPN 3500) 3 credits**

*Prerequisite: SPN 2161 or SPN 2221 or or SPN 2341 or equivalent or permission of instructor*

The aim of this course is to promote the knowledge and understanding of Spanish culture and civilization by presenting and investigating the origin and development of the ideas, behavior, and customs of the Iberian peninsula.

### **Latin American Culture and Civilization (SPN 3501) 3 credits**

*Prerequisite: SPN 2161 or SPN 2221 or SPN 2341 or equivalent or permission of instructor*

The aim of this course is to promote the knowledge and understanding of Latin American culture and civilization by presenting and investigating the origin and development of Latin American ideas, behavior, and customs.

### **Spanish Culture Study Abroad (SPN 3952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Spanish Sociolinguistics (SPN 4740) 3 credits**

*Prerequisites: SPN 3400 or SPN 3343 or permission of instructor*

This course is an introduction to the field of Spanish sociolinguistics. It covers such topics as social stratification in language, social and dialectal variants, language and gender, diglossia, code-switching, Spanish in the U.S., and bilingualism in Spanish-speaking countries.

### **Spanish Phonetics and Phonology (SPN 4790) 3 credits**

*Prerequisites: SPN 3400 or SPN 3343 or permission of instructor*

An introduction to the study of Spanish phonology and dialectology. Detailed analysis of the sound system and the phonological processes of Spanish with a dialectology component.

### **Structure of Modern Spanish (SPN 4850) 3 credits**

*Prerequisites: SPN 3400 or SPN 3343 or permission of instructor*

Analysis of the structure of Spanish including phonology, morphology, syntax, and semantics.  
Systematic comparison with English.

### **Special Topics in Spanish Language Studies (SPN 4930) 1-3 credits**

*Prerequisite: SPN 3400 or equivalent or SPN 3343*

Intensive study of aspects of the Spanish language. Since content will vary, course may be repeated for credit.

### **Internship in Applied Spanish (SPN 4942) 1-6 credits**

*Prerequisites: SPN 3400 or SPN 3343, and permission of Spanish advisor*

Interns work in a University-approved international or national organization related to the Spanish-speaking community and a chosen academic field, gaining critical experience in community organization, local politics, social services, translation, education, or journalism. This internship is unique because students work in the target language.

### **Spanish Language and Culture Study Abroad (SPN 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs. Since the content may vary, the course may be repeated for credit.

### **Spanish Culture Study Abroad (in Translation) (SPT 3956) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Latin American Literature in Translation (SPT 4130) 3 credits**

The whole range of Latin American literature, from the conquest to the present. Emphasis will be placed on the role of literature in the culture. Course and readings are in English.

### **Spanish Literature and Film (SPT 4720) 3 credits**

Study of literary and cinematographic technique in Spanish films from the 1920s to the present.

### **Spanish Translation (SPT 4800) 3 credits**

*Prerequisites: SPN 3400 or SPN 3343, or permission of instructor*

Development of specialized translation skills, with work on literary, scientific, commercial, legal and general topics. Open to native and non-native speakers of Spanish in all majors who already possess a high degree of fluency in both English and Spanish.

### **Spanish Language and Culture Study Abroad (SPT 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Introduction to Peninsular Spanish Literature (SPW 3012) 3 credits**

*Prerequisite: SPN 3400 or SPN 3343 with minimum grades of "C" or permission of instructor*

Course assists students in developing critical reading, writing and thinking skills through close reading and analysis of prose, poetry, essay and drama selected from Peninsular Spanish literary texts.

**Introduction to Spanish American Literature (SPW 3021 ) 3 credits**

*Prerequisite: SPN 3400 or SPN 3343 with minimum grades of "C" or permission of instructor*

Course assists students in developing critical reading, writing and thinking skills through close reading and analysis of prose, poetry, essay and drama selected from Spanish American literary texts.

**Introduction to Hispanic Literature (SPW 3030) 3 credits**

*Prerequisite: SPN 3400 or SPN 3343 or permission of instructor*

A preparatory course for students intending to pursue studies in Hispanic literature. Selected readings will provide the basis for stylistic and textural analysis and understanding of the structure of literary works. The historical development of genre and the technical vocabulary necessary for critical analysis will also be included.

**Género Policiaco (SPW 4583) 3 credits**

*Prerequisites: SPN 3400 and SPN 3343 or permission of instructor*

Introduces the genre of crime fiction in the Hispanic world through a series of theoretical articles and films establishing a correlation between the genre's development in the respective countries and other literary manifestations worldwide.

**Directed Independent Study (SPW 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

Reading and research in advanced subjects in Spanish. For third- and fourth-year students in good standing only, with the program of study arranged in consultation with instructor.

**Special Topics in Spanish or Latin American Literature (SPW 4930) 1-3 credits**

Intensive study of Spanish or Latin American authors, genres, or literary movements. Occasionally available in English for non-majors. Since content will vary each term, course may be repeated for credit.

**Spanish Literature Study Abroad (SPW 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Honors Thesis in Spanish (SPW 4972) 1-3 credits**

*Prerequisite: Permission of instructor*

Intense reading and writing leading to completion of an honors thesis on a topic related to a theoretical or critical aspect of Peninsular or Latin American literature and/or culture.

### **Applied Linguistics and TESOL (TSL 4251) 3 credits**

Applying linguistics, psycholinguistics, and sociolinguistics to teaching English as a second language with emphasis on pronunciation, intonation, structural analysis, morphophonemics and decoding from print to sound.

## **Languages, Linguistics and Comparative Literature Graduate Courses**

Students should direct questions concerning the Advanced Competency Examination in the major language and placement in language courses to the Chair of the Department of Languages, Linguistics, and Comparative Literature.

### **Special Topics (FLE 5930) 3 credits**

Reading and research in advanced topics in foreign language teaching. Topics will vary. May be repeated for credit.

### **Research in Foreign Language Learning Theories (FLE 6892 ) 3 credits**

Overview of current research on second-language acquisition. Introduction to current language teaching methodologies and assessment of their practical relevance for the foreign-language classroom.

### **Foundations of Languages, Linguistics and Comparative Literature (FOL 6731C)**

*Prerequisite: Graduate standing in Languages, Linguistics and Comparative Literature or related fields*

Introduces students to major historical moments and current trends in language theory through examination of disciplinary traditions. Readings are seminal texts of recurrent interdisciplinary significance that characterize and compare major theoretical frameworks.

### **Advanced Research Methods in Languages, Linguistics and Comparative Literature (FOL 6885) 3 credits**

*Prerequisite: Graduate standing in Languages, Linguistics and Comparative Literature or related field*  
This topic-based advanced research methods course trains students in the use of a wide range of research tools in preparation for conceptualizing, conducting and analyzing a research project in the

chosen field of language study.

### **Readings in Languages and Linguistics (FOL 6900) 1-3 credits**

The course is designed to give graduate students a structured preparation of the reading list for their comprehensive written or oral examinations. May be repeated for credit. *Grading: S/U*

### **History and Theory of Translation (FOT 6807) 3 credits**

*Prerequisites: B.A. in literary or linguistic field or equivalent*

History and theory of translation in Europe and in the Americas beginning with the early Roman translators and continuing through Medieval, Renaissance, Neoclassical, Modernist, and Post-colonial theory and practice. The course poses questions about language and meaning, canon and culture, and cross-cultural communication.

### **Topics in Translation Studies (FOT 6930C) 3 credits**

One of the foundational courses in the translation track, this course covers a specific aspect of translation studies. The focus and content are variable. Potential topics include, but are not limited to, Post-colonial Theories of Translation, the Multilingual City, Self-Translation, Four Classics and Their Versions. May be repeated for credit once.

### **Reading for Research in French (FRE 5060) 3 credits**

Study of grammar and vocabulary needed to do basic research in French. Some previous study recommended but not required. Not open to majors. *Grading: S/U*

### **Structure of Modern French (FRE 6855) 3 credits**

*Prerequisite: For students enrolled in the master's program*

This course is devoted to the analysis of the linguistic structure of modern French, focusing on its main phonological, morphological, syntactic and semantic features.

### **Internship in French (FRE 6946) 3 credits**

*Prerequisite: Permission of instructor*

For the MAT in French, students are required to do an internship with a faculty member who is teaching FRW 3001, FRE 3400, FRE 3401 or FRE 3393. Students attend each class session and prepare/teach several classes over the course of the semester. Students also participate in the design, grading and evaluation of exams, term papers and other semestrial projects.

### **Master's Thesis (FRE 6971) 1-6 credits**

*Grading: S/U*

### **Histoire Littéraire (FRW 6105) 3 credits**

Course examines the French literary tradition as a whole, focusing on problems of interpretation and definition. Students read a wide variety of foundational texts from different time periods in conjunction with secondary critical studies to understand and call into question such long-established literary concepts such as period, genre, history, representation, and mode.

### **L'Auteur Médiéval (FRW 6418) 3 credits**

*Prerequisite: FOL 3880 or equivalent*

In-depth study of seminal medieval texts key to the formulation of medieval authorship. In addition to primary readings, students also read contemporary critical theory on authorship to gain a deeper understanding of how postmodern and medieval conceptions of authorship might converge or diverge.

### **French Caribbean Idea(l)s (FRW 6775) 3 credits**

*Prerequisite: For students enrolled in master's program*

This course explores recurring themes and ideological debates regarding identity formation (creolization, hybridity, sexuality, beliefs and gender) and the commodification of island culture in French Caribbean literature.

### **France in/and Algeria: (Contested) History, Conflictive Memor(y/ies), Literature and Culture (FRW 6776) 3 credits**

*Prerequisite: For Languages, Linguistics and Comparative Literature majors only*

This course is designed to explore the history of France and Algeria and France in Algeria as represented in literary and cinematic production. Through novels, memoirs, essays, graphic novels and films, the course examines the evolution of the French representations of Algeria. It also explores the reasons that led to the suppression of this chapter of history for almost three decades in France. Course conducted in French.

### **Master's Thesis (FRW 6971) 1-6 credits**

*Prerequisite: Permission of instructor*

Independent reading and research in preparation of a master's thesis. *Grading: S/U*

### **Directed Independent Study (FRW 6908) 1-3 credits**

Independent reading and research in advanced topics and by permission of the instructor only. The program of study is arranged in consultation with instructor during the term prior to the student's taking the course.

### **Seminar in French and Francophone Literature (FRW 6938) 3 credits**

Topics will vary. May be repeated for credit.

### **Reading for Research in German (GER 5060) 3 credits**

Study of grammar and vocabulary needed to do basic research in German. Some previous study recommended but not required. Not open to majors. *Grading: S/U*

### **Master's Thesis (GER 6971) 1-6 credits**

### **Directed Independent Study (GEW 6908) 1-3 credits**

Independent reading and research in advanced topics and by permission of the instructor only. The program of study is arranged in consultation with the instructor during the term prior to the student taking the course.

### **Seminar in German Literature (GEW 6938) 3 credits**

Topics will vary. May be repeated for credit.

### **Italian America: Translating Identities (ITT 6508) 3 credits**

This course delves into the complexities of the Italian-American world. Perhaps one of the most discussed hyphenated identities in the American melting pot, Italian-American culture presents an incredibly rich production in literature and film. This course takes advantage of multiple perspectives, starting from a historical and documentary background, passing through the imaginary and the literary world, and ending with indications of contemporary social and political activism. Knowledge of Italian is valued but not required.

### **Italian Culture through Film (ITT 6524) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

Course studies selected key events in recent Italian history through their reflections in film. Students “read” movies treating them as “history texts” and examples of historical emplotment, while furthering their knowledge of Italy’s recent past, between the nation’s unification and the “years of lead.”

### **Dante in the West (ITT 6601) 3 credits**

*Prerequisite: Graduate standing*

This course proposes a critical approach to the reception of Dante's works in general and the Divine Comedy in particular from the early 14th century until today and on both sides of the Atlantic. This course, taught in English, is aimed at shedding light on Dante scholarship in and outside of Italy by considering the reception of Dante in his own times and through the ages and by questioning the extent to which fictional representations and theoretical considerations of Dante's opus, especially but not only the Divine Comedy, have shaped Dante studies today.

### **Modern and Contemporary Italian Fiction (ITW 6485) 3 credits**

1940

*Prerequisite: Graduate standing*

This seminar provides readings and discussions of major Italian prose writers such as Calvino, Deluca, Eco, Levi, Maraini, Palazzeschi, Pasolini, Pirandello, Sciascia, and Vittorini. Topics will vary. May be repeated for credit.

**Directed Independent Study (ITW 6908) 1-3 credits**

Independent reading and research in advanced topics in Italian studies, arranged in consultation with and with permission of the instructor during the term prior to the student's taking the course.

**Seminar in Italian Literature (ITW 6938) 3 credits**

*Prerequisite: Graduate standing*

This is a special topics seminar in which specific themes are studied. Topics will vary. May be repeated for credit.

**Master's Thesis (ITW 6971) 1-6 credits**

*Prerequisite: Permission of Instructor*

Independent reading and research in advanced topics for the research and writing of a master's thesis in Comparative Literature with an emphasis in Italian. The program of study is arranged in consultation with the instructor during the term prior to the student taking the course.

**Endangered Languages (LIN 6086) 3 credits**

Course focuses on relevant topics in the study of endangered languages, including loss of biolinguistic diversity, language shift and decline, and language death, as well as language documentation and the efforts to maintain and revitalize these languages.

**Historical Linguistics (LIN 6128) 3 credits**

*Prerequisite: Graduate standing*

The different ways in which languages change and the insights, both linguistic and historical, that can be gained from understanding these processes. Examples will be drawn from a broad spectrum of languages.

**Principles of Linguistic Analysis (LIN 6135) 3 credits**

Course is an introduction to the core basics of linguistics and an apprenticeship to linguistic analysis for graduate students in their first semester of master's programs of study.

**Foundations of Linguistic Theory (LIN 6150) 3 credits**

This course is intended to introduce students of linguistics and neighboring disciplines to the major currents in linguistic theory. Beginning with a brief overview of the history of linguistics, the course

concentrates on seminal texts of recurrent interdisciplinary significance that characterize major theoretical frameworks.

### **Cognitive Linguistics (LIN 6156) 3 credits**

*Prerequisite: Graduate standing*

This course is a graduate introduction to the fundamental concepts and theories of cognitive linguistics. Students learn key notions in the field, while at the same time gain an awareness of how these conceptual tools are employed in the analysis of a wide range of linguistic phenomena.

### **Field Methods (LIN 6165) 3 credits**

Graduate introduction to linguistic fieldwork. Collection and analysis of language data from speakers of under-described languages.

### **Phonetics (LIN 6225) 3 credits**

Graduate introduction to phonetics. Articulation and transmission of speech sounds, connected speech processes, transcription and acoustic measurements. Collection and analysis of phonetic data.

### **Phonology (LIN 6323) 3 credits**

Graduate introduction to phonology. Fundamental phonological concepts and theories. Analysis of phonological data.

### **Morphology (LIN 6402) 3 credits**

Graduate introduction to morphology. Word structure, data analysis, typology and the role of morphology in the mental grammar.

### **Syntax (LIN 6513) 3 credits**

Graduate introduction to syntax. Sentence structure, typology, syntactic theory and the application of theory to data analysis.

### **Sociolinguistics (LIN 6601) 3 credits**

A seminar on sociolinguistics with particular emphasis on an examination of the history, structure (sounds, grammar, and vocabulary), and educational implications of Black English, also known as African American Vernacular English (AAVE).

### **Bilingualism (LIN 6622) 3 credits**

*Prerequisite: LIN 3010 or permission of instructor*

Course constitutes a graduate introduction to the field of bilingualism. Topics such as language and cognition, language acquisition in the bilingual child, and bilingual education will be covered. A range of other issues that relate to bilingual/multilingual contexts provides a multifaceted background for the

course.

### **Grammaticalization (LIN 6674) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

Course constitutes a graduate introduction to the fundamental concepts of grammaticalization. Students learn the key notions in the field while gaining an overall understanding of the nature of grammatical change, in particular, and language change, in general.

### **Psycholinguistics (LIN 6707) 3 credits**

*Prerequisite: LIN 6135 or permission of instructor*

Graduate introduction to how the mind and the brain process language, including production and perception of spoken and written language, lexical access, sentence processing and language acquisition. Design and implementation of a pilot experiment.

### **Second Language Acquisition (LIN 6720) 3 credits**

*Prerequisite: LIN 3010 or permission of instructor*

A survey of theoretical models of communicative competence and second-language acquisition and a discussion of the practical implications of these models for instruction and assessment, including the application of course concepts to authentic second/foreign language data.

### **Directed Independent Study (LIN 6908) 1-4 credits**

Independent reading and research in advanced topics and by permission of the instructor only. The program of study is arranged in consultation with the instructor during the term prior to the student taking the course.

### **Seminar in Linguistics (LIN 6938) 2-4 credits**

Topics will vary. May be repeated for credit.

### **Master's Thesis (LIN 6971) 1-6 credits**

*Grading: S/U*

### **Seminar in Literature (LIT 5937) 3 credits**

*Prerequisite: Permission of instructor*

Intensive study of a period, movement, or major literary figures. Research paper is required. The course may be repeated for credit.

### **Introduction to the Comparative Study of Literature (LIT 6066) 3 credits**

*Prerequisites: B.A. degree and reading-level second language*

An introduction to the comparative study of literary phenomena (genres, themes, movements, and periods) from the perspective of Continental, English, and American literatures, including translation theory and analysis.

**Special Topics (LIT 6934) 3 credits**

Specialized aspects of literature. May be repeated for credit.

**Master's Thesis (LIT 6971) 1-6 credits**

**Reading for Research in Spanish (SPN 5060) 3 credits**

Study of grammar and vocabulary needed to do basic research in Spanish. Some previous study recommended but not required. Not open to majors. *Grading: S/U*

**Structure of Modern Spanish (SPN 6655) 3 credits**

*Prerequisites: Graduate standing; SPN 3343 or SPN 3400 or permission of instructor*

Course is devoted to the analysis of the linguistic structure of modern Spanish, focusing on its main phonological, morphological, syntactic and semantic features.

**Spanish Phonetics and Phonology (SPN 6795) 3 credits**

*Prerequisites: Graduate standing or permission of instructor; SPN 3400 and LIN 3010*

A graduate introduction to the study of Spanish phonology and dialectology. Detailed analysis of the sound system and the phonological processes of Spanish with a dialectology component.

**History and Dialectology of Spanish (SPN 6835) 3 credits**

*Prerequisite: SPN 3400 or equivalent; LIN 3010 strongly recommended*

Linguistic development of Spanish from Latin to the present. Attention to changes taking place in present-day language.

**Directed Independent Study (SPN 6908) 1-3 credits**

*Prerequisite: Permission of instructor*

Independent reading and research in advanced topics related to teaching the Spanish language. The program of study is arranged in consultation with the instructor during the term prior to the student taking the course.

**Internship in Spanish (SPN 6946) 3 credits**

*Prerequisite: Permission of Instructor*

For the M.A.T. in Spanish, students are required to do an internship with a faculty member who is teaching any of the 3000-level courses on language and culture or introduction to literature. Students attend the class every day and prepare for and teach several classes during the semester. In addition,

students participate in the design and grading of exams, evaluations of term papers and other projects.

**Master's Thesis (SPN 6971) 1-6 credits**

*Grading: S/U*

**Mexican Literature and Film (SPT 6545) 3 credits**

*Prerequisite: For Languages, Linguistics and Comparative Literature students only*

This seminar explores the ways in which authors and film makers depict Mexican culture and history from the 1950s to the present. The course focuses on Mexican fiction and films that reflect the impact of contemporary Mexican events. It also investigates how a new generation of artists has created new approaches and techniques to interpret their present reality.

**Seminar in Colonial Spanish-American Literature (SPW 6135) 3 credits**

*Prerequisite: Graduate standing in Department of Languages, Linguistics, and Comparative Literature*

An introduction to colonial Spanish-American literature from the initial encounter through the independence period. A selection of representative texts from multiple genres and perspectives will be read and discussed.

**Latin American Women Writers (SPW 6206) 3 credits**

Study and discussion of representative works by Latin American women writers of the 20th century, with emphasis upon Rosario Castellanos, Isabel Allende, Rosario Ferré, Elena Garro, Elena Poniatowska.

**20th-Century Latin American Theatre (SPW 6306) 3 credits**

The study and analysis of representative plays by contemporary 20th-century Latin American writers.

**Latin American Poetry (SPW 6356) 3 credits**

The analysis and criticism of Spanish-American poetry. The topic of the course will vary, dealing usually with one author or period.

**The Latin American Short Story (SPW 6375) 3 credits**

Reading and discussion of representative short stories by Latin American writers from 1839 to the present, with analysis of Romanticist, Indianist, and Modernist writings including texts by Ruben Darío, Jorge Luis Borges, Rosario Castellanos, Alejo Carpentier, Luisa Valenzuela, and several others.

**Building a National Literature from the Middle Ages (SPW 6405) 3 credits**

*Prerequisite: Permission of instructor*

A study of the historical events, culture and representative literary works from the Middle Ages from

the perspective of a national literature and nation building and the birth of literary genres. The selection of works may vary. It may include Jewish and Muslim texts, extend to the Renaissance and Baroque or involve a comparison with works from another period.

### **Spanish Golden Age Literature (SPW 6427) 3 credits**

*Prerequisites: SPW 3012 or SPW 3021*

Analysis of the culture and literary trends during the Renaissance and the Baroque through reading of prose, poetry and drama.

### **Cultural Objects in the Golden Age (SPW 6429) 3 credits**

*Prerequisite: Graduate standing*

This course is an exploration of early modernity and its changes through the lenses of its writers. It is approached through the perspective of New Historicism and Material Culture and focuses on cultural objects in literary texts and daily life (i.e., chocolate, clothing, architecture).

### **Spanish Caribbean Idea(s) (SPW 6775) 3 credits**

*Prerequisite: For students enrolled in the master's program*

This course explores recurring themes and ideological debates regarding identity formation (creolization, hybridity, sexuality, beliefs and gender) and the commodification of island culture in Spanish Caribbean literature.

### **African Diaspora in Latin America: Literature and Culture (SPW 6777) 3 credits**

*Prerequisite: Graduate standing*

This course provides a study of cultural and historical experiences of Afro-descendants from the period of the transatlantic slave trade to contemporary political movements in Latin America and the Caribbean. It emphasizes their contributions to the development of their countries and to the configuration of a transnational diasporic identity. The course is taught in Spanish.

### **Introduction of Literary Theory and the Hispanic Tradition (SPW 6826) 3 credits**

*Prerequisite: Graduate standing in Department of Languages, Linguistics, and Comparative Literature*

Introductory seminar on general literary theory as well as specific theoretical texts from Latin America and Spain. Taught in Spanish, the course surveys the most important critical theories of the 20th century, with emphasis on Hispanic contributions.

### **Directed Independent Study (SPW 6908) 1-3 credits**

Independent reading and research in advanced topics and by permission of the instructor only. The program of study is arranged in consultation with the instructor during the term prior to the student taking the course.

### **Seminar in Spanish Literature (SPW 6938) 3 credits**

Topics will vary. May be repeated for credit.

### **Special Topics in Spanish-American Literature (SPW 6939) 3 credits**

Topics will vary. May be repeated for credit.

### **Master's Thesis (SPW 6971) 1-6 credits**

*Prerequisite: Permission of Instructor*

Independent reading and research in preparation for a master's thesis.

### **Applied Linguistics and TESOL (TSL 6253) 3 credits**

This course is designed to provide an overview of the field for applied linguistics, psycholinguistics and sociolinguistics to teaching English as a second language. Emphasis is on pronunciation, intonation, structural analysis, morphophonemics and decoding from print to sound.

### **Music Courses**

(Listed following the **Women, Gender and Sexuality Studies** courses, under **School of the Arts, Music** )

## PHILOSOPHY

### **Undergraduate Courses/ [link to graduate courses](#)**

#### **Ancient Philosophy (PHH 3100) 3 credits**

Major philosophers and movements from the pre-Socratics to Augustine, with primary attention to Plato, Aristotle and Augustine.

#### **Medieval and Renaissance Philosophy (PHH 3280) 3 credits**

A careful and in-depth examination of the philosophers of the medieval period and of the 14th to 16th centuries. The course may include the reading of original texts, secondary sources, or both. Special attention is paid to metaphysics, logic, ethics, and political philosophy.

#### **Early Modern Philosophy (PHH 3420) 3 credits**

An in-depth study of major European philosophers of the 17th and 18th centuries, with emphasis on the Rationalists and the Empiricists. The course focuses on contributions to metaphysics and epistemology.

### **Pragmatism (PHH 3703) 3 credits**

A careful, in-depth inquiry into the American philosophical movement known as pragmatism. Special emphasis is placed on the contributions of Charles Sanders Peirce, William James and John Dewey, on the world-wide impact of their ideas and their influence on contemporary philosophy.

### **Late Modern Philosophy (PHH 4440) 3 credits**

*Prerequisite: PHH 3420 or permission of instructor*

An in-depth study of major 18th and 19th century European philosophers, with an emphasis on Kant and Hegel, though other philosophers may also be covered. The course focuses on contributions to metaphysics, epistemology, ethics and social and political philosophy.

### **University Honors Seminar in Philosophy (PHI 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in philosophy.

### **Introduction to Philosophy (PHI 2010) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: ENC 1101 and [ENC 1102](#) or *substitute* with grades of "C" or better*

In this course, students will be introduced to the nature of philosophy, philosophical thinking, major intellectual movements in the history of philosophy, including topics from the western philosophical tradition, and various problems in philosophy. Students will strengthen their intellectual skills, become more effective learners, and develop broad foundational knowledge. This is a General Education course.

### **Critical Thinking (PHI 2100) 3 credits**

This course is designed to strengthen students' critical thinking skills by teaching them to distinguish between well-supported and poorly supported arguments, to understand the nature of assumptions and the importance of providing evidence to support one's conclusions, and to recognize and avoid reasoning errors and argumentative fallacies.

### **Logic (PHI 2102) 3 credits**

*Gordon Rule, computational*

This course is an in-depth study of deductive syllogistic logic and of the symbolization techniques of propositional logic, which capture the formal features of simple declarative propositions and of arguments constructed from such propositions. The course also examines the principles of truth-functional logic and applies these principles to the construction of truth-tables for propositions and arguments. This is a General Education course.

### **Artificial Intelligence and Ethics (PHI 2680) 3 credits**

This course surveys the ethical entailments of artificial intelligence (AI), including the moral status of intelligent machines, the impact of AI on employment, autonomous warfare, and biases in design and application of these emerging technologies.

### **Philosophy Study Abroad (PHI 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Philosophy of Mind (PHI 3320) 3 credits**

This course engages in a careful and in-depth study of some of the major issues and problems in the philosophy of mind, through the reading of original texts and/or secondary sources. The topics examined include, but are not limited to, the mind/body problem, the nature of consciousness, and the problem of personal identity.

### **Philosophy of Psychiatry (PHI 3453) 3 credits**

This course offers an overview of the central issues in the philosophy of psychiatry, such as the notion of the unconscious, responsibility for actions, the concept of the self presupposed by different psychotherapeutic models, and the relation between psychiatric diagnosis and culture, and will consider whether society creates, constructs, or encourages certain pathologies of the soul.

### **Philosophy of Medicine (PHI 3456) 3 credits**

Examines problems in the philosophy of medicine, an interdisciplinary area that includes such issues as the logic of diagnosis, the nature of sound clinical judgment, the reality of disease entities, culture and medical practices, alternative versus traditional medicine, the concept of health and selected bioethical issues.

### **Moral Problems (PHI 3638) 3 credits**

Examines moral problems of contemporary importance, such as animal rights, censorship, a patient's right to die, physician-assisted suicide, morality in war and human enhancement. Introduces students to the standard ethical theories that form the foundation of moral deliberation about these issues.

### **Environmental Ethics (PHI 3640) 3 credits**

Study of contemporary environmental philosophy and ethical principles and practical issues related to the natural environment.

### **Philosophy of Literature (PHI 3882) 3 credits**

A systematic introduction to the philosophy of literature through a study of both philosophical and

literary texts. Students will read authors such as Aristotle, Kafka, Freud, Wittgenstein, and Shakespeare.

### **Symbolic Logic (PHI 4134) 3 credits**

*Prerequisites: PHI 2102 with grade of "B" or higher or permission of instructor*

This course begins by studying the principles of symbolization and natural deduction for formal proofs in propositional logic. The course then advances to quantification theory and to the symbolization techniques of the monadic and the polyadic predicate calculi. The principles of natural deduction are then applied in the construction of formal proofs in first-order and second-order predicate logic.

### **Philosophy of Science (PHI 4400) 3 credits**

An examination of the central concepts of the theory of knowledge within the context of scientific investigation; the nature and structure of scientific knowledge, the nature of formal reasoning, the role of observation, the function of models, the nature of perception, scientific explanation, scientific truth, probabilistic and inductive inference and the nature of causal laws.

### **Philosophy of the Human and Social Science (PHI 4420) 3 credits**

The course introduces students to the philosophical foundations (epistemology) of the human and social sciences and explores many of the methodological issues and problems resulting therefrom.

### **Biomedical Ethics (PHI 4633) 3 credits**

An in-depth philosophical study of the ethical issues arising from the practice of medicine, emphasizing the four principles of medical ethics (autonomy, nonmaleficence, beneficence and justice) and how to apply these principles to standard case studies in the field. This is an Academic Service Learning (ASL) course.

### **RI: Biomedical Ethics (PHI 4633) 3 credits**

A careful and in-depth philosophical study of the ethical issues arising from the practice of medicine. The course emphasizes the four principles of medical ethics and how these principles can be applied to resolve standard case studies in the field of biomedical ethics. This is a Research-Intensive (RI) course and an Academic Service Learning (ASL) course.

### **Ethical Theory (PHI 4661) 3 credits**

Analysis of moral judgment and moral reasoning. Evaluation of ethical theories, with particular attention to utilitarian, Kantian and 20th-century theories. Study of the application of various ethical approaches to contemporary social problems.

### **Philosophy of Religion (PHI 4700) 3 credits**

Inquiry into classical and contemporary questions regarding the nature and existence of God, religious knowledge and experience, and the language and symbolism of religion.

### **Aesthetics and Art Theory (PHI 4800) 3 credits**

Provides the student with a greater understanding of the arts in personal life and society through knowledge of critical theory and philosophical views of the arts. The main topics discussed will be the nature of art; form, representation, and expression in art; criticism of the arts; and aesthetic experience and value.

### **Directed Independent Study (PHI 4905) 1-4 credits**

*Prerequisites: Permission of instructor and Department Chair*

Readings and research in selected issues of philosophy, with a program of study selected in consultation with Departmental faculty.

### **Special Topics (PHI 4930) 1-4 credits**

The study of a special area in philosophy. Topics will vary. May be repeated for credit.

### **Senior Seminar in Philosophy (PHI 4938) 3 credits**

*Prerequisite: Senior standing or permission of Department Chair*

A writing-intensive, variable topic philosophy course requiring students to write between one and three substantial paper and to read these papers in class. The course is required of all Philosophy majors and must be taken during the fall semester of the senior year. The course is open to Philosophy minors in their senior year by permission of Department Chair.

### **Philosophy Study Abroad (PHI 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Honors Thesis in Philosophy (PHI 4972) 3 credits**

*Prerequisites: PHI 4938 with a minimum grade of "B," 3.5 GPA in major and 3.5 GPA overall; permission of department*

Capstone requirement for the Honors Program in Philosophy. Research and completion of a substantial honors thesis, under the supervision of a faculty advisor. The honors thesis will focus on a subject area of philosophy (epistemology, ethics, aesthetics, logic, etc.) or a particular philosopher. Upon completion, the honors thesis must be defended in front of a department faculty committee.

### **Philosophy of Sexuality (PHM 3020) 3 credits**

The course explores questions in the philosophy of sexuality that include, but are not limited to, the

relation between sex and love, the question of human agency and identity and social policies regarding intimate relations. Among the many timely issues addressed are questions regarding the nature of censorship, what constitutes pornography and the moral dimension of internet and other unconventional sexual relationships.

### **Feminist Philosophy (PHM 3123) 3 credits**

This course critically examines philosophy itself, its history, methods and categories of thought from a liberationist perspective. The course will introduce students to selected critical works by feminist philosophers and will study core conceptual constellations, such as reason-objectivity-impartiality and sexism-oppression-exclusion. May be taken for credit toward the Women's Studies Program.

### **Social and Political Philosophy (PHM 3200) 3 credits**

An examination of major social and political theorists since the 17th century. Approximately ten thinkers are studied. Problems such as authority and legitimacy, freedom and control, sources of political obedience, and the ideal commonwealth are taken up.

### **Philosophy of Law (PHM 3400) 3 credits**

Provides an introduction to the kinds of theories that have dominated Anglo-American thinking about the nature, function, and point of law, while demonstrating the essential connections between jurisprudence and other areas of general philosophy, e.g., moral philosophy, philosophy of language, philosophy of mind, etc.

### **Philosophy of Technology (PHM 4223) 3 credits**

Examination of the nature of technology that reflects philosophically upon its impacts on the individual, and the social, cultural, work, and physical environments. Also examines the relationship between technology, human values and sociopolitical change and control.

### **Africana Philosophy (PHP 3781) 3 credits**

An examination of the concerns and aspirations of certain major philosophical thinkers in the African, African-American, and Afro-Caribbean traditions.

### **Post-Structuralism (PHP 3792) 3 credits**

Introduces students to the structuralist account of language and examines Hegel's holistic, Nietzsche's perspectivist, and Derrida's deconstructivist accounts. The course concludes with an examination of Foucault's application of poststructuralist accounts to an understanding of epistemology, power relations, and sexuality.

### **Phenomenology (PHP 4782) 3 credits**

A careful and in-depth examination of 20th-century phenomenology. The course may include the reading of original texts, secondary sources, or both. Special emphasis is placed on the study of Husserl, Heidegger, Merleau-Ponty, Sartre, and Beauvoir. Contemporary developments in phenomenology will also be examined.

### **Analytical Philosophy (PHP 4784) 3 credits**

A critical examination of 20th-century analytical philosophy. Analysis of logical atomism, logical positivism and ordinary language analysis is provided. Emphasis is placed on original writings of Frege, Peirce, Moore, Russell, Carnap, Ryle, Ayer, Strawson and Quine.

### **Existentialism (PHP 4786) 3 credits**

A careful and in-depth study of the 19th- and 20th-century existentialism. The course may include the reading of original texts, secondary sources, or both. Emphasis is placed on the varieties of existentialism represented by Kierkegaard, Nietzsche, Heidegger, Sartre, Camus, Fanon, and Beauvoir.

## **Philosophy Graduate Courses**

### **The Phenomenon of the Black Public Intellectual (PHI 6127) 3 credits**

Course focuses on several dominant themes constituting the Black intellectual tradition such as the nature and different styles of Black leadership, the role of Black creative intellectuals, the dialectics of race and gender regarding Black leadership, race and conservative Black intellectuals, scholarship and the politics of Black life.

### **Directed Independent Study (PHI 6905) 1-4 credits**

*Prerequisites: Permission of instructor and chair*

Readings and research on selected issues in philosophy, with a program of study selected in consultation with Departmental faculty.

### **Special Topics (PHI 6930) 1-3 credits**

*Prerequisite: Graduate standing in an M.A. or Ph.D. program*

The intensive study of a special area, problem, or figure in philosophy. Topics will vary. The course itself may be repeated for credit, but specific topics may not be repeated.

## **POLITICAL SCIENCE**

**Undergraduate Courses/ [link to graduate courses](#)**

### **Political Science Study Abroad (CPO 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Comparative Politics (CPO 3003) 3 credits**

Examination of the methods of comparative political analysis, exploration of institutions and processes in cross-national perspective, and study of selected countries and regions.

### **Religions and World Politics (CPO 3761) 3 credits**

This course will discuss the rise of religious movements worldwide and the impact of religious conflicts on world politics.

### **Global Development and Inequality of Nations (CPO 4033) 3 credits**

Cross-cultural examination of political and economic development in the Third World. Students examine comparatively the evolution of state-society relations, with attention to gender relations, market forces, and public action in promoting or inhibiting development.

### **Comparative European Politics (CPO 4042) 3 credits**

*Prerequisite or Corequisite: CPO 3003*

The comparative study of political culture, institutions, political processes and change in major West European political systems and the European Union.

### **Political Violence and Revolutions (CPO 4057) 3 credits**

This course gives students an understanding of the forms, causes and consequences of revolution, ethnic conflict, terrorism and other types of civil violence in the third world. The course begins with a brief overview of the patterns of civil conflict over the last several decades followed by the major theoretical schools that have emerged to explain the phenomenon of civil war. The course concludes by exploring how civil wars end and analyzing the post-civil war era to understand the factors that influence the prospects for a sustainable peace.

### **Politics of the European Union (CPO 4101) 3 credits**

*Prerequisite or Corequisite: CPO 3003*

A comprehensive exploration of the politics of the European Union (EU), the main focus of this course is political institutions, issues, and processes of the EU, and how they have evolved since the end of the World War II. Students analyze treaties, policy-making and decision-making, enlargements, and institutions with particular attention to governance, legitimacy, and democracy.

### **African Politics (CPO 4204) 3 credits**

This course explores the interaction of local and global factors that have influenced the politics of communities, nation-states and regional organizations in Africa. The course balances the study of continent-wide trends and case study analysis of specific countries on the continent. Students study the politics of the precolonial, colonial and postcolonial era. The course probes the nature of political authority and citizen-states' relations in African countries. The course also covers the international dimensions of politics on the continent, including questions of development and western interventions.

### **Latin American Politics (CPO 4303) 3 credits**

The comparative study of politics in the Latin American region. Problems of democracy, military politics, and revolution and their relation to political development. May be used for credit in the Latin American certificate program.

### **Comparative Politics: Middle East (CPO 4403) 3 credits**

The course will explain the complex political process in the Middle East. Students will explore the historical background and current developments of the major sociopolitical trends.

### **Religion and Politics in the Middle East (CPO 4409) 3 credits**

What role does religion play in national identity formation, democratization or lack of it in the Middle East? Can religion serve as a source of conflict or can it be a positive force for political development? What explains different situations in Turkey, Iran, Egypt and Saudi Arabia, four key Muslim majority countries? Can Israel, as the only non-Muslim democracy in the region, serve as a role model for reconciling religion with democracy? What are the prospects for a religious reformation within Islam?

### **Comparative Islamist Movements (CPO 4424) 3 credits**

Examines the rise of the Islamist movements in Muslim countries with divergent historical, social and economic trajectories. Covers the origins and the rise of Islamist movements in Turkey, Jordan, Pakistan and Indonesia.

### **Comparative Politics: Russia and Eastern Europe (CPO 4633) 3 credits**

The comparative study of communist and post-communist regimes in countries of Eastern Europe and the former Soviet Union for advanced undergraduate students. Topics include the collapse of communism, the politics of transition and prospects for stability and democracy. Research project included.

### **The Comparative Politics of Ethnic Conflict (CPO 4724) 3 credits**

The objective of the course is to study the development of ethnic conflict, separatism, and identity issues, and their impact on world politics.

### **Special Topics (CPO 4932) 3 credits**

Selected topics in political science.

### **Political Science Study Abroad (CPO 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Introduction to World Politics (INR 2002) 3 credits**

Introduces language and forms of politics in a variety of social, economic and national contexts and provides the foundation for understanding the structure and dynamics of the international political system. This is a General Education course.

### **American Foreign Policy (INR 3102) 3 credits**

An investigation of American foreign policy. The course is divided into three sections: 1) institutional framework; 2) post-WWII foreign policy; 3) post-cold war foreign policy.

### **International Law: Foundations and Institutions (INR 3403) 3 credits**

Provides an in-depth review and analysis of the major jurisprudence and institutional features of modern international law and explores the relationship between the principal actors in world politics (nation-states, international organizations, substate actors) and prevailing international law. The manner by which international law is created, modified and applied is examined, along with the violation of international law and its consequences.

### **International Law of Peace and Diplomacy (INR 3413) 3 credits**

Provides a general overview and detailed assessment of the laws that govern diplomatic relations among states and promote peace among nations. Students are introduced to the fields of human rights, diplomatic immunity, asylum, extradition, the law of the sea, air space law, outer space law, economic and environmental law.

### **International Law of Armed Conflict (INR 3433) 3 credits**

Covers legal avenues for the avoidance of armed conflict, the laws that regulate the right to go to war and the laws that regulate soldiers in the field. Additionally, the history of efforts to hold individuals accountable for violating the laws of armed conflict is examined and analyzed.

### **International Organization (INR 3502) 3 credits**

The course provides an overview of international organization in contemporary times with an emphasis on the United Nations system and its role in international affairs.

### **International Political Economy (INR 3702) 3 credits**

Examination of the modern international political economy. The course addresses various theories that explain the relationship between politics and economics.

### **War and Peace (INR 4006) 3 credits**

An examination of the causes of international behavior with special emphasis on conflict and cooperation.

### **Comparative Environmental Politics (INR 4054) 3 credits**

This course provides an overview of the key concepts and philosophical underpinnings grounded in political ecology, debates and issues in environmental politics. It examines structures, agents and processes affecting environmental politics at the local, national and international levels. This course does so by analyzing multilateral governance approaches, which largely rely on the authority of nation-states, as well as alternative arrangements that increasingly are initiated and led by non-state actors such as NGOs, corporations, local governments and communities. Case studies are utilized throughout.

### **The Politics of Human Rights (INR 4075) 3 credits**

This course provides an understanding of how and why human rights violations occur, and why attempts to protect human rights succeed or fail. The course introduces students to the historical foundations and practices of human rights.

### **The International System (INR 4081) 3 credits**

An examination of trends and transformations in world politics including great-power politics, foreign policy decision-making, democratization, economic globalization, global inequalities, ethnonationalistic groups and terrorism, population dynamics, the ecology of world politics and sustainable development, international law, international organizations, international diplomacy, and the global predicament at the dawn of the new millennium.

### **U.S. Politics of War (INR 4114) 3 credits**

This course acquaints students with the domestic, regional and international backgrounds against which the United States decides to pursue military power against other nations. It examines the reasons for going to war, public debates preceding and accompanying war, and the strategies and conduct of the U.S. military with the aim of provoking reflection on the U.S. politics of war. Cases studied vary by semester and instructor.

### **Global Environmental Politics and Policies (INR 4350) 3 credits**

The study of global environmental politics includes a variety of issues, problems, politics and policies relevant to population growth, resource degradation and the impacts of human economic development. Examines the development of environmental governance, environmental justice movements and efforts

to control consumption to enhance sustainability.

### **Advanced Diplomacy (INR 4503) 3 credits**

*Prerequisite: Permission of instructor*

Provides students with essential skills, techniques and strategies to compete in national and international diplomatic competitions. FAU delegations are assigned countries; student delegates are assigned to committees with specific topics. After completing rigorous diplomatic training through simulations and compiling an extensive portfolio that includes country data and topic information, students travel to compete in either the National Model United Nations simulation in New York or the Midwest Model European Union in Indianapolis. Course may be repeated up to three times.

### **Special Topics (INR 4932) 3 credits**

Selected topics in political theory.

### **University Honors Seminar in Political Science (POS 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in political science.

### **Government of the United States (POS 2041) 3 credits**

In this course, students will investigate how the national government is structured and how the American constitutional republic operates. It covers the philosophical and historical foundations of American government, including but not limited to the Declaration of Independence, the United States constitution and all its amendments, and The Federalist Papers. The course examines the branches of government and the government's laws, policies, and programs. It also examines the ways in which citizens participate in their government and ways their government responds to citizens. This is a General Education course that meets the state-mandated Civic Literacy requirement.

### **Introductory Topics in Political Science (POS 2934) 1-3 credits**

In-depth analysis of current and emergent issues in government and politics. Topics vary from semester to semester.

### **Issues in American Politics (POS 3033) 3 credits**

This course examines the critical issues facing the American political system and the ability of the system to resolve them.

### **Political Film and Fiction (POS 3258) 3 credits**

An exploration of important political concepts, themes, and questions through the study of film and fiction.

### **Political Marketing (POS 3270) 3 credits**

This course explores the approaches and techniques used by individuals and groups involved in American politics to win elections, "sell" policies and sway public opinion in their favor. Students learn the basic concepts of political marketing and understand how those concepts affect modern American politics in relation to candidates, campaigns and political parties.

### **Exploring Political Science (POS 3330) 3 credits**

*Prerequisite: For Political Science majors*

This course is designed to familiarize political science students with political science research. It introduces students to the various subfields of political science. Approaches to scientific inquiry within the field, as well as the fundamentals necessary to conduct initial research in the discipline are also covered. This course is required of all political science majors and must be completed within two semesters of declaring political science as their major.

### **Law and American Society (POS 3691) 3 credits**

An introductory course examining the cultural foundations of law in American society, including historical and contemporary uses of law, violence, and the conflict between individual freedom and government power.

### **RI: Research Methods in Political Science (POS 3703) 3 credits**

Introduction to the scope and methodology of political analysis. Includes introductory examinations of research design, survey research, computer applications, data analysis, and library research. (Course should be completed by the end of second semester of junior year.) This is a research-intensive (RI) course.

### **Community Activism in Practice (POS 3950) 3 credits**

*Prerequisite:* Acceptance into the Barb Schmidt Fellowship and permission of department  
Serves as the second semester of a two-semester sequence associated with the Barb Schmidt Fellowship: Cultivating Community Involvement, Advocacy and Social Change. Students explore the dynamics of creating, developing and sustaining social movements through peer-to-peer and faculty-led interactive workshops. Students work on specific projects throughout the semester. These projects are presented in a public forum at the end of the semester.

### **U.S. Immigration Policy (POS 4024) 3 credits**

*Prerequisite or Corequisite:* POS 2041 with minimum grade of "C"

Examines issues related to immigration and American national identity, including immigration policy and politics.

### **Race and Ethnic Politics (POS 4070) 3 credits**

*Prerequisite or Corequisite: POS 2041*

Understanding the role of race and ethnicity in American politics.

### **Public Opinion and American Politics (POS 4204) 3 credits**

*Prerequisite: POS 2041 with minimum grade of "C"*

Political beliefs, values and attitudes of the American public; mass participation in public affairs; voting behavior; compliance and support for public policies. Linkages between the mass public and government in the United States.

### **Media in Politics (POS 4235) 3 credits**

*Prerequisite or Corequisite: POS 2041*

An examination of the relationship between politics and the media and the effect of this relationship in limiting, creating, and shaping political power.

### **The Politics of Music (POS 4257) 3 credits**

An examination of the political aspects of music from both a theoretical perspective and in practice. Topics studied may include the influence of music on civic ideals and citizen behavior, the use of music as a form of political control and the role of music in political resistance movements.

### **Advanced Campaigning (POS 4271) 3 credits**

This course is an intensive program that teaches students how to run a political campaign. It covers campaign techniques, strategy and tactics with an emphasis on recent technological developments.

### **Campaigns/Elections (POS 4275) 3 credits**

*Prerequisite or Corequisite: POS 2041*

This course focuses on how candidates for office conceive and implement their campaign strategies and what determines a campaign's success or failure.

### **Religion and American Politics (POS 4291) 3 credits**

*Prerequisite or Corequisite: POS 2041 with minimum grade of "C"*

Examines the role of religion in American government and politics.

### **The U.S. Presidency (POS 4413) 3 credits**

*Prerequisite or Corequisite: POS 2041*

Examination of historical and contemporary role of the presidency, including the presidential selection process and the office's evolution in status, powers, administrative responsibilities, leadership, and decision-making.

### **The U.S. Congress (POS 4424) 3 credits**

*Prerequisite or Corequisite: POS 2041*

Study of Congress and the behavior of its members. Emphasis upon the recruitment and election of legislators, institutional and informal rules, the committee system, and legislative procedures.

### **Political Parties and Interest Groups (POS 4453) 3 credits**

*Prerequisite or Corequisite: POS 2041*

The nature of political parties and interest groups and their impact on elections, public policy and political change.

### **Constitutional Law: Government Powers and Limits (POS 4603) 3 credits**

*Prerequisite or Corequisite: POS 2041*

This course examines the constitutional structure of U.S. government. It describes the separation of powers (the legal foundations and modern powers of the legislature, executive, judiciary and bureaucracy) and federalism (the powers of the national and state governments).

### **Constitutional Law: Civil Rights and Liberties (POS 4604) 3 credits**

*Prerequisite or Corequisite: POS 2041*

This course examines American Civil Liberties and civil rights. It focuses upon Bill of Rights freedoms and the 14th Amendment.

### **The U.S. Supreme Court (POS 4606) 3 credits**

Examination of the Supreme Court and its role in the American political system. Students learn about the selection of Supreme Court justices and, in turn, the selection of cases that the Supreme Court chooses to hear, as well as analyze and evaluate political scientists' theories on Supreme Court behaviors.

### **The Judicial Process (POS 4609) 3 credits**

*Prerequisite or Corequisite: POS 2041*

The examination of the structural and behavioral components of justice in America. Topics to be covered include the role of law in society, the history and structure of American courts, and the processes of civil and criminal litigation.

### **U.S. Environmental Law and Policy (POS 4697) 3 credits**

*Prerequisite or Corequisite: POS 2041*

This course examines U.S. environmental politics, law and policy.

### **Directed Independent Study (POS 4905) 1-3 credits**

*Prerequisite: Permission of department*

Reading and research in a field of political science; a program to be approved in consultation with staff members.

### **Senior Research Project (POS 4910) 3 credits**

*Prerequisite: Permission of instructor*

Completion of research project in the field of political science.

### **Special Topics (POS 4931) 1-3 credits**

Selected topics in political science.

### **Internship (POS 4941) 1-3 credits**

*Prerequisite: permission of department*

Student will work in a government office, agency or legislative office under supervision of a professor in the Political Science Department. Written paper required.

### **Global Political Theory (POT 2000) 3 credits**

An exploration of core questions in political theory from a global perspective. Examines texts from a variety of cultural traditions, using the methods of comparative political theory to study universal problems relating to justice, governance and political identity. This is a General Education course.

### **Ancient Political Thought (POT 4013) 3 credits**

An examination of some of the central questions and concerns of ancient political thinkers, with an emphasis on the Greek experience. The course focuses on the methods that philosophers such as Plato and Aristotle used to study politics and on the enduring influence of their insights into the nature of justice, the best form of government and the duties of citizenship, among other subjects.

### **Modern Political Thought (POT 4054) 3 credits**

An examination of some of the central questions and concerns of modern political thinkers, beginning with Machiavelli. The course emphasizes the rejection in modern political thought of the ancient concern with morality in politics, as well as the development of new, more scientific methods for studying fundamental political questions relating to human nature, the purpose of government and the proper scope of power.

### **American Political Thought (POT 4204) 3 credits**

A review of major themes in American political thought from the colonial period to the present and the effects of political ideas on political institutions and behavior.

### **Special Topics (POT 4932) 3 credits**

Selected topics in political theory.

### **Women and Politics (PUP 3323) 3 credits**

This course focuses on the role of women in politics and the effects of women's political involvement. Also considered are historical and contemporary barriers to women's political participation.

### **Policy Making and Administration (PUP 4004) 3 credits**

*Prerequisite or Corequisite: POS 2041*

Policy making activities of public administrators, and intergovernmental cooperation and conflict in development and implementation of policies in the United States.

### **Government and the Economy (PUP 4710) 3 credits**

Analyzes the relationship between the political and economic systems in the United States: the impact of politics on economics and the impact of economics on politics.

## **Political Science Graduate Courses**

### **Seminar in Comparative Political Processes (CPO 6007) 3 credits**

*Prerequisite: Admission to graduate study*

A study of political processes in modern states from a comparative perspective. Major literature in comparative method, systems analysis, political culture and personality, parties, elections, elites, and public policy will be covered.

### **Latin American Politics (CPO 6307) 3 credits**

Designed to comprehensively explore and understand the politics of Latin America in the 20th and 21st centuries. The main topics addressed during the course are conquest, colonization and independence; debt and development; democratization and democracy; U.S.-Latin American relations; revolution and revolutionaries and the current political state of Latin America.

### **Jihadism and Transnational Islamism (CPO 6405) 3 credits**

Examination of the evolution of political Islam as a set of ideas. Investigation of Islamist movements and different models of Islamic states. Course also explores the phenomenon of transnational Islamism and international jihadism against the backdrop of East-West relations and sociopolitical conditions in the Muslim world.

### **Middle East Politics (CPO 6407) 3 credits**

*Prerequisite: Admission to graduate study*

This course will survey the main crises of the 20th century and will analyze current tensions. Special topics: Islam, Arab-Israeli peace, minorities, human rights, democratization.

**Comparative Ethnic Conflict (CPO 6723) 3 credits**

*Prerequisite: Admission to graduate study*

The objective of this graduate seminar is to study the concept of ethnic conflict and its effects on world politics. The seminar will discuss theories of nationalism and a comprehensive number of case studies: Bosnia, Kosovo, Sudan, Lebanon, Nigeria, Chiappas, Arabs and Jews, the Kurds, etc.

**Politics and Government of Post Communist States (CPO 6736)**

*Prerequisite: Admission to graduate study*

Introduces students to the political, economic and social transformation of the post-communist Central and Eastern Europe and ex-USSR. Factors contributing to the relative success and failure of these developments are examined and placed in the comparative perspective.

**Seminar in International Relations Theory (INR 6607) 3 credits**

*Prerequisite: Admission to graduate study*

The purpose of this course is to survey the principal theoretical developments in international relations and develop an ability to deal critically with such developments.

**Seminar in Administrative Policy Making (PAD 6035) 3 credits**

Study of administrative discretion in the policy process with an emphasis on regulation and distribution.

**Seminar in Policy Implementation (PAD 6365) 3 credits**

*Prerequisite: Admission to graduate study*

An examination of the political and bureaucratic setting in which public policies are implemented. There is an emphasis on political constraints on administrative agencies.

**Seminar in American National Government (POS 6045) 3 credits**

*Prerequisite: Admission to graduate study*

A description and analyses of American governmental institutions, policy-making processes, and contemporary policies within the context of political participation and power.

**Seminar in Political Behavior (POS 6208) 3 credits**

*Prerequisite: Admission to graduate study*

A study in recent theory and research on mass political attitudes, participation and voting behavior, and

the influence of the latter on political processes with a major emphasis on the United States.

### **Seminar in the Legislative Process (POS 6427) 3 credits**

*Prerequisite: Admission to graduate study*

Study of legislative bodies: recruitment, composition, leadership, procedures, party and group roles, and theories of representation.

### **Seminar in Political Parties (POS 6447) 3 credits**

*Prerequisite: Admission to graduate study*

A study of the composition, organization, structure, and functions of political parties and their roles in the political process. It discusses the relationship of parties to pressure groups.

### **Seminar in the Judicial Process (POS 6607) 3 credits**

*Prerequisite: Admission to graduate study*

Examines and evaluates various elements of the American legal system, including the role of the law and courts in the political system, judicial behavior, and judicial policymaking.

### **Research Design in Political Science (POS 6736) 3 credits**

Familiarizes students with the appropriate techniques and methods of research, inference and statistics in political science.

### **Quantitative Methods in Political Science (POS 6746) 3 credits**

*Corequisite: POS 6736*

Examines and evaluates research methods and their application for political science students. Course aims to ensure that graduate students in political science are able to conduct a research project and interpret, implement and employ basic research tools and methods.

### **Readings in Political Science (POS 6904) 1-6 credits**

*Prerequisite: permission of department*

Selected readings in political science as preparation for taking the written comprehensive exam.

### **Directed Independent Study (POS 6909) 1-3 credits**

*Prerequisite: Permission of department*

Involves reading and research in a field of political science. It is a program to be selected and approved in consultation with staff members.

### **Graduate Research Project (POS 6919) 3 credits**

*Grading: S/U*

### **Special Topics (POS 6934) 1-3 credits**

*Prerequisite: Admission to graduate study*

Graduate-level study of a selected area in political science. Topics will vary.

### **Graduate Internship (POS 6942) 3-6 credits**

*Prerequisite: Permission of department*

Internship for graduate students in political science. Each student will work in a public sector agency or community college under supervision of a professor in the Political Science Department. *Grading: S/U*

### **Master's Thesis (POS 6971) 1-6 credits**

*Prerequisite: Permission of department*

*Grading: S/U*

## **PUBLIC ADMINISTRATION**

### **Undergraduate Courses/ [link to graduate courses](#)**

#### **Multiagency Incident Command (FES 3803) 3 credits**

Course examines the framework for multiagency coordination in the response to and mitigation of large-scale events, both man-made and natural. Focuses on command and control of law enforcement, fire and emergency service organizations in the response to large-scale incidents. Emphasis is placed on the vertical coordination among federal, state, and local resources.

#### **Risk, Resilience and Rising Seas (R3) (PAD 2081) 3 credits**

This course introduces students to how the rising seas may impact the risks that individuals and communities face. Emphasis is on societal responses to climate change (i.e., government-sponsored retreat, relocation) and on individual responses (i.e., changes in consumption habits, real estate decisions and community organization). The course emphasizes issues of social vulnerability, diversity, equity, environmental justice and societal resilience in Florida and other coastal communities This is a General Education course.

#### **Changing Environment of Society, Business, and Government (PAD 2258) 3 credits**

An examination of the historical, economic, legal, political and social environments of the public and private sectors, emphasizing policy analysis of current issues such as productivity, ethics, energy, regulation, growth management, and future forecasting. This is a General Education course.

#### **Public Management and Administration (PAD 3003) 3 credits**

This is the introductory course for the B.P.M. major offering a survey and discussion of the emerging management problems of the various levels of government, and of the application of management principles and practices in public administration.

**Organizational Behavior and Administrative Communication (PAD 3104) 3 credits**

Analysis of the elements that make up complex organizations and the factors that affect human behavior within them, with emphasis on the processes of interpersonal and group communication.

**Communication Skills for Public Managers (PAD 3438) 3 credits**

This course surveys the themes, skills, and issues in communication for public administration. Its purpose is to provide a broad, collaborative introduction to: 1) describing, explaining, interpreting, critiquing, and improving communication in pursuit of the public's business; 2) refining professional writing and speaking skills, including formatting, organizing, and composing internal and external public documents; and 3) exploring interesting issues about public speech, public documents, and communication in the public forum.

**Information Technology in Public Administration (PAD 3712) 3 credits**

Provides a basic introduction to public sector information technology and e-governance. Topics include: computer software and network basics, information infrastructures (their structures, characteristics, applications and policy aspects), implications for government functioning and interactions with the public.

**Introduction to Public Safety Administration (PAD 3820) 3 credits**

Provides a common foundation to students from various disciplines for understanding issues related to risk, safety and emergency management in the public sector. To understand these issues and themes, students explore the political system, the role of federalism and local government, bureaucratic politics and power, administrative law, ethics and the various theories of administration that guide public managers in the provision and administration of public safety.

**Public Safety Systems (PAD 3893) 3 credits**

Introduces students to the role of the various public safety systems in local, state and federal government. It covers the functions of public safety in law enforcement, corrections, the courts and juvenile justice.

**Introduction to the Nonprofit Sector (PAD 4144) 3 credits**

This is a multidisciplinary course examining the historical, political, legal, ethical and societal environments in which nonprofit organizations operate. This primarily includes institutions involved with education, social services, health care, and the arts. The course is intended for students who are

seeking to enter the nonprofit field and those who have considerable experience working in nonprofits.

### **Introduction to Volunteer Management (PAD 4148) 3 credits**

The course covers the history and purpose of volunteer usage in nonprofit organizations, how to recruit, retain and motivate volunteers, as well as application review, screening procedures, ethical issues and potential legal liabilities.

### **Managing Change in Nonprofit Organizations (PAD 4151) 3 credits**

The course is designed to provide students with theoretical constructs that are useful for analyzing the behavior of nonprofit organizations, for setting strategic direction and problem solving and for implementing change. The course relies heavily on Gareth Morgan's metaphors as a means of explaining and understanding nonprofit organizations.

### **Funding for Nonprofit Organizations (PAD 4202) 3 credits**

The course is designed to provide a broad-based understanding of the various vehicles used to fund nonprofit organizations. It also provides hands-on, practical instruction in researching funding sources and developing funding requests and grant applications.

### **Financial Management of Nonprofit Organizations (PAD 4203) 3 credits**

Course introduces students to the theory and practice of financial management within nonprofit organizations, including churches, charities, hospitals, and human service organizations. This course provides an introduction to management issues faced by leaders in nonprofit organizations.

### **Public Budgeting and Finance (PAD 4223) 3 credits**

The theory and practice of various approaches to financial management in government including budgeting techniques. Special emphasis on the role of budgeting in shaping public policy.

### **Public Budgeting Techniques and Processes (PAD 4228) 3 credits**

An exploration and analysis of the budgetary processes typically employed at the federal, state, and local levels of government. Practical as well as theoretical exposure to the techniques and various formats of public budgeting.

### **Program Evaluation in Public Management (PAD 4320) 3 credits**

Explores the organizational, social, and political contexts of program evaluation to gain understanding of evaluation, program research design, and methodologies needed for systematic program evaluation.

### **Managing for Excellence in the Public and Nonprofit Sectors (PAD 4332) 3 credits**

Surveys current management and leadership tools and processes used in both private and public

organizations. Provides a conceptual understanding of strategies to improve public and nonprofit organizational performance such as measurement, strategic planning, employee motivation, and organizational development and change.

### **Disaster and Emergency Management (PAD 4393) 3 credits**

Focuses on the emergency management and administrative framework to manage disasters, intergovernmental relations, incident command systems, organizational and operational planning, budgeting and disaster management, land-use planning and hazards, disaster recovery, legal issues, technological issues, the management of large-scale disasters, recent disaster legislation, policy issues and the implementation of emergency management policies.

### **Managing People in the Public Sector (PAD 4414) 3 credits**

Focuses on how employees are managed in the public sector. Topics include: Employment law, job design and analysis, performance management, planning, staffing, training and development, compensation and incentive systems, merit and civil service, employee and labor relations and supervisory practices.

### **Public Sector Labor Relations (PAD 4426) 3 credits**

An examination of the historical development of labor relations and collective bargaining in the public sector and the impact of public employees unions on public personnel administration.

### **Administrative Process and Ethics (PAD 4604) 3 credits**

*Prerequisite: Permission of instructor*

Surveys the principles of administrative procedure, procedural due process, and regulatory procedures and considers administrative ethics in process.

### **Quantitative Inquiry for Public Managers (PAD 4702) 3 credits**

*Prerequisite: STA 2023*

This course introduces students to basic statistical concepts and quantitative methods of inquiry in public management using relevant examples and applications. Successful students should be able to apply statistical concepts and techniques toward effective decision making and evaluation of a wide variety of information.

### **Research Methods for Public Management (PAD 4704) 3 credits**

The course describes research practices used in the public sector by introducing methodologies, techniques, and decision tools. Areas of study include the research process, sampling procedures, research design, measurement, primary and secondary data, and the collection and analysis of data. In addition, computer applications and presentation of research reports (oral and written) are covered.

### **State and Local Government Administration (PAD 4806) 3 credits**

A study of the structure, functions, policy processes, and administration of state and local governments.

### **Stand Your Ground (PAD 4814) 3 credits**

Designed to present a current, comprehensive overview of Florida's Stand Your Ground Law. The course will ask the question: "Do we need the Stand Your Ground Statute?"

### **Introduction to Public Sector Procurement (PAD 4852) 3 credits**

This course examines the technical and fundamental procedures basic to public sector procurement, including the solicitation process, types of contracts, pricing policies and techniques, contracting by negotiation, contract administration, contract performance, government contract quality assurance, termination of government contracts, protest, disputes, appeals, and contract closeout.

### **Public Sector Contract Management (PAD 4854) 3 credits**

This course is a study of government contract administration, including contract administration process and techniques.

### **Administrative Process and Ethics of Public Sector Procurement (PAD 4880) 3 credits**

This course provides an overview of public procurement processes, paying particular attention to administrative procedures, law, and ethics.

### **Public Sector Project Management Techniques (PAD 4881) 3 credits**

This course provides an overview of essential elements for each phase of the project life cycle, knowledge, tools, and techniques to manage a project from its initiation to final closeout.

### **Capstone in Public Safety Administration (PAD 4892) 3 credits**

*Prerequisite: Restricted to B.P.S.A. majors in their final two semesters who have taken four of the following five courses: PAD 3104, PAD 3820, PAD 3893, PAD 4894, PAD 4604*

This capstone seminar is designed to integrate and synthesize the student's entire course of study in the Bachelor of Public Safety program. Students demonstrate knowledge of theory and practice and general terminology of public safety administration.

### **Diversity and Social Vulnerability in Public Safety Administration (PAD 4894) 3 credits**

*Prerequisites: All lower-division coursework with grades of "C" or better*

Focuses on issues related to social class, race, gender, diversity and multiculturalism in public safety administration. Understanding the social, cultural, historical, geographical and physiological factors that put people differentially at risk before, during and after disasters is important in effective

management of public safety and to enhance community resilience.

### **Directed Independent Study (PAD 4905) 1-3 credits**

*Prerequisite: Permission of instructor and Director of School prior to registration and prior completion of 12 public management credits*

Independent study, research, or other project to extend and integrate the student's knowledge of issues and approaches in the field.

### **Directed Independent Research (PAD 4915) 3 credits**

*Prerequisite: Permission of instructor*

Independent research to extend and integrate the student's knowledge of issues and approaches in the field.

### **Special Topics (PAD 4931) 1-3 credits**

*Prerequisite: Permission of instructor*

Study relating to special problems in public administration.

### **Senior Seminar in Public Management (PAD 4935) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: Senior standing and Public Administration majors only*

This elective course is writing centered and writing intensive, serving as an integrative senior seminar for undergraduate Public Administration majors.

### **Public Safety Administration Internship (PAD 4940) 3 credits**

*Prerequisites: Juniors/seniors in B.P.S.A. program, minimum 2.0 GPA, and permission of instructor*

The internship experience provides a mutually beneficial relationship between the student and the internship provider/organization. FAU ensures that the internship is begun with a solid academic foundation for public-safety work, and in turn, the provider offers a worthwhile and meaningful internship experience. The internship is an Academic Service Learning-based course (ASL), which means the work the student does for the organization during the ASL internship is a service to the public sector, and it will allow the student to apply knowledge from the program to local, state and national issues. Throughout the internship, the student participates in ASL activities while demonstrating civic engagement. The student also reflects on their ASL experience and the impact the work had on the public-sector organization and their own professional and personal development.

### **Government Internship (PAD 4941) 3 credits**

*Prerequisite: Completion of 12 management credits*

An elective course offering public sector working-world experience that allows the acquisition of

career-relevant expertise and networks.

### **Nonprofit Internship (PAD 4942) 3 credits**

Offers nonprofit working-world experience that allows the acquisition of career-relevant expertise and networks.

## **Public Administration Graduate Courses**

### **Seminar in Administrative Policy Making (PAD 6035) 3 credits**

Study of administrative discretion in the policy process with an emphasis on regulation and distribution.

### **Public Administration and Public Policy (PAD 6036) 3 credits**

A critical examination of the role of public administrators in setting the public agenda, formation of action strategies, execution of preferred action strategy, and evaluation of the impacts of the preferred strategy. M.P.A. core course.

### **Democratic Values and Public Administration (PAD 6042) 3 credits**

An inquiry into the administrative state and its implications for democracy.

### **Introduction to Public Service and Administration (PAD 6053) 3 credits**

An analysis of the contemporary political, economic, and social institutions and processes in which the profession of public administration is practiced. M.P.A. core course.

### **Public Leadership (PAD 6063) 3 credits**

Covers fundamental managerial and leadership aspects of public service. Explores personal, ethical, organizational, political, and legal dimensions of governance in the public interest. M.P.A. core course.

### **Images of Public Administration in Literature, Popular Culture, and Film (PAD 6065) 3 credits**

Introduction to theory in public administration through the use of film, popular culture images, literature, and other media.

### **Organization and Administrative Behavior (PAD 6106) 3 credits**

Analysis of the formal, informal, and societal characteristics of complex human organizations. Use is made of standard theories of organizations as well as of their more contemporary variations. M.P.A. core course.

### **Public Service Capstone-(PAD 6139) 3 credits**

Combines administrative history with analysis of concrete situations in public administration. Portrays clash of forces, personalities, and issues in attempting solution to administrative problems. Typically taken in last or next-to-last semester. M.P.A. core course.

### **Introduction to Nonprofit Management (PAD 6142) 3 credits**

The role of the nonprofit sector in a democracy and market economy; examination of historical, political, legal, ethical, and social environments in which nonprofit organizations operate; analysis of both theoretical and practical issues and problems faced by managers of nonprofit organizations.

### **Public Policy and Nonprofit Organizations (PAD 6143) 3 credits**

*Prerequisite: PAD 6142 or permission of instructor*

This course seeks to acquaint students with the theoretical and practical issues confronting nonprofit organizations. The course systematically examines the ways in which the public policy process both supports and regulates the activities of nonprofits and the ways in which nonprofits seek to affect public policy governing their behavior. This is an Academic Service Learning (ASL) course.

### **Volunteer Management in Nonprofit Organizations (PAD 6145) 3 credits**

*Prerequisite: PAD 6142*

This course reviews volunteer management as an essential element in the nonprofit field. It covers the history and purpose of volunteer usage in nonprofit organizations and how to recruit, retain and motivate volunteers, as well as ethical issues and potential legal liabilities.

### **Governance in Nonprofit Organizations (PAD 6149) 3 credits**

*Prerequisite: PAD 6142 or permission of instructor*

Nonprofits are controlled by boards of directors. This course discusses the legal foundations for boards, their conventional roles and responsibilities, and the strategic planning processes to strengthen board leadership. This is an Academic Service Learning (ASL) course.

### **Organizational Change and Public Management (PAD 6154) 3 credits**

Seminar focuses on several levels of change, their sources or causes, consequences, and implications for public management.

### **Legal and Ethical Issues in Nonprofit Organizations (PAD 6165) 3 credits**

Course is designed to examine in detail the legal issues confronting nonprofit corporations. Emphasis is on a review of the laws pertaining to nonprofits, focusing on structure, management, behavior, and accountability.

### **Human Resource Management for Nonprofits (PAD 6166) 3 credits**

The course examines both theoretical and practical issues and problems faced by managers of nonprofit human resource managers. It provides an overview of the strategies, approaches and practices that best address the complex legal and management challenges common in a nonprofit environment. Theories of staff and volunteer recruitment, retention, motivation, performance evaluation, team building, compliance, risk management, compensation, equity and workplace-learning are explored. The course is designed to provide for maximum interaction between the students and instructor.

### **Management in Nonprofit Organizations (PAD 6168) 3 credits**

Course covers managing change in individual lives and in nonprofit organizations. This course deepens students' understanding of the challenges, techniques and problems associated with implementing major change in nonprofit organizations.

### **Public Finance and Policy Analysis (PAD 6205) 3 credits**

This course uses the theoretical and empirical tools of public finance to analyze public policy. The course is designed to show the strengths and weaknesses of government in the financing and operation of programs in major public policy areas.

### **Fundraising for Nonprofits (PAD 6206) 3 credits**

Examines the history, principles and practical applications and aspects of financial resource development and the ethical responsibilities among individuals, corporations, government funders and public donors that are involved. Exploration of types of nonprofits, revenue streams, constituency composition and generational giving.

### **Seminar in Public Financial Administration (PAD 6207) 3 credits**

Examination of the budgetary process. Analysis and application of theories and techniques of public financial administration, including budgetary approaches, cash management, debt management, risk management, procurement, and tax administration.

### **Public Budgeting and Finance (PAD 6227) 3 credits**

Examines the theory and practice of public budgeting and finance as it relates to the administrative processes of control, management and planning. Special emphasis is placed on policy development and decision making relating to fiscal decisions that help shape the policy direction of public organizations. M.P.A. core course.

### **Grantwriting and Project Management (PAD 6233) 3 credits**

This course provides an opportunity to explore various approaches to grantwriting and resource development in public and nonprofit organizations as well as evolving trends, such as sustainable practices, dissemination strategies, data management and analysis.

### **Financial Management for Nonprofit Managers (PAD 6260) 3 credits**

This course covers accounting standards and principles for state and local governments and nonprofit organizations, including fund structure and accounting process. This is an Academic Service Learning (ASL) course.

### **Program Review and Analysis (PAD 6327) 3 credits**

*Prerequisite: PAD 6701*

Analysis of systematic methods for evaluating the efficiency and effectiveness of public programs; means for determining the extent to which program administration promotes achievement of program objectives.

### **Strategic Planning in the Public Sector (PAD 6333) 3 credits**

Study of strategic planning and how to apply that knowledge to real world organizations.

### **Seminar in Policy Implementation (PAD 6365) 3 credits**

This course examines the political and bureaucratic setting in which public policies are implemented and the political problems in implementation. Emphasis on political constraints of administrative agencies.

### **Public Policy Process (PAD 6385) 3 credits**

*Prerequisite: PAD 6036*

This course covers the public policy process, including policy formation and adoption, policy implementation, and evaluation. The course aims to add to the student's knowledge and understanding of policy theory, substantive policy areas, and the role of administrators in the policy process.

### **Human Resource Management in the Public Sector (PAD 6417) 3 credits**

Review of development of public personnel policies and programs with emphasis on changes resulting from new approaches and employee organization. Studies personnel responsibilities of all public managers and employees. M.P.A. core course.

### **Labor Relations in Government (PAD 6427) 3 credits**

Studies the growth of employee organization in the public sector, with particular emphasis on the state and local level. Reviews special problems facing government administration and the effects of employee organization in government administration.

### **Ethical and Legal Foundations in the Public Sector (PAD 6436) 3 credits**

Ethical considerations for professional public administrators operating in the ethos of a republic; situational analysis of conflicts with elected legislative, executive, and judicial officials; professional

policy and career goals; and issues of democracy, bureaucracy, and morality in public service. M.P.A. core course.

### **Administrative Law and Procedures (PAD 6605) 3 credits**

A survey and analysis of the law concerning the rule-making and adjudicatory powers and procedures of administrative agencies and the effect such rules have on the delivery of services by federal, state, and local government.

### **Regulation (PAD 6612) 3 credits**

The course analyzes how and why bureaucracies develop regulations and the role that regulations play in the policy process with a focus on the economic, political, administrative, and social factors that influence regulatory choices and the impacts of those regulations.

### **Statistical Analysis for Effective Decision Making (PAD 6701) 3 credits**

*Prerequisite: Undergraduate statistics or permission of instructor*

A study of the statistical methods, techniques, and procedures used in the analysis of public sector data, with emphasis on computer analysis. M.P.A. core course.

### **Survey Research in the Public Sector (PAD 6727) 3 credits**

Within the public and nonprofit sectors, survey research skills have become essential due to the necessity of gathering primary data. Course focus here is on students learning a set of skills to assist them in completing survey research in their professional fields.

### **Local Government Administration (PAD 6807) 3 credits**

Analysis of the performance of urban agencies, alternative strategies for improving service delivery and management, and strategies for effective change in the public sector.

### **Intergovernmental Administration (PAD 6826) 3 credits**

Studies both theoretical and practical aspects of administration of federalism, including distribution and use of shared revenue funds. Review practices as well as principles pursued in both competitive and cooperative interjurisdictional patterns.

### **Public Procurement Concepts and Practices (PAD 6855) 3 credits**

This course provides an overview of public procurement as a basic functional area of government. Specific focus on the scope of public procurement, including organizational structure, regulations, process and methods, and current issues in public procurement.

### **Public Procurement and Project Management (PAD 6856) 3 credits**

Course covers each phase of the public procurement project cycle, with an emphasis on tools and techniques to manage a public procurement project.

**Public Sector Procurement Law and Ethics (PAD 6857) 3 credits**

Course surveys the ethics and law pertaining to federal government procurement, including analysis of the unique features of government contracting.

**Public Sector Contract Formulation (PAD 6858) 3 credits**

Course covers all phases of the contract formulation process with a focus on the RFP and RFB procedure, documents, and other technical issues.

**Public Sector Contract Administration (PAD 6859) 3 credits**

Course provides an in-depth study of contract administration with a focus on all activities in the postaward phase of the contract process.

**Directed Independent Study (PAD 6907) 1-3 credits**

*Prerequisite: Permission of instructor*

Reading and research in a field of public administration; a course to be selected with the consultation of and approved by the M.P.A. Coordinator.

**Special Topics (PAD 6931) 3 credits**

Study relating to special issues in Public Administration.

**Government Internship (PAD 6941) 3 credits**

A diversified work experience in management or staff positions in federal, state, or local government or in a nonprofit organization providing public service.

**Internship-Nonprofit Organizations (PAD 6943) 3 credits**

Students without prior work experience in nonprofit organizations must complete an internship. The University will place the student in a nonprofit organization for 15 weeks.

**Scope and Theory of Public Administration (PAD 7050) 3 credits**

*Prerequisite: Permission of instructor*

A doctoral seminar focusing on the theories, concepts and models of public administration. The course content includes an assessment of historical, normative and descriptive approaches to public administration.

**Seminar in Organization Theory (PAD 7107) 3 credits**

*Prerequisite: PAD 6106 or equivalent*

Review and critique of both classical and contemporary organization theory literature in public administration; exploration of specific topics related to organization effectiveness and individual behavior. Ph.D. core course.

### **Norms of Inquiry in Public Administration and Public Policy (PAD 7138) 3 credits**

Logic of knowledge—its behavioral, explanatory, critical, and interpretive modes. Multiple paradigms of knowledge building and inquiry to assess their relevance to knowledge building in public affairs and governance.

### **Organizational Behavior and Development (PAD 7155) 3 credits**

*Prerequisite: PAD 7107 or permission of instructor*

A study of the individual behavior in the organization at the micro and macro levels and of the strategies and methods intended to change the attitudes, values, and structures or organizations so that they can better adapt to new technology, markets, and challenges.

### **Advanced Public Budgeting and Fiscal Management Techniques (PAD 7229) 3 credits**

*Prerequisite: PAD 6207 and PAD 6227 or equivalent*

The literature of public budgeting, contributions from political science, economics, accounting, public administration, and other relevant literature. Literature and standards of the Government Finance Officers Association (GFOA) and their contribution to public budgeting and public finance, models and theories of public budgeting, and empirical research are covered.

### **Public Expenditure Analysis (PAD 7240) 3 credits**

*Prerequisite: PAD 6227 or equivalent*

Review of fiscal policy theories, issues of taxation, expenditure, national debt, international public finance, and development finance are explored in the framework of economic growth/stabilization, distribution, and equity. Ph.D. core course.

### **Advanced Quantitative Analysis (PAD 7703) 3 credits**

*Prerequisite: PAF 7800 or equivalent*

Focuses on a number of advanced statistical, modeling, and operations research methods and their application in the field of public administration. Particular attention will be given to applications in the area of public budgeting, personnel administration, and public policy analysis. Ph.D. core course.

### **Advanced Research Seminar in Public Affairs (PAD 7707) 3 credits**

*Prerequisite: PAD 7703*

Analysis of public administration research methods, materials and techniques. Course provides graduate students with guidance in the preparation of data analysis strategies and alternative designs for

research questions and dissertation projects. This course also emphasizes both quantitative and qualitative approaches to problem solving. Ph.D. core course.

### **Directed Independent Study (PAD 7907) 1-3 credits**

*Prerequisite: Permission of instructor, approval of the Ph.D. Coordinator*

Reading and research in a selected field of Public Administration at the doctoral level.

### **Advanced Research and Study (PAD 7910) 3-9 credits**

Concentration course for students sitting for examinations, or preparing a dissertation proposal.

### **Special Topics (PAD 7931) 3 credits**

Study relating to special problems in Public Administration at the doctoral level.

### **Advanced Public Policy (PAD 7932) 3 credits**

This course is a doctoral seminar in public policy theory and practice. The focus of the seminar is on trends in policy inquiry, policy analysis and evaluation, and policy formation and implementation.

### **Practicum in Public Administration (PAD 7943) 1-3 credits**

Covers role and responsibilities of the public administration teacher and scholar at the university level.

*Grading: S/U*

### **Dissertation (PAD 7980) 1-15 credits**

*Prerequisite: Admission to candidacy and approval of the Ph.D. Coordinator*

### **Quantitative Methods in Public Affairs Research (PAF 7800) 3 credits**

Acquaints students with the fundamental concepts necessary for advanced statistical analysis of public affairs research. Emphasizes characteristics of distributions and random variables, diagnostic techniques, the tests of assumptions of each analysis and the consequences of violating them. Special attention is given to data analysis, decision-making and report writing in the public sector.

### **Qualitative Methods in Public Affairs Research (PAF 7820) 3 credits**

A seminar designed to acquaint students with the application of qualitative research protocols in public affairs research. Various research technologies are presented and critiqued, with particular emphasis on their applicability to public affairs research. Ph.D. core course.

## **SOCIOLOGY**

**Undergraduate Courses/ [link to graduate courses](#)**

### **Sociological Theory (SYA 3010) 3 credits**

*Prerequisite: SYD 3792 or SYG 1000*

This course provides an introduction and overview of some of the major theoretical traditions in sociology. Students learn about the development of sociology as a discipline, as well as how to use different sociological theories to make sense of social structures, social action and social change in the contemporary world.

### **Contemporary Social Theory (SYA 3120) 3 credits**

*Prerequisite: SYG 1000 or SYD 3792*

This course introduces students to the major contemporary theoretical traditions in sociology, ranging from symbolic interactionism to postmodernism. Students learn about the continued development of sociology after the classical period, as well as how to use different sociological theories to make sense of contemporary social life and current events.

### **Social Conflict (SYA 3150) 3 credits**

An analysis of conflict and conflict resolution and their sources in human society.

### **Sociological Analysis: A Survey of Methods (SYA 3300) 3 credits**

*Prerequisite: SYD 3792 or SYG 1000*

This course introduces students to social science research methods used to study and understand human societies. Students learn the fundamentals of research design, measurement, sampling, data collection, data analysis and presentation using both quantitative and qualitative methods. Students in this course gain hands-on research experience by designing, executing and presenting a pilot research project based on human subjects.

### **Special Topics (SYA 3930) 3 credits**

This course features an in-depth analysis of a current issue in society. Topics vary from semester to semester.

### **Qualitative Research Methods (SYA 4310) 3 credits**

*Prerequisites: SYA 3010 and SYA 3300*

This course focuses on qualitative and/or comparative-historical methods of social research. Specifically this course addresses issues involved in designing and conducting field and comparative-historical research, and explores techniques, including interviewing, participant observation, and archival research.

### **Sociological Analysis: Quantitative Methods (SYA 4400) 3 credits**

*Prerequisites: SYA 3010 and SYA 3300*

Design and execution of original research on social class, race, ethnicity, gender, and other issues central to contemporary sociology. Students explore various quantitative techniques using the Statistical Package for the Social Sciences (SPSS) and national survey and census data.

**Directed Independent Study (SYA 4905) 1-3 credits**

*Prerequisite: Permission of department*

**Special Topics (SYA 4930) 1-3 credits**

*Prerequisites: SYA 3010 and SYA 3300*

An in-depth analysis of current social problems. Topics vary from semester to semester.

**Environmental Sociology (SYD 3510) 3 credits**

This course exposes students to the sociological study of the relationship between society and the environment. Students gain an understanding of how global economic and political forces shape environmental change, how the environment is socially constructed, the connections between environment and social inequalities, and the emergence and effects of environmental movements.

**Cities and Society (SYD 3602) 3 credits**

This course explores core questions of urban sociology including, what makes a place “urban,” how urban space affects social relations among individuals, groups and institutions, and how social forces shape cities. It examines various cities and urban experiences, surveys major theories in urban sociology and provides tools for analyzing local urban spaces and for linking them to broader national and global forces.

**Race and Ethnic Relations (SYD 3700) 3 credits**

This course surveys sociological perspectives of intergroup relations. It examines the evolution of race, the construction of racial and ethnic distinctions and the roles and experiences of racial and ethnic groups in the United States from a historical perspective.

**Race, Class, Gender, and Sexuality (SYD 3792) 3 credits**

This course examines the roles played by race, class, gender and sexuality in identity and group formation as well as societal differentiation. It shows how inequalities along those lines shape and are shaped by social institutions including the media, education, the economy and family.

**Gender and Society (SYD 3800) 3 credits**

*Prerequisites: Nine credits of coursework in Sociology at the 1000, 2000 and/or 3000 levels*

This course surveys the subfield of the sociology of gender. It examines competing theoretical

explanations of gender from a sociological perspective. Topics include gender difference, socialization, stratification and gendered social institutions such as families, work and the media.

### **Sociology of the Body (SYD 3804) 3 credits**

This course examines social and cultural factors and processes connected to prejudice, discrimination, oppression, social stratification and social/cultural change in connection to bodies. An overview of the connection between the body and personal identity is presented with an emphasis on stigma management and how identity is enacted through body projects.

### **Sociology of Housing (SYD 4606) 3 credits**

*Prerequisites: SYA 3010 and SYA 3300 and SYD 3792 or SYG 1000*

This course explores the causes and consequences of affordable housing crises in the United States. Students learn about the relationship between housing and social inequalities, how government policies shape housing access and affordability, and the research methods sociologists employ to study housing conditions and outcomes. These themes are explored through historical and contemporary case studies, such as foreclosure and homelessness during the Great Depression, redlining and urban renewal in the post-WWII era, the 2008 Subprime Mortgage Crisis and widespread affordability crises following the COVID-19 pandemic.

### **Race in Global Context (SYD 4702) 3 credits**

*Prerequisites: SYA 3010 and SYA 3300, or permission of instructor*

This course presents an examination of race and ethnic relations from a contemporary global perspective. Three broad questions are explored: What does “race” mean? How do global processes and local contexts produce the meaning of race? In what ways has globalization changed the use of race classifications? This is a research-oriented course that requires students to complete an original research project on race/ethnicity and give a presentation of their work to the class.

### **Gender, Power and Relationships (SYD 4814) 3 credits**

*Prerequisites: Nine credits of coursework in Sociology at the 1000, 2000 and/or 3000 levels*

Analysis of the relationship between gender norms in American society and patterns of interaction in everyday settings and intimate relationships. Particular focus on hierarchical interpersonal dynamics.

### **Sociological Perspectives (SYG 1000) 3 credits**

In this course, students gain an understanding of the basic sociological concepts and vocabulary, including the methodological tools, sociological perspectives and scientific procedures used by social scientists to collect data and conduct research. Topics generally covered include society and culture, institutions, socialization, social control, social change, social groups, sex and gender, race and ethnicity, family, social class and social mobility, and population. This is a General Education course.

### **University Honors Seminar in Sociology (SYG 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in sociology.

### **Social Problems (SYG 2010) 3 credits**

This course focuses on the development, analysis and treatment of social problems: crime, poverty, prejudice and discrimination, pollution and environmental despoliation, and drug abuse and mental illness. Emphasizes factors in U.S. society that cause social problems. This is a General Education course.

### **Sociology Study Abroad (SYG 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Career Paths in Sociology (SYG 3090) 3 credits**

*Prerequisite: For Sociology major or minor*

In this course, students are exposed to various marketable skills that will assist them in preparing for a career after graduation or for graduate school through “real-world” exposure using micro internships and supervised experience related to various career interests in Sociology. Like in any major, Sociology majors end up working in many different jobs. This course provides the most common career paths for Sociology majors. A portion of the course will be spent investigating what one can do with a Sociology degree. An introduction of possible levels of employment in the private or public sectors will be reviewed. Ultimately, this course begins to assist students in developing a plan for professional employment.

### **Sociology of Food (SYG 3244) 3 credits**

This course examines the relationship between our individual food choices and the larger social, cultural, economic and political forces that shape the global food system.

### **Directed Independent Research in Sociology (SYG 4915) 1-3 credits**

*Prerequisite: Permission of instructor*

Students work with research mentors to conduct research and inquiry in sociology. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student.

### **Sociology Internship (SYG 4941) 3 credits**

*Prerequisites: SYA 3010, SYA 3300, SYG 3090*

This internship opportunity allows sociology majors to gain community experience by working with a

local organization or agency in the tri-county region. Students gain firsthand experience and practical knowledge and will be able to apply their studies to real world situations. This internship may serve multiple purposes, including community-centered learning, networking, skills and interest development, and assistance in determining future careers or career opportunities.

### **Sociology Study Abroad (SYG 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Honors Thesis in Sociology (SYG 4972) 3 credits**

*Prerequisite: Good standing in Sociology Honors Program*

The senior thesis is an independent study that leads to an original piece of research. The thesis should develop a theoretical argument, situate the research in contemporary sociological literature and provide empirical findings. Students work closely with two qualified faculty members to develop the project. Students must present their findings at a Sociology Department workshop. The senior thesis is available only to students accepted into the Sociology Honors Program.

### **Family and Society (SYO 3100 ) 3 credits**

This course examines the family as a socially constructed institution with deep importance for the structuring of society. Students explore how family forms and activities are shaped by broader social, cultural, political and economic forces. Focusing on marriage and family over the life course, course topics include dating and love, the formation of partnerships and marriages, parenting choices, divorce and remarriage, work-family balance and intergenerational relationships.

### **Sociology of Religion (SYO 3200) 3 credits**

For millennia, religion has remained a powerful force of social cohesion, meaning, order and disruption in society. This course examines how religious ideas and practices shape politics, social norms and social institutions, including schools and families. The course uses sociological tools to examine changing forms of American religious identity, analyze the difference between religious beliefs and religious practices, and show how religion is embedded in some of the most heated current debates in society.

### **Sociology of Education (SYO 3250) 3 credits**

This course examines our education system from a sociological perspective, with an emphasis on the causes and consequences of educational inequality. It explores the relationship between social characteristics such as residential location and socio-economic status and quality, content of schooling received, how long students stay in school and their later trajectories in adulthood.

### **Economy and Society (SYO 3353) 3 credits**

This course introduces students to the sociological study of the economy. It emphasizes the social, political and cultural dimensions of markets and economic actions. Specifically, it examines how markets and economic actions are socially constructed and how they are shaped by different historical and cultural contexts.

### **Gender and Work (SYO 3370) 3 credits**

This course examines how gender structures the division of labor, including labor markets and domestic labor. Students explore how gender shapes paid and unpaid work as well as how that work produces gender and related inequalities at the individual and social levels.

### **Sociology of Work (SYO 3372) 3 credits**

This course provides students with an introduction to the sociology of work. Topics include the role that workplaces and labor markets play in creating and reproducing social inequality; the social dynamics of labor unions, labor movements and class conflict in the workplace; the relationship between work and self-identity; how individuals select and are sorted into jobs; how recent changes in the workplace have impacted families, relationships and the process of becoming an adult; and how the cultural meaning and significance of work has changed over time.

### **Labor and Globalization (SYO 3377) 3 credits**

Exposes undergraduate students to the substantive debates in the sociological literature on globalization and the fate of labor movements, drawing from a world-historical approach that helps elucidate global as well as local patterns of labor movement activity.

### **Sociology of Health, Medicine and Illness (SYO 3400) 3 credits**

This course introduces students to the sociological perspective on the social determinants of health and illness. Students study how social factors like race, gender, and class shape individual health outcomes, and how patients and medical providers experience the healthcare system. This course examines the economic structures that distinguish American healthcare from other countries' healthcare systems.

### **Sociology of Mental Health (SYO 3410) 3 credits**

This course introduces students to the scientific study of mental health from an interdisciplinary perspective with an emphasis on the social, cultural and political meanings of mental health. Students examine contemporary and historical issues in the field of mental health including how to define and treat mental disorders, mental health stigma, the pharmaceutical industry, access to mental health services, social inequalities in mental health and stress.

### **Animals and Society (SYO 3448) 3 credits**

This course introduces students to the sociological study of the complex and changing relationship between animals and society. Topics include the human use of animals in science, entertainment and food; the role of animals in assisting humans; the experiences of humans who work with animals; the social dynamics of pet ownership; and the development and effects of the Animal Rights Movement.

### **Class, Status, and Power (SYO 3530 ) 3 credits**

A comparative analysis of the causes and consequences of social inequality. Concentration on the individual and societal effects of differential access to power and privilege in plural societies.

### **Poverty and Society (SYO 3534) 3 credits**

This course introduces students to the sociological study of poverty from a historical and global perspective, with a focus on structural sources of poverty. It explores how changes in the economy, public policies and social norms and practices affect the incidence and experience of poverty. Students also examine the link between globalization and poverty in the United States and beyond.

### **RI: Poverty and Society (SYO 3534) 3 credits**

This course introduces students to the sociological study of poverty. Students learn how social structural factors determine the extent of poverty in a society, the variation in the character of poverty across space and time, and the uneven extent to which specific social groups experience poverty (e.g., women, children, racial and ethnic minorities). This is a research-intensive (RI) course that requires students to complete an original research project on poverty and give a formal presentation of their work to the class.

### **Organizational Sociology (SYO 3570) 3 credits**

*Prerequisites: Nine credits of coursework in Sociology at the 1000, 2000 and/or 3000 levels*

Course explores one of the key social forms structuring modern life: the organization. Examining the origins, persistence and death of organizations, this course provides an overview of sociological approaches to understanding how social life shapes the forms organizations take and how organizations' actions impact social life. Topics covered include bureaucracy, inequality, social change and economic development.

### **Global Society (SYP 2450) 3 credits**

This course takes sociology beyond national boundaries and explores social, cultural, political and economic dimensions of globalization. Students examine how class, race and gender operate on a global scale and evaluate how global processes affect their daily lives. Topics explored include the social implications of a changing global economy, the global spread of infectious diseases, global poverty, climate change, global migration and development. This is a General Education course.

### **Sociology of Emotions (SYP 3011) 3 credits**

This course provides an overview of the subfield of sociology of emotions with a focus on the social construction of emotion. Students explore different sociological explanations for emotions and how they contrast with non-sociological theories of emotion as psychological or biological. Topics covered include emotion work, emotion management, feeling rules, emotions and inequality, and emotions at home, at work and in popular culture.

### **Sociology of Happiness (SYP 3014) 3 credits**

Addresses classical and contemporary sociologists' views of what happiness is, what promotes it and what limits it. Also considered are current national and cross-national social movements aiming to increase happiness.

### **Human Sexuality and Social Change (SYP 3060) 3 credits**

This course provides a sociological perspective on human sexuality, examining how sexual attitudes, identities and behaviors are shaped by broader cultural, social and historical contexts. Special attention is given to the causes and consequences of society's beliefs about and organization of human sexuality as well as how those beliefs and structures have changed over time.

### **Self and Society (SYP 3110) 3 credits**

This course provides an overview of sociological social psychology with a focus on the social construction of emotions, the self, and social interaction. In this course, students examine the social dimensions of the self and emotions including how they are socially learned, regulated and distributed in the population.

### **Sociology of Everyday Life (SYP 3112) 3 credits**

This course explores how everyday interactions produce social life as well as individual identities and selves; it also examines how everyday social life is shaped by broader societal patterns. Special attention is upon microsociological theories of categorical identities including race, gender and class.

### **Social Movements (SYP 3304) 3 credits**

This course explores how forms of social protest may create social change. Through careful analysis of major social movements such as civil rights, labor, feminist/women's, ecological/environmental movements, and others, the course explores why and how social movements emerge, decline, and change social institutions and relationships.

### **Social Change (SYP 3400 ) 3 credits**

This course exposes students to classical and contemporary sociological theories and their implication

for social change. By engaging with topics such as modernization, social movements, revolutions and post-industrial society, students learn how to identify historical and contemporary mechanisms of social change, evaluate theories of social change and use these to analyze current social trends.

### **Sociology of Consumption (SYP 3420) 3 credits**

This course introduces students to the sociological study of life in consumer society from the perspective of both labor and leisure. Students examine the making and consumption of diverse products and services, including clothes, toys, food and dining, music, tourism and weddings, as well as issues related to spectator sports, celebrities and influencer cultures.

### **Globalization and Cities (SYP 3451) 3 credits**

Course focuses on understanding the relationship of the city and urban phenomena to global economic processes. Students are introduced to several traditional sociological theories of urban development. Course also considers gender and race dynamics in urban and global contexts.

### **Globalization and Social Movements (SYP 3454) 3 credits**

This course explores the relationship between social movements and globalization and focuses on social movements in different national and historical contexts.

### **Adolescence and Delinquency (SYP 3530) 3 credits**

An analysis of sociological issues in defining delinquency in changing society; the nature of adolescence; current theories of delinquent behavior; modes of social control applied to juvenile delinquency.

### **Drugs and Society (SYP 3550) 3 credits**

This course explores issues of drug consumption, production and marketing from a sociological perspective. Students examine how drugs and drug use are socially defined, as well as how social contexts shape patterns of drug use. Students also learn about how legal drug use is shaped by the pharmaceutical industry, including the influence of companies on doctors, what drugs are sold in the market and how drugs are regulated by government agencies.

### **Social Control and Deviance (SYP 3570) 3 credits**

This course examines sociological theories of deviance (non-conformity to social norms) and social control, emphasizing types and causes of deviant behavior and the means of enforcing conformity.

### **Sociology of Popular Culture (SYP 3630) 3 credits**

This course examines different forms of popular culture, including art, music, literature, fashion and mass media from a sociological perspective. It also explores various meanings of popular culture and

its complex relations with folk culture, elite culture, subcultures, countercultures, mass media and social media.

### **The Sociology of Sport (SYP 3650 ) 3 credits**

This course is an introduction to the sociology of sports. It emphasizes the history and nature of sports, as well as the role that sports play in society, as well as interrelations between sports and other social institutions, including government, markets, the family, religion, education and the media.

### **Sociology of Youth (SYP 3714) 3 credits**

This course examines how young people's lives are shaped by social forces and how the youth, in turn, help to construct their social contexts. Topics include the social construction of childhood and youth as parts of the life course, the roles of media, schooling, family and peers in shaping youth identities, and the impact of the youth on their societies through music, subcultures and student movements.

### **Sociology of Aging and Dying (SYP 3740) 3 credits**

This course examines how aging and dying are defined, experienced and managed in contemporary society. Moving beyond purely biological understandings of aging and dying, this course explores how cultural values and norms, social psychological processes, demographic trends and social institutions shape these stages of the life course.

### **Youth Subcultures (SYP 3774) 3 credits**

This course examines young people who use music, fashion, slang and unique lifestyles to differentiate themselves from mainstream society. Drawing from case studies of b-boys, punks, skinheads, satanists, incels, ravers and other historical and contemporary subcultures, the course examines the causes and consequences of youth deviance; how youth employ deviance to express unmet needs, construct new identities and critique deficiencies they perceive in mainstream society; and why authority figures sometimes employ social control to suppress youth subcultures.

### **Constructing Sexuality (SYP 4063) 3 credits**

*Prerequisites: SYA 3010 and SYA 3300*

This course explores how social, cultural and political forces shape human sexuality. Specifically, it examines how sexual identity, behavior and desire are shaped by larger social and historical forces. Students explore the social construction of sexuality, how sexuality is perceived, defined and experienced in society.

### **Technology and Society (SYP 4421) 3 credits**

Psychological, sociological and economic aspects of technological developments on social life, with a primary emphasis on the impact of computing.

### **Globalization and Inequality (SYP 4453) 3 credits**

*Prerequisites: SYA 3010 and SYA 3300*

This course examines how markets, politics, technology and culture shape both global social inequalities and efforts to reduce them. Students learn different approaches to the study of globalization and apply them to analyze connections between local social issues and broader global forces.

### **Sociology of Climate and Disaster (SYP 4464) 3 credits**

*Prerequisites: SYA 3010 and SYA 3300*

This course provides a critical examination of climate change and natural and technological disasters by exploring the social causes, impacts, perceptions and/or consequences of disaster and climate change from a sociological perspective.

### **Sociology of Culture (SYP 4610) 3 credits**

*Prerequisites: SYA 3010 and SYA 3300*

This course examines the influence of mass media and culture industry on society, assessing how popular culture serves as an arena for political struggle. It also explores the role cultural beliefs and practices play in perpetuating social inequalities. Topics include the shaping of public consciousness by advertising, mass media and social media; the use of popular culture and propaganda to consolidate political power; the significance of lifestyle choices in the acquisition of social status; and cultural conflicts surrounding religion, sexuality, collective memory and social change.

## **Sociology Graduate Courses**

### **Seminar: Critical Perspectives in Social Theory (SYA 6117) 3 credits**

*Prerequisite: Admission to graduate study or permission of instructor*

Through in-depth reading of original texts, social histories, and/or novels/literary works, this seminar critically evaluates the assumptions, concepts, methods and explanations in classical and/or contemporary social theory and examines their relevance for the present time.

### **Seminar in Contemporary Social Theory (SYA 6126) 3 credits**

*Prerequisite: Admission to graduate study or permission of instructor*

Study of selected works of significant contemporary social theorists and core issues in contemporary social thought.

### **Seminar in Advanced Research Methods (SYA 6305) 3 credits**

*Prerequisite: Admission to graduate study or permission of instructor*

An advanced overview of research methods in current use in sociology, with a strong emphasis on quantitative analysis of social survey data. Major topics include inferences of testable propositions from theory, operationalization of key theoretical concepts, model building and assessment, and communication of outcomes.

**Seminar in Advanced Qualitative Methods (SYA 6315) 3 credits**

*Prerequisite: Admission to graduate study or permission of instructor*

An advanced overview of the most common types of qualitative research methods in sociology, including both theoretical considerations and fieldwork. An independent research project will be required.

**Directed Independent Study (SYA 6909) 1-3 credits**

*Prerequisite: Permission of instructor*

Reading and research in a field of sociology, a program to be selected and approved in consultation with the instructor.

**Master's Thesis (SYA 6971) 1-6 credits**

*Prerequisite: Admission to candidacy*

*Grading: S/U*

**Seminar in Urbanization (SYD 6426) 3 credits**

*Prerequisite: Admission to graduate study or permission of instructor*

An analysis of historical and contemporary urbanization as related to the forms and functions of the city. Selected theories of social change are employed in examining this process.

**Seminar in Global Environmental Perspectives (SYD 6517) 3 credit s**

*Prerequisite: Admission to graduate study or permission of instructor*

Examines the connections between society and the environment and between local experiences and global dynamics. Global environmental perspectives, disputes, politics and movements will be analyzed.

**Seminar in Race and Ethnic Relations (SYD 6705) 3 credits**

*Prerequisite: Admission to graduate study or permission of instructor*

A historical and comparative examination of the origin and nature of racial and ethnic differences as they manifest themselves in human societies.

**Special Topics (SYD 6934) 1-3 credits**

*Prerequisite: Admission to graduate study or permission of instructor*

Study of a selected area in sociology. Topics will vary.

### **Seminar in the Sociology of Religion (SYO 6205) 3 credits**

*Prerequisite: Admission to graduate study or permission of instructor*

A seminar in the sociology of religion, including sociological theories of religion, sects, cults, parareligious groups, civil religion, secularization and fundamentalism, and the impact of race, class, and gender on religious practice.

### **Seminar: State, Economy and Society (SYO 6335) 3 credits**

*Prerequisite: Admission to graduate study or permission of instructor*

Course examines the limits of disciplinary approaches to the study of state/society/economy and analyzes the interweaving relations of state, economy, and society from comparative and historical perspectives. Readings include theoretical texts, analytical applications, social histories, and literary works.

### **Seminar in Class, Status, and Power (SYO 6535) 3 credits**

A critical analysis of theory and research pertaining to the causes and consequences of structured social inequality.

### **Seminar in Microsociology (SYP 6035) 3 credits**

Sociological study of self and identity, thoughts and emotions, social interaction, intimate relationships, micro-level dimensions of social control and social power, and other selected topics in sociological social psychology.

### **Theatre and Dance Courses**

(Listed following the **Women, Gender and Sexuality Studies** courses, under [School of the Arts](#) , Theatre and Dance)

## WOMEN, GENDER AND SEXUALITY STUDIES

### **Undergraduate Courses/ [link to graduate courses](#)**

#### **History of U.S. Women (AMH 3560) 3 credits**

(See [History courses](#), this section)

#### **Gender and Culture (ANT 4302) 3 credits**

(See [Anthropology courses](#), this section)

**Women and Criminal Justice (CCJ 4670) 3 credits**

(See Criminology and Criminal Justice courses, College of Social Work and Criminal Justice section )

**Communication, Gender, and Language (COM 3014) 3 credits**

(See School of Communication and Multimedia Studies courses, this section)

**Women and Film (FIL 4056) 3 credits**

(See School of Communication and Multimedia Studies courses, this section)

**Women in Literature (LIT 4383) 3 credits**

(See English courses, this section)

**Feminist Philosophy (PHM 3123) 3 credits**

(See Philosophy courses, this section)

**Women and Politics (PUP 3323) 3 credits**

(See Political Science courses, this section)

**Psychology of Women (SOP 3742) 3 credits**

(See Psychology courses, College of Science section)

**Issues in Counseling Women (SOW 4357) 3 credits**

(See Social Work courses, College of Social Work and Criminal Justice section)

**Gender, Race and Communication (SPC 4712) 3 credits**

(See School of Communication and Multimedia Studies courses, this section)

**Family and Society (SYO 3100) 3 credits**

**Gender and Work (SYO 3370) 3 credits**

**Poverty and Society (SYO 3534) 3 credits**

(See Sociology courses, this section)

**Introduction to Women's Studies (WST 2010) 3 credits**

Multidisciplinary study of the heritage of women and the nature of gender-related problems in contemporary societies, stressing cultural images of women, socialization by gender, women's history, feminist methods of analysis. May be considered either an Arts and Humanities or Social Science course.

**Women, Gender and Power in the Global South (WST 2101) 3 credits**

This course provides an in-depth introduction to women's and gender issues in the global South. It examines how particular historical, cultural, economic, political and social processes, such as colonialism and global capitalism, impact the lives of men and women in countries in Africa, Asia, Arab societies, Latin America and the Caribbean.

### **Gender and Climate Change (WST 2351) 3 credits**

This course explores historical, philosophical, sociological and humanistic perspectives on how gender inequality across the globe is related to environmental damage and climate change. It examines feminist, indigenous and LGBTQ climate justice movements alongside the gendered implications of global policy and practices related to the history and development of thought on the environment.

### **Introduction to Sexuality and Gender Studies (WST 2608) 3 credits**

Introduces scholarly theories and methods to consider gender and sexuality as frames of analysis for understanding society and culture.

### **Introduction to Lesbian, Gay, Bisexual, Transgender and Queer Studies (WST 2643) 3 credits**

Multidisciplinary study of lesbian, gay, bisexual, transgender and queer peoples in contemporary societies, stressing culture, history, politics and theory.

### **Women, Gender and Sexuality Studies Study Abroad (WST 2951) 1-4 credits**

This revolving topics course provides a mechanism by which coursework completed abroad as part of an approved student program can be recorded on the transcript and counted toward graduation.

### **Sex, Myth, Power, and Popular Culture (WST 3305) 3 credits**

Examines varying images of women of power in popular culture—film, television, song, ads—as mothers, monsters, femme fatales, amazons, witches, and goddesses. These stories and images are interpreted based on ancient myths and beliefs.

### **Gender-Based Violence and Social Movements (WST 3325) 3 credits**

This course provides students with an overview of gender-based violence in contemporary U.S. society by analyzing texts about such violence and artifacts from popular culture (e.g., novels, advertisements, etc.) with the goal of understanding the prevalence and pervasiveness of gender-based violence. Students learn to identify examples of violence in everyday media and locate how individuals and collectives respond through social movements.

### **Special Topics (WST 3930) 1-3 credits**

Study of a particular issue, theme, or aspect of interdisciplinary Women's Studies. Topics will vary. May be repeated for credit.

### **Gender and Human Rights (WST 4113) 3 credits**

This course explores the legal and normative frameworks on gender and human rights, examining international and regional human rights systems. Students are asked to think critically about women's human rights while thinking comparatively about the varying international settings and the way they interact with these rights.

### **Sex, Violence, and Hollywood (WST 4337) 3 credits**

The class examines why sex and violence are the two main ingredients of Hollywood cinema and how the two interact to create meanings.

### **Green Consciousness (WST 4349) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

This class explores emerging green or environmental consciousness in various cultural venues (theory/activism, spirituality, philosophy, literature, art, and popular culture).

### **Intersectional Feminist Politics in the U.S. (WST 4404) 3 credits**

This class examines the intersectional experience of women of color in the U.S., using a decolonial feminist lens. The class focuses on strategies of liberation across race, class, gender and sexuality, including performance, music, dance and comedy.

### **Gender and Sport (WST 4614) 3 credits**

Gender and Sport offers an interdisciplinary examination of the relationship between gender and athletic activity. Through lecture and discussion, students study the meaning and practice of sport in relation to gender, sex and sexuality. Students critically examine organized physical play through feminist and intersectional analytical lenses.

### **Men and Masculinities (WST 4621) 3 credits**

The course explores the multiple meanings and intersectional significance of "manhood" and "masculinity." With a focus on men, the course aids students in exploring how gender, as an idea and social institution, functions to organize and shape lives in the United States and beyond. The class focuses on the relationship between conceptions of masculinity and popular culture, sports, work, politics, warfare, the family, health, violence and sexuality.

### **Special Topics (WST 4930) 1-3 credits**

Intensive study at an advanced level of a particular issue, theme, or aspect of interdisciplinary Women's Studies. Topics will vary. May be repeated for credit.

### **Directed Independent Study (WST 4905) 1-3 credits**

*Prerequisite: Permission of instructor and the Women, Gender and Sexuality Studies director*

Independent reading and research in interdisciplinary Women's Studies. Each program of study is arranged in consultation with a Women's Studies faculty member during the term prior to taking this course.

### *Elective Courses*

#### **Victimology (CCJ 3666) 3 credits**

(See [Criminology and Criminal Justice courses, College of Social Work and Criminal Justice section](#) )

#### **American Multicultural Discourse (SPC 3704) 3 credits**

#### **Intercultural Communication (SPC 3710) 3 credits**

#### **Rhetoric of Social Protest (SPC 4633) 3 credits**

(See [School of Communication and Multimedia Studies courses, this section](#))

#### **Human Sexuality and Social Change (SYP 3060) 3 credits**

(See [Sociology courses, this section](#))

### **Women, Gender and Sexuality Studies Graduate Courses**

#### **Feminist Pedagogy and Professionalization (WST 6007) 3 credits**

This course empowers students with an interest in women's studies, gender studies, LGBTQ studies, sexuality studies and/or feminist theory to develop their own unique plan for their careers as educators, scholars and professionals from a decolonial and feminist perspective.

#### **Gender, War and Peace Building (WST 6185) 3 credits**

*Prerequisite: B.A. degree or permission of instructor*

Examines the gendered nature of armed conflicts in civil and across international spaces with emphasis on distinctive ways in which women and girls are affected and respond. Attention is given to the role of states, civil society and historical processes, such as colonialism and globalization, in perpetuating conflict.

#### **Gender, Sexuality, Myth and Reality (WST 6306) 3 credits**

This course focuses on myths and beliefs about gender and sexuality associated with patriarchal consciousness and culture as these have been conveyed in religion, science, art, philosophy, literature and popular culture. In further looks at myths and beliefs, ancient and emergent, which challenge that consciousness and culture.

### **Gender-Based Violence and Social Movements (WST 6327) 3 credits**

*Prerequisite: B.A. degree or permission of instructor*

Examines violence based on gender, including violence against women and LGBTQ people, along with resistance to gender-based violence. This is an Academic Service Learning (ASL) course.

### **Sex, Violence and Hollywood (WST 6339) 3 credits**

This course examines why sex and violence are the two main ingredients of Hollywood cinema and how the two interact to create meanings.

### **Ecofeminism and Environmental Justice (WST 6348) 3 credits**

This course examines the history and evolution of ecofeminist and environmental justice, thought, and practice through its major womanist/feminist activists, theorists, and core issues.

### **Intersectional Feminist Politics in the U.S. (WST 6405) 3 credits**

Examines how issues of gender, race, ethnicity, and class shape the lives of women of color in the U.S., such as Native-American, African-American, Latin-American, and Asian-American women.

### **Feminist Theory and Praxis (WST 6564) 3 credits**

Survey of major statements in modern and contemporary feminist theory, with attention to their application in fields that may include the humanities, social sciences, and sciences, as well as national and global activism.

### **Sexuality and Gender Studies (WST 6604) 3 credits**

*Prerequisite: Graduate standing*

Introduces critical gender and sexuality studies, including Queer Theory, considering the relations between the history of sexuality and the politics of gender.

### **Gender, Health and Power (WST 6615) 3 credits**

This course assesses the role of power relations, particularly gender, ethnicity, social class, religion, and globalization in shaping the health status, the illness experiences and outcomes, and the form and substance of medical options available in local communities around the world. A focus on how health is differentially impacted for women and men will engender an examination of gender ideology in power relations.

### **Directed Independent Study (WST 6909) 1-3 credits**

*Prerequisite: Approval of Women, Gender and Sexuality Studies director*

Reading and research in Women's Studies interdisciplinary topics.

### **Graduate Research Seminar in Women's Studies (WST 6919) 3 credits**

*Prerequisite: Admission to candidacy*

Graduate project in research related to internship. Must be taken simultaneously with WST 6941.

*Grading: S/U*

### **Special Topics (WST 6934) 3 credits**

Reading and Research in interdisciplinary women's studies topics.

### **Seminar in Global Perspectives on Gender (WST 6936) 3 credits**

Interdisciplinary study of gender issues and the intersection with race and class in world regions.

### **Feminization of Poverty (WST 6938) 3 credits**

*Prerequisite: B.A. degree or permission of instructor*

Course examines issues pertaining to the feminization of poverty from a feminist and comparative perspective. Discussions will apply theoretical, historical, and empirical frameworks to analyze the gender dimensions of poverty and ways in which these frameworks structure our understanding of the feminization of poverty.

### **Graduate Internship in Women, Gender and Sexuality Studies (WST 6941) 3 credits**

*Prerequisite: Admission to candidacy*

Internship with agency or office pertaining to women, gender and sexuality studies. *Grading: S/U*

### **Master's Thesis (WST 6971) 1-6 credits**

*Prerequisite: Admission to candidacy*

*Grading: S/U*

## SCHOOL OF THE ARTS

The School of the Arts includes course offerings in Music, [Theatre and Dance](#), and [Visual Arts and Art History](#).

## MUSIC

**Undergraduate Courses/ [link to graduate courses](#)**

### **Music Composition Class (MUC 2211) 2 credits**

*Prerequisites: MUT 1111, permission of instructor*

Class instruction in music composition. Course may be repeated for credit for a maximum of 16 credits.

**Applied Music Composition (MUC 4231) 1-2 credits**

*Prerequisites: MUC 2211, MUT 4311 and/or permission of instructor*

Applied lessons in music composition. Students compose original works in a variety of media and styles. Course may be repeated for credit for a maximum of 4 credits.

**Composing and Arranging Music for Television and Radio Commercials (MUC 4600) 3 credits**

*Prerequisite: MUT 2117 with a grade of "C" or higher*

*Corequisite: MUS 4343*

This course is designed to teach the basic composing, arranging, and technical techniques required to score music for commercials and jingles.

**Music Composition for Film (MUC 4610) 3 credits**

*Prerequisite: MUT 2117, MUT 2341, permission of instructor*

Film composition is designed to teach the basic composing, arranging, and technical techniques required to score films and television.

**Introduction to Music Education (MUE 2040) 3 credits**

Designed as an introduction to MUE 4140, Choral Methods, and MUE 4330, Secondary Instrumental Methods, this course explores the field of music education. A 15-hour observation component is required.

**Vocal Pedagogy for the Music Classroom (MUE 2430) 1 credit**

This course is designed for music students who work with the singing voice. The course addresses basic vocal physiology, vocal health and preservation, vocal technique, voice classifications and common voice disorders (symptoms and treatments). It also provides an introduction to the International Phonetic Alphabet (IPA).

**Music Pedagogy and Methods Lab (MUE 2446L) 1-2 credits**

*Prerequisite: For students in the B.M.E. program*

*Corequisites: MUE 2450 and/or MUE 2460*

Intended for students in music education who are preparing to teach at the elementary or secondary level. This lab is directed toward applying competencies and understandings in a full instrumental setting that contributes to becoming a more effective instrumental music teacher. May be taken more than once.

**Woodwind Pedagogy and Methods (MUE 2450) 1 credit**

Methods and materials used in teaching woodwind instruments on the elementary and secondary school level.

**Brass Pedagogy and Methods (MUE 2460) 1 credit**

Methods and materials used in teaching brass instruments on the elementary and secondary school level.

**Percussion Pedagogy and Methods (MUE 2470) 1 credit**

Methods and materials used in teaching percussion instruments on the elementary and secondary school level.

**Music: Elementary School 1 (MUE 4013) 2 credits**

Not open to Music majors. See [Department of Teaching and Learning](#) for course description.

**Choral Methods (MUE 4140) 3 credits**

*Prerequisite: MUE 2040*

Methods and materials of teaching choral singing on the elementary and secondary school level.

**Elementary Music Methods 1 (MUE 4311) 2 credits**

This course is a state-mandated course prior to attaining certification, focusing on pedagogical content knowledge in music for music education majors. Students gain a working understanding of styles of learning; appropriate elementary general music scope and sequence; effective lesson planning and curricular design; implementation of musical skills and materials for the elementary music classroom; and impactful methodologies for teaching elementary music. Open to music majors only.

**Elementary Music Methods 2 (MUE 4313) 2 credits**

*Prerequisites: MUE 2040, MUE 4311*

This course focuses on pedagogical content knowledge in music for music education majors. Students gain a working understanding appropriate for elementary general music scope and sequence; effective lesson planning and curricular design; implementation of musical skills and materials for the elementary music classroom; and methodologies for teaching elementary music including Guitar, Orff, Kodaly and Dalcroze. Open to music majors only.

**Secondary Instrumental Methods (MUE 4330) 3 credits**

*Prerequisite: MUE 2040*

Practical experience in teaching singing, instrumental, rhythmic, listening, and creative activities in music to secondary school students. Study and evaluation of new materials and methods of teaching secondary school music.

### **String Pedagogy and Methods (MUE 4441) 1 credit**

Methods and materials used in teaching string instruments on the elementary and secondary school level.

### **Marching Band Pedagogy and Methods (MUE 4480) 1 credit**

*Prerequisite: MUE 2040 and MUT 2116 with grades of "C" or better*

Students learn to prepare for, administer and rehearse a comprehensive marching band program at the secondary school level.

### **Jazz Ensemble Pedagogy and Methods (MUE 4481) 1 credit**

*Prerequisite: MUT 2116 with grade of "C" or better*

Students learn to prepare for, administer and rehearse jazz bands at the secondary school level.

### **Field Experience Seminar (MUE 4946) 1 credit**

Course prepares students for participation in the academic year portion of the School of the Arts program funded through a grant from the Pew Educational Trust.

### **Choral Conducting 1 (MUG 3201) 1 credit**

*Prerequisites: MUH 4211 and MUT 4311 with grades of "C" or better*

*Corequisite: MUT 4311 with a grade of "C" or better*

The basic techniques of choral conducting and an introduction to choral literature.

### **Instrumental Conducting 1 (MUG 3301) 1 credit**

*Prerequisite: MUT 4311 with a grade of "C" or higher*

*Corequisite: MUT 4311 with a grade of "C" or higher*

Introduction to the basic techniques of instrumental conducting and to the appropriate literature.

### **Choral Conducting 2 (MUG 4202) 2 credits**

*Prerequisite: MUG 3201, MUH 4212, MUT 4311 with grades of "C" or better*

Theory and practice of choral conducting.

### **Advanced Choral Conducting (MUG 4203C) 2 credits**

*Prerequisite: MUG 4202 with minimum grade of "C"*

Continues the rigorous course of professional development for the future choral music educator/conductor. Students completing this course are prepared to conduct secondary school concert ensembles successfully.

### **Applied Orchestral Conducting (MUG 4303) 1-2 credits**

*Prerequisite: MUG 4304 with a grade of "C" or higher*

*Corequisite: Students must perform as a member of the FAU Orchestra or observe all rehearsals*

An advanced, in-depth study of standard orchestral repertoire in a wide variety of styles and periods as well as the study of the conducting and rehearsal techniques needed for the artistic realization of performance through applied lessons. This course may be repeated for credit.

### **Instrumental Conducting 2 (MUG 4304 ) 2 credits**

*Prerequisite: MUG 3301 with a grade of "C" or higher*

*Corequisite: 15 hours of observation or ensemble participation*

Theory and practice of conducting instrumental ensembles.

### **Instrumental Conducting 3 (MUG 4311) 2 credits**

*Prerequisite: MUG 4304 with minimum grade of "C"*

This course continues the rigorous course of professional development for the future instrumental music educator/conductor. Students completing this course are prepared to conduct secondary school concert ensembles successfully.

### **Music in Global Society (MUH 2121) 3 credits**

This course presents music as a vehicle for a culture-based understanding within and between individual, national and international identities. To that end, sociocultural themes including technology, politics, race and economics are presented from both internal and external perspectives in the context of select diverse global musical practices. Historical origins and consequences of those musical processes, such as the effects of the African diaspora on music of the Western Hemisphere, are examined in terms of historical, cultural and social interaction. This is a General Education course.

### **Rock & Roll in American Society (MUH 3023) 3 credits**

This survey course brings into focus the roots and historical perspective of Rock & Roll in American society. Musical and historical events and their effect on the development and evolution of Rock & Roll music from its inception to the present day are explored.

### **World Music Survey (MUH 3056) 3 credits**

An upper-division elective for non-majors, this course surveys and explores representative examples of non-Western music and culture from North and South America, Africa, Asia, and Oceania through lectures, listening, discussion, outside reading, and hands-on experience.

### **Ethnomusicology (MUH 3514) 3 credits**

A survey of the rich diversity of global traditions with an emphasis on the relationships between music and the people that participate in them. Music traditions from Africa, Asia, Europe, Oceania and North

and South America are explored through lectures, discussion, listening, assigned reading, participatory exercises, musical analysis and the study of music in its cultural context.

### **American Popular Music and Culture (MUH 3521) 3 credits**

The purpose of this course is to explore complex interrelations of American popular music styles utilizing four lines of inquiry: 1) those qualities that most clearly define a style; 2) the interaction among styles and the influence of one style on another; 3) the transformation of the commercially dominant style over the history of American popular music; 4) the stylistic evolution of genres within a specific time span. No prior musical training is required for the course.

### **Jazz in American Society (MUH 3801) 3 credits**

This survey course brings into focus the roots and historical perspective of Jazz in American society. Musical and historical events and their effect on the development and evolution of Jazz music from its inception to the present day are explored.

### **Musicology 1 (MUH 4211) 3 credits**

*Prerequisite: MUT 2116 with minimum grade of "C"*

This course is designed to develop familiarity with general musical concepts and styles from a broad spectrum of art, traditional, and popular musical perspectives, with a focus on fundamental knowledge for musicians including: 1) historical and cultural musical perspectives from European art and non-Western sources; 2) familiarity with musical terminology and analysis; 3) a broad understanding of European and non-Western musical instruments and vocal styles; 4) development of active listening and music-specific writing skills specifically aimed at music majors.

### **Musicology 2 (MUH 4212) 3 credits**

*Prerequisite: MUT 2117 with minimum grade of "C"*

A study of European Art music from antiquity to the modern era with a concentration on the musics from the High Baroque through the Romantic Eras. Develops familiarity with specific works while providing a holistic understanding of compositional and theoretical innovations through musical analysis, with an emphasis on interrelations between composers and compositions within and between historical epochs.

### **Musicology 3 (MUH 4213) 2 credits**

*Prerequisites: MUH 4212 and MUT 2117 with grades of "C" or better; Music and Music Education majors only*

A survey of American musical contributions of the 20th and 21st centuries. Emphasis is placed on American compositions that cross over and/or navigate the complex interrelationships between art and popular music genres.

### **Special Topics in Music History (MUH 4930) 3 credits**

*Corequisite or prerequisite: MUH 4211 or 4212*

In-depth study of selected aspects of music history and literature. Specific topic to be announced in advance of each semester.

### **History and Appreciation of Music (MUL 2010) 3 credits**

In this course, students survey the history of classical music from antiquity to the modern period, focusing on Western music. The curriculum may also integrate a variety of popular and global styles where appropriate. This is a General Education course.

### **History and Literature of Musical Theatre (MUL 3015) 3 credits**

Students study the development of the musical theatre genre from the beginnings as a uniquely American genre through the modern day. Study includes the history, development, and significant works in and of the genre.

### **Classical Guitar Literature (MUL 3430) 2 credits**

Survey of classical guitar concert and solo literature, chamber music, works for voice and guitar, and concertos.

### **Piano Literature 1 (MUL 4400) 3 credits**

*Prerequisite: MUH 4212 or permission of instructor*

This course is an in-depth study of solo keyboard literature from the Renaissance period to the Romantic era. Special emphasis is placed on exploring period instruments musical styles repertoire and performance practice.

### **Piano Literature 2 (MUL 4401) 3 credits**

*Prerequisite: MUH 4212 or permission of instructor*

A study of music literature for the piano from the Romantic through the 20th century. Required of all Classical Piano Performance majors.

### **Solo String Literature (MUL 4433) 2 credits**

A survey of major solo literature for bowed string instruments.

### **Survey of Wind and Percussion Solo Literature (MUL 4450) 2 credits**

Course includes listening, analysis, and grading of wind and percussion solo literature from the Baroque period to the present.

### **Survey of Wind and Percussion Chamber Literature (MUL 4451) 2 credits**

Course includes listening, analysis, and grading of wind and percussion chamber literature from the Baroque period to the present.

### **Survey of Orchestra Literature (MUL 4500) 3 credits**

This course provides a survey of orchestral literature from the Baroque through the 20th century, focusing on innovations, changing roles of orchestral instruments, performance style and techniques, and interpretative philosophies.

### **Wind Instrument Literature (MUL 4550) 3 credits**

*Prerequisites: MUG 3301*

A study of wind instrumental literature and history from the late Baroque through the 20th century.

### **Chamber Music Literature 1 (MUL 4561 ) 3 credits**

*Prerequisite: Successful completion of all requirements for MVK 2421, Applied Piano for Performance Majors, or permission of the instructor*

This course is an in-depth study of chamber music literature from the Renaissance period to the Romantic era. Special emphasis is placed on exploring period instruments, chamber music repertoire and performance practice.

### **Chamber Music Literature 2 (MUL 456 2 ) 3 credits**

*Prerequisite: MUL 4561 with a grade of "C" or higher*

A study of chamber music literature for piano with emphasis upon works for piano trio, quartet, and quintet from the 18th through the 20th century. Required for all Chamber Music/Accompanying majors.

### **Survey of Vocal Solo Literature (MUL 4602) 3 credits**

*Prerequisites: MUH 4211 and MUH 4212 with grades of "C" or higher*

A survey of vocal solo literature covering the art song, opera, oratorio, and cantata from the 1600 to the present.

### **Survey of Choral Music Literature (MUL 4643) 2 credits**

A survey of choral music history and literature from the Renaissance to the present.

### **Choral Literature and Techniques (MUL 4644) 3 credits**

*Prerequisite: MUG 4202 with minimum grade of "C"*

*Corequisite: MUG 4203C*

This course is designed for music education majors with emphasis in vocal/choral music. Topics covered involve score study/analysis, preparing the score for the education/rehearsal classroom and the

concert stage, and understanding the relationship between music and text. An overview of the history of choral music from the Renaissance era to living composers is incorporated in this course through selected repertoire.

### **Arts and Performance Entrepreneurship 1 (MUM 3052) 3 credits**

This course provides artistically inclined students with essential skills, knowledge and resources to thrive as successful creators. Students explore diverse income avenues, collaboration strategies and career development possibilities within the creative arts. Topics encompass business strategies, legal issues, communication skills, content creation and dissemination and entrepreneurship.

### **Introduction to the Music Business (MUM 3301) 3 credits**

An introduction to the history, principles, and practices of the music industry. Topics will include recording, publishing, copyrights, licensing, promotion and arts management, music and instrument merchandising, contracts, and music in mass communication.

### **Legal Issues for the Musician (MUM 3303) 3 credits**

*Prerequisite: Permission of instructor*

In-depth study of the legal aspects of the music business, including contract writing, copyright, royalties, performance rights organizations and licensing. Emphasis on practical experiences.

### **Sound Recording 1 (MUM 3663) 3 credits**

Course presents the basics of audio engineering and recording techniques in an interactive environment.

### **Sound Recording Lab 1 (MUM 3663L) 1 credit**

*Prerequisite: Permission of instructor*

*Corequisite: MUM 3663*

Students apply concepts from MUM 3663 Sound Recording 1 in groups to create projects to put into practical use with music engineering skills and processes. *Grading S/U*

### **Arts and Performance Entrepreneurship 2 (MUM 4053) 3 credits**

*Prerequisite: MUM 3052 or permission of instructor*

This course focuses on arts performance, creative entrepreneurship and monetization in the digital age. Students explore emerging technologies, the engagement of audiences in digital spaces and strategies for digital artistry through a mix of theoretical and practical experiences.

### **Music Publishing and Copyright (MUM 4304) 2 credits**

*Prerequisite: Permission of instructor*

Designed to teach students the basics of music copyright laws and the field of music publishing.

### **Live Sound Reinforcement (MUM 4628) 3 credits**

*Prerequisite: Permission of instructor*

To teach students the basics of audio engineering and live sound reinforcement in an interactive environment. Students work together in a collaborative effort to learn the processes and skills necessary to engineer live performances of music, theater, and public announcements.

### **Audio Post-Production for Picture (MUM 4642) 3 credits**

*Prerequisites: MUM 4664 with grade of "C" or better or permission of instructor; Commercial Music majors only*

An in-depth look at audio post-production for picture. Students learn about the various processes involved in recording, processing and mixing audio for use in TV and Film production as it applies to the sound recordist and mixer. Students focus on learning about the areas of Production, Audio, Foley, Sound Design and Mixing to spec for professional broadcast.

### **Sound Recording 2 (MUM 4664) 3 credits**

*Prerequisite: MUM 3663*

In-depth application of advanced principles of audio recording and mixing.

### **Sound Recording 3 (MUM 4665) 3 credits**

*Prerequisites: MUM 4664 with grade of "C" or better; for Majors in Commercial Music: Music Technology concentration*

An advanced look at genre-based recording aesthetics pertinent to the prominent styles of contemporary music production. Stylistically based technical and artistic choices for genres of popular music, rock, EDM, jazz and acoustic music are given a critical analysis from a theoretical and practical level. Students focus primarily on mixing and mastering aesthetics as well as in studio production techniques for project completion.

### **Music Production (MUM 4723) 3 credits**

*Prerequisite: MUT 2117, permission of instructor*

*Corequisite: MUS 4343*

The study of the artistic and technical skills necessary to be a music producer, with a focus on record production.

### **Artist Management (MUM 4724) 2 credits**

*Prerequisite: Permission of instructor*

Covers important aspects of the art and practice of touring, booking, management, promotion and marketing of creative artists. It involves managing the venues, contracts, multi-media promotions,

professional agents and attorneys.

### **Music Marketing and Public Relations (MUM 4732) 2 credits**

Students will explore marketing, promotion, and public relations techniques employed to promote sales of recorded music and other commercial development of musical artists.

### **Commercial Music Ensemble (MUN 1014) 0 credit**

*Prerequisite: Permission of instructor*

Group performance experience in a wide variety of popular music genres. Class may be repeated. *Grading: S/U*

### **Pep Band (MUN 1100) 0 credit**

The Pep Band is designed to promote the advancement of the University through entertainment, artistic performance and school spirit while enhancing the collegiate, life-building experience of the membership. Class may be repeated. *Grading: S/U*

### **University Marching Band (MUN 1110) 0-1 credit**

The Florida Atlantic University Marching Band is designed to promote the advancement of the University through entertainment, artistic performances, and school spirit, while enhancing the collegiate, life-building experience of FAU students. Class may be repeated. *Grading: S/U*

### **University Symphony Band (MUN 1130) 0 credit**

This course provides member musicians with an environment in which personal artistic growth may occur through the performance of quality music for winds. Members collaborate with other dedicated musicians in an effort to foster personal musicianship in an ensemble environment while producing performances that are both well prepared and presented in an artistic manner. Class may be repeated. *Grading: S/U*

### **University Wind Ensemble (MUN 1140) 0 credit**

*Prerequisite: Permission of instructor*

The Florida Atlantic University Wind Ensemble provides member musicians with a rich artistic experience through the performance of quality music for winds. As specific skills related to ensemble playing strengthen, the musicianship of the ensemble members flourishes and combines to create the incomparable experience of meaningful, artistic performance. Class may be repeated. *Grading: S/U*

### **University Symphony Orchestra (MUN 1210) 0 credit**

*Prerequisite: Permission of instructor*

The University Symphony Orchestra is dedicated to performing standard repertoire in a wide variety of

styles and periods at the highest level of musicianship. Class may be repeated. *Grading: S/U*

**Vocalis (MUN 1310) 0 credit**

*Prerequisite: Permission of instructor*

A choral ensemble performing a wide repertoire of choral literature. Class may be repeated. *Grading: S/U*

**Women's Chorus (MUN 1320) 0 credit**

*Prerequisite: Permission of instructor*

A choral ensemble comprising treble voices performing a wide repertoire of choral literature. Class may be repeated. *Grading: S/U*

**Chamber Singers (MUN 1340) 0 credit**

*Prerequisite: Permission of instructor*

A chamber ensemble performing a wide repertoire of chamber songs. Class may be repeated. *Grading: S/U*

**Concert Percussion Ensemble (MUN 1440) 0 credit**

*Prerequisite: Permission of instructor*

The Florida Atlantic University Concert Percussion Ensemble provides member musicians with a rich artistic experience through the performance of quality music for concert percussion. Class may be repeated. *Grading: S/U*

**Jazz Orchestra (MUN 1710) 0 credit**

An instrumental ensemble performing works from the jazz band repertoire. Performances are presented both on and off campus. Class may be repeated. *Grading: S/U*

**¡Cantemos!, Latin American Music Ensemble (MUN 1821) 0 credit**

*Prerequisite: Permission of instructor*

A choral ensemble performing a wide repertoire of Latin American choral literature. Class may be repeated. *Grading: S/U*

**Commercial Music Ensemble (MUN 4015) 1 credit**

*Prerequisite: Audition required*

This ensemble provides students with the tools and experience necessary to excel as studio and performing musicians in the commercial music world. Students analyze, study, arrange, and perform a variety of commercial music styles, including, but not limited to, rock, pop, jazz, funk, alternative, country, soul, R & B, Latin, and world music. May be repeated for credit for a maximum of 16 credits.

### **Pep Band (MUN 4103) 1 credit**

*Prerequisite: Audition required*

The Florida Atlantic University Pep Band is designed to promote the advancement of the University through entertainment, artistic performance, and school spirit while enhancing the collegiate, life-building experience of the membership. May be repeated for credit for a maximum of 16 credits.

### **University Marching Band (MUN 4113) 1-3 credits**

*Prerequisite: Audition required*

The FAU Marching Band is open to all regularly enrolled University students after clearing entry with the Director of Bands. The University Band will read and perform literature on the field and in the stands at home football games and selected away games and at pep rallies, ranging from arrangements of light classics to pop and rock. May be repeated for credit for a maximum of 24 credits.

### **University Symphony Band (MUN 4133) 1 credit**

*Prerequisite: Audition required*

The Florida Atlantic University Symphony Band provides member musicians with an environment in which personal artistic growth may occur through the performance of quality music for winds. Members collaborate with other dedicated musicians in an effort to foster personal musicianship in an ensemble environment while producing performances that are both well-prepared and presented in an artistic manner. May be repeated for credit for a maximum of 16 credits.

### **Chamber Winds (MUN 4144) 1 credit**

The performance of advanced chamber wind music from the 16th through the 20th centuries by a chamber ensemble of ten to 16 wind instrumentalists. Open by audition. May be repeated for credit for a maximum of 16 credits.

### **University Symphony Orchestra (MUN 4213) 1 credit**

*Prerequisite: Audition required*

The Florida Atlantic University Symphony Orchestra is dedicated to performing standard repertoire in a wide variety of styles and periods at the highest level of musicianship. May be repeated for credit for a maximum of 16 credits.

### **University Chorus (MUN 4313) 1 credit**

*Prerequisite: Previous experience or permission of instructor*

To experience a high level of choral music education and performance of standard choral literature 14th-20th centuries through the opportunities available in rehearsals, concerts, and all other choral-oriented activities. May be repeated for credit for a maximum of 16 credits.

### **Vocalis (MUN 4323) 1 credit**

*Prerequisite: Audition required*

A vocal ensemble comprised of female voices performing a wide repertoire of choral literature for the female voice. May be repeated for credit for a maximum of 16 credits.

### **Chamber Singers (MUN 4343) 1 credit**

*Prerequisite: Audition required*

A choral ensemble of mixed voices performing a wide repertoire of chamber choral literature. May be repeated for credit for a maximum of 16 credits.

### **University Wind Ensemble (MUN 4423) 1 credit**

*Prerequisite: Audition required*

The Florida Atlantic University Ensemble provides the member musicians with a rich musical experience through the performance of quality music for winds. Open to students by audition. May be repeated for credit for a maximum of 16 credits.

### **Concert Percussion Ensemble (MUN 4443) 1 credit**

*Prerequisite: Audition required*

The Florida Atlantic University Concert Percussion Ensemble provides members musicians with a rich artistic experience through the performance of quality music for concert percussion. May be repeated for credit for a maximum of 16 credits.

### **Instrumental Chamber Music (MUN 4463) 1 credit**

The study and performance of chamber music literature appropriate to the following instrumental areas, in any combination: piano (harpsichord, organ), strings, woodwinds, brass, percussion, guitar and harp. May be repeated for credit for a maximum of 16 credits.

### **Jazz Guitar Ensemble 1 (MUN 4486) 1 credit**

*Prerequisite: Audition required*

Course teaches the techniques and methodology of playing in a jazz guitar ensemble by performing arranged jazz charts, sight-reading and improvisation concepts. Class may be repeated.

### **Jazz Guitar Ensemble 2 (MUN 4488) 1 credit**

*Prerequisite: Audition or MUN 4486*

Based on techniques learned and used in Jazz Guitar Ensemble 1, this course explores more complex techniques and methodologies in improvisational concepts, sectional playing, performing challenging charts/arrangements and sight-reading. Class may be repeated.

### **Jazz Orchestra (MUN 4713) 1 credit**

*Prerequisite: Audition required*

An instrumental ensemble performing works from the jazz band repertoire. Performances are presented both on and off campus. May be repeated for credit for a maximum of 16 credits.

### **Chamber Jazz (MUN 4714) 1 credit**

The performance of standard and contemporary jazz works by jazz combos with emphasis on improvisation and group interaction. Open by audition. May be repeated for credit for a maximum of 16 credits.

### **¡Cantemos!, Latin American Choral Ensemble (MUN 4823) 1 credit**

A chamber choral ensemble performing a wide repertoire of choral literature from the Iberian Peninsula, the Caribbean and Latin America. Class may be repeated.

### **Opera Workshop (MUO 1501) 0 credit**

*Prerequisite: Permission of instructor*

Students have the opportunity to perform scenes from the opera repertoire and improve skills associated with performing, such as acting, movement, stylistic choices and working with the director. May be repeated for credit. *Grading: S/U*

### **Opera Workshop (MUO 4503) 2 credits**

*Prerequisites: MUS 2201 and approval of the area chair*

Students have the opportunity to perform scenes from the opera repertoire and improve skills associated with performing, such as acting, movement, stylistic choices and working with the director. May be repeated for credit.

### **Commercial Music Forum (MUS 1010) 1 credit**

*Prerequisite: Music majors only*

This course is designed as a forum with the overall goal of bringing together and stimulating interaction between students in the commercial music program. Weekly activities include, but are not limited to, committee heads' reports, film and/or video presentations, individual committee and heads' meetings, presentations by visiting music industry professionals, and general reports of Hoot/Wisdom label activities.

### **Concert Attendance (MUS 1011) 0 credit**

*Prerequisite: Music majors only*

Concert attendance enables students to experience a variety of student, faculty, and other professional-level performances. Music majors must register for Concert Attendance until they have received a

minimum of six satisfactory grades. Transfer students must consult the Music Department to determine the appropriate minimum requirements. *Grading: S/U*

**Alexander Technique for the Musician (MUS 1804) 0 credit**

Students learn to recognize and change habitual patterns of thought and movement that interfere with optimal performance in daily activities and in their performance discipline. *Grading: S/U*

**University Honors Seminar in Music (MUS 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in music.

**Diction for Singers 1: An Introduction (MUS 2201) 1 credit**

*Prerequisites: Must have two semesters of MVV Applied Voice at FAU and/or approval of the vocal area chair*

A vocal music course in lyric diction, meeting twice weekly, covering the basic concepts of the International Phonetic Alphabet and its application to English, Italian, German, French, Spanish and Latin song literature.

**Music Study Abroad (MUS 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Diction for Singers 3: French (MUS 3222) 1 credit**

*Prerequisite: MUS 2201 with a grade of "C" or higher*

A vocal music course consisting of in-depth study of French lyric diction.

**Diction for Singers 2: German (MUS 3232) 1 credit**

*Prerequisite: MUS 2201 with a grade of "C" or higher*

A vocal music course consisting of in-depth study of German lyric diction.

**Cooperative Education - Music (MUS 3949) 1-2 credits**

**Computer Music Sequencing (MUS 4343) 3 credits**

*Prerequisite: Read music, computer familiarity*

Course covers the basics of music MIDI programming and music audio recording techniques in an interactive environment.

**Alexander Technique for the Musician (MUS 4802) 1 credit**

*Prerequisite: For Music majors only*

Students learn to recognize and change habitual patterns of thought, posture and movement that can interfere with optimal performance within their specific music performance area.

### **Directed Independent Study (MUS 4905) 1-3 credits**

*Prerequisite: permission of department*

Total credit for independent study in any one semester is restricted. Intensive study of theoretical or historical topics and composition. Research paper or composition required. Consult Department advisor.

### **Topic Research (MUS 4910) 1 credit**

*Prerequisite: Permission of instructor*

This course for majors is to be taken the penultimate semester of the senior year as a preparation for the Research Project, MUS 4912, a requirement for the Bachelor of Arts Degree in Music. The purpose of this course is to facilitate approval of the research project topic and to begin the process of documentation of that project through gathering source material and construction of an outline.

*Grading: S/U*

### **RI: Commercial Music Topic Research (MUS 4911) 1 credit**

*Prerequisite: Commercial Music majors only by permission*

A research-intensive (RI) course taken by Commercial Music Composition and Business concentration students during the penultimate semester of their senior year as prerequisite for the Commercial Music Research Project, MUS 4913.

### **Research Project (MUS 4912) 3 credits**

*Prerequisite: MUS 4910*

This course is taken the final semester of the senior year in fulfillment of the Bachelor of Arts Degree in Music. The course requirements consist of an independent research project on an original topic in music history or theory and a formal paper at the advanced level with full supporting documentation.

### **RI: Commercial Music Research Project (MUS 4913) 3 credits**

*Prerequisite: Satisfactory completion of MUS 4911; Commercial Music majors only*

This is a research-intensive (RI) course taken the final semester of the senior year to fulfill the requirements for the Bachelor of Music with Major in Commercial Music degree, for the purpose of completing an original research project in keeping with the objectives of the student's degree concentration area.

### **Special Topics (MUS 4930) 1-3 credits**

*Prerequisite: Permission of instructor*

The study of a special area of music. Topics may vary. May be repeated for credit for a maximum of 9 credits.

**Commercial Music Internship (MUS 4940) 1-4 credits**

*Prerequisite: Permission of Commercial Music Department*

Internship that reflects the student's track within the Commercial Music Degree. Credits will vary depending upon content of internship, to be determined by the Commercial Music advisors. Grading: S/U

**Music Study Abroad (MUS 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Music Theory 1 (MUT 1111) 3 credits**

An integrated study of the rhythmic, melodic and harmonic elements of music. Topics include the study of pitches and pitch classes, simple and compound meters, scales, intervals, triads, seventh chords and basic counterpoint.

**Music Theory 2 (MUT 1112) 3 credits**

*Prerequisite: MUT 1111 with a grade of "C" or higher*

A continuation of MUT 1111 designed to provide an in-depth study of diatonic harmony and tonicization. Topics include four-part, chorale-style writing, dominant sevenths, embellishing tones, voice-leading chords, diatonic sequences and secondary dominants.

**Sight Singing and Ear Training 1 (MUT 1241) 1 credit**

Beginning course in the progressive study of sight singing and dictation. Designed to develop the aural skills necessary to recognize, write and reproduce music that students see or hear. Topics include solfege singing of major and minor scales and melodies, rhythmic reading and dictation series.

**Sight Singing and Ear Training 2 (MUT 1242) 1 credit**

*Prerequisite: MUT 1241 with a grade of "C" or higher*

A continuation of the aural skills learned in MUT 1241. Topics include solfege singing of the I and V7 tonalities in both major and minor modes in simple and compound meters, rhythmic reading with an emphasis on the subdivided beat and syncopations and dictation exercises.

**Music Theory 3 (MUT 2116) 3 credits**

*Prerequisite: MUT 1112 with a grade of "C" or higher*

A continuation of MUT 1112 designed to provide an in-depth study of chromatic harmony and form.

Topics include modulations, modal mixture, Neapolitan and augmented sixth chords and various tonal designs, such as counterpoint, invention, fugue, binary, ternary, sonata, sonatina, concerto, rondo, sonata-rondo and large ternary.

### **Music Theory 4 (MUT 2117) 3 credits**

*Prerequisite: MUT 2116 with a grade of "C" or higher*

A continuation of MUT 2116 designed to provide an in-depth study of 20th-century music and beyond. Topics include the construction and analysis of modes, scales, sets and set classes; the study of rhythm, meter and form in music after 1900; serialism; and recent trends.

### **Sight Singing and Ear Training 3 (MUT 2246) 1 credit**

*Prerequisite: MUT 1242 with a grade of "C" or higher*

A continuation of the aural skills learned in MUT 1242. Topics include solfege singing of the I, IV and V7 tonalities in both major and minor modes in simple and compound meters, movable clefs, seventh chords, rhythmic reading with an emphasis on irregular divisions and dictation exercises.

### **Sight Singing and Ear Training 4 (MUT 2247) 1 credit**

*Prerequisite: MUT 2246 with a grade of "C" or higher*

A continuation of the aural skills learned in MUT 2246. Topics include solfege singing of melodies with chromaticism, secondary dominants and borrowed chords, modulation, modes and modal mixture, rhythmic reading with an emphasis on asymmetrical and mixed meters and dictation exercises.

### **Introduction to Commercial Arranging (MUT 2341) 2 credits**

*Prerequisite: MUT 1112*

An introduction to harmony and arranging as used in commercial music. Course examines basic skills and techniques that translate to all commercial genres.

### **Music Theory: Orchestration (MUT 4311) 2 credits**

*Prerequisite: MUT 2117 with a grade of "C" or higher*

Scoring for small and large instrumental ensembles with emphasis on scoring for non-professional-level musicians.

### **Special Topics (MUT 4930) 1-3 credits**

#### ***Applied Music***

Because of the relatively complex nature of course numbering for all areas of applied music study, the student is advised to consult the Music Department office before registering for applied music. All applied music courses require permission of the instructor.

### **Beginning Didgeridoo Workshop (MVW 1020) 0 credit**

Course provides hands-on experience in learning and performing on the didgeridoo, an ancient Australian Aboriginal wind instrument capable of producing a wide range of timbres and rhythms. Course is designed to have positive benefits for non-musicians as well as vocalists and instrumentalists through focus on diaphragm breathing, instrument making and musical experimentation. May be repeated for credit. *Grading: S/U*

### **Class Piano 1 (MVK 1111) 1 credit**

*Prerequisite: Music majors only*

This course is designed to teach fundamental keyboard skills and competencies to non-piano Music majors.

### **Class Piano 2 (MVK 1112) 1 credit**

*Prerequisites: MVK 1111 with grade of "C" or higher; Music majors only*

A continuation of MVK 1111. This course is designed to teach fundamental keyboard skills and competencies to non-piano Music majors.

### **Applied Music Secondary MV (B,K,P,S,V,W 1210-1216) 1 credit**

Private instruction. For students whose curriculum requires study of a secondary instrument. Course may be repeated for a maximum of 2 credits. See Music Department for specific course requirements.

### **Applied Music Major, Harp (MVS 1215) 1-2 credits**

*Prerequisite: Audition required*

Freshman-level applied instruction in harp.

### **Applied Music Principal MV (B,K,P,S,V,W 1310-1316) 1 credit**

Freshman-level private instruction for non-performance majors studying their principal applied areas. May be repeated for a maximum of 2 credits. See Music Department for specific course requirements.

### **Applied Music Principal, Trumpet (MVB 1311)**

### **Applied Music Principal, French Horn (MVB 1312)**

### **Applied Music Principal, Trombone (MVB 1313)**

### **Applied Music Principal, Euphonium (MVB 1314)**

### **Applied Music Principal, Tuba (MVB 1315)**

### **Applied Music Principal, Piano (MVK 1311)**

### **Applied Music Principal, Harpsichord (MVK 1312)**

### **Applied Music Principal, Organ (MVK 1313)**

**Applied Music Principal, Percussion (MVP 1311)**

**Applied Music Principal, Violin (MVS 1311)**

**Applied Music Principal, Viola (MVS 1312)**

**Applied Music Principal, Violoncello (MVS 1313)**

**Applied Music Principal, Contrabass (MVS 1314)**

**Applied Music Principal, Guitar (MVS 1316)**

**Applied Music Principal, Voice (MVV 1311)**

**Applied Music Principal, Flute (MVW 1311)**

**Applied Music Principal, Oboe (MVW 1312)**

**Applied Music Principal, Clarinet (MVW 1313)**

**Applied Music Principal, Bassoon (MVW 1314)**

**Applied Music Principal, Saxophone (MVW 1315)**

**Applied Music Principal, Electric Guitar (MVJ 1313) 1-2 credits**

*Prerequisite: Audition required*

Freshman-level private instruction for non-performance majors studying their principal applied areas. May be repeated for credit. See Music Department for specific course requirements.

**Applied Music Principal, Electric Bass (MVJ 1314) 1-2 credits**

*Prerequisite: Audition required*

Freshman-level private instruction for non-performance majors studying their principal applied areas. May be repeated for credit. See Music Department for specific course requirements.

**Applied Music Major MV (B,K,P,S,V,W 1411-1416) 2 credits**

Freshman-level private instruction for performance majors studying their major applied area. May be repeated for a maximum of 4 credits. See Music Department for specific course requirements.

**Applied Music Major, Trumpet (MVB 1411)**

**Applied Music Major, French Horn (MVB 1412)**

**Applied Music Major, Trombone (MVB 1413)**

**Applied Music Major, Euphonium (MVB 1414)**

**Applied Music Major, Tuba (MVB 1415)**

**Applied Music Major, Piano (MVK 1411)**

**Applied Music Major, Harpsichord (MVK 1412)**

**Applied Music Major, Organ (MVK 1413)**

**Applied Music Major, Percussion (MVP 1411)**

**Applied Music Major, Violin (MVS 1411)**

**Applied Music Major, Viola (MVS 1412)**

**Applied Music Major, Violoncello (MVS 1413)**

**Applied Music Major, Contrabass (MVS 1414)**

**Applied Music Major, Guitar (MVS 1416)**

**Applied Music Major, Voice (MVV 1411)**

**Applied Music Major, Flute (MVW 1411)**

**Applied Music Major, Oboe (MVW 1412)**

**Applied Music Major, Clarinet (MVW 1413)**

**Applied Music Major, Bassoon (MVW 1414)**

**Applied Music Major, Saxophone (MVW 1415)**

**Class Piano 3 (MVK 2121) 1 credit**

*Prerequisites: MVK 1112 with grade of "C" or higher; Music majors only*

A continuation of MVK 1112. This course is designed to teach fundamental keyboard skills and competencies to non-piano Music majors.

**Class Piano 4 (MVK 2122) 1 credit**

*Prerequisites: MVK 2121 with grade of "C" or higher; Music majors only*

A continuation of MVK 2121. This course is designed to teach additional keyboard skills and competencies to non-piano Music majors.

**Applied Music Major, Harp (MVS 2225) 1-2 credits**

*Prerequisite: Audition required*

Sophomore-level applied instruction in harp.

**Applied Music Principal MV (B,K,P,S,V,W 2320-2326) 1 credit**

Sophomore-level private instruction for non-performance majors studying their principal applied area. May be repeated for a maximum of 2 credits. (See course description for MV(B,K,P,S,V,W) 1310-1316.) See Music Department for specific course requirements.

**Applied Music Principal, Electric Guitar (MVJ 2323) 1-2 credits**

*Prerequisite: Audition required*

Sophomore-level private instruction for non-performance majors studying their principal applied areas. May be repeated for credit. See Music Department for specific course requirements.

**Applied Music Principal, Electric Bass (MVJ 2324) 1-2 credits**

*Prerequisite: Audition required*

Sophomore-level private instruction for non-performance majors studying their principal applied areas.

May be repeated for credit. See Music Department for specific course requirements.

**Applied Music Major MV (B,K,P,S,V,W 2420-2426) 2 credits**

Sophomore-level private instruction for performance majors studying their major applied area. May be repeated for a maximum of 4 credits. (See course description for MV(B,K,P,S,V,W) 1411-1416.) See Music Department for specific course requirements.

**Introduction to Vocal Pedagogy (MVV 2601) 1 credit**

*Prerequisite: Open to Music majors only*

For students taking applied voice as an introduction to their instrument. The course addresses basic vocal psychology, vocal health and preservation, vocal techniques, an introduction to the International Phonetic Alphabet, voice classifications and common voice disorders (symptoms and treatments).

**RI: Beginning Didgeridoo Workshop (MVW 2920 ) 1 credit**

This one-credit research-intensive (RI) course utilizes the didgeridoo as a vehicle for the creation of individual musical expression via experimentation with Aboriginal and contemporary approaches to composition performance and improvisation.

**Commercial Class Piano (MVK 3173) 1 credit**

*Prerequisites: MVK 2121 with a grade of "C" or higher; Music majors only*

A continuation of MVK 2121. This course is designed to teach additional keyboard skills and competencies to non-piano commercial Music majors.

**Applied Music Principal MV (B,K,P,S,V,W 3330-3336) 1 credit**

Junior-level private instruction for non-performance majors studying their principal applied area. (See course description for MV(B,K,P,S,V,W) 1310-1316.) May be repeated for a maximum of 2 credits. See Music Department for specific course requirements.

**Junior Performance Recital (MVO 3330) 0 credit**

*Prerequisite: Must pass sophomore level of applied lesson and be recommended for recital by the applied area*

*Corequisite: Applied at the junior level (numbers will vary by instrument)*

This course is required of all Performance majors during the semester of their junior recital. The 30-minute Junior Performance Recital must include works from style periods as designated in the applied syllabus and as appropriate for the instrument. Junior Performance Recital must be taken in conjunction with an applied lesson 3000 level. *Grading: S/U*

**Applied Music Principal, Electric Guitar (MVJ 3333) 1-2 credits**

*Prerequisite: Audition required*

Junior-level private instruction for non-performance majors studying their principal applied areas. May be repeated for credit. See Music Department for specific course requirements.

**Applied Music Principal, Electric Bass (MVJ 3334) 1-2 credits**

*Prerequisite: Audition required*

Junior-level private instruction for non-performance majors studying their principal applied areas. May be repeated for credit. See Music Department for specific course requirements.

**Applied Music Major MV (B,K,P,S,V,W 3430-3436) 2 credits**

Junior-level private instruction for performance majors studying their major applied area. (See course description for MV(B,K,P,S,V,W) 1411-1416.) May be repeated for a maximum of 4 credits. See Music Department for specific course requirements.

**Classical Guitar Pedagogy (MVS 3606) 2 credits**

Survey of classical guitar pedagogical materials and techniques.

**RI: Advanced Didgeridoo Workshop (MVW 4040 ) 1 credit**

*Prerequisite: MVW 2920 with a grade of "C" or better or permission of instructor*

This research-intensive (RI) course builds upon skills achieved in the previous didgeridoo course and emphasizes more advanced application of creative approaches to composition and performance on the contemporary didgeridoo.

**Applied Music Principal MV (B,K,P,S,V,W 4340-4346) 1 credit**

Senior-level private instruction for non-performance majors studying their principal applied area. (See course description for MV(B,K,P,S,V,W) 1310-1316.) May be repeated for a maximum of 2 credits. See Music Department for specific course requirements.

**Senior Performance Recital (MVO 4340) 0 credit**

*Prerequisite: Must pass the Junior Performance Recital (MVO 3330) and be recommended for recital by the applied area*

*Corequisite: Applied at the senior level (numbers will vary by instrument)*

This course is required of all Performance majors during the semester of their senior recital. The 60-minute Senior Performance Recital must include works from style periods as designated in the applied syllabus and as appropriate for the instrument. Senior Performance Recital must be taken in conjunction with applied lesson 4000 level. *Grading: S/U*

**Senior Music Education Recital (MVO 4342) 0 credit**

*Prerequisite: Must pass junior level applied and be recommended for recital by the applied area*

*Corequisite: Applied at the senior level (numbers will vary by instrument)*

This course is required of all Senior Music Education majors during the semester of their recital. The 30-minute recital must include works from style periods as designated in the applied syllabus and as appropriate of the instrument. Senior Music Recital must be taken in conjunction with an applied lesson 4000 level. *Grading: S/U*

### **Applied Music Principal, Electric Guitar (MVJ 4343) 1-2 credits**

*Prerequisite: Audition required*

Senior-level private instruction for non-performance majors studying their principal applied areas. May be repeated for credit. See Music Department for specific course requirements.

### **Applied Music Principal, Electric Bass (MVJ 4344) 1-2 credits**

*Prerequisite: Audition required*

Senior-level private instruction for non-performance majors studying their principal applied areas. May be repeated for credit. See Music Department for specific course requirements.

### **Applied Music Major MV (B,K,P,S,V,W 4440-4446) 2 credits**

Senior-level private instruction for performance majors studying their major applied area. (See course description for MV(B,K,P,S,V,W) 1411-1416.) May be repeated for a maximum of 4 credits. See Music Department for specific course requirements.

### **Piano Pedagogy 1 (MVK 4631 ) 3 credits**

The course provides knowledge, skills and experience in teaching elementary-level piano students. It examines various teaching method books and techniques. Further, it delves into the business aspects of private teaching and offers a clear picture of the goals and objectives of professional teaching.

### **Piano Pedagogy 2 (MVK 4633C) 3 credits**

This course provides knowledge, skills and experience in teaching intermediate-level piano students. It examines a broad range of piano repertoire including concertos and piano ensembles. It focuses on the business aspects of private teaching and offers a clear picture of the goals and objectives of professional teaching.

### **Piano Pedagogy 3 (MVK 4641C) 3 credits**

This course provides knowledge, skills and experience in teaching advanced-level piano students. It examines a broad range of piano repertoire including concertos and piano ensembles. It focuses on the business aspects of private teaching and offers a clear picture of the goals and objectives of professional teaching.

### **Vocal Pedagogy (MVV 4640) 2 credits**

*Prerequisites: MUE 2430 and MUS 2201*

The anatomy and physiology of the breathing and vocal apparatus and other techniques as they apply to teaching voice in a one-on-one setting.

## **Music Graduate Courses**

### **Music Composition (MUC 6251) 2 credits**

*Prerequisite: Permission of instructor*

Applied lessons in composition. Students compose original works in a variety of media and styles. May be repeated for credit.

### **Advanced Composing and Arranging for TV/Radio Commercials (MUC 6605) 3 credits**

*Prerequisite: Permission of instructor*

Course teaches students the basic composing and arranging techniques required to score commercials and jingles.

### **Advanced Music Composition for Film (MUC 6615) 3 credits**

*Prerequisite: Permission of instructor*

Course is designed to teach the basic composing, arranging, and techniques required to score films and television.

### **Music Education Seminar (MUE 6938) 3 credits**

An overview of various aspects of music education, including discussion of historical background, problems, philosophy, and current trends. Required of all M.M. in Music candidates with graduate assistantships.

### **Graduate Choral Conducting (MUG 6205) 2 credits**

Study of representative examples of choral literature and the conducting and rehearsal techniques needed for artistic realization of their performance.

### **Applied Graduate Choral Conducting (MUG 6206) 1-2 credits**

*Prerequisite: MUG 6205*

This course is available to students who have passed the choral conducting audition and who have selected choral conducting as their principal instrument at the graduate level. May be repeated for credit.

### **Graduate Instrumental Conducting (MUG 6305) 2 credits**

Study of representative examples of band and/or orchestral literature and the conducting and rehearsal techniques needed for artistic realization of their performance.

### **Applied Graduate Instrumental Conducting (MUG 6309) 1-2 credits**

*Prerequisite: MUG 6305*

Advanced in-depth study of orchestral and wind ensemble conducting through applied private lessons. Score study including historical research and theoretical analysis are components of this course. May be repeated for credit.

### **20th-Century Music (MUH 6375) 3 credits**

A survey of the history, literature, and theoretical developments in the music of the 20th century.

### **World Music Seminar (MUH 6588) 3 credits**

A series of graduate seminars each focusing on a specific world musical tradition or area. May be repeated for credit.

### **Women Composers in the Western Tradition (MUH 6625) 3 credits**

A survey of the works and historical context of women composers from the Middle Ages through the present. Issues in feminist musicology will also be considered.

### **Music History Seminar (MUH 6935) 3 credits**

*Prerequisite: Must pass Music History Placement Exam*

An in-depth study of selected historically significant aspects of music history from the ancient Greeks to the present. Required of all M.M. candidates in Music.

### **Graduate Piano Literature (MUL 6410) 3 credits**

*Prerequisites: MUL 4400, 4401*

The study of advanced piano works will include those in large forms. Students will prepare parts of large works for class.

### **Graduate Classical Guitar Literature (MUL 6435) 2 credits**

*Prerequisite: Admitted to master's degree program in Music*

In-depth study of classical guitar solo literature, chamber music, works for voice and guitar and for guitar and orchestra.

### **Survey of Orchestra Literature (MUL 6505) 3 credits**

Course provides a survey of orchestra literature from the early classical period through the 20th century, focusing on innovations, the changing roles of orchestral instruments, performance style and techniques, and the interpretive and/or compositional philosophies of the composers studied.

### **Graduate Survey of the Concerto (MUL 6528) 3 credits**

*Prerequisite or Corequisite: MUS 6716*

This course surveys the major repertoire for solo instrument(s) and orchestra from the Baroque era through the present day. It offers the solo instrumentalist the opportunity to better analyze, interpret, and prepare for the performance of concertos with orchestra. Non-performers will also benefit from in-depth discussion of selected repertoire by major concerto composers.

### **Survey of Symphonic Wind Literature (MUL 6555) 3 credits**

Students completing this course will be able to aurally identify the pivotal, important, and major works of the symphonic wind repertoire.

### **Survey of Chamber Music Literature (MUL 6565) 3 credits**

Survey of chamber music repertoire for piano and one other instrument, piano four-hands, piano trio, quartet, and quintet.

### **Survey of Chamber Wind Literature (MUL 6567) 3 credits**

Students completing this course will be able to aurally identify the pivotal, important, and major works of the wind ensemble repertoire, including works for 8 to 24 winds and percussion.

### **Graduate Survey of Art Song (MUL 6606) 3 credits**

Course will survey the major repertoire for solo voice and piano from the Classical era through to the present day.

### **Advanced Studies in Choral Music: A Survey of Choral Literature (MUL 6648) 3 credits**

A survey of choral forms and their development: the madrigal, motet, mass, cantata oratorio, and secular choral settings of the 19th and 20th centuries as well as major works.

### **Survey of Opera Literature (MUL 6671)**

*Prerequisite:* Successful completion of the History entrance exam

A survey of opera literature in western history and culture, the course includes historical, musical and dramaturgical analysis of opera literature from its origins through the Modern Era.

### **Advanced Music Publishing and Copyright (MUM 6306) 2 credits**

*Prerequisite: Permission of instructor*

This course teaches students how to manage their intellectual property.

### **Advanced Legal Issues for the Musician (MUM 6307) 3 credits**

Course presents an in-depth study of the legal aspects of the music business with an emphasis on

recording contracts and music publishing issues.

### **Advanced Audio Engineering for the Musician (MUM 6627) 2 credits**

*Prerequisite: Permission of instructor*

Teaches students the basics of audio engineering and recording techniques in an interactive environment. Students use the FAU recording studio to create projects and work together in a collaborative effort. They learn the process and skills necessary to engineer their own recordings and work effectively in a professional recording studio.

### **TV and Film Audio Post-Production Methods (MUM 6647) 3 credits**

*Prerequisites: MUM 4664 or permission of instructor*

An in-depth look at the film and TV industry as it pertains to the field of audio engineering. Students engage in high-level content generation based on state-of-the-art practices used by professionals in the field.

### **Advanced Music Marketing and Public Relations (MUM 6726) 2 credits**

Course covers the marketing and publicizing of music. Targeting the proper demographics, pricing, packaging, alternative marketing, and public relations will all be discussed.

### **Advanced Music Production (MUM 6727) 3 credits**

*Prerequisite: Permission of instructor*

This course teaches the advanced study of the artistic and technical skills necessary to be a music producer with a focus on record production.

### **Advanced Commercial Music Ensemble (MUN 6018) 1 credit**

*Prerequisite: Audition required*

The ensemble provides students with the tools and experience necessary to excel as studio and performing musicians in the commercial music world. Students analyze, study, arrange and perform a variety of commercial music styles. May be repeated for credit.

### **Graduate Chamber Winds (MUN 6146) 1 credit**

*Prerequisite: Permission of Instructor*

A performing ensemble in the Department of Music, the Florida Atlantic University Chamber Winds course provides member musicians with a rich, artistic experience through the formal performance of quality music for chamber wind ensembles including works for 4 to 18 players. May be repeated for credit.

### **University Symphony Orchestra (MUN 6215) 1 credit**

*Prerequisite: Audition required*

The Florida Atlantic University Symphony Orchestra is dedicated to performing standard repertoire in a wide variety of styles and periods at the highest levels of musicianship. May be repeated for credit.

**Choral Ensembles: Graduate Level (MUN 6315) 1 credit**

*Prerequisite: Audition required*

The Florida Atlantic University Choral Ensembles are open to FAU students by audition only. Class activities include weekly rehearsals and a minimum of two performances per semester. Enrollment is not limited to music majors or minors. May be repeated for credit.

**University Wind Ensemble (MUN 6425) 1 credit**

*Prerequisite: Audition required*

The Florida Atlantic University Wind Ensemble performs major, important works in a wide variety of styles. Each semester there is at least one concert performance. May be repeated for credit.

**Graduate Concert Percussion Ensemble (MUN 6445) 1 credit**

The Florida Atlantic University Concert Percussion Ensemble is a performing ensemble within the Department of Music, providing member musicians with a rich artistic experience through the formal performance of quality music for concert percussion. May be repeated for credit.

**Graduate Collaborative Piano Performance (MUN 6458) 1 credit**

*Prerequisite: Audition demonstrating fluent sight-reading at Royal Conservatory of Music level five or above*

This course is designed to increase practical piano performing experience in the realm of collaborative arts through weekly work in small ensembles of two or more performers. May be repeated for credit.

**Graduate Instrumental Chamber Music (MUN 6465) 1 credit**

The study and performance of chamber music literature appropriate to the following instrumental areas in any combination: piano (harpsichord, organ), strings, woodwinds, brass, percussion, guitar and harp. May be repeated for credit.

**Graduate Vocal Chamber Music (MUN 6468) 1-2 credits**

*Prerequisite: Permission of instructor*

Study and performance of vocal chamber music from art song literature, operatic/oratorio small ensembles and vocal chamber works with keyboard and other instruments. May be repeated for credit.

**Graduate Chamber Jazz Ensemble (MUN 6715) 1 credit**

*Prerequisite: Entrance by audition*

The study, preparation, and performance of historic and contemporary works for small jazz ensembles. May be repeated for credit.

**Graduate Large Jazz Ensemble (MUN 6716) 1 credit**

*Prerequisite: Entrance by audition*

The study, preparation, and performance of historic and contemporary works for the large jazz ensembles. May be repeated for credit.

**World Music Ensemble (MUN 6806) 1 credit**

This variable topics course is performance-based learning of world music ensemble tradition(s). Each semester the class will explore the music and culture of select genres chosen from the traditions of Africa, the Americas, and Asia. May be repeated for credit.

**Opera Workshop 1 (MUO 6505) 1 credit**

*Prerequisite: Permission of instructor*

Provides students with a closer look at the skills and techniques needed to be successful on the operatic stage, including audition technique, scene and aria analysis, a basic craft for acting, improvisation, stage movement, language declamation and dramatic and musical preparation to culminate in a staged performance of opera scenes.

**Opera Workshop 2 (MUO 6507) 1 credit**

*Prerequisite: Permission of instructor*

Provides students with a closer look at the skills and techniques needed in improvisation, stage movement, language declamation and dramatic and musical preparation. The semester culminates in a staged performance of one or more scenes from the operatic literature.

**Advanced Studies in Choral Literature: Mass and Motet (MUR 6108) 3 credits**

An historical study of the development of the mass and motet as musical forms.

**Graduate Music Internship (MUS 5941) 1-3 credits**

*Prerequisite: Permission of instructor*

This course is designed for graduate students who want to experience a work environment in music. This internship may be obtained from outside venues by the student or by the music program at Florida Atlantic University. Internship must reflect the student's degree concentration. Credits will vary depending upon the content of Internship.

**Lyric Diction 1 (MUS 6205) 2 credits**

*Prerequisites: Previous study of lyric diction and International Phonetic Alphabet or permission of*

*instructor*

A course in diction reviewing concepts of International Phonetic Alphabet and covering aspects of lyric diction as it relates to the graduate art song and operatic repertoire, with particular emphasis on the English, Italian, German and French languages. The course is appropriate both for singers and collaborative pianists.

**Lyric Diction 2 (MUS 6206) 1 credit**

*Prerequisites: Previous study of lyric diction and International Phonetic Alphabet or permission of instructor*

Consists of in-class coaching in lyric diction reviewing concepts of International Phonetic Alphabet and covers aspects of lyric diction as it relates to the graduate art song and operatic repertoire, with particular emphasis on English, Italian, German and French languages. The course is appropriate for singers, choral conductors and collaborative pianists.

**Introduction to Graduate Research (MUS 6716) 2 credits**

A comprehensive review of library research facilities available for advanced study in all areas of music. Required of all M.M. candidates in Music.

**Alexander Technique for the Musician (MUS 6805) 1 credit**

*Prerequisite: Permission of instructor*

Students learn to recognize and change habitual patterns of thought and movement that interfere with optimal performance in daily activities and in their performance discipline.

**Directed Independent Study (MUS 6906) 1-4 credits**

*Prerequisite: Permission of instructor*

Total credit for independent study in any one semester is restricted. This is an intensive study of theoretical or historical topics and composition. A research paper or composition is required. Consult Department advisor. May be repeated for credit.

**Special Topics (MUS 6933) 1-5 credits**

*Prerequisite: Permission of instructor*

The study of a special area of music. Topic will vary. The course may be repeated for credit.

**Advanced Commercial Music Internship (MUS 6940) 1-3 credits**

*Prerequisites: Graduate standing, permission of instructor*

Designed for graduate students who want to experience a work environment in the music business. Assignments may include music licensing, copyright registration, audio engineering, concert promotion, royalty collection, public relations, music production, as well as other related music

industry activities. Credits vary depending upon the internship. *Grading: S/U*

### **Thesis/Recital/Lecture (MUS 6971) 1-6 credits**

Presentation of a project in the form of a thesis, performance recital, or a combined lecture/recital.

*Grading: S/U*

### **Graduate Project (MUS 6975) 4 credits**

*Prerequisite: Permission of instructor or project advisor*

This course is required as the final capstone course, in lieu of the thesis, for all students in the Commercial Music concentration or Composition option of the Master of Music degree. This course is taken during the semester of the student's final project or composition preparation and oral comprehensive exams based on the project prepared or the techniques and processes implemented in the composition. *Grading: S/U*

### **Graduate Recital (MUS 6976) 4 credits**

*Prerequisite: Permission of instructor*

This course is required as the final capstone course, in lieu of the thesis, for all Graduate Performance majors in the following concentrations: Applied instruments or Voice, Choral or Wind Conducting, during the semester of their recital. Includes a 60-minute performance and oral comprehensive exam based on the literature performed. *Grading: S/U*

### **Graduate Orchestration (MUT 6346) 2 credits**

*Prerequisite: Permission of instructor*

Scoring for a variety of instrumental ensembles, with a emphasis on concert, film and commercial music.

### **Music Seminar in Theoretical Styles (MUT 6935) 3 credits**

*Prerequisite: Must pass Graduate Music Theory Placement Exam or earn a grade of "B" or higher in MUT 6936*

Chronological study of harmonic, melodic, rhythmic, and formal features of traditional music by means of analysis along with the composition and performance of original works in specific forms and styles. Required of all M.M. in Music candidates.

### **Seminar in Music Theory Pedagogy (MUT 6936) 3 credits**

A survey of analytic and pedagogic problems in the field of music theory, including a study of materials and publications currently available. May not be taken for M.M. in Music degree credit.

### **Graduate Applied Music - Trumpet (MVB 6351) 1-2 credits**

May be repeated for credit.

**Graduate Applied Music - Horn (MVB 6352) 1-2 credits**

May be repeated for credit.

**Graduate Applied Music - Trombone (MVB 6353) 1-2 credits**

May be repeated for credit.

**Graduate Applied Music - Euphonium (MVB 6354) 1-2 credits**

May be repeated for credit.

**Graduate Applied Music - Tuba (MVB 6355) 1-2 credits**

May be repeated for credit.

**Graduate Applied Music - Piano (MVK 6351) 1-2 credits**

May be repeated for credit.

**Graduate Piano Pedagogy (MVK 6650) 3 credits**

Students will prepare teaching techniques on intermediate through advanced repertoire. Instructor will evaluate teaching techniques and suggestions. New concepts in teaching will be discussed.

**Graduate Piano Pedagogy 2 (MVK 6651) 3 credits**

*Prerequisite: MVK 6650*

Students will learn how to teach advanced piano works, including piano concerti, cyclic works, and longer piano sonatas.

**Graduate Applied Music - Percussion (MVP 6351) 1-2 credits**

May be repeated for credit.

**Graduate Applied Music - Violin (MVS 6351) 1-2 credits**

May be repeated for credit.

**Graduate Applied Music - Viola (MVS 6352) 1-2 credits**

May be repeated for credit.

**Graduate Applied Music - Violoncello (MVS 6353) 1-2 credits**

May be repeated for credit.

**Graduate Applied Music - String Bass (MVS 6354) 1-2 credits**

May be repeated for credit.

### **Graduate Applied Music - Guitar (MVS 6356) 1-2 credits**

May be repeated for credit.

### **Graduate Orchestral Repertoire (MVS 6550) 3 credits**

Applied course in orchestral excerpts for violin, viola, cello or double bass. Specific repertoire is determined by the applied lesson instructor. Students also attend weekly string studio class.

### **Graduate String Pedagogy (MVS 6650) 3 credits**

Concentrates on the pedagogy and technique of string performance.

### **Graduate Classical Guitar Pedagogy (MVS 6652) 2 credits**

*Prerequisite: Admitted to master's degree program in Music*

In-depth survey of classical pedagogical materials and techniques at beginning through advanced levels.

### **Graduate Applied Music - Voice (MVV 6351) 1-2 credits**

May be repeated for credit.

### **Vocal Pedagogy (MVV 6652) 2 credits**

Course provides students with resources and information regarding the anatomy and physiology of the vocal apparatus and practical methodology for the voice studio and the choral rehearsal.

### **Graduate Vocal Pedagogy 2 (MVV 6662) 1 credit**

*Prerequisite: MVV 6652*

Provides students with resources and information on practical methodology for voice studio. Students engage in supervised teaching.

### **Beginning Didgeridoo Workshop (MVW 6150) 1 credit**

The aim of this course is the development of basic didgeridoo techniques, such as circular breathing, tone production, and vocalization, through hands-on participation, group interaction, performance, and composition.

### **Advanced Didgeridoo Workshop (MVW 6160) 1 credit**

*Prerequisite: MVW 2920 or MVW 6150 with grade of "C" or higher or permission of instructor*

As a sequence to MVW 2920 or MVW 6150, this course will continue the development of playing techniques, with the goal of the development of a personal playing style through composition and performance.

### **Graduate Applied Music - Flute (MVW 6351) 1-2 credits**

May be repeated for credit.

### **Graduate Applied Music - Oboe (MVW 6352) 1-2 credits**

May be repeated for credit.

### **Graduate Applied Music - Clarinet (MVW 6353) 1-2 credits**

May be repeated for credit.

### **Graduate Applied Music - Bassoon (MVW 6354) 1-2 credits**

May be repeated for credit.

### **Graduate Applied Music - Saxophone (MVW 6355) 1-2 credits**

May be repeated for credit.

For all graduate-level applied music study:

*Prerequisites: Four years of undergraduate applied music and permission of instructor.*

Graduate applied music study may be repeated for credit.

## **THEATRE AND DANCE**

### **Undergraduate Courses/ [link to graduate courses](#)**

#### **Modern Dance 1 (DAA 2100) 3 credits**

A beginning course in the development of modern dance technique, composition and theory. May be repeated for credit.

#### **Ballet 1 (DAA 2200) 3 credits**

Beginning-level ballet technique course comprising terminology, anatomy, history, theory, and performance for students with little or no previous ballet experience. May be repeated for credit.

#### **Tap Dance 1 (DAA 2520) 3 credits**

A beginning course in the development of tap dance technique, composition and theory. May be repeated for credit.

#### **Modern Dance 2 (DAA 3109) 3 credits**

*Prerequisites: Permission of instructor; audition first day of class*

This course concentrates on various aspects of intermediate modern dance. These include rhythm, body

isolations, somatic practices, modern dance history and vocabulary. Anatomical and kinesiological principles that pertain to class content are also presented to encourage the student to perform the movement thoughtfully and correctly. Students master basic modern steps, gain a greater understanding of musicality, develop creative practices, create and perform self-choreography and analyze dance. May be repeated for credit.

### **Ballet 2 (DAA 3214) 3 credits**

*Prerequisites: Permission of instructor; audition first day of class*

This class is an intermediate/advanced level ballet course composed primarily of movement (performance as opposed to lecture) and includes movement projects, theory, observation, learning and performance of dance(s). Some dance history and anatomy for dancers are taught. Students are required to travel to and attend live professional dance performances and to perform. May be repeated for credit.

### **Jazz Dance (DAA 3508) 3 credits**

*Prerequisite: DAA 2100 or DAA 3214 or permission of instructor/audition*

A beginning course in the development of jazz dance technique, composition and theory. May be repeated for credit.

### **Dance for Musical Theatre (DAA 4583) 3 credits**

*Prerequisite: DAA 2200 or DAA 3508*

This course is composed primarily of movement and performance as opposed to lecture. There are movement projects, mock auditions, observation and performance of various musical theatre dance styles. Musical theatre dance history is taught and discussed through the art of dance. Students are required to travel to and attend live professional dance performances and to perform.

### **Appreciation of Dance (DAN 2100) 3 credits**

A study of the aesthetics, origins, and development of dance. Lecture, discussion, videos, and, when possible, live performances. This is a General Education course.

### **Directed Independent Study (DAN 4905) 1-4 credits**

### **Special Topics (DAN 4930) 1-3 credits**

*Prerequisite: Permission of instructor*

The study of a special area in dance. Topics will vary. May be repeated for credit.

### **Appreciation of Theatre (THE 2000) 3 credits**

In this course, students will explore dramatic structure, techniques and various organizational elements. The course provides an introduction to theatre as a collaborative art form through the critical analysis of

its historical context, production, theory and connections to theatrical literature, including the Western canon. This is a General Education course.

### **Script Analysis (THE 2305) 3 credits**

Lecture/discussion course designed to help the student learn how to read drama as a performance-based art form and imagine the transition from page to stage. A variety of classical and modern scripts are used.

### **History of Western Dress (THE 3262) 3 credits**

This course is a survey of the evolution of clothing styles and materials through history, from early Mid-Eastern ancient civilizations to the present day and includes identifying and examining movements and trends in clothing and fashion. Exploring how sociological, political, economic, artistic, geographic, technological and other factors have affected clothing through the ages illustrates the relationship between clothing and broad social, historical and artistic developments.

### **Production Hour (THE 3952) 1-2 credits**

*Prerequisite: TPA 2200 with a grade of "C" or better or permission of instructor*

Participation in the production program of the curriculum; work in preparation and performance. May be repeated.

### **Theatre History 1 (THE 4110) 3 credits**

History of theatre from the Greeks to the 17th century.

### **Theatre History 2 (THE 4111) 3 credits**

History of theatre from the 17th century to the present.

### **Classical World Drama (THE 4213) 3 credits**

This course offers a critical examination of selected classical dramatic works, from the Greek era through the Elizabethan, French Neoclassical, Restoration and Spanish Golden Age, with emphasis on their original staging and contemporary interpretations.

### **History of Design Styles for Theatrical Designers (THE 4282) 3 credits**

*Prerequisite: TPA 2000*

Students study decorative art and design from Classical Greece through the 20th century to help understand how design aesthetics change over time and to reinforce the relationships between design and the major historical events that shape each time period. Lectures focus on historical events and period aesthetics from the standpoint of how theatrical designers utilize the information to inform design choices.

### **History of Fashion and Decor 1 (THE 4284) 3 credits**

Survey of ancient through 14th century European historical detail in clothing, architecture and artifacts as a vocabulary used in theatrical design.

### **Shakespeare on Stage and Screen (THE 4335) 3 credits**

A seminar devoted to the study of selected plays by William Shakespeare, both comedies and tragedies, as they were performed from the Elizabethan era to the present day. Students learn to understand Shakespeare's texts as intended primarily for performance.

### **Drama on Stage and Screen (THE 4370) 3 credits**

Selected playscripts and screenplays are studied, with emphasis on analyzing how dramatic literature functions in the theatre and in motion pictures. Consideration is given to such matters as dramatic structure, genres, audience, and performance styles.

### **20th Century World Drama (THE 4371) 3 credits**

Critical examination of works by major dramatists of the 20th century from Chekhov and Synge through Samuel Beckett and Caryl Churchill, with emphasis on original staging, audience reaction and critical interpretations.

### **Directed Independent Study (THE 4905) 1-4 credits**

*Prerequisite: Permission of Department Chair*

May be repeated for credit.

### **Special Topics (THE 4930) 1-3 credits**

*Prerequisite: Permission of instructor*

The study of a special area in theatre. Topics will vary. May be repeated for credit.

### **Senior Capstone (THE 4950) 1-2 credits**

*Prerequisites: TPA 2200 with minimum grade of "C" or permission of instructor*

Students demonstrate what they have learned during their years as theatre design/tech majors as well as have a focused experience in their field in a supervisory position. Each student writes a paper reflecting on the knowledge gained and their experiences.

### **Production Capstone (THE 4954) 1-2 credits**

The capstone is a self-guided class required of all Theatre majors. It is designed to connect experiences and information gained during their research time at the University. Each student writes a paper reflecting on the knowledge gained and their experiences.

### **Summer Repertory Theatre Workshop (THE 4955) 1-18 credits**

The study and practical application of acting/directing and/or technical/design skills for repertory theatre performance. May be repeated for credit.

### **Visual Imagination (TPA 2000) 3 credits**

An introductory course dealing largely with the elements of design and the principles of composition as they apply to the various subdisciplines of theatre art.

### **Introduction to Production (TPA 2200) 3 credits**

Theory and stage practice in the planning, construction and operation of stage production elements and related equipment.

### **Theatrical Makeup (TPA 2248) 3 credits**

*Prerequisite: B.F.A. standing or by permission of instructor*

Actor training in the basic techniques of stage makeup application.

### **Sound Design (TPA 3262) 3 credits**

*Prerequisite: TPA 2200*

This is an introductory course to live and recorded sound use on the stage. This course introduces the process and skills necessary to analyze a script for sound needs, locate and capture the sounds, edit the sounds into a usable format and finally prepare the sounds for playback in a production.

### **Lighting Design 1 (TPA 3022) 3 credits**

*Prerequisites: TPA 2000 and TPA 2200*

This course enables students to develop an understanding of the equipment, process and paperwork involved in the creation of lighting for live theatre. Through this class, students explore what a lighting designer does, the processes a designer may use in the creation of a design and how the designer executes ideas.

### **Costume Design 1 (TPA 3045 ) 3 credits**

*Prerequisites: TPA 2000 and TPA 2200*

Course provides instruction in the basic techniques of theatrical costume design. Course includes figure drawing; how the elements and principles of design relate to and are utilized in costume design; collaboration; script analysis; research methods; costume design process; character analysis; the function and purpose of costumes in theatre; rendering techniques; and the use of various media.

### **Scene Design 1 (TPA 3064C ) 3 credits**

*Prerequisites: TPA 2000 and TPA 2200*

This course offers an introduction to the elements of design with a focus on conceptualization and problem solving. Students are also introduced to the professional design process used to create scenic designs for theatre productions. Students produce research and perspective and technical drawings used to communicate information to both the design team and the scene shop. Students also produce scale models of their designs.

### **Scenery Design Topics (TPA 3092) 3 credits**

*Prerequisites: TPA 2000 and TPA 2200*

Course covers special topics areas, such as scene painting, advanced rendering, and model construction. Course may be repeated for credit with new topic only.

### **Lighting Design Topics (TPA 3223C) 3 credits**

*Prerequisites: TPA 2000 and TPA 2200*

Course covers special topics areas, such as lens theory, electrical theory, automated luminaries, and paperwork. Course may be repeated for credit with new topic only.

### **Stage Costume Topics (TPA 3231) 3 credits**

*Prerequisites: TPA 2000 and TPA 2200*

Course covers special topics areas, such as dying and painting, costume crafts, patterning, construction, and millinery techniques. Course may be repeated for credit with new topic only.

### **Stage Technology Topics (TPA 3311C) 3 credits**

*Prerequisites: TPA 2000 and TPA 2200*

Course covers special topics areas, such as computer-aided design, welding, structural engineering, advanced carpentry skills, or scenic automation. Course may be repeated for credit with new topic only.

### **Drafting for the Theatre (TPA 3348C ) 3 credits**

*Prerequisites: TPA 2000 and TPA 2200*

Course focuses on drafting techniques, particularly on concepts and methods of using programs such as AutoCAD and Vectorworks for entertainment design and technology.

### **Costume Design 2 (TPA 4041) 3 credits**

*Prerequisite: Permission of instructor*

Advanced classroom and laboratory study of the principles of modern costume design for the theatre.

### **Stage Management (TPA 4601) 3 credits**

*Prerequisites: TPA 2000, TPA 2200, and TPP 2110*

Detailed study in stage management techniques and practical application during the preproduction,

rehearsal, and performance processes.

### **Senior Capstone (TPA 4950) 1-2 credits**

*Prerequisite: TPA 2200*

Students demonstrate what they have learned during their years as theatre design tech majors, while having a focused experience in their field in a supervisory position. Each student writes a paper reflecting on the knowledge gained and their experiences.

### **Acting 1 (TPP 2110) 3 credits**

A beginning-level acting class for theatre majors only. This course begins to define the highly disciplined process for the future professional actor. Explorations in three basic areas of human involvement; relationship to objects, environment, and people.

### **Voice for the Actor 1 (TPP 2710) 3 credits**

Study and practice in voice principles for the stage. Special emphasis on integrated use of voice and body, stage projection, and recognition of improper use of voice. Theatre majors only by permission of instructor.

### **Music Theatre Applied Studio/Voice 1 (TPP 2714C) 1-2 credits**

*Prerequisites: TPP 4721C with minimum grade of "C" or permission of instructor; for Music Theatre majors only*

Continuation of Music Theatre Voice Training with individualized instruction.

### **Music Theatre Craft (TPP 2740C) 1-2 credits**

*Prerequisite: For Music Theatre majors only or permission of instructor*

Introduction to the voice, diction and physiology of the voice of a Musical Theatre performer.

### **Music Theatre Applied Studio/Voice 2 (TPP 2741C) 1-2 credits**

*Prerequisites: TPP 2714C with minimum grade of "C" or permission of instructor; for Music Theatre majors only*

Continuation of Music Theatre Voice Training with individualized instruction.

### **Speech for the Actor 1 (TPP 2810 ) 3 credits**

*Prerequisite: TPP 2710*

Practice in skills of articulation and projection for the stage. Includes study of IPA "stage standard" speech and dialects.

### **Musical Theatre Technique (TPP 3251) 3 credits**

*Prerequisites: TPP 2110, permission of instructor*

Covers the techniques of acting for the musical theatre. Class work is largely performance-based, with an exploration of song scores as the actor's text. Explores characterization and issues of acting styles.

**Music Theatre Studio 1 (TPP 3257C) 0 credits**

*Prerequisite: Permission of instructor*

Introductory technical aspects of the voice as applied to Musical Theatre Singing through lyrics and script. *Grading: S/U*

**Movement for Actors (TPP 3510) 3 credits**

A course in developing awareness, freedom, and ease of movement. Students study a variety of movement disciplines and develop a movement vocabulary for use in warm-up, rehearsal, and performance.

**Stage Combat (TPP 3531) 3 credits**

*Prerequisites: TPP 2110 and TPP 4175*

A practical physical study for the intermediate to advanced actor, to safely create the illusion of stage violence. This course focuses on safe techniques, and the mental and physical discipline needed for unarmed as well as some armed combat within a scene study context.

**Voice for the Actor 2 (TPP 3711) 3 credits**

*Prerequisite: TPP 2710*

Continued study in voice production for the stage with emphasis placed on direct application of the principles to various forms of dramatic text and character development. Will focus on specific individual challenges in the voicing process. By permission of instructor.

**Speech for the Actor 2 (TPP 3730) 3 credits**

Advanced study of dialects and their application to the process of characterization.

**Music Theatre Applied Studio/Voice 3 (TPP 3745C) 1-2 credits**

*Prerequisites: TPP 2714C with minimum grade of "C" or permission of instructor; for Music Theatre majors only*

Continuation of Music Theatre Voice Training with individualized instruction.

**Music Theatre Applied Studio/Voice 4 (TPP 3747C) 1-2 credits**

*Prerequisites: TPP 3745C with minimum grade of "C" or permission of instructor; for Music Theatre majors only*

Continuation of Music Theatre Voice Training with individualized instruction.

### **Acting 4 (TPP 4140) 3 credits**

*Prerequisite: TPP 4176 or equivalent*

Advanced work in acting heightened language, specifically Shakespeare. This class is part technical and part practical. Technically, students learn iambic pentameter scansion, rhetoric, antithesis, imagery and scene scoring focusing on verse text. Practically, students learn how to apply the technical aspects to the imaginative, physical and vocal creative acting work.

### **Acting 2 (TPP 4175) 3 credits**

*Prerequisite: TPP 2110 or equivalent*

Studies and projects in the development of a variety of characters through a scene study approach, each assignment will have defined goals toward specific acting competencies.

### **Acting 3 (TPP 4176) 3 credits**

*Prerequisite: TPP 4175*

Projects in advanced characterization.

### **Audition and Career Forum (TPP 4224) 3 credits**

*Prerequisite: Theatre major or permission of instructor*

This course focuses on the transition from student to working actor. In addition to some practical mock audition work, lecture and discussion topics may include, but are not limited to: unions, agents, professionalism/attitude, résumés, headshots, casting procedures, auditions and the "day job."

### **Music Theatre Audition (TPP 4227C) 1-3 credits**

*Prerequisite: Music Theatre major or permission of instructor*

This course focuses primarily on the music theatre audition. Acting skills learned in previous classes are applied to the style of music theatre. Students learn a classical music theatre song and a contemporary music theatre song that are audition-ready by the end of the semester.

### **Music Theatre Scene Study (TPP 4252C) 1-3 credits**

*Prerequisite: Music Theatre major or permission of instructor*

This is an advanced scene study acting class for the B.F.A. Theatre major with a concentration in the style of music theatre. Preliminary work is in learning how to act heightened language, specifically music theatre. This class builds on actor training established in Acting 3 and Acting Shakespeare.

### **Music Theatre Studio 2 (TPP 4258C) 0 credits**

*Prerequisite: Permission of instructor*

Introductory technical aspects of the voice as applied to Musical Theatre Singing through lyrics and script. *Grading: S/U*

### **Acting 5 (TPP 4265) 3 credits**

*Prerequisites: TPP 2110, TPP 4175 and TPP 4176*

Advanced work in acting heightened language, specifically Moliere (heroic couplets), Restoration Comedy and Comedy of Manners (Wilde). This class is part technical and part practical. It covers scansion, inflection, rhetoric, antithesis, imagery and scene scoring, focusing on "heightened" texts.

### **Acting for the Camera 1 (TPP 4268C) 3 credits**

*Prerequisite: TPP 4175 or permission of instructor*

Course is focused on techniques to aid the actor in the transition from stage to film work. An examination of film acting and its unique challenges, this advanced acting course effectively examines many of the most common situations faced by the film actor and solutions to the problems they present.

### **Acting for the Camera 2 (TPP 4269) 3 credits**

*Prerequisite: TPP 4268C or permission of instructor*

This is an advanced acting class for the future acting professional, specifically advanced work in acting for the camera. Now that students are successfully getting "over the bar" in their camera work, this course begins a series of challenges to increase their acting for camera range. Through a series of in-class exercises, monologues and two-person scenes, students learn how to become versatile actors who can give the director what they need. Additionally, students learn how to adapt to various camera acting styles (superhero, classical acting, fight scenes, etc.). Finally, students continue to develop their audition/self-submit skills through in-class and at-home assignments.

### **Directing 1 (TPP 4310) 3 credits**

*Prerequisites: TPP 2110, TPP 4175 and permission of instructor*

Students gain practical experience in play direction through the study and application of script breakdown and analysis, basic staging techniques and basic directing theories. Students direct a scene or "10-minute" play.

### **Movement for the Actor 2 (TPP 4511) 3 credits**

*Prerequisite: TPP 3510 or permission of instructor*

Continued study in developing awareness, freedom and ease of movement for the stage with direct application of these principles to text and character study. Various theatre movement systems and luminaries are covered.

### **Stage Combat 2 (TPP 4532) 3 credits**

*Prerequisite: TPP 2110 or permission of instructor*

A practical study in blade play and violence for the stage. The focus is on safe technique, the physical

discipline of impulse response and moment-to-moment playing and reaction. 30 hours of a single Society of American Fight Director's recognized weapon (Unarmed/Hand to Hand, Rapier and Dagger, Knife, Single Sword/Swashbuckling, Broadsword, Sword and Shield, Smallsword, and Quarterstaff) is studied. A Skills Proficiency Test in the context of scene study will be given and adjudicated by an SAFD-recognized Fight Master.

### **Dramatic Writing for Stage and Screen 1 (TPP 4600) 3 credits**

*Prerequisite: Permission of instructor*

Study of the arts and craft of writing for the stage and film. Analysis of selected contemporary scripts. Students write a short play or film script.

### **Dramatic Writing for Stage and Screen 2 (TPP 4601) 3 credits**

*Prerequisite: TPP 4600*

Advanced work in writing for the stage and other media. Selected playscripts and screenplays will be examined. Students will write a full-length play or screenplay.

### **Music Theatre Performance (TPP 4721C) 1-2 credits**

*Prerequisites: TPP 2740C with minimum grade of "C" or permission of instructor; for Music Theatre majors only*

Technical aspects of the voice as applied to musical theatre singing through lyrics and script.

### **Music Theatre Applied/Studio Voice 5 (TPP 4748C) 1-2 credits**

*Prerequisites: TPP 3747C with minimum grade of "C" or permission of instructor; for Music Theatre majors only*

Continuation of Music Theatre Voice Training with individualized instruction.

### **Music Theatre Applied/Studio Voice 6 (TPP 4749C) 1-2 credits**

*Prerequisites: TPP 4748C with minimum grade of "C" or permission of instructor; for Music Theatre majors only*

Continuation of Music Theatre Voice Training with individualized instruction.

## **Theatre and Dance Graduate Courses**

### **Directed Independent Study (DAN 5905) 1-3 credits**

*Prerequisite: Permission of instructor*

Reading and research in an area of dance. The topic is to be approved by the instructor. The course may be repeated for credit.

### **Special Topics in Dance (DAN 5930) 1-3 credits**

*Prerequisite: Permission of instructor*

The study of the selected area in dance. Topics may vary. The course may be repeated for credit.

### **Special Topics (THE 5930) 1-3 credits**

The study of a special area in theatre. Topics will vary. May be repeated for credit.

### **Graduate Script Analysis (THE 6309) 3 credits**

*Prerequisite: M.F.A. Theatre majors only unless prior permission is received from the instructor*

Assists students in learning to read play scripts as the basis of a performance-based art form, to deconstruct and analyze scripts and understand their meaning and functionality and to image the script's transition from page to stage, allowing the student to apply those skills to their individual artistic process.

### **Seminar in Dramatic Theory and Genre (THE 6507) 3 credits**

*Prerequisite: Permission of instructor*

The study of selected theories of drama from Aristotle to the present.

### **Directed Independent Study (THE 6909) 1-4 credits**

Involves reading, research, and creative activities in theatre with a program of study selected and reviewed in consultation with Department faculty members. The course may be repeated for credit.

### **Special Topics (THE 6930) 1-3 credits**

The study of a special area in theatre. Topics will vary. May be repeated for credit.

### **Professional Internship (THE 6940) 1-9 credits**

Involves theatre internship residency in an accredited professional company in acting, directing, design, technical theatre, or theatre management. The course may be repeated for credit. *Grading: S/U*

### **Summer Repertory Theatre Workshop (THE 6955) 1-14 credits**

The advanced study and practical application of acting/directing and/or technical/design skills for repertory theatre performance. The course may be repeated for credit.

### **Graduate Production Project (THE 6972) 1-6 credits**

*Grading: S/U*

### **Advanced Scene Design (TPA 5062L) 3 credits**

*Prerequisite: TPA 3064C*

The solving of assigned problems and criticism in designing plays and musicals. Includes evaluation of

styles in settings.

### **Graduate Acting Studio 1 (TPP 5115) 3 credits**

Advanced methods of performance in realistic plays.

### **Graduate Acting Studio 2 (TPP 5116) 3 credits**

Advanced methods of performance in classical plays.

### **Acting for the Camera (TPP 5266) 3 credits**

*Prerequisites: TPP 2110, TPP 4175 and TPP 4176*

An acting course that identifies the special needs of the actor in front of the camera in either film or videotape. This course provides a basic working vocabulary and the techniques needed to confront the major issues of camera acting.

### **Graduate Acting for Film and Television (TPP 5267) 3 credits**

*Prerequisites: TPP 5115, 5116*

Studio class designed to give the graduate actor experience in the practical application of techniques utilized in commercial, film, and television acting.

### **Graduate Acting Studio 3 (TPP 6146) 3 credits**

*Prerequisites: TPP 5115, 5116*

A continuation of acting training with emphasis on Shakespeare.

### **Graduate Acting Studio 4: Special Challenges in Acting (TPP 6147) 3 credits**

*Prerequisites: TPP 5115, 5116, 6146*

Through consultation with the collected performance faculty, students will identify specific challenges in their individual acting process and, through targeted scene study, discover the means to overcome them.

### **Movement for the Graduate Actor 1 (TPP 6515) 2 credits**

*Prerequisite: M.F.A. in Theatre majors only*

Movement training for the graduate actor emphasizing ensemble building, body attunement and improved impulse response playing. Students study Viewpoints and Composition where creative scene work that is driven by physicality is explored, with a minimum use of text.

### **Movement for the Graduate Actor 3 (TPP 6517) 2 credits**

*Prerequisite: TPP 6535 with minimum grade of "B-"*

A practical study that trains the actor to create the illusion of physical violence. The focus is on safe technique, the physical discipline of impulse response and moment-to-moment playing and reacting.

Thirty hours of a single Society of American Fight Directors' weapon is studied.

### **Movement for the Graduate Actor 4 (TPP 6518) 2 credits**

*Prerequisite: TPP 6517 with minimum grade of "B-"*

Course continues Alexander Technique work with emphasis on self-assessment of awareness of physical habits, development of the ability to self-correct and awareness of inefficient physical patterning choices that are detrimental to the actor. Additional exploration of Feldenkrais, Grotowski, Laban, Suzuki, Neutral Mask and Mask may be utilized as a means of engaging in the graduate actor's full physical capacity as a storyteller.

### **Movement for the Graduate Actor 2 (TPP 6535) 2 credits**

*Prerequisite: TPP 6515 with minimum grade of "B-"*

The Alexander Technique is studied to address physical patterning and the graduate actor's habitual movement choices. The emphasis is on the release of physical tension in performance, a more aligned posture and more efficient use of the body as a storytelling instrument.

### **Voice for the Graduate Actor 1 (TPP 6715) 2 credits**

*Prerequisite: M.F.A. in Theatre majors only*

Vocal training for the graduate actor emphasizing release of physical tension as well as proper use of the vocal apparatus to enhance resonance, projection and the ability to work on impulse.

### **Voice for the Graduate Actor 2 (TPP 6716) 2 credits**

*Prerequisites: TPP 6715 with a grade of B- or higher and M.F.A. in Theatre majors only*

Continued voice work with emphasis on self-assessment of vocal habits and development of the ability to self-correct any that are detrimental to the actor. The use of the voice in classical texts is explored.

### **Voice and Speech for the Graduate Actor 3 (TPP 6717) 3 credits**

*Prerequisites: TPP 6716 with a grade of B- or higher and M.F.A. in Theatre majors only*

Graduate voice and speech work with emphasis on vocal variety, flexibility, accent acquisition and intelligibility utilizing the works of Shakespeare. Graduate voice work with emphasis on vocal variety and flexibility utilizing the works of Shakespeare.

### **Voice and Speech for the Graduate Actor 4 (TPP 6718) 3 credits**

*Prerequisites: TPP 6717 and TPP 6819 with a grades of B- or higher and M.F.A. in Theatre majors only*

Advanced accent work with a focus on researching, designing, articulating to others and performing with an accent while maintaining vocal power, flexibility, resonance and intelligibility.

### **Speech for the Graduate Actor 1 (TPP 6817) 2 credits**

*Prerequisite: M.F.A. in Theatre majors only*

Advanced speech course for the graduate actor focusing on articulation for intelligibility and familiarity with the International Phonetic Alphabet and its application in accent work.

### **Speech for the Graduate Actor 2 (TPP 6818) 2 credits**

*Prerequisites: TPP 6817 with a grade of B- or higher and M.F.A. in Theatre majors only*

Training for the graduate actor in accent acquisition and performance.

### **Speech for the Graduate Actor 3 (TPP 6819) 3 credits**

*Prerequisites: TPP 6818 with a grade of B- or higher and M.F.A. in Theatre majors only*

Advanced work on the articulation of sound in the works of William Shakespeare, as well as training in accent acquisition.

## VISUAL ARTS AND ART HISTORY

### **Undergraduate Courses/ [link to graduate courses](#)**

#### **Honors Art Appreciation (ARH 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: Approval from the University Honors Program; students must satisfy college prep requirements if not already enrolled in undergraduate study.*

Honors section of art appreciation. Introduction to the visual arts with slides and films.

#### **Art Appreciation (ARH 2000) 3 credits**

In this course, students will develop an appreciation of and the ability to think critically about culture and be provided with the tools to understand, analyze and discuss works of visual art and material culture. This is a General Education course.

#### **Art History Survey 1 (ARH 2050) 3 credits**

*Prerequisite: Students must satisfy college prep requirements if not already enrolled in undergraduate study*

The first half of a two-course sequence in the history of art with ARH 2051. Delineates the development of visual art media from their first appearance in the Paleolithic period through the floruit of Classical antiquity and the re-ordering of art in the Middle Ages. Architecture is treated as a form of art, as well as a venue for other art media, such as sculpture and painting.

### **Art History Survey 2 (ARH 2051) 3 credits**

*Prerequisite: Students must satisfy college prep requirements if not already enrolled in undergraduate study*

The second half of a two-course sequence in the history of art with ARH 2050. Delineates the development of visual art media from the European Renaissance through the present day. In addition to painting, sculpture, architecture and other art media, this course explores the often competing discourses surrounding them, such as art criticism, theory, philosophical debate and issues regarding patronage and reception.

### **Directed Independent Research in Art History (ARH 2915) 1-4 credits**

*Prerequisite: Permission of instructor*

Independent undergraduate research in areas of student interest.

### **Art History Study Abroad (ARH 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **History of Ceramics (ARH 4013) 3 credits**

*Prerequisite: ARH 2050 and ARH 2051 or permission of department*

Explores the many aspects of art in clay, from pottery to sculpture, on a global scale. While articulated in terms of chronology and geography, the course highlights common socioeconomic contexts of production, as well as issues regarding the role of the individual, gender, economic status and other factors that have influenced and conditioned ceramics as a craft and as an art medium.

### **Greek Art and Archaeology (ARH 4130) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 or permission of department*

A survey of art and archaeology of the Greeks and peoples related to their ancient civilization from prehistoric times through the advent of the Roman domination in the first century B.C.E. Special emphasis is given to the Bronze Age proto-civilizations that spawned Greek myths and legends (e.g. Minos of Crete and the Trojan War), as well as the achievements of the Archaic, Classical and Hellenistic periods in the first millennium B.C.E.

### **Rome Across the Centuries (ARH 4152) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 or permission of department*

A survey of archaeological, art historical and historical issues pertaining to the development of the city of Rome from its earliest prehistory through the 20th century. Focus on major monuments of the city and historical trends in art, as well as the ways in which Rome itself has been transformed into a theme in art and to some extent literature, including film.

### **The Impact of Pompeii: Pompeii, Herculaneum and the Origins of Art History (ARH 4153) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 or permission of department*

A survey of almost two centuries of archaeological exploration at Pompeii, Herculaneum and other key sites in the area of Mount Vesuvius (Naples, Italy) and the significance of these discoveries to knowledge of ancient history in the Mediterranean, Greek and Roman civilization, as well as the development of art and the discipline of art history in the 18th and 19th centuries.

### **Medieval Art and Archaeology (ARH 4200) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 or permission of department*

Art of the Christian world from the 1st to the 14th centuries.

### **Renaissance Art and Architecture (ARH 4305) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 or permission of department*

History of art and architecture in Italy and northern Europe from the 14th to the 16th centuries.

### **Baroque Art and Architecture (ARH 4350) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 or permission of department*

Art in Europe during the 17th and 18th centuries.

### **18th- and 19th-Century Art (ARH 4371) 3 credits**

*Prerequisite: ARH 2050, 2051 or permission of department*

Art from the Rococo period to postimpressionism.

### **Modern Art: 1863-1945 (ARH 4450) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 or permission of department*

Art movements in Western society from 1863 until 1945, including impressionism, expressionism, cubism, non-representational art, constructivism and surrealism.

### **Contemporary Art (ARH 4470) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 or permission of department*

New movements in Western art from 1945 to the present.

### **Art of China (ARH 4557) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 or permission of department*

This course is to introduce, from a comparative approach, an overall view of the Chinese arts since ancient time so that students will become aware of the Chinese aesthetic value and its historical

involvement.

### **The Art of Japan (ARH 4563) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 with minimum grades of C-*

A survey of Japanese art from prehistory to the present day.

### **American Painting and Sculpture (ARH 4610) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 or permission of department*

A study of American painting and sculpture from its colonial beginnings to the avant-garde movements of the present day.

### **History of Photography (ARH 4710) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 or permission of department*

Surveys the emergence of photographic processes beginning in 1839 and extends to present-day digital technology. Provides a coherent view of photographic practices, significant photographers, aesthetic movements and the impact of photography upon our understanding of images.

### **History of Graphic Design (ARH 4724) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 or permission of department*

An investigation of historical and contemporary visual communications, concepts, media, and images and their role in graphic design.

**\* Course may be repeated for credit.**

### **Museum Studies and Gallery Practices (ARH 4794) 3-6 credits**

*Prerequisite: One 4000-level Art History course*

Investigation of the many characteristics of museum and gallery management, including hands-on participation in University Galleries' ongoing productions. A mandatory lab hour requirement of four hours per week amounts to half of the student's grade.

### **Selected Readings in Art History (ARH 4900) 3 credits**

*Prerequisite: At least 8 credits of course work in the area of selection with a "B" average; ARH 2000 or both Art History Survey sections*

Selected readings in Art History.

### **Directed Independent Study: Art History (ARH 4905) 1-3 credits**

*Prerequisites: Three courses in the area of intended study and permission of instructor*

Independent study in area of interest specific to Art History.

### **Directed Independent Research in Art History (ARH 4915) 1-3 credits**

*Prerequisite: Permission of instructor*

Independent undergraduate research in areas of student interest.

### **\* Topics - Art History (ARH 4930) 3 credits**

*Prerequisites: ARH 2050 and ARH 2051 or permission of department*

Art of various cultural periods and/or thematic frameworks.

### **\* Art History Senior Seminar (ARH 4937) 3 credits**

*Prerequisites: 16 credits of course work in upper-division Art History and permission of department*

The historiography of art history, readings, and writings on art historical topics.

### **Art History Internship (ARH 4940) 1-4 credits**

*Prerequisite: Permission of department*

This internship provides an opportunity for students to apply their disciplinary knowledge in art history in a professional setting. Course requirements and credits vary depending on the specific content of the internship. Details are defined in consultation with the instructor.

### **Art History Study Abroad (ARH 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **2D Art Foundations (ART 1201C) 3 credits**

This introductory course is part of the foundation sequence in studio arts. The course focuses on the elements and principles of constructing two-dimensional visual compositions. Historical and contemporary practices in two-dimensional artmaking are explored. The relationship between studio practice and other scholarly disciplines is also investigated.

### **3D Art Foundations (ART 1203C) 3 credits**

This introductory course is part of the foundation sequence in studio arts. The course focuses on the elements and principles of constructing three-dimensional visual compositions. Historical and contemporary practices in three-dimensional artmaking are explored. The relationship between studio practice and other scholarly disciplines is also investigated.

### **Drawing Foundations (ART 1300C) 3 credits**

This introductory course is part of the foundation sequence in studio arts. The course focuses on perceptual drawing, primarily of objects and spaces. Historical and contemporary practices in drawing, including methods and materials, are explored. The relationship between drawing and other scholarly

disciplines is also investigated.

### **Special Topics in Art (ART 1933C) 3 credits**

Elective course for students to complete project work dealing with rotating topics in studio arts. The instructor provides oversight, feedback and criticism of the students' work. Projects may explore ceramics, drawing, painting, photography, printmaking, sculpture and/or intermedia and may vary each time the course is offered.

### **Drawing 2 - Figure Drawing (ART 2330C) 3 credits**

*Prerequisite: ART 1300C*

This course focuses on perceptual drawing, primarily of the human figure. References may include live figure models, photographic references and art historical references. Historical and contemporary practices in drawing, including methods and materials, are explored. The relationship between drawing and other scholarly disciplines is also investigated.

**\* Course may be repeated for credit.**

### **\* Printmaking: Color Printing and Layering (ART 2400C) 3 credits**

*Prerequisites: ART 1201C, ART 1300C, ART 2600C, all with minimum grade of "C"*

This course introduces the concepts of color printmaking using mono-type and relief processes through traditional and emerging methods. Students are taught the use of tools, materials, ideas and approaches to create color print media.

### **\* Printmaking: Surface and Substrates (ART 2401C) 3 credits**

*Prerequisites: ART 1201C, ART 1300C, and ART 2600C*

This course introduces methods of traditional surface printing. Students use hand methods, mordants, laser engraving and emerging technologies to make impressions upon a variety of surfaces and substrates.

### **Painting 1 (ART 2500C) 3 credits**

*Prerequisites: ART 1201C, ART 1300C, ART 2600C*

This course introduces students to the fundamental principles governing painting as a visual language used to investigate and convey information from the observable world onto a two-dimensional surface. Exploration is centered on the interpretation of life via direct observation. The main topics covered are color, shape, form, value, gesture, process and composition. The whole of this course is designed with the development of technical image-making as the core objective, thus non-objective and expressionistic abstraction will not be emphasized nor is it of primary concern.

### **Digital Art Foundations (ART 2600C) 3 credits**

*Prerequisites: ART 1201C; students must satisfy college prep requirements if not already enrolled in undergraduate study*

This introductory course is part of the foundation sequence in studio arts. The course focuses on the elements and principles of constructing visual compositions in digital space. Historical and contemporary practices in digital artmaking are explored. The relationship between studio practice and other scholarly disciplines is also investigated.

### **Sculpture 1 (ART 2701C) 3 credits**

*Prerequisites: ART 1201C, ART 1203C and ART 1300C*

Problems in sculptural form and composition with the exploration of materials, techniques, and conceptual approaches.

### **Ceramics - Wheel Throwing 1 (ART 2751C) 3 credits**

*Prerequisites: ART 1201C, ART 1300C, ART 1203C*

Basic wheel-throwing course. Technical skills of wheel work stressed with other aspects of clay work included, such as the aesthetics of form, glaze work, kiln loading, firing. Demonstration, critiques and slides.

### **Ceramics - Handbuilding 1 (ART 2754C) 3 credits**

*Prerequisites: ART 1201C, ART 1203C and ART 1300C, or permission of instructor*

Studio fine art course introducing fundamentals in handbuilding through various projects that emphasize technique, creativity and problem-solving methods, giving the student a working knowledge of clay. Includes demonstrations, lectures, critiques, slides, glaze work, kiln loading and firing.

### **Directed Independent Research in Art (ART 2915) 1-3 credits**

*Prerequisite: Permission of instructor*

Independent undergraduate research in areas of student interest.

### **Art Study Abroad (ART 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Alternative Media (ART 3161C) 3 credits**

*Prerequisites: ART 1201C, ART 1300C and ART 2600C*

Introduces students to a variety of materials that can be used in the creation of artistic composition. Special emphasis is placed on the imaginative use of everyday objects as artistic devices. Some traditional media are used in conjunction with these non-traditional media.

### **Narrative Painting and Drawing (ART 3383C) 3 credits**

*Prerequisites: ART 1201C, ART 1300C, ART 2600C, ART 2330C*

This course focuses on developing narrative content and identifying research interests that will support the development of meaningful bodies of work. Students from across disciplines use drawing and painting to investigate a variety of topics touching on both historical and contemporary practices. The relationship between drawing and painting and other studio and scholarly disciplines are also investigated. This course may be repeated one time for credit.

### **Printmaking: Print Installation (ART 3402C) 3 credits**

*Prerequisites: ART 1201C, ART 1300C, ART 2600C and either ART 2400C or ART 2330C*

In this course, students create large-scale installations utilizing relief and screen printed multiples on paper, textiles and other surfaces. Students examine the interrelated nature of form, multiples, expression and meaning through process and scale. The course explores temporary, permanent and site-specific installation-based art using print media.

### **Topics in Intermediate Painting and Drawing (ART 3505C) 3 credits**

*Prerequisites: ART 1201C, ART 1300C, ART 2330C, ART 2500C or permission of instructor*

This topics course explores the intersection of traditional painting and drawing practices. This experimental course is designed for intermediate students interested in building on existing painting and drawing experience while exploring special topics in the context of contemporary practice in painting and drawing. Objectives include exploring connections among varied studio practices and research practices while developing original studio work. Maybe be repeated for credit one time.

**\* Course may be repeated for credit.**

### **Abstract Painting and Drawing (ART 3522C) 3 credits**

*Prerequisites: ART 2500C, 1201C and 1300C, or permission of instructor*

This course explores the varied and multifaceted world of contemporary two-dimensional abstraction through the practice of painting and drawing. Emphasis is placed on materiality, process, design and concept. Running parallel to studio production, students read and discuss foundational theories affecting contemporary practices, such as structuralism/formalism, poststructuralism and postmodernism. The primary course objective is to equip the student with the experiences and knowledge necessary to work within the contemporary art world. This course may be repeated one time for credit.

### **\* Sculpture 2 (ART 3710C) 3 credits**

*Prerequisites: ART 2701C, ART 1203C, ART 1300C, ART 2600C, ART 2330C*

Intermediate problems in sculpture with emphasis on the exploration of materials, media, and the development of individual concepts.

**Ceramics - Handbuilding 2 (ART 3761C) 3 credits**

*Prerequisites: ART 2754C, ART 2330C with minimum grades of "C"*

Sculptured approach to clay; emphasis on glaze techniques and firing.

**\* Ceramics - Wheel Throwing 2 (ART 3763C) 3 credits**

*Prerequisite: ART 2600C with minimum grade of "C"*

*Corequisite: ART 2751C with minimum grade of "C"*

Continued investigation into the understanding of techniques, directions, processes of clay through wheel throwing. Vessel approach emphasized as well as contemporary ceramic issues. Includes lectures, demonstrations, glaze experimentation, slides, kiln loading and firing.

**Handmade Books: Structure and Binding (ART 4173) 3 credits**

*Prerequisite: ART 1201C, ART 1300C or permission of instructor*

Art studio course that visually examines traditional and alternative book structures in relationship to narrative content. Lectures and demonstrations introduce students to creative processes involved in book making, including traditional and alternative book formats, adhesives and sewn binding structures, archival concerns, and methods for generating original images and text.

**\* RI: Advanced Drawing (ART 4311C) 3 credits**

*Prerequisites: ART 1201C, ART 1300C, ART 2600C and ART 2330C*

This research-intensive (RI) course is designed for students who have significant drawing experience, established critical thinking and writing skills and a strong interest in visual arts research. Historical and contemporary theory and practice in the discipline are the primary foci. Objectives include technical, conceptual and creative development in the context of original studio work. May be repeated for credit.

**\* Topics - Painting (ART 4506C) 3 credits**

*Prerequisite: ART 4531C or permission of department*

Topics in watercolor, figure painting, or materials and techniques.

**\* RI: Advanced Painting (ART 4531C) 3 credits**

*Prerequisites: ART 1201C, ART 1300C, ART 2500C and ART 3522C*

This research-intensive (RI) course is designed for students who have significant painting experience, established critical thinking and writing skills and a strong interest in visual arts research. Historical and contemporary theory and practice are the primary foci. Objectives include technical, conceptual

and creative development in the context of original studio work. May be repeated for credit once without departmental approval.

**Building a Web Portfolio (ART 4632C) 3 credits**

*Prerequisite: Senior standing*

This course is intended to aid students in all creative areas with developing an online, interactive portfolio to showcase their work. The course also asks students to consider the place of portfolios within the professional practices of their discipline. Websites are built in an easy code-free program for which no experience is necessary.

**\* RI: Advanced Sculpture (ART 4712C) 3 credits**

*Prerequisite: ART 3710C or permission of department*

Advanced problems in the various techniques of sculpture. Emphasis on individual creative expression. This is a research-intensive (RI) course.

**\* Topics - Sculpture (ART 4732C) 3 credits**

*Prerequisite: ART 4712C or permission of department*

Special topics in sculpture including various techniques and exploration of environmental, site-specific, performance, conceptual, and installation projects.

**\* RI: Advanced Ceramics (ART 4782C) 3 credits**

*Prerequisite: 12 credits of ceramics (ART 2751C, ART 2754C, and ART 3761C or ART 3763C) or permission of department*

Emphasis on the technical, creative and conceptual concerns of self-directed, advanced students. This is a research-intensive (RI) course.

**\* Course may be repeated for credit.**

**RI: Ceramics - Clay and Glazes (ART 4785C) 3 credits**

*Prerequisites: ART 2751C, ART 2754C, and ART 3761C or ART 3763C*

This research-intensive (RI) course offers an In-depth study of ceramic materials, focusing on the formulation of clay and glazes, testing, firing, lectures and introduction to computer programs.

**\* Directed Independent Study (ART 4906C) 1-3 credits**

*Prerequisites: Three courses in area of intended research and permission of instructor*

Independent undergraduate studies in areas of interest.

**\* Directed Independent Study (ART 4908C) 3 credits**

*Prerequisite: Senior standing*

Designed for seniors to produce a fully realized computer-video graphic project. Students work independently and periodically present projects-in-process to the class. Special areas of concentration such as 3D modeling, animation, storyboarding, or compositing are suggested by students with acceptance by the instructor.

**Directed Independent Research in Art (ART 4915) 1-3 credits**

*Prerequisite: Permission of instructor*

Independent undergraduate research in areas of student interest.

**\* Area Studies in Art (ART 4930C) 1-3 credits**

Concentration in the studio area of ceramics, drawing, painting, photography, printmaking, and/or sculpture, which vary depending upon special facilities or locations.

**\* Special Topics (ART 4932C) 3 credits**

*Prerequisite: Portfolio or equivalent or permission of department*

Elective course for students to complete project work dealing with computer arts in a specific field of their choosing. The instructor provides oversight, feedback, and criticism of the students' work. Projects of choice may include 2D and 3D, web design, games, interactive media, and other related topics.

**Studio Arts Internship (ART 4940C) 1-3 credits**

*Prerequisite: Permission of department*

This internship provides an opportunity for students to apply their disciplinary knowledge in studio arts in a professional setting. Course requirements and credits vary depending on the specific content of the internship. Details are defined in consultation with the instructor.

**\* Museum Internship (ART 4942C) 3-6 credits**

*Prerequisites: Completion of at least two courses in Art History with a grade of "B" or better, written proposal, permission of chair and approval the semester prior to taking this course*

Inservice training in art-related area.

**RI: Senior Seminar for B.A. Studio Arts (ART 4954) 3 credits**

*Prerequisite: Permission of department*

The primary intention of this research-intensive (RI) course is to showcase and situate the kind of original creative research that characterizes the production of art and design work. The course offers a publicly accessible exhibition venue for original student art and design work.

**RI: B.F.A. Senior Seminar (ART 4955C) 3 credits**

*Prerequisite: Permission of department*

The primary intention of this research-intensive (RI) course is to showcase and situate the kind or original creative research that characterizes the production of art and design work. The course culminates in a public exhibition of original student art and design.

**Art Study Abroad (ART 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**\* Course may be repeated for credit.**

**Introduction to Multipage Document Software (GRA 2124L) 1 credit**

This introductory course focuses on the development of competency using multipage document programs such as or similar to Adobe InDesign and Quark. Students become familiar with the tools, including masterpages and stylesheets, and appropriate use of software to create multipage documents.

*Grading: S/U*

**Introduction to Interface Software (GRA 2134L) 1 credit**

This introductory course focuses on the development of competency in the use of User Interface (UI) prototyping programs such as or similar to Adobe XD. Students become familiar with the tools and appropriate use of software to create websites and mobile app interfaces. *Grading: S/U*

**Introduction to Illustration Software (GRA 2151L) 1 credit**

This introductory course focuses on the development of competency using vector-based drawing programs such as or similar to Adobe Illustrator. Students become familiar with the tools and appropriate use of software to create graphics. *Grading: S/U*

**Introduction to Image Editing Software (GRA 2152L) 1 credit**

This introductory course focuses on the development of competency using bitmap photo-editing programs such as or similar to Adobe Photoshop. Students become familiar with the tools and appropriate use of software to create and edit images. *Grading: S/U*

**Visual Design Lab 1 (GRA 2190C) 3 credits**

*Prerequisites: ART 1201C, ART 1300C, ART 2600C*

An introductory course in graphic design with emphasis on form, content, and principles of design and layout composition. Students will become familiar with tools, processes and the language of design as applied to visual communication. Projects, demonstrations, lab, lecture, and critiques.

**Typographic Design Lab 1 (GRA 2208C) 3 credits**

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*Prerequisites: ART 1201C, 1203C, 2600C, all with minimum grades of "C"*

*Corequisite: GRA 2190C*

An introduction to the fundamentals of typography exploring experimental approaches of letterform construction and terminology and developing a sound understanding of all components related to typographical composition and design practices. Projects, demonstrations, lab, lecture and critiques.

### **Directed Independent Research in Graphic Design (GRA 2915) 1-4 credits**

*Prerequisite: Permission of instructor*

Independent undergraduate research in areas of student interest.

### **Typographic Design Lab 2 (GRA 3112C) 3 credits**

*Prerequisite: GRA 2208C*

Typography is one of the few unchanging elements in graphic design. Whether a word is to be printed or part of a screen-based project, a working knowledge of type is essential for any graphic designer. This course develops choice-making skills with regard to context, content and audience, as well as explores the emotional, aesthetic and historical components of typographic communication.

### **Poster Design (GRA 3174C) 3 credits**

*Prerequisite: GRA 3193C*

Course focuses on the theoretical and practical aspects of poster design. Students learn how to design a poster, what information to include, and how to draw attention through the use of visual metaphors. Students are encouraged to take risks and learn how to effectively communicate complex concepts on a single page, integrating text and images for ultimate impact. Emphasis on expressive, creative communication through the graphic design medium and on high-quality portfolio development.

### **Visual Design Lab 2 (GRA 3193C) 3 credits**

*Prerequisite: GRA 2208C*

*Prerequisite or Corequisite: GRA 3112C*

Examines the design of systems including the development and application of symbols as communicative signifiers. Conceptual development, context, simplicity, unity and contrast are examined as the means for efficient application of systems across media.

### **RI: Eye-Tracking: Visual Analysis and Design (GRA 3594C) 3 credits**

This course introduces students to an eye-tracking system as a research tool to explore how subjects process visual information. Students explore the reciprocal relationships among art, science and technology across scales. Theory, research and interdisciplinary practices comprise a collaborative format. This is a research-intensive (RI) course.

### **Visual Design Lab 5 (GRA 4115C) 3 credits**

*Prerequisites: GRA 3112C, GRA 3193C, GRA 4183C, GRA 4194C and GRA 4521C; must be enrolled in B.F.A. Graphic Design*

Emphasis on the practical application of accumulated design skills and creative communication through the development of high quality graphic design portfolio works.

**\* Course may be repeated for credit.**

### **Visual Design Lab 4 (GRA 4183C) 3 credits**

*Prerequisites: GRA 3112C and GRA 3193C; must be enrolled in B.F.A. Graphic Design*

This course focuses on time-based composition and animation through the use of current software. Elements of motion design are introduced with the objective of enhancing visual form, meaning and communication, emphasizing the relationship between design principles and animation fundamentals.

### **RI: Visual Design Lab 3 (GRA 4194C) 3 credits**

*Prerequisites: GRA 3112C and GRA 3193C; must be enrolled in B.F.A. Graphic Design*

Focuses on theoretical principles and the practical application of graphic design to three-dimensional structures, which may include, but are not limited to, package, environmental and exhibition design. Practical and conceptual concerns, materials, context and brand application are addressed. Emphasis on appropriateness, creativity and portfolio-quality work. This is a research-intensive (RI) course.

### **Information Design (GRA 4198C) 3 credits**

*Prerequisite: B.F.A. Graphic Design major, GRA 3112C and GRA 3193C with minimum grades of "C-", or permission of department*

This course focuses on information design systems and data visualizations. The course considers the role of designers in shaping content for different audiences, encouraging students to develop analytical skills for data organization and visual display. Through research, projects, exercises, sketches and readings, students create visual narratives.

### **Interactive Design Lab 1 (GRA 4521C) 3 credits**

*Corequisite: GRA 3112C*

Focuses on the introduction of principles of interactivity related to user experience. Examines the design of user-interfaces and the development of advanced interactive visual strategies through the study of current or emerging techniques.

### **Interactive Design Lab 2 (GRA 4522C) 3 credits**

*Prerequisites: GRA 3112C and GRA 3193C; must be enrolled in B.F.A. Graphic Design*

This course addresses the prevalent design considerations in the development of online content.

Explores the relevant technologies and discusses the issues, opportunities and obligations of the designer in the development of interactive media.

### **Directed Independent Research in Graphic Design (GRA 4915) 1-4 credits**

*Prerequisite: Permission of instructor*

Independent undergraduate research in areas of student interest.

### **\* Topics - Graphic Design (GRA 4932C) 1-3 credits**

*Prerequisite: Permission of department*

The course will enable the Department to introduce areas of graphic design not covered in the established curriculum.

### **Graphic Design Internship (GRA 4940C) 1-4 credits**

*Prerequisite: Permission of department*

This internship provides an opportunity for students to apply their disciplinary knowledge in graphic design to a professional setting. Course requirements and credits will vary depending on the specific content of the internship. Details are defined in consultation with the instructor.

### **Professional Design Studio (GRA 4942C) 3 credits**

*Prerequisites: GRA 3112 and GRA 3193 with minimum grades of "C"*

Students in this course work with professional clients to gain practical working experience producing creative design solutions. Coursework covers practical skills of the profession including client relations, professional networking, ethics, presentations and proposals, pricing, work-for-hire, estimates and contracts, bids and production.

### **Digital Photography 1 (PGY 2109C) 3 credits**

*Prerequisites: ART 1201C, ART 1203C and ART 1300C, or permission of department*

This course is an introduction to the practice of digital photography. The emphasis is on the production of work and will initially focus on the acquisition of necessary technical skills, such as manual manipulation of camera controls and basic image editing work flow. The primary goals of the course are to begin to develop photographic literacy and an artistic practice. Access to a digital camera with manual exposure capabilities is required.

### **Digital Photography 2 (PGY 3157C ) 3 credits**

*Prerequisites: ART 2600C and PGY 2109C*

This intermediate course utilizes digital cameras, computer software, scanners and printers to articulate personal artistic vision. Visual literacy is expanded on through the study of historic and contemporary photographic images, critiques, projects, field trips and lectures. Access to a digital camera with manual

exposure capabilities is required.

### **Black and White Photography (PGY 3406C) 3 credits**

*Prerequisites: ART 2600C and PGY 2109C, or permission of department*

This course concentrates on analog black and white photography and utilizes pinhole and film cameras. Initially the focus is on the acquisition of necessary technical skills in printing, film processing and darkroom practices. Through projects, readings and critiques, students continue working on critical issues in photography as well as on composition and content. Analog/digital practices are explored. Access to a film camera with manual controls is required.

### **Applied Digital Photography (PGY 3821C) 3 credits**

*Prerequisites: ART 1201C; access to a digital camera (7 MP or more) is required*

This course exposes the student to professional practices in digital imaging. The student applies digital photography skills to solve specific problems relating to workflow, color management, data management, lighting, and image manipulation.

### **\* RI: Advanced Photography (PGY 4420C) 3 credits**

*Prerequisites: ART 1201C, PGY 2109C, PGY 3406C and PGY 3157C or permission of department*

This course is designed for students who have significant experience in camera usage and processing along with developed critical thinking and writing skills. The class explores increasingly demanding projects that lead to a self-directed cohesive, polished body of work. Photographic history, contemporary image making, photographic theory and professional practice issue are also addressed. Access to camera is required. This is a research-intensive (RI) course.

### **\* Topics - Photography (PGY 4440C) 3 credits**

*Prerequisites: ART 1201C and PGY 2109C*

This course concentrates on one topic, such as documentary photography, experimental photography, photo-based mixed media, alternative process, lighting, etc. Students explore personal image making through projects and discussion on content, technique and theory as it applies to their own work and the specific class topic. Access to a camera is required.

## **Visual Arts and Art History Graduate Courses**

### **Studio Arts Pedagogy in Higher Education (ARE 6276) 2 credits**

*Prerequisite: MFA in Visual Arts and Art History students only, or permission of instructor*

Prepares M.F.A. candidates in the studio arts for careers in the professoriate. Focuses on the dynamic and wide-ranging arena that is visual arts pedagogy in higher education today. Diverse approaches to

teaching will facilitate the development of each student's practical teaching strategies in the context of a larger scholarly study of issues in pedagogy. Repeatable for credit up to two times.

### **History of Ceramics (ARH 6015) 4 credits**

*Prerequisite: Admission to the M.F.A. program or permission of instructor*

Explores many aspects of art in clay, from pottery to sculpture, on a global scale. Articulated in terms of chronology and geography, the course highlights common socioeconomic contexts of production, as well as issues regarding the role of the individual, gender, economic status and other factors that have influenced ceramics as a craft and as an art medium.

### **Seminar in Contemporary Art (ARH 6481) 4 credits**

*Prerequisites: Contemporary Art, Modern Art*

A consideration of the multiple goals of art produced after 1945. Required of all M.F.A. students.

### **Seminar in Art History (ARH 6897) 4 credits**

*Prerequisite: Permission of instructor*

In-depth exploration of topics in the history of art from antiquity to the present using a narrative approach to issues of content and context regarding themes, periods and works of visual art and culture from Western and/or non-Western sources. Students use a variety of analytical frameworks and intellectual perspectives to engage in research, develop their own historical projects and deliver information in oral and written form both in individual and collaborative settings. Repeatable for credit.

### **Graduate Independent Study (ARH 6913) 1-4 credits**

*Prerequisite: Permission of instructor*

Directed independent study of Art History, criticism, and theory in areas not covered by present program and which the student wishes to study. May be repeated.

### **Computer Arts Seminar in Contemporary Art (ARH 6931) 4 credits**

*Prerequisites: Permission of instructor; bachelor's degree; portfolio*

Critique and theory in Contemporary Art as it relates to Computer Arts. Required for M.F.A. in Computer Arts.

### **Computer Arts Seminar in General Theory (ARH 6932) 4 credits**

*Prerequisites: Permission of instructor; bachelor's degree; portfolio*

Critique and theory in General Theory as it relates to Computer Arts. Required for M.F.A. in Computer Arts.

### **Advanced Ceramics (ART 5790C) 4 credits**

*Prerequisite: Permission of instructor*

Advanced study in ceramic techniques. May be repeated.

### **Directed Area Studies in Art (ART 5930C) 1-4 credits**

#### **Graduate Clay and Glaze Science (ART 6793C) 4 credits**

*Prerequisite: Permission of instructor*

Required for Ceramics majors. Exploration of clay and glaze, science, theory, formulation, and application. Required of all M.F.A. Ceramics students.

#### **Professional Practices (ART 6816) 2 credits**

*Prerequisite: Acceptance into the M.F.A. program in Visual Arts and Art History or permission of instructor*

Rotating professional development topics such as teaching pedagogy, professional documentation, digital tools for the studio artist, studio critique and art writing to support the professional practices needed by an emerging artist. Repeatable for credit up to four times.

#### **Graduate Studio (ART 6819) 4 credits**

*Prerequisite: Acceptance into the M.F.A. program in Visual Arts and Art History or permission of instructor*

Focuses on the development of a conceptual framework communicated through a developing visual language, with intensive and comprehensive examination and critique of resulting forms and skillful execution in area of concentration. Repeatable for credit up to five times.

#### **Directed Independent Study in Graphic Design (ART 6905) 1-4 credits**

Prerequisites: Written contract/proposal with objectives and written department/division permission  
Independent research, advanced experiences in various areas of design study.

#### **Graduate Directed Study (ART 6907C) 1-4 credits**

*Prerequisites: Permission of instructor*

Investigation into advanced creative aesthetic issues and technical problems inherent in a graduate-level studio concentration. Variable credit depending upon scope and magnitude of work agreed to by the student and the Faculty Director. May be repeated.

#### **Topics in Studio Art (ART 6930C) 1-4 credits**

*Prerequisite: Permission of instructor*

Students may study or research an individual art project with an art faculty member. Complexity and amount of work will determine the number of credits granted. May be repeated.

### **Design Studio (ART 6931) 4 credits**

*Prerequisite: B.F.A. in Graphic Design or permission of instructor*

Emphasis on beginning competent graduate body of work.

### **Special Topics in Computer Arts (ART 6931C) 4 credits**

*Prerequisites: Permission of instructor; bachelor's degree; portfolio*

Topics based upon important trends and developments in Computer Arts. May be repeated for credit.

Candidates, interns, auditors, and guests welcome.

### **Design Seminar (ART 6932) 4 credits**

*Prerequisite: Admission to M.F.A. program*

Review of design research, criticism, and evaluation.

### **Special Topics Graphic Design (ART 6932C) 4 credits**

*Prerequisites: Admission to M.F.A. program or permission of instructor*

Investigation of current topics in the field of study with an emphasis on the development of advanced conceptual and theoretical skills.

### **Graduate Documentation (ART 6956C) 4 credits**

Required for all M.F.A. candidates. Course designated to draft, revise, and refine a comprehensive written documentation supporting the cohesive body of work produced during the final year or semester by the M.F.A. candidate. Prepared concurrently with ART 6972C (Graduate Thesis Exhibition).

### **Design Thesis (ART 6971C) 4 credits**

*Prerequisites: 28 credits of M.F.A. course work; permission of graduate committee*

Preparation of thesis or visual project. Research based on independent research. May be repeated.

### **Graduate Thesis Exhibition (ART 6972C) 4 credits**

Required for all M.F.A. candidates in Visual Arts with concentrations in Painting and Ceramics as well as for M.A.T. candidates. An exhibition of approved body of work for completion of M.F.A. degree.

Prepared concurrently with ART 6956C (Graduate Documentation).

[Link to College of Arts and Letters Programs](#)





# UNIVERSITY CATALOG

## SUB MENU



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### GENERAL INFORMATION

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## COLLEGE OF BUSINESS

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## ACCOUNTING

**Undergraduate Courses** / [link to graduate courses](#) / [link to business law courses](#)

Note: Unless otherwise indicated, a grade of "C" or better is required for any course designated as a prerequisite.

### **Principles of Accounting 1 (ACG 2021) 3 credits**

Have you ever wondered how businesses measure their results and communicate this information to stakeholders? Financial statements are the most common way of providing this information. Investors use these statements in deciding whether to buy or sell stock or bonds, banks use them in lending decisions and corporate boards use them to establish executive pay. This course introduces the basic concepts of how financial statements are prepared, read and interpreted to facilitate decision making across a variety of stakeholder groups, accounting, and reporting standards for profit-oriented companies.

### **Principles of Accounting 2 (ACG 2071) 3 credits**

*Prerequisite: ACG 2021 with a grade of "C" or better*

How much do I have to sell before I start making a profit? Should I make a product or buy it from someone else? How much did it cost to manufacture this item? How do I prepare a budget and determine if I stayed within the budget? How do I allocate shared costs across an organization so that the performance of individual managers is fairly measured? These are just a few of the questions accounting can help answer. This course explains how managers use accounting information to make

decisions internal to the organization.

Note: The following accounting and tax courses are open to College of Business majors only. Non-Business majors must have permission of the School of Accounting to enroll in these courses.

### **Intermediate Theory 1 (ACG 3131) 3 credits**

*Prerequisite: ACG 2071 with a grade of "C" or better*

*Prerequisite or Corequisite: FIN 3403 with a grade of "C" or better*

Do you want to be able to use financial statements to help make informed investing and lending decisions? This course provides valuable insight on the information included in companies' financial statements and how they are prepared. This course begins with a discussion on the main financial statements and then examines the specific rules, both domestic and international, that guide the creation of the financial statements. The emphasis in this course is on rules for revenue recognition and accounting rules for assets.

### **Intermediate Theory 2 (ACG 3141) 3 credits**

*Prerequisite: ACG 3131*

*Prerequisite or Corequisite: GEB 3213*

This course explores some of the advanced topics and skills used in creating a set of basic financial statements and is critical for anyone who desires an accounting or auditing career. This course is also useful for anyone who aspires to have a career that involves interpreting financial statements or overseeing the financial reporting function. Specifically, the course explores accounting rules for investments, leases, current liabilities, bonds, income taxes, earnings per share, equity and preparing the statement of cash flows.

### **Cost Accounting (ACG 3341) 3 credits**

*Prerequisite: ACG 2071 with a grade of "C" or better*

This course builds on ACG 2071 by helping students establish a working knowledge of cost accounting techniques such as job and process costing, cost analysis, cost volume profit analysis, cost allocation, budgeting and variance analysis. This course also helps students understand how these techniques apply to managerial decisions. Whereas financial accounting courses focus on how accounting information is used by external stakeholders, this course focuses on how that information is used internally to an organization.

### **Accounting Applications of Data Analytics (ACG 3842) 3 credits**

*Prerequisite: ACG 2071 with a grade of "C" or better*

The accounting profession is being revolutionized by data analytics, which continues to fundamentally change the way businesses use accounting data in decision making. Data are being used in new ways

such as making investment decisions, developing estimates for financial statements, detecting fraud, identifying accounting errors and internal control weaknesses and managing costs. This course develops data analytics skills in students using tools and techniques relevant to today's accounting professionals.

### **Cooperative Education - Accounting (ACG 3949) 1-3 credits**

No credit toward degree. *Grading: S/U*

**Note:** Unless otherwise indicated, a grade of "C" or better is required for any course designated as a prerequisite.

### **Accounting Information Systems 1 (ACG 4401) 3 credits**

*Prerequisite: ACG 3131*

*Prerequisite or Corequisite: GEB 3213*

Today's accounting systems run the gamut from desktop software to complex enterprise resource planning systems that companies use to track millions of transactions across hundreds of subsidiaries. Regardless of complexity, all accounting systems have basic commonalities. This course examines business process documentation, transaction cycles and applicable internal controls. Emphasis is placed on the use of technology in accounting decision making and understanding the conditions that enable accounting fraud to occur.

### **Government and Not-for-Profit Accounting (ACG 4501) 3 credits**

*Prerequisite: ACG 3141 with minimum grade of "C" or permission of instructor*

Have you considered that financial statements help ensure that governments are accountable to taxpayers? Accounting for governments and non-profits differs from for-profit businesses because stakeholders' interests vary (e.g., proper custodianship of tax dollars and donations versus maximizing shareholder wealth). This course covers budgeting, fund accounting and government-wide financial reporting for state and local governments as well as budgeting, accounting and reporting standards for non-profits.

### **Auditing and Assurance Services 1 (ACG 4651) 3 credits**

*Prerequisite: ACG 3141 and ACG 4401*

Why are audits provided by CPAs critical to the functioning of the markets? Audits provide accountability and assurance that managers fairly report in the financial statements the custodianship of resources entrusted to them. This course explains the role of audits in society, how audits are regulated and the process that auditors go through to evaluate and communicate whether the financial statements are fairly stated. Emphasis is placed on integrated audits of financial statements and internal controls

over financial reporting.

**Note:** Unless otherwise indicated, a grade of "C" or better is required for any course designated as a prerequisite.

### **Directed Independent Study (ACG 4901) 1-3 credits**

*Prerequisite: Permission of the School of Accounting*

Independent study, research or other project to extend and integrate the students' knowledge. This is not to be used as a substitute for an existing course.

### **Special Topics (ACG 4931) 1-3 credits**

*Prerequisites: Permission of instructor and junior standing*

The study of a special area of Accounting. Topics will vary. May be repeated for credit.

### **Special Topics (ACG 4932) 1-3 credits**

*Prerequisites: Permission of instructor and junior standing*

The study of a special area of Accounting. Topics will vary. May be repeated for credit. *Grading: S/U*

### **Accounting Study Abroad (ACG 4957) 1-3 credits**

*Prerequisite: Junior standing*

Credit for enrollment in approved study abroad programs.

### **Federal Taxation 1 (TAX 4001) 3 credits**

*Prerequisite: ACG 3131*

*Prerequisite or Corequisite: GEB 3213*

Do you want to understand the issues you may face in filing your own taxes? This course helps you better understand the laws and regulations that govern how individuals are taxed in the United States. This course also covers U.S. tax policies and the impact taxation has on different forms of business entities such as corporations and partnerships. Specific tax topics related to long-lived assets owned by business entities are also covered.

### **Federal Taxation 2 (TAX 4011) 3 credits**

*Prerequisites: TAX 4001*

This course builds on the material in Federal Taxation 1 and covers the tax issues of entities including corporations and their shareholders; partnerships and their partners; estates and trusts and their beneficiaries. The course also explores the rights and obligations of taxpayers in dealing with the Internal Revenue Service.

## **Accounting Graduate Courses**

**Note:** Unless otherwise indicated, a grade of "C" or better is required for any course designated as a prerequisite.

### **Financial Statement Analysis Concepts and Applications (ACG 5176) 3 credits**

*Prerequisite: ACG 3131 or FIN 3403 and enrolled in Professional Accounting Certificate Program or permission of instructor*

Have you ever pondered why there are disagreements over stock valuations? Yet, financial analysts all utilize the same financial statements when determining whether stock value is overpriced or underpriced. This course explores the various tools and techniques utilized by these professional analysts in determining not only “company value” but also its financial health, while recognizing its highly subjective nature. In particular, the course addresses ratio analysis, valuation techniques, financial statement interpretation, and forensic techniques.

### **Advanced Accounting 1 (ACG 5205) 3 credits**

*Prerequisite: ACG 3141 or ACG 6137 with minimum grade of "C"*

Have you ever wondered how an international business with production in Asia, a product sold globally and extensive use of tax shelters creates one set of financial statements? In Advanced Accounting, we learn how a global company with multiple subsidiaries and transactions between those subsidiaries consolidates their financial transactions into a single set of financial statements. In addition, we also learn the basics of the formation, operation, and termination of partnerships.

### **Accounting Applications in E-Commerce (ACG 5464) 3 credits**

*Prerequisites: 6 credits of upper-division undergraduate accounting 3000 level or higher and enrolled in Professional Accounting Certificate Program or permission of instructor*

Much of Accounting Education leans toward theory. But e-Commerce is where theory meets practice. Real-world accounting involves working with clients' diverse e-Commerce platforms. This course focuses on giving students the knowledge and tools needed for successful accounting work within the wide variety of e-Commerce platforms that accountants experience in practice.

### **Governmental and Not-for-Profit Accounting Theory (ACG 5505) 3 credits**

*Prerequisites: ACG 3141 or ACG 6137 or equivalent and ACG 3341 or ACG 6347 or equivalent*

Have you ever wondered how the decision was made to widen a certain road, if your local police department has the most up-to-date training and equipment, how schools will be funded or if the much-needed community park will be built? Have you ever wondered how your donation to a private not-for-profit organization was spent? In this course, you learn about the budgeting, accounting and financial reporting processes for state and local governments and not-for-profit entities and Governmental

Accounting Standards Board (GASB) pronouncements. Not available to students who have completed ACG 4501 or its equivalent.

### **IT Auditing Theory and Practice (ACG 5623) 3 credits**

*Prerequisites: ACG 4651 or ACG 6137 and enrolled in Professional Accounting Certificate Program or permission of instructor*

Theory and practice of auditing techniques employed in computer-based accounting systems.

### **Auditing and Assurance Services 2 (ACG 5647) 3 credits**

*Prerequisite: ACG 4651 or ACG 6635 with minimum grade of "C"*

Do you want to know more about auditing than you learned in ACG 4651? Increase your knowledge by learning about auditing the different transaction cycles and accounts of a business; delve into the AICPA attestation standards, the AICPA compilation and review standards and broaden your horizons by studying the global IFAC Code of Ethics for Professional Accountants and the IAASB International Standards on Auditing.

### **Forensic Accounting and Fraud Examination (ACG 5673 ) 3 credits**

*Prerequisites: ACG 4651 and enrolled in Professional Accounting Certificate Program or permission of instructor*

An introduction to the theory and practice of forensic accounting with an emphasis on fraud examination. Designed to develop analytical skills that can be utilized by professionals responsible for the prevention, detection and investigation of fraud.

### **Internal Auditing (ACG 5677) 3 credits**

*Prerequisites: ACG 3141 or ACG 6137 and ACG 4651 or ACG 6635 with minimum grades of "C"*

Would you like to know the difference between internal and external auditors? Internal auditors work within a company to review processes, evaluate internal controls and assess risks for a wide variety of business activities. This course covers internal audit from a broad perspective that includes information technology, business processes and accounting systems. Topics include internal auditing standards, risk assessment, governance, ethics, audit techniques and emerging issues.

### **Special Topics (ACG 5932) 3 credits**

*Prerequisites: Permission of instructor and junior standing*

The study of a special area of accounting. Topics will vary. May be repeated for credit.

### **Special Topics (ACG 5933) 1-3 credits**

*Prerequisites: Graduate standing and permission of instructor*

The study of a special area of accounting. Topics will vary. This course may be repeated for credit.

*Grading: S/U*

### **Financial Accounting Concepts (ACG 6027) 3 credits**

*Prerequisite: Graduate standing*

Do you want to feel confident discussing business opportunities within an organization? Learn why accounting is the “language of business.” This course not only acquaints you with the basic financial statements such as Balance Sheet, Income Statement, and Statement of Cash Flows but also elaborates upon the valuation methodologies for each financial account. Upon course completion, students have a solid accounting foundation. This course is only available to graduate students lacking an undergraduate course in accounting.

### **Advanced Accounting Theory (ACG 6135) 3 credits**

*Prerequisites: Admission to College of Business master's program and ACG 6137 or ACG 3141*

*Prerequisite or Corequisite: GEB 6215 with grade of "S"*

Analysis of trends in accounting through review of the major publications of the accounting profession. Emphasis on the structure of accounting theory underlying the concepts of assets and income determination.

### **Financial Reporting and Accounting Concepts (ACG 6137) 3 credits**

*Prerequisites: Admission to College of Business master's program and ACG 2021 or ACG 6027*

Course covers conceptual and applied issues in financial accounting. Students learn to apply basic research skills in financial accounting with authoritative accounting literature. This course is not available to students who have completed ACG 3131 and 3141.

**Note:** Unless otherwise indicated, a grade of "C" or better is required for any course designated as a prerequisite.

### **Advanced Financial Reporting and Accounting Concepts (ACG 6138) 3 credits**

*Prerequisite: Admission to College of Business master's program and ACG 3141 or ACG 6137*

*Prerequisite or Corequisite: GEB 6215 with grade of "S"*

This course is designed for students who desire to pass CPA exams and engage in the long-term career of professional accounting or high-level corporate accounting. Specifically, this course explores financial accounting rules in today’s volatile capital market environment pertaining to pensions and other post-retirement benefits, investments, fair value measurements and disclosures, equity compensation, accounting changes, earnings per share, foreign currency transactions and translation, and derivatives and hedging.

### **Financial Statement Analysis (ACG 6175) 3 credits**

*Prerequisites: Admission to College of Business master's program and ACG 3141 or ACG 6137 and FIN 6406*

Why do some stock analysts suggest that a particular company's stock is overvalued while others suggest otherwise? They all have the same data. In this course, you explore the world of financial analysis and learn why this discipline is part art/ part science. You learn about the various techniques governing financial analysis along with the valuation of businesses and financial instruments. Further, one learns how to interpret technical accounting financial statement presentations in areas such as pensions, deferred taxes and leases.

### **Foreign Study Tour in International Accounting (ACG 6258) 3 credits**

*Prerequisite: Graduate standing*

In this course, students are exposed to a different culture through a study tour that emphasizes the practices and risks faced by U.S. businesses that operate abroad with content on international accounting practices. Students will complete assignments on accounting, auditing, tax, and regulatory issues as these apply to the country visited.

### **Advanced Analysis and Application of Accounting Data (ACG 6315) 3 credits**

*Prerequisites: Admission to College of Business master's program and ACG 2021 or ACG 6027*

*Prerequisite or Corequisite: GEB 6215 with grade of "S"*

Analysis of financial and managerial accounting data for users of those data. Meant to provide broad exposure to accounting to graduate students who are not pursuing accounting degrees and who do not have accounting backgrounds. May not be taken for program credit by M.AC. students, MBA (Accounting) students, students with undergraduate degrees in accounting or students who include ACG 5205, 5215, 6138 or 6135) as part of their degrees.

### **Cost Accounting Theory and Practice (ACG 6347) 3 credits**

*Prerequisites: Admission to College of Business master's program and ACG 2021 or ACG 6027*

Accounting topics for managers, including budgeting, performance measurement, cost analysis, balance scorecards, activity-based costing, and cost functions. This course is not available to students who have completed ACG 3341.

**Note:** Unless otherwise indicated, a grade of "C" or better is required for any course designated as a prerequisite.

### **Business Valuation for Forensic Accountants (ACG 6375) 3 credits**

*Prerequisites: Admission to College of Business master's program and ACG 2021 or ACG 6027*

An introductory course designed to provide a solid foundation for students entering the business valuation profession. Course introduces business valuation theory, research methodology, economic

and industry analysis, the asset approach, and other introductory topics as well as valuation report writing.

### **Communication Strategies for Forensic Accountants (ACG 6376) 3 credits**

*Prerequisite: Admission to master's program in Accounting*

Course provides strategies for communicating effectively as a forensic accountant: (1) writing in discipline-specific language and formats; (2) delivering credible presentations; and (3) adapting messages for various stakeholders.

### **Business Valuation for Fair Value Accounting, Auditing and Financial Reporting (ACG 6377) 3 credits**

*Prerequisites: Enrollment in School of Accounting Executive Programs and ACG 6379*

Applies fair value measurement standards and concepts to auditing and financial reporting. Specific financial reporting areas covered include business combinations, intangible assets, alternative investments and contingent consideration. Applies fair value measurement in the context of the auditing standards.

### **Advanced Accounting Applications in Business Valuation (ACG 6378) 3 credits**

*Prerequisites: Enrollment in School of Accounting Executive Programs and ACG 6379*

Advanced applications in business valuation. The conceptual and practical framework for the determination of the value for specific securities and interests (e.g., stock options); for specific purposes (e.g., estate and gift taxation, buy-sell agreements, employee stock ownership plans and marital dissolutions); and intangible assets (e.g. patents and goodwill).

### **Business Valuation, Advanced Theory, Concepts and Methodologies (ACG 6379) 3 credits**

*Prerequisites: Enrollment in School of Accounting Executive Programs and ACG 6375*

A study of the advanced theory, concepts and methodologies applicable to business valuation. Applications include cost of capital, valuation report writing, advanced application of the major valuation approaches, valuation synthesis, discounts and premiums, pass-through tax entities and expert witnessing in valuation for litigation, financial reporting, taxation and transactions.

### **Communication Strategies for Professional Accountants (ACG 6396) 3 credits**

*Prerequisite: Admission to master's program in Accounting*

Beyond competency in accounting tasks, accountants also need to be skilled communicators to gain a competitive edge in the job market and continue career success. This course provides you with effective communication strategies for winning and retaining clients and expediting information exchange. You develop skills with immediate, real-world application: how to relay accounting information clearly and

concisely, use appropriate formats, adapt messages for various audiences and deliver credible and persuasive presentations.

### **Accounting for E-Commerce (ACG 6465) 3 credits**

*Prerequisite: Admission to College of Business master's program and ACG 2021 or ACG 6027*

As Accounting is the language of business, e-Commerce is the driver of business. Consequently, all accounting work involves e-Commerce in some way. So don't let e-Commerce be the missing ingredient in your accounting education. This course ties together accounting and its driving elements in the areas of technology, data analytics, artificial intelligence and information systems.

### **Advanced Accounting Information Systems (ACG 6475) 3 credits**

*Prerequisites: Admission to master's program in Accounting or permission of instructor and ACG 2021 or ACG 6027*

*Prerequisite or Corequisite: GEB 6215 with grade of "S"*

Is your personal data safe? Just as important, is your company's data secure, confidential and accurate? With technology advancing at a record pace, it is difficult for accountants to keep up. Where is our competitive advantage? This course takes a controls-based focus to answer these questions and more as it also goes down the path of implementing new technology according to the system's development life cycle.

### **Advanced Accounting Applications of Data Analytics (ACG 6496) 3 credits**

*Prerequisites: Admission to master's program; ACG 6686 or ACG 6635 or equivalent; and QMB 3600 or equivalent*

Data, data, data. It's everywhere! Have you ever wondered how data analytics could analyze REAL auditing, forensic accounting and financial statement issues? If so, this is the class for you. Hands-on exercises combine with fundamental data concepts to put you ahead of the game.

### **Advanced Digital Forensics in Forensic Accounting (ACG 6498) 3 credits**

*Prerequisites: ACG 6686 and enrollment in School of Accounting Executive Programs*

To meet the needs of employers and clients, today's accounting professionals must have technological and digital acumen. This course guides students through the process of using computer forensics software to obtain and analyze digital accounting data in a manner that sustains challenges of burden of proof or other challenges from third parties. Students are also guided on the process of using generalized audit software to analyze and interpret complex digital accounting data.

### **IT Auditing (ACG 6625) 3 credits**

*Prerequisite: Admission to College of Business master's program and ACG 4651 or ACG 6635*

A survey of control and auditing techniques employed in computer-based accounting systems.

### **Auditing Theory and Practice (ACG 6635) 3 credits**

*Prerequisites: Admission to College of Business master's program and ACG 4401 or ACG 6475 and ACG 3141 or ACG 6137*

A study of the role of audits in society, the regulations of the auditing profession, current issues in the profession, and the conduct of an attestation engagement. This course is not available to students who have completed ACG 4651.

### **Advanced Auditing Theory and Practice (ACG 6655) 3 credits**

*Prerequisites: Admission to College of Business master's program and ACG 4651 or ACG 6635*

A study of the concepts, assumptions, standards, and issues related to contemporary auditing theory and practice.

### **Internal Auditing Theory and Practice (ACG 6675) 3 credits**

*Prerequisites: (ACG 3141 or ACG 6137) and (ACG 4651 or ACG 6635)*

The theory and practice of internal auditing in the context of risk management governance, ethics and professional standards.

### **Internal Auditing Cases and Projects (ACG 6678) 3 credits**

*Prerequisite: ACG 6675*

A cases-and-projects approach that covers internal audit from a broad perspective that includes information technology, business processes and accounting systems; the design of business processes; and the implementation of key control concepts. The course uses a case study approach that addresses tactical, strategic, systems and operational areas.

### **Interviewing for Forensic Accountants and Auditors (ACG 6685) 3 credits**

*Prerequisites: Enrollment in School of Accounting Executive Programs and ACG 6635 or ACG 4651 or permission of academic director*

Learn to dissect fraud by means of the interview process. In this course, you learn to examine a person's body language and how to conduct interviews of knowledgeable persons to determine the fairness of financial information.

### **Accounting Fraud Examination Concepts (ACG 6686) 3 credits**

*Prerequisites: Admission to College of Business master's program and ACG 2021 or ACG 6027*

In the investigation of fraud, one plus one does not always equal two. In this course, you view fraud from the perspective of the fraudster. You learn that if you understand the person, you understand the fraud. We explore why and how frauds occur through the lens of occupational frauds by looking at proper investigation methods and procedures for both civil and criminal cases.

### **Accounting Fraud Examination Conduct and Procedures (ACG 6687) 3 credits**

*Prerequisites: Admission to College of Business master's program and ACG 2021 or ACG 6027 with minimum grade of "C"*

Detection, investigation and prevention of fraud committed against organizations and individuals rises every year. This course helps you learn how to identify the red flags that indicate there may be fraud and highlight what types of frauds may occur that need your forensic skills. This course introduces many different techniques for identification of fraud and provides you the basis for your future career in accounting forensics (white collar crimes).

**Note:** Unless otherwise indicated, a grade of "C" or better is required for any course designated as a prerequisite.

### **Forensic Accounting and the Legal Environment (ACG 6688) 3 credits**

*Prerequisites: Admission to College of Business master's program and ACG 2021 or ACG 6027 with minimum grade of "C"*

In this course, you learn about the role of federal legislation as it relates to fraud examinations, including laws that preserve the rights of individuals suspected of committing fraud and laws that govern civil and criminal prosecutions, the admittance of evidence and the use of expert witness testimony.

### **Forensic Accounting, Fraud and Taxation (ACG 6689) 3 credits**

*Prerequisites: Admission to College of Business master's program and ACG 2021 or ACG 6027 with minimum grade of "C"*

In this course, you learn about the role of federal legislation as it relates to fraud examinations, including laws that preserve the rights of individuals suspected of committing fraud and laws that govern civil and criminal prosecutions, the admittance of evidence and the use of expert witness testimony.

### **Directed Independent Study (ACG 6905) 1-3 credits**

*Prerequisite: Permission of the School of Accounting*

Independent study, research, or another project to extend and integrate the student's knowledge. This is not to be used as a substitute for an existing course.

### **Special Topics (ACG 6935) 1-3 credits**

*Prerequisites: Graduate standing and permission of instructor*

The study of a special area of accounting. Topics will vary. This course may be repeated for credit.

### **Special Topics (ACG 6936) 1-3 credits**

*Prerequisites: Graduate standing and permission of instructor*

The study of a special area of accounting. Topics vary. This course may be repeated for credit.

*Grading: S/U*

### **Internship (ACG 6941) 1-3 credits**

*Prerequisites: 12 completed ACG or TAX credits beyond ACG 2021, 2071 or 6027, and permission of the School of Accounting internship coordinator*

*Prerequisite or Corequisite: GEB 6215 with grade of "S"*

Internships represent full-time employment for a minimum of six consecutive weeks and should consist of professional work experiences in accounting, auditing or tax. A presentation and papers are required.

### **Seminar in Financial Accounting (ACG 7145) 3 credits**

*Prerequisite: Admission to a Ph.D. program*

Critical, in-depth consideration of selected financial accounting topics of particular relevance to current accounting practice.

**Note:** Unless otherwise indicated, a grade of "C" or better is required for any course designated as a prerequisite.

### **Seminar in Accounting Information Systems (ACG 7415) 3 credits**

*Prerequisites: Admission to a Ph.D. program and ACG 6475*

This course exposes students to critical areas related to accounting information systems research. Topical areas, for example, include information technology expertise and information technology governance.

### **Seminar in Auditing (ACG 7646) 3 credits**

*Prerequisite: Admission to a Ph.D. program*

Course covers research in auditing, seminal papers, and streams of research that underlie current topics. Students read and evaluate recent research published in top journals and develop skills to evaluate working papers.

### **Survey of Behavioral Accounting Research (ACG 7837) 3 credits**

*Prerequisite: Admission to Ph.D. program*

This course serves as a survey of behavioral accounting research for doctoral candidates in the business Ph.D., executive concentration, program. The course includes behavioral research methods that are applied to accounting topics that may be of interest to students seeking a business Ph.D. executive concentration. Methods include surveys, experiments and verbal protocols. Topics include accounting

education, corporate governance, taxpayer issues, investor judgments and auditor judgments.

### **Scientific Method in Business (ACG 7884) 3 credits**

*Prerequisite: College of Business doctoral students only*

Provides Business Ph.D. students with an exposure to the major issues and debates on the scientific method in business, including the use and applications of insights from philosophy of science as it pertains to the business disciplines and an introduction to research design.

### **Survey of Archival Accounting Research (ACG 7886) 3 credits**

*Prerequisite: Admission to Ph.D. program*

This course is a survey of archival accounting research for doctoral candidates in the business Ph.D., executive concentration, program. The course includes basic archival accounting research methods and topics that are of interest to students seeking a business Ph.D. executive concentration. Methods include simple regression and event studies. Topics include earnings quality, audit quality, audit fees and executive compensation.

### **Seminar on Accounting Research and Capital Markets (ACG 7896) 3 credits**

*Prerequisites: Admission to a Ph.D. program*

Critical, in-depth consideration of selected accounting research topics involving capital markets of particular relevance to current accounting practice. Students read and evaluate seminal and recent research published in top journals and develop skills to evaluate working papers and perform accounting research.

### **Qualifying Research Project (ACG 7916) 3 credits**

Accounting Ph.D. students are required during the second summer of the program to complete an independent research project under the supervision of their QRP advisor. The topic and research methodology are based on the student's interest in accounting research. The QRP results in a working paper that will also be presented to the faculty in a workshop.

### **Summer Paper (ACG 7917) 3 credits**

*Prerequisites: Admission to Ph.D. program*

During the first summer of the program, Accounting Ph.D. students are required to replicate/extend a published research paper under the supervision of the Accounting Ph.D. coordinator. The topic and research methodology are based on the student's interest in accounting research.

### **Seminar in Current Accounting Research Issues (ACG 7918) 3 credits**

*Prerequisite: Admission to Ph.D. program*

Critical, in-depth consideration of selected accounting topics of particular relevance to current

accounting practice and research.

### **Special Topics in Accounting (ACG 7935) 3 credits**

*Prerequisite: Admission to a Ph.D. program in the College of Business*

Special topics in accounting. Content will vary. May be repeated for credit.

### **Special Topics (ACG 7936) 1-3 credits**

*Prerequisite: Admission to a Ph.D. program in the College of Business*

Special topics in accounting. Content will vary. May be repeated for credit. *Grading: S/U*

### **Advanced Research in Accounting (ACG 7978) 1-9 credits**

*Prerequisite: Doctoral standing in the College of Business*

Supervised research for comprehensive exam preparation, dissertation proposal development and/or scholarly paper writing. *Grading: S/U*

### **Doctoral Dissertation in Accounting (ACG 7980) 1-12 credits**

*Prerequisite: Admission to doctoral candidacy*

### **Seminar in University Business Education (BTE 7175) 3 credits**

*Prerequisite: Doctoral standing*

Provides knowledge and skill development for doctoral-level business students to prepare them for the teaching component of an academic career.

### **Concepts of Federal Income Tax (TAX 6025) 3 credits**

*Prerequisites: Admission to College of Business master's program and ACG 2021 or ACG 6027*

This course give you the ability to understand the basic concepts of federal taxation by using court cases, the Internal Revenue Code, Regulations, and IRS Rulings so that you can analyze fundamental concepts of the federal income tax. You learn how to apply critical thinking skills in the area of federal income taxes.

**Note:** Unless otherwise indicated, a grade of "C" or better is required for any course designated as a prerequisite.

### **Tax Research (TAX 6065) 3 credits**

*Prerequisites: Graduate standing and TAX 6025 or TAX 4001*

*Prerequisites or Corequisites: GEB 6215 and TAX 6025*

In this course, you learn how to find the answers to tax issues and apply your knowledge of tax research tools to locate, understand and interpret source materials.

### **Corporate Taxation (TAX 6105) 3 credits**

*Prerequisites: Graduate standing and TAX 6025*

*Prerequisite or Corequisite: TAX 6065*

Concepts and principles governing the Federal income taxation of corporations and their shareholders. The source and application of U.S. tax authority as it relates to the formation, operation and liquidation of a corporation. The S Corporation is explored as an alternative to the regular corporation and other modes of operation.

### **Advanced Corporate Taxation (TAX 6115) 3 credits**

*Prerequisites: Graduate standing and TAX 6105*

Concepts and principles governing the Federal income taxation of corporations and their shareholders and the source and application of U.S. tax authority as it relates to complex corporate tax problems. Emphasis will be on the rules governing penalty taxes, tax-free divisions and reorganizations, affiliated corporations, consolidated returns, and multinational considerations.

### **Partnership Taxation (TAX 6205) 3 credits**

*Prerequisites: Graduate standing and TAX 6025*

*Prerequisite or Corequisite: TAX 6065*

An intensive study of partnership taxation covering such topics as the definition of a partnership, formation of a partnership, compensation of partners, taxing partnership income, and transactions between related parties.

### **Estates and Trusts: Planning and Taxation (TAX 6405) 3 credits**

*Prerequisites: Graduate standing and TAX 6025*

*Prerequisite or Corequisite: TAX 6065*

An examination of the principles of estate tax, gift tax, and income tax fiduciaries, beneficiaries, grantors, and other parties. Income with respect to decedents, grant or reversionary trusts, accumulation distributions, and other special problem areas are studied.

### **International Taxation (TAX 6525) 3 credits**

*Prerequisites: Graduate standing and TAX 6065 and (TAX 4011 or TAX 6105)*

This course examines the fundamental concepts of U.S. taxation of foreign income earned by U.S. taxpayers (outbound investment) and of U.S. income earned by foreign taxpayers (inbound investment). Topics covered include source of income, foreign tax credits, Subpart F, foreign currency translations, the newest tax provisions involving GILTI and FDII, income tax treaties, U.S. taxation of foreign persons and U.S. tax compliance issues.

### **State and Local Taxation ( TAX 6605 ) 3 credits**

*Prerequisite: TAX 4011*

An examination of the fundamental concepts of state and local income taxation. The application of the commerce clause and the tax advantages and disadvantages of different forms of business organizations in the context of state and local jurisdictions are studied.

**Contemporary Tax Topics (TAX 6875) 3 credits**

*Prerequisites: Graduate standing and TAX 6025*

*Prerequisite or Corequisite: TAX 6065*

Addresses recent or contemplated changes in tax law, including tax reform proposals and reviews and judicial developments in all areas of taxation. Topics will vary. May be repeated for credit.

**IRS Practice and Procedures (TAX 6877) 3 credits**

*Prerequisites: Graduate standing and TAX 6025*

*Prerequisite or Corequisite: TAX 6065*

Training in tax practice and procedures with an emphasis on IRS rules, procedures and techniques.

**Communication Strategies for Tax Accountants (TAX 6878) 3 credits**

*Prerequisite: Master of Taxation students only*

Tax accountants' success, along with their reputations and strong client-tax accountant relationships, often depend on communication. This course provides you with effective communication strategies you can immediately apply on the job. You gain real-world skills for gathering important financial data, delivering unfavorable or unexpected news, explaining technical jargon and changing tax laws, and presenting your clients' cases to the IRS.

**Special Topics of Taxation (TAX 6935) 1-3 credits**

*Prerequisite: Graduate standing and permission of the School of Accounting*

The study of a special area of taxation. Topics will vary. May be repeated for credit.

## BUSINESS LAW

**Undergraduate Courses** /[link to graduate courses](#)

**Business Law 1 (BUL 4421) 3 credits**

*Prerequisite: Junior standing*

Business leaders face a complex, litigious environment. How can the risk of criminal and civil liability be reduced? Whether related to defective products, unlawful behavior, compliance, contractual rights, and duties, intellectual property rights or debtor/creditor issues, the law widely impacts business. This

course covers contracts, intellectual property, the Constitution, ethics, torts, criminal law, alternative dispute resolution, the court system, insurance law, landlord-tenant agreements and debtor/creditor relationships.

### **Business Law 2 (BUL 4422) 3 credits**

*Prerequisite: Junior standing and BUL 4421*

If Business Law 1 sparked an interest to learn more about how law and business are intertwined, this course won't disappoint. Students explore other legal principles which apply to businesses. Topics include corporations, limited liability companies, partnerships, agency, franchises, real property, personal property, sales and secured transactions. Students learn how these principles apply to routine business activities and how to foresee and avoid legal difficulties in the business world and in their own personal dealings.

### **Ethics in Business (BUL 4443) 3 credits**

Are you interested in learning about the legal and ethical issues that arise in business settings? How do corporate and employment issues create ethical dilemmas? Using cases, students learn to develop critical thinking skills and tools to manage a business while creating an ethical environment. By examining theories of corporate management and through the application of decision-making frameworks. This course seeks to bridge the gap between personal moral choices of an individual and the challenges presented by corporate activity.

### **Law of International Trade (BUL 4461) 3 credits**

The study and interpretation of U.S. Customs regulations, classification of merchandise, application of tariff rules, duty free treatment, special classes of merchandise, importing and exporting, liquidation inspection, search and seizure, fines and penalties.

### **Intellectual Property Law (BUL 4514) 3 credits**

Do you know that intellectual property has been conservatively estimated to compose 42% of the GDP of the U.S. Economy? It is therefore essential that business leaders of today understand what these property rights are, as well as how to manage and commercialize them. This course explores the components of copyrights, patents, trademarks and trade secrets. It describes how and why they are of significant value to business. The course also examines how these rights are impacted by international treaties.

### **Employment Law (BUL 4540) 3 credits**

How do civil rights impact the workplace? This course covers legal issues impacting employees, employers and independent contractors. Topics include legal rights held by contract versus at-will

employees, how restrictive covenants impact employment relationships, what discrimination is and how employers can mitigate legal risk. The course covers laws regulating employee recruiting, interviewing, hiring and training; workplace drug testing, privacy, diversity, romance, violence and social-networking and social media policies.

### **Entertainment Law (BUL 4622) 3 credits**

*Prerequisites: Junior standing and completion of the Gordon Rule composition requirement*

Are you interested in a career focused on the business aspects of the entertainment industry? Since 2004, entertainment has been our country's greatest export encompassing sports, theater, film and music. Topics include entertainment contracts, sales and agents; intellectual property, music, privacy, and publicity rights; legal issues in sports; and First Amendment law. This course helps you decide if you want to apply your business skills to this exciting industry.

### **Directed Independent Study in Business Law (BUL 4905) 1-3 credits**

*Prerequisite: BUL 4421*

Independent reading and research in Business Law. Each program of study is arranged in consultation with a Business Law faculty member and with the permission of the Business Law Coordinator.

### **Special Topics in Business Law (BUL 4930) 1-3 credits**

The study of a special area of Business law. Topics will vary. May be repeated for credit.

## **Business Law Graduate Courses**

### **Business Law for Professional Accountants (BUL 6332) 3 credits**

*Prerequisites: Admission to a College of Business master's program and BUL 4421 or equivalent*

What legal factors must accountants consider to mitigate risk of professional and civil liability?

Whether related to the appropriate application of the Uniform Commercial Code, the correct business entity structure and formation, the interpretation of contractual benefits and duties or potential negligence liability, accountants must consider the various legal ramifications involved in commercial transactions. This course additionally examines the regulatory climate of business, professional responsibility, and potential tort liability.

### **Business Law and Applied Ethics (BUL 6455) 1.5 credits**

*Prerequisite: Graduate students only*

*Corequisites: BUL 4421 and BUL 4422, recommended*

This course presents legal and ethical issues that arise in employment settings and provides students with ethical decision-making tools to identify and manage ethical issues. The goal is that once students

become aware of the complexity of the various issues, they will have a greater tendency to be more deliberate in decision making. Working with cases, students articulate basic principles of ethics, develop the skills to think and write critically and clarify inconsistencies in their own ethics and value systems.

### **Advanced Entertainment Law (BUL 6628) 3 credits**

Apply your business degree to opportunities in one of the most dynamic industries in our country today. Since 2004, entertainment has replaced food as our country's greatest export. Entertainment includes a wide range of activities such as sports, theater, film, music, literary works, internet, videos games, gambling and more. Learn the rules of law that apply to these activities. Discover the great opportunities and careers that are available today in the entertainment industry.

### **Special Topics (BUL 6930) 3 credits**

*Prerequisite: Principles of Business Law, graduate standing*

Study of a special area in business law. The topics will vary, and the course may be repeated for credit.

## ECONOMICS

**Undergraduate Courses** /[link to graduate courses](#)

### **Macroeconomic Principles (ECO 2013) 3 credits**

In this course, students will learn the foundations of macroeconomics as the branch of economics concerned with how decision making, in an environment of scarcity, maps onto the aggregate economy. Students will examine theories and evidence related to the following core set of topics: national income determination, money, monetary and fiscal policy, macroeconomic conditions, international trade and the balance of payments, and economic growth and development. This is a General Education course.

### **Microeconomic Principles (ECO 2023) 3 credits**

We live in a world of limited resources. How are these resources allocated in a market economy? This course introduces students to the standard conceptual tools of microeconomic analysis and then applies these tools to consider how prices are determined; why exchanges tend to be mutually beneficial; who bears the burden of a tax; when businesses are likely to pollute the environment; whether firms benefit from monopoly power; and what policies might improve the efficiency or fairness of markets. This is a General Education course.

### **RI: Honors Microeconomic Principles (ECO 2023) 3 credits**

*Prerequisite: Sophomore standing or permission of department*

We live in a world of limited resources. How are these resources allocated in a market economy? This course introduces students to the standard conceptual tools of microeconomic analysis and then applies these tools to consider how prices are determined; why exchanges tend to be mutually beneficial; who bears the burden of a tax; when businesses are likely to pollute the environment; whether firms benefit from monopoly power; and what policies might improve the efficiency or fairness of markets. This is a General Education course. This is a research-intensive (RI) course.

### **Economics Study Abroad (ECO 2952) 1-4 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Intermediate Microeconomics (ECO 3101) 3 credits**

*Prerequisites: ECO 2013 and ECO 2023, or equivalent*

How do individuals make decisions in a world of scarce resources? This course develops systematic models of constrained optimization for consumers and producers in order to consider the role of prices in resource allocation. Special attention is given to market structure, and its effect on profits, consumer welfare, producer welfare and social welfare. Upon completion of this course, students will be able to analyze market efficiency and assess the potential for policies to improve economic outcomes.

### **Intermediate Macroeconomics (ECO 3203) 3 credits**

*Prerequisites: ECO 2013 and ECO 2023, or equivalent*

Why are living standards so much higher today than they were in the past? Why do countries occasionally experience painful economic downturns? This course develops models of economic growth and macroeconomic fluctuation to explore these issues. It emphasizes the decisions made by businesses, workers, consumers and government that underlie macroeconomic outcomes. Students analyze macroeconomic performance over time and assess the potential for fiscal, monetary and regulatory policies to promote growth and smooth out macroeconomic fluctuation.

### **International Economics (ECO 3703) 3 credits**

*Prerequisites: ECO 2013 and ECO 2023, with minimum grades of "C;" course is not available for Economics majors*

Managers and owners must understand how their businesses operate in a global economy. This course provides a business-oriented view of international economics by exploring why nations trade and the effects of trade and capital flows on the balance of payments, exchange rates, incomes and welfare. The impact of policy issues such as tariffs, quotas and trade agreements are explored as well as current trade topics such as intellectual property, labor issues, immigration and the environment.

### **Microeconomics for the Secondary School Class (ECO 4077) 3 credits**

*Prerequisite: ECO 2013 and ECO 2023, or equivalent, or permission of instructor*

The course is designed for teachers interested in introducing microeconomic concepts into their secondary school classes (such as geography, civics, history, and mathematics courses). The goal of the course is for teachers to expand their knowledge of microeconomics and to be able to apply that knowledge by using economic materials and examples in the classroom. This course may not be used toward a business or economics major or minor.

### **Money and Financial Markets (ECO 4223) 3 credits**

*Prerequisites: ECO 2013 and ECO 2023, or equivalent*

Modern economies depend on a well-functioning monetary system to facilitate exchange and highly sophisticated financial markets to channel savings into valuable investments. This course employs the standard tools of economic analysis to consider these issues. Topics include cryptocurrencies, bond markets, stock markets, traditional banks, decentralized finance (DeFi), and monetary policy.

### **Mathematical Modeling in a Connected World (ECO 4401) 3 credits**

*Prerequisites: ECO 3101 and MAC 2233, or equivalent*

What do the problems of matching students to dorm rooms and medical interns to hospitals have in common? Does the introduction of a new road between two locations necessarily reduce traffic congestion? Do markets, where buy and sell orders are executed by an intermediary like the NY stock exchange, function differently from markets without an intermediary? Mathematical economics can provide insights to seemingly complex social situations. In this course, students learn the art of modeling human behavior in a connected world using techniques from mathematics and economics.

### **Game Theory (ECO 4402) 3 credits**

*Prerequisite: ECO 2023 or equivalent*

How does one outsmart their competitors? Game theory studies strategic decision making when multiple players each act in their own interests. This course introduces the core concepts of game theory including sequential-move and simultaneous-move games and Nash equilibrium. Real-life applications of game theory are found in business competition, politics, law, military strategy, sports and gaming. Students develop a new perspective on approaching strategic decisions encountered every day.

### **Introduction to Econometric Methods (ECO 4421) 3 credits**

*Prerequisites: ECO 2013 and ECO 2023 and STA 2023*

Decision making requires knowledge of real-world data and the interconnections among participants in different sectors of the economy. Economists use the core concepts and techniques developed in this course to analyze economic data and conduct empirical research in economics. Topics include

estimation of simple and multiple regression models, statistical inference, prediction and hypothesis testing. Learning how to use Stata, a modern econometrics software, is an integral component of the course.

### **Intermediate Econometrics (ECO 4422) 3 credits**

*Prerequisite: ECO 4421 or equivalent*

Advanced topics in the theory and application of econometric models.

### **Economic Analytics and Big Data (ECO 4441) 3 credits**

*Prerequisites: ECO 2013 and ECO 2023 and STA 2023*

By employing R and RStudio, students acquire the skills to analyze extensive datasets in the context of economic research. Students gain proficiency in uncovering hidden patterns, identifying subtle trends, establishing causal relationships and extracting valuable insights to enable predictive analysis in empirical economic scenarios. Additionally, students become familiar with the cutting-edge features of RStudio for their economic projects, such as generating reproducible reports, designing web applications and employing the ChatGPT coding assistant, among other capabilities.

### **Economics of the Public Sector (ECO 4504) 3 credits**

*Prerequisite: ECO 2013 and ECO 2023, or equivalent, or permission of instructor*

What is the role of the government in the economy? How does public policy influence our society? This course examines the nature of public goods and government expenditures. Also, it evaluates the fairness and economic effects of various taxes and explores public debt policies. Students learn to evaluate under which circumstances the government should participate in markets.

### **International Trade (ECO 4704) 3 credits**

*Prerequisite: ECO 3101 or equivalent*

Economists generally agree that countries benefit from trade in goods and services. Yet, countries routinely engage in trade disputes. The theory of international trade explores the causes of trade in goods and services between countries and the effect of trade on wages and income distribution. The effects of trade policy instruments such as tariffs, quotas, voluntary export restrictions and the creation of free trade agreements help explain why trade restrictions are still popular.

### **International Monetary Economics (ECO 4713) 3 credits**

*Prerequisite: ECO 3203 or equivalent*

Why do exchange rates matter and how are they determined under different exchange rate regimes? Why do countries borrow from and lend to each other? This course explores the international monetary system, with special emphasis on the determination of exchange rates, balance of payments and international monetary policies. Students will also learn different exchange rate regimes and

implications for financial stability, currency crises and monetary reform.

### **Directed Independent Study (ECO 4905) 1-3 credits**

*Prerequisite: Permission of department*

*Grading: S/U*

### **Directed Independent Study (ECO 4907) 1-4 credits**

*Prerequisites: ECO 2013 and ECO 2023, or equivalent, and permission of instructor and department*

Independent study, research or another project to extend and integrate the student's knowledge. Not to be used as a substitute for an existing course.

### **Senior Research in Economics (ECO 4914) 1-3 credits**

*Prerequisite: Permission of instructor*

The student is expected to demonstrate an ability to conceive and execute a meaningful research project on a topic in economics. *Grading: S/U*

### **Directed Independent Research in Economics (ECO 4915) 1-3 credits**

Students work closely with research mentors to conduct research and inquiry in Economics.

Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student.

### **Directed Independent Research (ECO 4917) 0 credits**

Students work closely with research mentors to conduct research and inquiry in Economics. *Grading: S/U*

### **Economic Policy Analysis (ECO 4933) 3 credits**

*Prerequisites: ECO 3101 and ECO 3203*

This capstone course is designed for economics majors in their last year of study. Students explore and understand policies to address current economic issues. Through short analyses and longer written reports, the course helps students apply economic theory. The goal of the course is to improve students' ability to communicate their economic ideas through papers and presentations.

### **Special Topics (ECO 4934) 1-3 credits**

### **RI: Honors Senior Seminar in Economics (ECO 4935) 3 credits**

*Prerequisite: Permission of department*

This is the capstone course in the Honors Program. Students conduct an approved independent research project under the direction of a faculty mentor. At the completion of the project, the student submits a

written paper and presents the work in an oral format. This is a research-intensive (RI) course.

### **Field Study in International Economics (ECO 4955) 1-4 credits**

*Prerequisites: ECO 2013 and ECO 2023, or equivalent, or permission of instructor*

An instructional and tour program that studies production and the allocation of resources in foreign countries. The study tour also examines the organizational frameworks related to these processes and compares them with those found in the United States.

### **Economics Study Abroad (ECO 4957) 1-4 credits**

*Prerequisite: Junior standing or permission of instructor*

Credit for enrollment in approved study abroad programs.

### **Contemporary Economic Issues (ECP 2002) 3 credits**

Acquaints students with the economists' way of thinking about social issues. Each class will discuss the important aspects of a particular issue, develop the economic concepts and tools to study the issue, and finally apply these tools to figure out ways to resolve the issue. Cannot be used instead of ECO 2013 or ECO 2023. This is a General Education course.

### **Labor Economics (ECP 3203) 3 credits**

*Prerequisites: ECO 2013 and ECO 2023, or equivalent*

What determines how much a worker gets paid? Do firms discriminate? How do job seekers conduct an optimal job search? Do minimum wage laws make workers better off? Does immigration affect the wages of domestic workers? In this course, students employ economic models to examine these questions and gain a better understanding of the labor market.

### **Managerial Economics (ECP 3703) 3 credits**

*Prerequisites: ECO 2013 and ECO 2023, or equivalent*

In today's economy, successful managers must be able to navigate an increasingly competitive marketplace. This course presents analytical tools managers can use to solve complex business problems and take advantage of profitable opportunities. Topics covered include an examination of business strategy, risk analysis, demand estimation and forecasting, cost structure, incentives and the competitive behavior of firms.

### **Environmental Economics (ECP 4302) 3 credits**

*Prerequisites: ECO 2023, or equivalent*

The environment is one of our most important resources. However, pollution and climate change threaten the environment. Economic concepts such as externalities and public goods problems help explain why this occurs. This course explores whether market-based incentive systems such as

emissions taxes and cap and trade systems can effectively reduce pollution. Issues covered include climate change, air pollution, water pollution and solid waste disposal. Students can apply the knowledge learned in this course to better negotiate the evolving green economy.

### **Industrial Economics, Market Structure and Government Policy (ECP 4403) 3 credits**

*Prerequisites: ECO 2013 and ECO 2023, or equivalent*

Why do airplane ticket prices for adjacent aisle seats differ in price? How much should firms advertise to improve sales? Who really pays for the cost of celebrity product endorsements? Why does the Federal Trade Commission allow some mergers and disallow others? In this course, students analyze the structure of American industries and its impact on pricing, production decisions and innovation. Students evaluate various public policies regarding market structure and discuss conduct and performance of firms.

### **Economics of Entrepreneurship (ECP 4407) 3 credits**

*Prerequisites: ECO 2013 and ECO 2023, or equivalent*

This course is an introduction to the economics of entrepreneurship. Topics include the meaning and definitions of entrepreneurship and entrepreneurship theories and determinants. The course also covers public policy issues, financing-related issues and econometric methods used in entrepreneurship research.

### **Health Care Economics and Policy (ECP 4530) 3 credits**

*Prerequisite: ECO 2023*

Health care markets behave differently from other markets. They are characterized by asymmetric information, uncertainty, externalities, imperfect competition and government involvement. This course employs economic tools to examine medical care systems, health research and public policies in the health care sector. It also analyzes the interactions among patients, providers, insurers, employers and the government.

### **International Economic Development (ECS 3013) 3 credits**

*Prerequisites: ECO 2013 and ECO 2023, or equivalent*

Why are some countries rich and others poor? This course examines the economic characteristics of developing countries. Students study the causes of poverty and consider the prospects for economic growth in these countries. Topics include income growth, poverty and inequality, and the relationship between education, health, demographic change and economic development. Students examine the economic structure and way of life in these countries and study the interactions between rich and poor countries through trade, investment and global climate change.

## **Economics Graduate Courses**

### **Advanced Microeconomics (ECO 6115) 3 credits**

*Prerequisite: Graduate standing*

Discussion of selected topics in micro-economic analysis, including demand theory, production theory, microdynamics, and the theory of games.

### **Advanced Macroeconomics (ECO 6206) 3 credits**

*Prerequisite: Graduate standing*

The Keynesian model of national income determination and major sectors of the model as developed in the post-Keynesian literature as well as extensions into dynamics, cycles and growth.

### **Advanced Monetary Economics (ECO 6216) 3 credits**

*Prerequisite: Graduate standing*

Issues in monetary policy treated within the framework of theory of demands for and supply of money and other assets.

### **Advanced Mathematical Economics (ECO 6403) 3 credits**

*Prerequisites: MAC 2233 (or equivalent) or ECO 4401 or permission of instructor*

Advanced mathematical economics discusses matrix algebra differential and integral calculus, and difference equations that are useful for economic and business analysis. Emphasis on comparative statics, optimization, and dynamics in economic decision making.

### **Advanced Game Theory and Applications (ECO 6409) 3 credits**

*Prerequisite: Graduate standing*

This is a unique course that combines theory with practical applications to develop analytical astuteness in managerial decision making. A strong emphasis is placed on non-cooperative game theory and business applications.

### **Topics in Econometrics (ECO 6424) 3 credits**

*Prerequisite: ECO 6426*

Selected topics in Econometrics.

### **Advanced Econometrics (ECO 6426) 3 credits**

*Prerequisites: STA 3163 or equivalent or ECO 4421 or ECO 4422 or permission of instructor*

Course deals with modern econometric techniques such as the classical linear regression model and its extensions, non-linear regression, pooled regression, panel data methods, and qualitative response regression models. Emphasis on the application of econometric methods to real-world issues.

### **Panel Data (ECO 6427) 3 credits**

*Prerequisite: ECO 6426*

This is an introduction to the theory and application of panel data econometrics. Topics studied include the specification, estimation and inference of empirical models that include individual and/or time effects. The course begins with a review of the linear regression model, then incorporates the panel data settings of fixed, random and mixed effects. Programming skills using a modern statistical package are emphasized.

### **Advanced International Trade (ECO 6706) 3 credits**

*Prerequisite: Graduate standing*

Analysis of international trade from the perspective of globalization with focus on the traditional theories of trade, the normative aspects of international commerce, and latest developments in international trade characterized by imperfect competition.

### **Advanced International Development (ECO 6709) 3 credits**

*Prerequisite: Graduate standing*

Studies the fundamental causes of underdevelopment and development of countries while examining the factors that influence their standard of living and growth through a mix of theoretical and empirical analysis.

### **Advanced International Monetary Economics (ECO 6716) 3 credits**

*Prerequisite: Graduate standing*

In-depth discussion of the balance of payments, exchange rates and the international monetary system and stabilization policies in open economies. Emphasis on the integrated analysis of modern international finance and open-economy macroeconomics.

### **Directed Independent Study (ECO 6906) 1-3 credits**

*Prerequisite: Permission of department*

### **Special Topics (ECO 6930) 1-3 credits**

Study of a special area of economics. Topics will vary. May be repeated for credit.

### **Staff Seminar (ECO 6937) 1-3 credits**

*Prerequisite: Graduate standing and permission of instructor*

Special topics in micro, macro, and quantitative analysis.

### **International Economics Field Experience (ECO 6958) 3 credits**

An instructional and tour program that studies production and the allocation of resources in foreign

countries. The study tour also examines the organizational frameworks related to these processes and compares them with those found in the United States.

### **Master's Thesis (ECO 6971) 1-6 credits**

*Grading: S/U*

### **Microeconomic Foundations of Strategic Decision Making (ECO 7178) 3 credits**

*Prerequisite: Admission to Ph.D. program or permission of instructor*

This course teaches the analysis of strategic decisions. The primary emphasis is on decisions at the business level, although strategy at the corporate level is also considered. The primary analytical method is economics.

### **Contemporary Issues in Global Macroeconomics (ECO 7296) 3 credits**

*Prerequisites: Admission to Ph.D. program or permission of instructor*

Course covers analysis of macroeconomics and the global business environment, including an in-depth discussion of both long-run growth and short-run economic fluctuations. Emphasis is on the macroeconomic and financial connectedness of national economies and on business decision making in global markets characterized by random shocks, crises and economic policy uncertainty.

### **Advanced Research in Economics (ECO 7978 ) 1-9 credits**

*Prerequisite: Doctoral standing in the College of Business*

Supervised research for comprehensive exam preparation, dissertation proposal development and/or scholarly paper writing. *Grading: S/U*

### **Doctoral Dissertation: Economics (ECO 7980) 1-9 credits**

*Prerequisite: Admission to doctoral candidacy*

Doctoral dissertation research in the field of economics. *Grading: S/U*

### **Advanced Managerial Economics (ECP 6705) 1.5 credits**

*Prerequisite: Graduate standing*

Analysis of business decisions in the pursuit of the firm's goals constrained by scarce resources with emphasis on the applications of microeconomic theories combined with recent advances in information economics.

## FINANCE

**Undergraduate Courses** /[link to graduate courses](#)/ [link to Real Estate courses](#) /[link to Risk](#)

## Management and Insurance courses

### **Crowdfunding (ENT 4512) 3 credits**

*Prerequisite: FIN 3403*

This course covers the theory and practice of crowdfunding. Crowdfunding involves raising capital from many retail investors. The course covers equity crowdfunding, as well as peer-to-peer lending donations and rewards-based crowdfunding. In addition to studying the economics and finance of crowdfunding, the course covers crowdfunding regulation.

### **Personal Finance (FIN 3140) 3 credits**

*Prerequisite: Junior standing*

Personal financial planning for the non-major in finance. Practical applications in budgeting, use of credit, banking, insurance, real estate, investments, taxes, retirement planning, estates and wills, with emphasis on inflation planning. (Not available for credit toward major in Finance.)

### **Principles of Financial Management (FIN 3403) 3 credits**

*Prerequisites: ACG 2021, ACG 2071, and junior standing*

Survey of Financial Management, including capital budgeting, cost of capital and financial analysis.

### **Honors Seminar in Finance (FIN 3939) 3 credits**

*Prerequisites: Financial and Managerial Accounting Principles and permission of Director of Honors Program*

Honors survey course in business financial management. Analytical techniques in financial decision-making including financial analysis, asset evaluation, capital budgeting, and cost of capital. Honors course accepted in lieu of FIN 3403.

### **Cooperative Education - Finance (FIN 3949) 1-4 credits**

No credit toward degree. *Grading: S/U*

### **Financial Institutions (FIN 4303) 3 credits**

*Prerequisite: A grade of "C" or better in FIN 3403 or permission of instructor*

An examination of commercial banks and other financial intermediaries, in their relationship to the money and capital markets and to their interaction in the channeling of savings into investment.

### **Financial Management of Institutions (FIN 4313) 3 credits**

*Prerequisite: FIN 3403*

The asset and liability management of commercial banks and other important financial institutions. Includes commercial and consumer lending, managing bank securities portfolios and managing interest

rate risk.

### **Cases in Financial Management (FIN 4422) 3 credits**

*Prerequisite: FIN 4424*

Case analysis of problems in business, including cash flow projections, budgeting financial resources, capital structure, mergers, consolidations, liquidations, and risk analysis.

### **Advanced Managerial Finance (FIN 4424) 3 credits**

*Prerequisite: FIN 3403 and ISM 3011*

Financial modeling using spreadsheet and other applications to apply financial analysis and decision making.

### **Investment Analysis (FIN 4504) 3 credits**

*Prerequisite: A grade of "C" or better in FIN 3403 or permission of instructor*

Principles of investment management; investment media and instruments. Application of analytical techniques to securities; effective income/risk selection of securities and portfolios in theory and in practice.

### **Financial Derivatives (FIN 4533) 3 credits**

*Prerequisite: FIN 3403 with a grade of "C" or better or permission of instructor*

Options, futures, forwards and other derivatives contracts. Investments traded in these markets are examined; pricing and hedging are considered.

### **Student-Managed Investment Fund (FIN 4560) 3 credits**

*Prerequisite: FIN 3403 with minimum grade of "C"*

This course is designed to give students hands-on experience in performing investment research, investing capital and managing a portfolio prior to entering the workforce. Students are expected to analyze the existing portfolio composition, research investment opportunities, generate investment ideas and make recommendations based on their analysis. Some of the research is performed individually while most research is done as a team. It is the student's responsibility to initiate research ideas and recommend specific investment actions to fellow students and a governing board.

### **International Finance (FIN 4604) 3 credits**

*Prerequisite: FIN 3403*

Study of how multinational corporations make financial decisions, such as international cash management, hedging cash flows, international capital budgeting and international financing.

### **Global Capital Markets (FIN 4633) 3 credits**

*Prerequisite: FIN 3403 with minimum grade of "C"*

This course is designed to provide students with an understanding of the evolution of financial markets, how financial markets operate, different types of securities traded, how trades are conducted and the current issues in financial markets. Students master the language of international investing and identify and evaluate some of the issues within financial markets.

### **Directed Independent Study (FIN 4905) 1-4 credits**

*Prerequisites: Junior standing and permission of department chair prior to registration*

An independent study, research or other project to extend and integrate the students' knowledge. This is not to be used as a substitute for an existing course, or for credit in the Finance major.

### **Special Topics (FIN 4934) 1-4 credits**

*Prerequisites: Junior standing and permission of instructor*

The study of a special area of Finance. Topics will vary. May be repeated for credit.

### **Finance Internship (FIN 4940) 3 credits**

*Prerequisite: FIN 3403 with minimum grade of "C" and permission of instructor*

Provides insight into financial management and financial services allowing students to hone their skills in a real-world setting. Students gain valuable, practical experience under the combined direction of an industry professional in the work setting as well as a faculty member in the academic setting.

### **Finance Study Abroad (FIN 4957) 1-4 credits**

*Prerequisite: Junior standing*

Credit for enrollment in approved study abroad programs.

## **Finance Graduate Courses**

### **Advanced Financial Management for Financial Planners (FIN 6150) 3 credits**

*Prerequisites: TAX 6025, 6405 and RMI 6016 or permission of instructor*

A capstone course covering the practice and implementation of personal financial planning with emphasis on casework in budgeting and saving, risk management, retirement and estate planning, tax planning, and investment planning. In addition, the course will examine retirement and employee benefits plans.

### **Financial Markets (FIN 6246) 3 credits**

*Prerequisite: Graduate standing*

A study of factors affecting interest rates and prices in the money, savings, and capital markets. Attention is given to the institutions in these markets and interrelations between the institutions.

### **Financial Management of Financial Institutions (FIN 6314) 3 credits**

*Prerequisite: FIN 6806 or permission of instructor*

An in-depth analysis of commercial banks and other financial institutions from a managerial approach. Emphasis is placed upon asset, liability, and capital management within financial institutions. There will be discussion-oriented case analyses.

### **Financial Management (FIN 6406) 3 credits**

*Prerequisites: Graduate standing, financial accounting principles and principles of economics*

Tools and applications of financial analysis and forecasting, investment policy, financing policy, and working capital policy. Not available as a graduate elective. Open only to graduate students lacking an undergraduate course in Finance.

### **Financial Management: Investment Decisions and Policy (FIN 6436) 3 credits**

*Prerequisite: FIN 6406 and graduate standing*

Techniques and theory of making value-maximizing selections and terminations of both fixed and working capital assets. The course emphasizes how real options create opportunities for managers to augment the firm's value.

### **Financial Modeling (FIN 6455) 3 credits**

*Prerequisite: Successful completion of Market Rate M.S. in Finance "Bootcamp"*

Financial modeling using spreadsheets to conduct financial analysis for managerial decision making. Special attention is given to models in mergers and acquisitions, leveraged buyouts, venture capital, etc. This is a hands-on course that uses the FAU trading room and Bloomberg and other databases.

### **Quantitative Methods in Finance (FIN 6456) 3 credits**

*Prerequisite: Successful completion of Market Rate M.S. in Finance "Bootcamp"*

Introduces financial applications of quantitative techniques covered in areas such as probability, probability distributions and descriptive statistics, sampling and estimation, hypothesis testing, correlation analysis and regression, optimization time-series analysis and simulation analysis. The course requires a project using statistical software.

### **Investment Management (FIN 6515) 3 credits**

*Prerequisites: Graduate standing and permission of instructor*

Current problems in investments. It analyzes financial reports and movements of security prices and emphasizes quantitative methods of portfolio selection. It is also an introduction to investment model building.

### **Security Analysis (FIN 6517) 3 credits**

*Prerequisite: Successful completion of Market Rate M.S. in Finance “Bootcamp”*

Emphasis on the characteristics of financial assets and on major valuation models to determine intrinsic value. This course focuses on equity and fixed income instruments.

### **Portfolio Management (FIN 6525) 3 credits**

*Prerequisites: Principles of Accounting, Principles of Economics*

The course examines the current trends in investments by analyzing financial reports and the movements of security prices. Quantitative and qualitative approaches to investment management and portfolio selection are discussed.

### **Financial Risk Management and Derivatives (FIN 6537) 3 credits**

*Prerequisite: FIN 6406 and graduate standing*

This course focuses on financial risk. It deals with its measurement, the derivative instruments used to trade it and the techniques used to manage it.

### **Multinational Finance (FIN 6605) 3 credits**

*Prerequisite: FIN 6406 or its equivalent*

Financial management for international companies. Sources of funds, capital structure, investment strategies, monetary exchange problems and governmental constraints on firms operating in more than one nation are discussed.

### **Financial Ethics (FIN 6745) 2 credits**

*Prerequisite: Completion of Market Rate M.S. in Finance “Bootcamp”*

Overview of ethical issues and regulatory challenges faced by investment professionals and participants in financial markets.

### **Theory of Financial Management (FIN 6804) 3 credits**

*Prerequisite: FIN 6806 or permission of instructor*

An in-depth study of the theories of management of working capital, the marginal analysis principles underlying capital budgeting, and alternate theories of capital structure. This course may replace FIN 6806 for qualified students with permission from the Chair.

### **Advanced Financial Management (FIN 6806) 3 credits**

*Prerequisites: Graduate standing, FIN 6406 or equivalent*

*Prerequisite or Corequisite: GEB 6215*

Theory and practice of financial planning and management. It emphasizes the capital structure of business enterprise, its cost of capital, and its evaluation. Applications of quantitative methods to capital theory.

### **Directed Independent Study (FIN 6906) 1-3 credits**

*Prerequisite: Permission of department chair prior to registration*

An independent study research, or other project to extend and integrate the student's knowledge. It is not to be used as a substitute for an existing course.

### **Special Topics (FIN 6936) 1-3 credits**

*Prerequisite: Permission of instructor*

A study of a special area of Finance; topics will vary. The course may be repeated for credit.

### **Master's Thesis (FIN 6971) 1-6 credits**

*Prerequisite: Graduate standing*

An application of the professional and research methodology to a problem or project chosen between student and instructor.

### **Seminar in Capital Markets (FIN 7247) 3 credits**

*Prerequisites: Doctoral students in the College of Business and permission of instructor*

A theoretical study of financial intermediation, capital markets, and interest rates. Relevant issues include capital adequacy, regulation, credit rationing, deposit insurance, and international banking.

### **Seminar in Corporate Financial Theory (FIN 7449) 3 credits**

*Prerequisites: FIN 6806 and permission of instructor*

Readings, presentations, and papers of classical and current theoretical topics in financial management and corporate finance. Topics include theories of capital budgeting, capital structure, dividends, agency, signaling, etc.

### **Seminar in Investments (FIN 7527) 3 credits**

*Prerequisites: FIN 6806, FIN 6816, and Security Analysis and Portfolio Management*

An investigation of the theoretical foundation of investments, including portfolio theory, the CAPM, OPM, and APT, both theoretically and empirically. Investment decisions and portfolio management techniques are analyzed from those viewpoints.

### **Theory of Corporate Finance: Readings and Empirics (FIN 7808) 3 credits**

*Prerequisites: FIN 7895, Admission to Ph.D. program*

This doctoral seminar provides an in-depth analysis of theory and empirical research in capital markets and corporate finance. Corporate finance topics include theories of capital budgeting, capital structure, dividends, agency, signaling, corporate governance, financial distress and other areas of corporate finance.

**Seminar in Financial Institutions (FIN 7811) 3 credits**

*Prerequisite: Admission to Ph.D. program*

In-depth analysis of empirical research in financial institutions and markets.

**Empirical Methods in Finance (FIN 7817) 3 credits**

*Prerequisite: Admission to Ph.D. program*

Course covers empirical methods used in corporate finance and asset pricing research.

**State-of-the-Art Managerial Finance (FIN 7895) 3 credits**

*Prerequisite: Admission to the Ph.D. program*

The course covers the theory and practice of financial planning and management. It emphasizes the capital structure of business enterprise, its cost of capital and its evaluation. Discussion of applications of quantitative methods to capital theory is included.

**Summer Research Project - Finance (FIN 7915) 1-6 credits**

*Prerequisite: Permission of department*

A directed research project for Finance doctoral students tailored so that the student may demonstrate proficiency in application of tool courses to a Finance problem.

**Seminar in Current Financial Research (FIN 7932) 3 credits**

*Prerequisite: Permission of instructor*

Special topics and the treatment of an area of current research interest in the field of Finance.

**Seminar in International Finance (FIN 7938) 3 credits**

*Prerequisite: Admission to Ph.D. program*

Course covers international finance research on corporate finance and investments to include foreign direct investments, international portfolio investing and asset pricing.

**Advanced Research in Finance (FIN 7978) 1-9 credits**

*Prerequisite: Doctoral standing in the College of Business*

Supervised research for comprehensive exam preparation, dissertation proposal development and/or scholarly paper writing. *Grading: S/U*

**Doctoral Dissertation - Finance/Real Estate (FIN 7980) 1-15 credits**

*Prerequisites: Permission of department and admission to candidacy*

Doctoral dissertation research for the fields of Finance and Real Estate. *Grading: S/U*

# REAL ESTATE

**Undergraduate Courses** / [link to graduate courses](#)

## **Principles of Real Estate (REE 3043) 3 credits**

*Prerequisite: FIN 3403*

Survey introduction to real estate, the nature, principles and fundamental operation of the real estate industry. The completion of this course and REE 4433 may satisfy the FREC educational requirement for real estate licensing.

## **Cooperative Education - Real Estate (REE 3949) 1-4 credits**

No credit toward degree. *Grading: S/U*

## **Real Estate Appraisal (REE 4103) 3 credits**

*Prerequisites: REE 3043 and junior standing*

A study of socioeconomic factors influencing property value; analysis of principles necessary for effective value decisions. Students are exposed to the process of valuation via the cost, market and income approach to real estate value.

## **Real Estate Finance (REE 4204) 3 credits**

*Prerequisite: FIN 3403*

Real estate financing is analyzed in a decision-making context, and how that decision affects real estate investments. Includes methods of raising debt and equity funds, the underwriting process, traditional and creative concepts, and mechanisms for construction and permanent financing.

## **Real Estate Investment (REE 4303) 3 credits**

*Prerequisite: FIN 3403*

This course explores theories and techniques for analyzing real estate investment opportunities from the viewpoint of the equity investor. Topics addressed include market analysis, investment performance measurement methods, operating and reversion cash flow projections, discounted cash flow valuation procedures, capital structure considerations, and income tax considerations in real estate investing.

## **Real Estate Law (REE 4433) 3 credits**

*Prerequisites: BUL 4421, REE 3043, and junior standing*

Florida and federal statutes affecting real estate will be studied. The nature and acquisition of rights in real property will be examined, including the analysis of legal problems from land acquisition through inspection of completed building and mortgage closing. The completion of this course and REE 3043 may meet the FREC educational requirement for real estate licensing.

### **Real Estate Development (REE 4732) 3 credits**

*Prerequisites: REE 4303, REE 4433, and junior standing*

This course explores theories and techniques for evaluating and implementing real estate development projects with land-use planning, regulatory compliance, funding sources, cash flow management and project management.

### **Directed Independent Study (REE 4905) 1-4 credits**

*Prerequisites: REE 3043, junior standing, and permission of instructor*

An independent study, research or other project to extend and integrate the students' knowledge. This is not to be used as a substitute for an existing course.

### **Special Topics (REE 4934) 1-3 credits**

*Prerequisites: Junior standing and permission of instructor*

Advanced study and analysis of selected topics in Real Estate. Content will vary.

### **Real Estate Internship (REE 4940) 3 credits**

*Prerequisites: REE 3043 and junior standing*

Intended for students interested in careers in the real estate industry, this course provides a practical, experiential learning opportunity under the combined direction of an industry professional and a faculty member. Students work in an apprentice role during the semester while participating in academic exercises designed to reinforce the applied learning experience.

## **Real Estate Graduate Courses**

### **Real Estate Investment Analysis (REE 6305) 3 credits**

*Prerequisite: FIN 6806*

An advanced application of theory and techniques for analysis of the equity position in real estate ownership utilizing cases. Considers the impact of leverage, creative financing, and federal tax policy on real estate value.

### **Real Estate Strategy and Perspectives (REE 6309) 3 credits**

*Prerequisite: REE 6045*

This is the capstone course in the master's in real estate program. The course is designed to encourage the student toward applied decision making across real estate specialty areas. The intent of the course is to integrate skills and information gained in prior real estate courses and to independently apply them using the case study methodology.

# RISK MANAGEMENT AND INSURANCE

**Undergraduate Courses** /[link to graduate courses](#)

## **Risk Management and Insurance (RMI 3011) 3 credits**

Provides students with a solid background in risk management and insurance. Course discusses all the different types of risks, covers risk management techniques, including risk control and risk financing with a focus on insurance policies, and also presents other major topics in personal financial planning, social insurance and social security, insurance operations and regulations, reinsurance and innovative capital market financing plans. Consideration is given mostly to the personal line risk management and insurance, including personal property and liability insurance such as auto insurance, home insurance, life insurance and health insurance.

## **Insurance and Financial Planning (RMI 4116) 3 credits**

Discusses important personal financial planning components, including life insurance, health insurance (medical expense plans, Medicare and Medicaid, disability income insurance, long-term care insurance), retirement planning (employer-sponsored retirement plans, non-qualified plans, IRAs and annuities) and estate planning. Other important topics covered include life settlements, mortality bonds, employee benefits, insurance fraud, family trusts, QPRTs, private annuities and reverse mortgage. This course employs materials and techniques that are consistent with modern principles and best practices, providing knowledge and skills that students can use immediately.

## **Corporate Risk Management (RMI 4353) 3 credits**

This course discusses statistical approaches to evaluate risks, techniques for risk control, and methods to measure the effectiveness of risk strategies. Course also covers risk financing, including commercial insurance and alternative risk transfers.

## **Enterprise Risk Management and Corporate Governance: Qualitative Analysis (RMI 4423) 3 credits**

This course introduces students to enterprise risk management and principles of corporate governance, which are critical to publicly traded entities. The course focuses on the complexities faced by global companies in addressing these issues.

## **Insurance Accounting (RMI 4723) 3 credits**

*Prerequisites: ACG 2021 and RMI 3011*

Students study insurance accounting requirements in the country or state where an insurer is organized. The focus will be on United States and European Union regulatory reporting requirements.

### **Directed Independent Study (RMI 4905) 1-3 credits**

*Prerequisite: Junior or senior standing and permission of department chair prior to registration*

An independent study, research, or other project to extend and integrate the students' knowledge. This is not to be used as a substitute for an existing course.

### **Special Topics (RMI 4930) 1-3 credits**

*Prerequisite: Junior or senior standing and permission of instructor*

The study of a special area of insurance. Topics will vary. May be repeated for credit.

### **Risk Management and Insurance Internship (RMI 4940) 3 credits**

*Prerequisite: RMI 3011 with minimum grade of "C" and permission of instructor*

Provides insights into risk management and insurance allowing students to hone their skills in a real-world setting. Students gain valuable, practical experience under the combined direction of an industry professional in the work setting as well as a faculty member in the academic setting.

## **Risk Management and Insurance Graduate Courses**

### **Risk Management and Insurance (RMI 6016) 3 credits**

This course is designed to provide students with a solid background in risk management and insurance. It discusses all the different types of risks and covers risk management techniques, including risk control and risk financing with a focus on insurance policies. It also presents other major topics in personal financial planning, social insurance and social security, insurance operations and regulations, reinsurance and innovative capital market financing plans. Consideration is given mostly to the personal line risk management and insurance, including personal property and liability insurance such as auto insurance, home insurance, life insurance and health insurance.

### **Insurance and Financial Planning (RMI 6118) 3 credits**

*Prerequisite: Graduate standing*

This course discusses important personal financial planning components, including life insurance, health insurance (medical expense plans, Medicare and Medicaid, disability income insurance, long-term care insurance), retirement planning (employer-sponsored retirement plans, nonqualified plans, IRAs and annuities) and estate planning. Other important topics covered include life settlements, mortality bonds, employee benefits, insurance fraud, family trust, QPRTs, private annuities and reverse mortgage. This course employs materials and techniques that are consistent with modern principles and best practices, providing knowledge and skills that students can use immediately.

### **Principles and Practices of Enterprise Risk Management and Legal Compliance (RMI 6346) 1-3**

### **credits**

A study of business risk to gain a proper understanding of the impact on a company's business. A review of all activities, processes, techniques, and resources that interface with each other. Case studies to illustrate the need to provide unified solutions to stakeholders. Study the potentials of ERM to safeguard the interest of the company and help it grow.

### **Corporate Risk Management (RMI 6356) 3 credits**

*Prerequisite: Junior standing or higher*

This course discusses statistical approaches to evaluate risks, techniques for risk control, and methods to measure the effectiveness of risk strategies. This course also covers risk financing, including commercial insurance and alternative risk transfers.

### **Enterprise Risk Management and Corporate Governance: A Qualitative Analysis (RMI 6426) 3 credits**

This course introduces students to enterprise risk management and principles of corporate governance that are critical to publicly traded entities. The course focuses on the complexities faced by global companies in addressing these issues.

### **Insurance Accounting (RMI 6727) 3 credits**

*Prerequisites: ACG 2021 and RMI 3011 or RMI 6016*

Course covers insurance accounting requirements in the country or state where an insurer is organized with an emphasis on the U.S. and European Union regulatory reporting requirements.

### **Directed Independent Study (RMI 6905) 1-3 credits**

*Prerequisite: Permission of department*

Independent study research or other project to extend and integrate the student's knowledge.

### **Special Topics (RMI 6930) 1-3 credits**

Special topics in insurance. May be repeated for credit.

## **INFORMATION TECHNOLOGY AND OPERATIONS MANAGEMENT**

**Undergraduate Courses** /[link to graduate courses](#)

### **Special Topics in Business (GEB 2930) 3 credits**

*Prerequisite: Permission of advisor*

Study related to specialized topics in business.

### **Business Communication for Data Analysts (GEB 3231) 3 credits**

*Prerequisite or Corequisite: ISM 3116 with minimum grade of "C"*

This course introduces students to essential communication skills used by successful data analysts: interpersonal/team membership, concise business and technical writing, confident speaking, effective organizational strategies, critical thinking/analysis, appropriate technical language and formats and productive job-search approaches within the Management Information Systems (MIS) field. This course builds on analysis of data developed in ISM 3116 to show how it can be communicated effectively to audiences both within and outside the MIS field.

### **Information Systems Fundamentals (ISM 2000) 3 credits**

Course introduces students to the basic concepts in computer technology and highlights the relevance of computers and their applications to all aspects of life in the modern world. It covers the fundamentals of computer systems, computer networks, software applications, and the Internet as well as social issues related to the use of computer technology.

### **Social Media Innovation (ISM 3007) 3 credits**

Students learn how social media works, why social media matters to business and how to use it successfully.

### **Management Information Systems (ISM 3011) 3 credits**

*Prerequisite: ISM 2000*

Course examines management of information systems and resources in organizations and their social implications and develops proficient skills in key business information technologies such as Excel.

### **Introduction to Business Analytics and Big Data (ISM 3116) 3 credits**

*Prerequisite: ISM 3011 or ACG 4401*

Provides an understanding of the business intelligence processes and techniques used in transforming data to knowledge and value in organizations. Students also develop skills to analyze data using generally available tools (e.g., Excel).

### **Introduction to Computer Systems and Software Development (ISM 3230) 3 credits**

*Prerequisite: ISM 2000*

Offers an overall understanding of computer system components and software development using structured and object-oriented programming languages. Topics include computer hardware, operating systems, algorithms and new trends in programming. Hands-on approaches and real-world technology

solutions are used.

### **Intermediate Business Software Development (ISM 3232) 3 credits**

*Prerequisite: ISM 3230*

Introduction to object-oriented business software development using the object-oriented programming language C++. Additional topics include data file input/output, data structures (e.g., arrays, linked lists, stacks, and queues), and common algorithms (e.g., hashing, sorting).

### **Cooperative Education - Computer Information Systems (ISM 3949) 1-3 credits**

No credit toward degree. *Grading: S/U*

### **Contemporary Issues of Digital Data Management (ISM 4041) 3 credits**

Covers business processes and frameworks for data collection, storage, retrieval and transfer of digital data. Discusses the various ways through which industry and government compile data for purposes such as marketing, customer relationship management, fraud and crime prevention, e-government, etc. Considers also the business, legal, ethical and social context of data gathering and utilization.

### **Internet Application Programming (ISM 4052) 3 credits**

*Prerequisites: ISM 4212 and ISM 4220*

Internet-based systems architecture; client/server design methodology for distributed systems; user interface using HTML, DHTML, JavaScript, and VBScript; server side scripting using VBScript and Active Server Pages; online database accessing and data processing; techniques for e-commerce application development.

### **Mobile Apps for Business (ISM 4053) 3 credits**

*Prerequisite: Junior standing*

Provides study and practice of actual entrepreneurial situations by exploring the lifecycle of a mobile app development. Students prepare the business plans for a mobile application and work on a real assignment for what is meant to be a real business. Students learn to think like a business person, understand everyday issues, develop and challenge ideas and sharpen related entrepreneurial skills.

### **Social Media and Web Technologies (ISM 4054) 3 credits**

*Prerequisite: ISM 3011 or ACG 4401*

Introduces business students of all majors to various social media and web technologies relevant to modern organizations. Emphasis is on the business aspects of website design and the use of social media, such as how companies use social networks to earn revenue and build recognition among their desired market. The course progresses from introductory work on web design to a project in which students design and develop a website.

### **Data Mining and Predictive Analytics (ISM 4117) 3 credits**

Introduces the core concepts of data mining (DM), its techniques, implementation and benefits. Also identifies industry branches that most benefit from DM, such as retail, target marketing, fraud protection, health care and science and web and e-commerce. Detailed case studies and using leading mining tools on real data are presented.

### **Advanced Systems Analysis and Design (ISM 4133) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: 9 credits completed in MIS major or minor*

Life cycle of information processing systems, planning and control of projects, documentation, formal techniques and use of generalized software packages.

### **Database Management Systems (ISM 4212) 3 credits**

*Prerequisite: ISM 3011 or ACG 4401*

Focuses on the development of well-formed databases for the purpose of data management from the initial design of the database to the implementation and query and to the application of database management tools and techniques such as data security for use in business and government organizations.

### **Business Data Communications (ISM 4220) 3 credits**

*Prerequisite: ISM 2000*

Fundamentals of communication technology including wide-area networks and organizational impacts of communication-based innovations.

### **Advanced Business Software Development (ISM 4234) 3 credits**

*Prerequisites: ISM 3232*

Advanced concepts and techniques for object-oriented business software development, using either C# or Java for developing business applications with an emphasis on building event-driven and GUI (Graphic User Interface) desktop applications with the capability of interaction with databases.

### **Business Software Systems Development Project (ISM 4243) 3 credits**

*Prerequisite: ISM 3230*

This is a course that integrates knowledge and skills for system analysis and design, database management, and object-oriented programming to develop realistic business software projects based on the Internet and web platforms. Teamwork, communications, project management and analytical skills are developed and enhanced.

### **Introduction to Cybersecurity (ISM 4320) 3 credits**

This course offers a balance of the managerial and technical aspects of information security and cybersecurity. A comprehensive overview is offered of cybersecurity issues related to operating systems, databases, networks, physical and infrastructural security, and cryptography.

### **Management of Information Assurance and Security (ISM 4323) 3 credits**

Emphasizes information security policy development, security management planning, risk assessment and risk management, disaster recovery and business continuity, and personnel issues related to security management.

### **Computer Forensics (ISM 4324) 3 credits**

This course introduces basic computer forensics tools, and then emphasizes digital evidence controls, data acquisition, computer forensic analysis, file recovery, and network and email forensics.

### **Healthcare Information Systems (ISM 4381) 3 credits**

Introduces the fundamentals of information systems used for managerial and clinical support in healthcare, including electronic health records. Covered are the concepts of healthcare delivery systems, their integration with workflow processes and employee and patient management, clinical data collection, storage management and data confidentiality and security.

### **Advanced Business Analytics (ISM 4403) 3 credits**

*Prerequisite: ISM 3116*

An in-depth examination of business analytics methods of visualization, data mining, text mining and web mining using various analytical tools. Applications to smaller firms are investigated in a laboratory setting.

### **Social Media and Web Analytics (ISM 4420) 3 credits**

Covers concepts and techniques for retrieving, exploring, visualizing and analyzing social network and social media data, website usage and clickstream data. Students learn to use key metrics to assess goals and return on investment, perform social network analysis to identify important social actors, subgroups and network properties in social media.

### **Artificial Intelligence and Digital Transformation for Business (ISM 4421) 3 credits**

Students gain a business perspective of artificial intelligence (AI) as a driver of innovation and digital transformation in a wide array of industries. They learn how to plan, manage and maintain AI projects and how to address the digital transformation challenges and implications for the organization and society.

### **Blockchain and Crypto Assets: Business Implications (ISM 4451) 3 credits**

The course provides a broad overview of blockchain and crypto assets and their main characteristics. The course covers the business fundamentals of cryptocurrency, Non-Fungible Token (NFT) and similar crypto products. Analysis of business models and strategies are discussed in the context of blockchain and crypto innovations. Appropriate for all business disciplines.

### **Directed Independent Study (ISM 4905) 1-3 credits**

*Prerequisite: Permission of instructor and department before registration.*

### **Special Topics (ISM 4930) 1-3 credits**

*Prerequisite: Permission of instructor*

Study relating to specialized topics.

### **Information Technology and Operations Management Internship (ISM 4940) 3 credits**

*Prerequisites: Senior standing and permission of instructor*

Students gain valuable practical experience under the guidance of a supervisor (mentor) in the work setting as well as a professor in the academic setting. Provides insights into the operations of businesses and organizations allowing students to hone their information technology and operations management skills in a real-world setting.

### **Operations Management (MAN 3506) 3 credits**

*Prerequisites: QMB 3600 and MAN 3025 with grades of "C" or better*

An introductory course in operations management. Covers basic operations concepts and techniques in services and manufacturing. Includes service and product design, process analysis, project management, quality, supply chain, capacity and inventory management. Ethics, international aspects and the interdisciplinary nature of operations management are highlighted where appropriate.

### **Service Operations (MAN 4029) 3 credits**

*Prerequisite: Junior standing*

Examines the nature and role of services, service strategies, new service development, service processes, service errors, technology and innovation, service facility location, layout and the management of service employees. Also focuses on globalization of services and the measurement and management of service quality.

### **Operations Management Applications (MAN 4504) 3 credits**

*Prerequisites: QMB 3600 and MAN 3506*

The application of management systems, quantitative principles and techniques to the effective planning and utilization of resources in the operations of manufacturing, research and services.

### **Concepts in Business Process Improvement Management (MAN 4520) 3 credits**

*Prerequisite: MAN 3506 or permission of instructor*

Covers leading concepts of business process improvement in manufacturing and services. Introduces the tools and techniques of process improvement management. Includes a focus on Six Sigma Quality, Process Capability, Process Control, Business Process Re-engineering and Service Quality. An emphasis on theory-led real-world solutions is provided.

### **Project Management (MAN 4583) 3 credits**

*Prerequisite: Junior standing in the College of Business*

An introductory course in the fundamentals of project management. Students are introduced to basic concepts and techniques, including management of the triple constraint of scope, time and cost that is critical to planning and executing successful projects.

### **Global Supply Chain Management (MAN 4597) 3 credits**

*Prerequisite: Junior standing*

Presents an overview of supply chain management: the management of sourcing, operations and distribution processes along a supply chain. Examines how firms may gain a competitive advantage through supply chain activities. Topics include supply chain network design, purchasing, forecasting, inventory management, globalization and outsourcing, transportation and information technology.

### **Data Management and Analysis with Excel (QMB 3302) 3 credits**

An introductory course covering basic Excel skills for managing information and data, analyzing data, visualizing data through charts and pivot tables, creating scenarios, using functions and automating tasks.

### **Quantitative Methods in Administration (QMB 3600) 3 credits**

*Prerequisites: MAC 2233, STA 2023*

Introduction to basic mathematical and statistical methods and models, as well as their software applications for solving business problems and/or making decisions. Includes such topics as probability and probability distributions, decision analysis, forecasting and linear regression, linear programming and waiting line models.

### **Honors Seminar in Quantitative Methods (QMB 3939) 3 credits**

*Prerequisites: MAC 2233, STA 2023 and permission of Director of Honors Program*

Fundamentals of analytical models for administrative problem-solving and decision-making. Includes such topics as decision theory, linear programming, goal programming, game theory, networks, and queuing. Honors course accepted in lieu of QMB 3600.

### **Directed Independent Study (QMB 4905) 1-4 credits**

*Prerequisite: A Directed Study form (available from the departmental secretary) must be signed by the professor concerned*

Individual research project or field investigation in the area of Management Science or Systems.

### **Decision and Information Systems Study Abroad (QMB 4957) 1-4 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

## **Information Technology and Operations Management Graduate Courses**

### **Master's Thesis (CIS 6970) 1-6 credits**

*Prerequisites: Completion of core requirements and permission of department chair*

### **Management of Information Systems and Technology (ISM 6026) 3 credits**

*Prerequisite or Corequisite: GEB 6215*

A study and evaluation of information systems: types, development and use. Emphasis is on understanding information systems in the context of managerial use, problems, and opportunities.

### **Mobile Apps for Business (ISM 6058) 3 credits**

*Prerequisite: Admission to an FAU graduate program*

Provides study and practice of actual entrepreneurial situations by exploring the lifecycle of a mobile app development. Students prepare business plans for a mobile application and work on real assignment of a real business. Students learn to think like a business person, understand everyday issues, develop and challenge ideas and sharpen related entrepreneurial skills.

### **Advanced Systems Analysis and Design (ISM 6123) 3 credits**

*Prerequisite: Graduate standing*

Examines the design and application of systems in business for routine data processing, management reporting and decision support at various levels within the organization. Available only to graduate students lacking an undergraduate course in advanced systems analysis and design.

### **Data Mining and Predictive Analytics (ISM 6136) 3 credits**

Introduces the core concepts of data mining (DM) and its techniques, implementation and benefits. Course also identifies industry branches that most benefit from DM, such as retail, target marketing, fraud protection, health care and science, and web and e-commerce. Detailed case studies and using leading mining tools on real data are presented.

### **Information Technology Fundamentals (ISM 6148) 3 credits**

*Prerequisite: Graduate standing*

Provides an examination of information technology concepts, such as computer architecture and hardware, programming logic, algorithms and databases, communications, web technologies and social media. Available only to graduate students lacking an undergraduate course in information technology fundamentals.

### **Database Management Systems (ISM 6217) 3 credits**

*Prerequisite: Graduate standing*

Development of well-formed databases to manage data from initial database design to implementation and query. Applies database management tools and techniques such as data security for use in businesses and government. Available only to graduate students lacking an undergraduate course in database management systems.

### **Business Data Communications (ISM 6225) 3 credits**

*Prerequisite: Graduate standing*

An introductory course in data communications and computer networking. Students are introduced to the fundamental network building blocks and the concepts behind their operations. Available only to graduate students lacking an undergraduate course in business data communications.

### **Information Technology Project and Change Management (ISM 6316) 3 credits**

Course addresses key issues in managing information technology projects through a study of the project life cycle. Topics include planning and control, risk management, change management, portfolio management, and the use of project management software.

### **Management of Information Assurance and Security (ISM 6328) 3 credits**

An introduction to the various technical and administrative aspects of information security. Emphasis is on the management of information security efforts.

### **Enterprise Information Technology Service Management (ISM 6368) 3 credits**

Course focuses on the information technology manager's role in coordinating with and providing service to other business functions. Discussion on internationally recognized best practices in delivering true value at the lowest total cost of ownership.

### **Digital Forensics Management (ISM 6376) 3 credits**

This course focuses on principles and techniques for digital forensics. It covers the major topics of digital forensic investigation including incident scene management, digital evidence acquisition and preservation, file systems, data recovery, examination with forensic software, network forensics and

mobile forensics.

### **Introduction to Business Analytics and Big Data (ISM 6404) 3 credits**

This course provides an understanding of the business intelligence and business analytics processes and techniques used in transforming data to knowledge and value in organizations. Students also develop skills in analyzing data using generally available tools, e.g., Excel.

### **Advanced Business Analytics (ISM 6405) 3 credits**

*Prerequisite: Graduate students only*

An in-depth examination of business analytics methods of visualization, data mining, text mining and web mining, using various analytical tools. In a laboratory setting, investigates applications for smaller firms.

### **Business Innovation with Artificial Intelligence (ISM 6427C) 3 credits**

Students gain a business perspective of artificial intelligence (AI) and other emerging technologies as drivers of innovation in businesses. They learn how AI is used in practice across organizations and industries, how to plan, manage and maintain AI projects, and how to address the AI challenges and implications for the organization and society.

### **Blockchain and Crypto Assets: Digital Business Transformation (ISM 6455) 3 credits**

*Prerequisite: Admission to an FAU graduate program*

Digital transformations encompass all organizations, business sectors and society. This course provides a critical understanding of transformative technological innovations such as blockchain, cryptocurrency, NFT and other crypto products, and how they evolve business and society. Business strategies are discussed in the context of these innovations. Appropriate for all business disciplines.

### **Web-Based Business Development (ISM 6508) 3 credits**

*Prerequisite: Graduate standing*

Develops skills for launching and managing web-based businesses. Students complete a business plan for starting an online business of their choice. Additional topics include evaluating current web-based business opportunities, online entrepreneurship, web-based venture financing and e-business operations.

### **Information Technology Sourcing Management (ISM 6509) 3 credits**

Course is designed to assist students in developing the knowledge and skills needed to work with IT service providers and processes. IT focuses on the concepts and methods associated with designing, planning, and contracting for IT infrastructure and applications.

### **Social Media and Web Analytics (ISM 6555) 3 credits**

*Prerequisite: Admission to an FAU graduate program*

Covers concepts and techniques for retrieving, exploring, visualizing and analyzing social network and social media data, website usage and clickstream data. Students learn to use key metrics to assess goals and return on investment and perform social network analysis to identify important social actors, subgroups and network properties in social media.

### **Directed Independent Study (ISM 6905) 3 credits**

*Prerequisite: Permission of instructor*

A study of advanced topics relating to the special needs and interests of individual students.

### **Special Topics (ISM 6930) 2-5 credits**

*Prerequisite: Permission of instructor*

Lectures on advanced and specialized topics.

### **Graduate Information Technology and Operations Management Internship (ISM 6942) 3 credits**

*Prerequisites: ISM 6026 and one other course in the M.S. with Major in Information Technology and Management program or in the M.B.A., Management Information Systems or Operations Management tracks*

Students gain valuable practical experience under the guidance of a supervisor in the work setting as well as a professor in the academic setting. Provides insights into the operations of businesses and organizations and allows students to hone their information technology and operations management skills in a real-world setting.

### **Business Transformation of Information Systems and Operations Management (ISM 7345) 3 credits**

*Prerequisite: Admission to an FAU Ph.D. program or permission of instructor*

Analysis of theory and research on the impacts of information systems and operations management on human behavior and upon organizational design.

### **Advanced Business Analytics Tools for Research (ISM 7406C) 3 credits**

*Prerequisite: Admission to an FAU Ph.D. program or permission of instructor*

This course covers applications of contemporary business analytics methods, such as web mining and text mining, for business research. In laboratory settings, students learn how to practically collect data and apply descriptive and predictive analytics to business problems using tools such as Python, R and others.

### **Big Data Research Methods (ISM 7888) 3 credits**

*Prerequisite: Admission to an FAU Ph.D. program or permission of instructor*

A discussion-driven seminar in big data research methods with advanced study of selected research topics. The course emphasizes academic journal articles on big data.

### **Special Topics in Information Systems (ISM 7930) 3 credits**

*Prerequisite: Admission to Ph.D. program or permission of instructor*

Lectures on advanced and special topics in information systems at a doctoral level.

### **Seminar in Information Systems (ISM 7935) 3 credits**

*Prerequisite: Admission to Ph.D. program*

Introduction to the conduct of research in IS: defining research questions, reviewing the literature, developing strategies for empirical investigation, and presenting research findings.

### **Advanced Research in Information Technology (ISM 7978) 1-9 credits**

*Prerequisite: Doctoral standing in the College of Business*

Supervised research for comprehensive exam preparation, dissertation proposal development and/or scholarly paper writing. *Grading: S/U*

### **Doctoral Dissertation Research (ISM 7980) 1-15 credits**

*Prerequisite: Admission to doctoral candidacy*

The writing of a dissertation.

### **Operations Management (MAN 6501) 3 credits**

*Prerequisites: Admission to an FAU graduate program, and QMB 6603 or QMB 3600 or equivalent*

An introduction to major managerial problems and decision processes of operations management. Includes design of operations; planning, scheduling, quality management, systems analysis and evaluation, resource allocation, and inventory management. Integration of operations management with other functional areas. Lecture and cases.

### **Business Process Improvement Management (MAN 6525) 3 credits**

*Prerequisites: Admission to an FAU graduate program and MAN 3506 or MAN 6501 or equivalent*

This course enables students to provide leadership in shaping a culture for business process improvement initiatives within an organization and determine the effectiveness of improvement initiatives such as Six Sigma Quality, Process Capability, Process Control, Business Process Re-engineering and Service Quality.

### **Project Management (MAN 6581) 3 credits**

*Prerequisite: Admission to an FAU graduate program and MAN 3506 or MAN 6501 or equivalent*

This course provides a strong foundation in the planning and control of projects. In addition, specific operational issues related to projects in areas such as process re-engineering, new product development, enterprise resource planning, and software development are addressed. Examples of other topics included are project risk management, critical chain project management, contingency planning, and the balanced scoreboard.

### **International Shipping, Trade and Port Management (MAN 6565) 3 credits**

*Prerequisite: MAN 3506 or MAN 6501*

The management of daily shipping operations is covered for both liner and bulk trades. Business strategy and development in shipping, considering shipping cycles and implications for chartering and brokering in the bulk trades, is included in discussions, as well as operations for liner shipping and containerization. The role of ports and container terminals in global supply chains is addressed.

### **Supply Chain Management (MAN 6596) 3 credits**

*Prerequisites: Admission to an FAU graduate program, and MAN 3506 or MAN 6501 or equivalent*

Course provides an understanding of key issues, mechanics, and developments in sourcing and supply chain management. The supply chain is the connected network of all of the value activities that plan, control, and supply interim and finished product services to customers.

### **Seminar in Operations and Supply Chain Management (MAN 7768) 3 credits**

*Prerequisite: Admission to an FAU Ph.D. program or permission of instructor*

This course covers seminal, contemporary and emerging research in operations and supply chain management to prepare students for academic research in this area.

### **Business Impact of Artificial Intelligence and Emerging Technologies (MAN 7926) 3 credits**

*Prerequisite: Admission to an FAU Ph.D. program or permission of instructor*

This course provides students with an exposure to the major issues of business impact of artificial intelligence and other emerging technologies, including the Internet of Things and Service 4.0 and prepares students for academic research in this area.

### **Data Management and Analysis with Excel (QMB 6303) 3 credits**

Graduate students from all disciplines solve research and business problems by leveraging the most powerful productivity tool, Excel. Curation, management, analysis and visualization of information and data are covered by using PowerView, Vlookup charts, pivot tables, scenarios, functions and macro programming.

### **Data Analysis for Managers (QMB 6603) 3 credits**

*Prerequisite: Admission to an FAU graduate program*

Introduction to statistical analysis of data using interactive computing, including topics such as randomness, cross-sectional regression, auto-regression, experiments versus observational studies, causal interference, and analysis of univariate and multiple time series.

### **Supply Chain Analytics (QMB 6616) 3 credits**

*Prerequisite: Admission to an FAU graduate program*

Students develop skills in modeling and optimization techniques for the analysis of strategic, tactical and operational supply chain problems. Problems range from inventory management, distribution planning and facility location to risk management and global sourcing.

### **Special Topics: OR, OM (QMB 6930) 3 credits**

*Prerequisite: Permission of instructor*

Lectures on advanced and special topics in operations research or operations management.

### **Research Methods 1 (QMB 7565) 3 credits**

*Prerequisite: Admission to Ph.D. Program*

Intermediate-level statistical methods with emphasis on applications and interactive computing. Basic principles of experimental and non-experimental research. Analysis and critique of journal articles from various business disciplines.

### **Research Methods 2 (QMB 7566) 3 credits**

*Prerequisite: QMB 7565*

Advanced statistical methods including multiple regression and associated diagnostics, non-linear models, log-linear and logit models, and logistic regression. Emphasis on published applications and interactive computing.

### **Special Topics (QMB 7930) 3 credits**

## MANAGEMENT PROGRAMS

[Link to Management, International Business and Entrepreneurship courses](#)

[Link to Motion Picture courses](#)

[Link to Sport Management courses](#)

## HEALTH ADMINISTRATION

## **Undergraduate Courses** /[link to graduate courses](#)

### **Introduction to Health Professions (HSA 3104) 3 credits**

Examinations of current and projected human resources needed for the health care system using ongoing trends and issues.

### **Health Delivery Systems (HSA 3111) 3 credits**

The healthcare industry is the largest source of jobs in the U.S. employing over 20 million people. This course introduces three of the most important industry goals: improving access, reducing costs and increasing the quality of care for patients. To understand where people are employed in this industry and how they work towards these goals, this course presents the fundamental pieces of the U.S Healthcare system and includes topics like healthcare professions, insurance industry, medical technology and inpatient and outpatient services that serve those three important goals.

### **Technology in Health Care Organizations (HSA 3191) 3 credits**

*Prerequisite: HSA 3111*

An introduction to the myriad uses of information technology and information systems in the health care industry. Main subtopics are history, basic technical aspects, patient information, organizational management systems, care delivery systems, technical challenges, confidentiality and other practical challenges, and evaluation strategies.

### **Health Care Medical Terminology (HSA 3534) 3 credits**

This course develops a comprehensive understanding of medical terminology, basic disease systems, pharmacology, and the mechanism of medical coding common to health administration activities. Students are also introduced to the basic tenets of biology and biochemistry as those disciplines relate to the provision of health care.

### **Managed Care (HSA 4109) 3 credits**

*Prerequisites: HSA 3111 and HSA 4110*

This course provides an introduction to the field of managed care. Topics include the history and structure of managed care, contracting, state and federal regulations, utilization review, and disease management.

### **Organizational Behavior in Health Care (HSA 4110) 3 credits**

*Prerequisite: HSA 3111 or concurrent*

This course examines organizational behavior and theory within the context of health care organizations. Health care organizations face numerous challenges in leadership, group dynamics,

conflict management and enacting change. This course begins to address these issues by providing a deeper understanding of human behavior in various health care organization settings. Health care organizations will be viewed from system, organizational, group and individual levels to understand their dynamics and how they can be successfully navigated and managed.

### **Issues and Trends in Health Care (HSA 4113) 3 credits**

*Prerequisite: HSA 3111*

This course presents significant healthcare issues and their developing trends. The course content will differ each time in order to be current with changing events of varying importance, such as inequity in healthcare, organ transplant decisions, women's and minorities' roles in health, human resource issues, etc.

### **International Healthcare Systems (HSA 4124) 3 credits**

*Prerequisite: HSA 3111*

This course focuses on the organization of health systems and the delivery of health services in numerous countries across a broad, social political and economic spectrum. Diverse types of systems shall be examined in terms of their social policy and the economic level of the country under review.

### **Strategic Management in Health Organizations (HSA 4140) 3 credits**

*Prerequisite: HSA 3111 and HSA 4110*

This course provides for a critical interpretation of various strategic management concepts in the health field, including the analysis of a healthcare organization's internal and external environments, using the case method.

### **Health Care Financial Management (HSA 4170) 3 credits**

*Prerequisite: ACG 2021*

Healthcare finance is (or should be) at the core of education if students are pursuing a career in healthcare. This class draws concepts from accounting, statistics and other management disciplines to develop the principles that guide decision making for managers to keep healthcare organizations profitable. The course covers various topics like analyzing financial statements, risk and return models and valuation in answering two important questions: how does one know if the healthcare organizations are profitable and how can managers raise money to build a healthcare organization?

### **Long-Term Care Administration (HSA 4222) 3 credits**

*Prerequisites: HSA 3111 and HSA 4110*

This course introduces the student to the changing structure of the long-term care system, the continuum of provider services, and the Balanced Budget Act and its consequences for reimbursement.

### **Management of Long-Term Care Facilities (HSA 4223) 3 credits**

Provides an in-depth study on how an effectively managed skilled-nursing facility should operate and how prospective, as well as currently employed, nursing home administrators can hone their skills to deliver quality services cost effectively.

### **Health Care Quality Management (HSA 4383) 3 credits**

*Prerequisites: HSA 3111 and HSA 4110*

This course examines the efforts being introduced to improve the quality and efficiency of the healthcare system. Topics covered range from medical error reduction, quality improvements in medical records, and utilization review.

### **Health Law (HSA 4423) 3 credits**

Basic knowledge and understanding of the law are essential to the success of any health care executive. Legal issues are a daily consideration in the management of health care operations. This course introduces and explains the most common legal and ethical issues facing health care business leaders, including negligence, intentional torts, contracts, business organizations, crime, compliance, advance directives and both state and federal health care specific statutes.

### **Practice Management (HSA 4511) 3 credits**

*Prerequisites: HSA 3111 and HSA 4110*

This course provides an in-depth consideration of the fundamentals of managing a physician or other form of ambulatory care office. Issues covered include medical coding, physician credentialing, reimbursement, staff supervision, and practice building.

### **Introduction to Health Research and Managerial Epidemiology (HSA 4700) 3 credits**

*Prerequisites: HSA 3111 and STA 2023*

This course focuses on epidemiologic and research methods for measuring the health of populations and understanding the relation to social determinants and healthcare business environments. Students are introduced to terms and concepts of epidemiology and other key health research tools. Students also learn the language of health research in order to interpret scientific literature. Skills acquired in this course are critical to provide public health and healthcare business leaders with the information needed to make evidence-based decisions.

### **RI: Health Practicum (HSA 4817) 6 credits**

*Prerequisites: Open only to Health Administration seniors with permission of instructor; Application must be made during previous semester and the following criteria must be met: 1) has successfully completed the other core courses in Health Administration, 2) has an overall grade point average of 2.5 or better in courses attempted at FAU, 3) has successfully completed at least 33 credits at the*

*upper-division level, 4) is a program major, and 5) is not on academic probation.*

A course that requires the senior student in Health Administration to function in a participant observer role in a health facility in order to develop a written management project that is an issue, problem or goal (of the facility). This is a research-intensive (RI) course.

### **Directed Independent Study (HSA 4905) 1-3 credits**

Individual concentrated study on one Health Administration topic relating to the special needs and interests of individual students under the direct supervision of a faculty member. This option in most instances will be limited to Health Administration majors because of the prerequisite that all required Health Administration courses, except the Practicum, be completed prior to this.

### **Directed Independent Research in Health Administration (HSA 4915) 1-3 credits**

*Prerequisite: Permission of instructor*

Students work closely with research mentors to conduct research and inquiry in the field of health and healthcare. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student with the approval of the department chair.

### **Special Topics (HSA 4930) 1-3 credits**

The study of a special area in Health Administration. Topics will vary. May be repeated for credit.

## **Health Administration Graduate Courses**

### **Introduction to Health Care Systems (HSA 6103) 3 credits**

*Prerequisite or Corequisite: GEB 6215*

Introduces students to the field of health services administration and to the responsibilities of managers of health care organizations. Includes the analysis of both the history and the structure of health delivery systems.

### **Planning and Marketing in Healthcare (HSA 6108) 3 credits**

*Prerequisite or Corequisite: HSA 6103*

Study of the rapidly evolving U.S. healthcare market and its impact on the structure and functions of healthcare organizations. Examines changing patient demographics such as population aging, technological developments in such areas as pharmaceuticals, and government regulation of patient care.

### **Organizational Behavior in Healthcare (HSA 6118) 3 credits**

*Prerequisite or Corequisite: HSA 6103*

Study of internal operations of healthcare organizations varying from hospitals to nursing homes,

outpatient clinics, and assisted living facilities. Examines issues such as physician credentialing, utilization review, quality of clinical care, and accreditation of services.

### **Global Issues in Health Care Delivery (HSA 6125) 3 credits**

Offers a comprehensive overview of current global and public health issues. Students explore healthcare systems and challenges to population health in selected countries worldwide and investigate and discuss the impact of emerging, re-emerging, communicable and non-communicable diseases.

### **Managed Health Care (HSA 6126) 3 credits**

Provides an introduction to the field of managed care. Topics include the history and structure of managed care, contracting, state and federal regulations, utilization review and disease management.

### **Health Policy (HSA 6152) 3 credits**

*Prerequisite or Corequisite: HSA 6103*

An examination of the process of formulating and implementing health policy. Emphasis is on the utilization of health services research in the policy formulation process at the federal level.

### **Healthcare Finance (HSA 6175) 3 credits**

*Prerequisite or Corequisite: HSA 6103*

Introduces health administration students to the public and private sources of payment for health care in the U.S. Includes Medicare, Medicaid, and managed care options.

### **Health Law (HSA 6425) 3 credits**

*Prerequisite or Corequisite: HSA 6103*

A comprehensive examination of health law issues affecting healthcare providers. Reviews case law decisions, statutes, and regulations involving such issues as patient care liability, malpractice, workmen's compensation, and legal responsibilities of health professionals.

### **Research Methods for Healthcare Management (HSA 6707) 3 credits**

*Prerequisite or Corequisite: HSA 6103*

Provides students with an appreciation of the function of research in the provision of healthcare services, a set of skills for conducting health sciences research, and an opportunity to practice applying those skills to a current issue in the healthcare field.

### **Health Administration Internship (HSA 6855) 1-3 credits**

*Prerequisite: HSA 6103*

Internship requirement for M.H.A. candidates. Work 15-20 hours per week in an organization that diagnoses, produces products for, treats, or cares for frail, sick, or injured people, or makes grants to or

pays for care in such organizations. During the internship, conduct a project on a subject of use to the organization.

### **Special Topics (HSA 6930) 3 credits**

*Prerequisite: Permission of department*

Graduate level study of a selected area of health care management. Topics will vary.

### **Current Topics in Health Care Management (HSA 6937) 3 credits**

*Prerequisite: HSA 6103*

Topics covered include utilization review, risk management in health care, quality management, the use of outcomes research in improving patient care efficacy and safety, an acquaintance with evidence-based medicine and its implications for management of health care organizations.

## **MANAGEMENT, INTERNATIONAL BUSINESS AND ENTREPRENEURSHIP**

### **Undergraduate Courses** /[link to graduate courses](#)

#### **Launching Your Business (ENT 4015) 3 credits**

*Prerequisite: ENT 4024 with minimum grade of "C" -*

Students should be prepared to launch a new business venture before enrolling in the course. Then, under the guidance of the instructor and entrepreneur mentors, they proceed to implement their business model. The course uses a contract-learning model of evaluation based on the developmental needs of the particular business ventures.

#### **Entrepreneurship (ENT 4024) 3 credits**

*Prerequisite: Junior standing*

Introduction to the major concepts and fundamental principles for starting a new business. Emphasis is on customer development, business model validation and problems during in the initiation stage.

#### **Entrepreneurial Finance (ENT 4412) 3 credits**

*Prerequisites: Junior standing and ENT 4024 with a minimum grade of "C" or permission of department*

Addresses challenging issues that new ventures face, such as how investors evaluate new business opportunities, how entrepreneurs manage to attract interest from investors, how investors pick winners and how startups are valued.

### **Directed Independent Research in Entrepreneurship (ENT 4900) 1-3 credits**

*Prerequisite: Permission of instructor*

Students work closely with research mentors to conduct research and inquiry in the field of entrepreneurship. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student with the approval of the department chair.

### **Directed Independent Study (ENT 4905) 3 credits**

*Prerequisite: ENT 4024 with a minimum grade of "C" and junior standing*

Directed study forms may be obtained from the departmental secretary. Individual student research project or field investigation.

### **Entrepreneurship Consulting Project (ENT 4934) 3 credits**

*Prerequisites: ENT 4024 or permission of instructor, junior standing, not open to Economics, International Economics, Health Administration or Pre-Business majors*

Advanced study and practice of actual entrepreneurial situations. Students will serve as a member of a management consulting team responsible for identification and solutions to problems facing a small local firm.

### **Special Topics (ENT 4935) 3 credits**

*Prerequisite: Junior standing*

Analysis of selected current problems in entrepreneurship. Content will vary.

### **Entrepreneurship Internship (ENT 4940) 1-4 credits**

*Prerequisites: ENT 4024 with a minimum grade of "C," senior standing and permission of instructor*

Students gain practical experience working in a startup firm. The focus is on the problem facing new and small firms and on the business skills needed to conduct operations and develop the business.

### **Introduction to Business (GEB 2011) 3 credits**

An interdisciplinary overview of business in the U.S. and global economies. Provides a general framework for understanding the essential elements of business disciplines, along with social/ethical responsibilities. Emphasis is placed on the roles of accounting, economics, finance, industry studies, information technology, management, operations management and marketing within the business professional environment.

### **Introduction to Business Communication (GEB 3213) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: Junior standing and admission to College of Business*

This course introduces students to essential writing and speaking communication skills, organizational

strategies and formats used by successful business professionals. It provides opportunities for students to apply these skills in correspondence, research, reports and presentations that prepare them for effective job searches and productive careers.

### **Undergraduate Business Study Abroad (GEB 4956) 1-6 credits**

*Prerequisite: Sophomore standing or higher and minimum GPA of 2.5*

*Credit for enrollment in approved study abroad undergraduate programs.*

### **University Honors Seminar in Business (MAN 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in business.

### **Introduction to Management and Organizational Behavior (MAN 3025) 3 credits**

*Prerequisite: Junior standing*

An introduction to managerial principles including planning, organizing, staffing, leadership and control techniques. A behavioral science foundation of individual needs, motivation and group processes will be utilized.

### **Managing Workplace Diversity (MAN 3113) 3 credits**

*Prerequisite: Junior standing*

Course provides a foundation for understanding diversity and inclusion in organizations as well as the implications of working in a diverse organizational environment.

### **Negotiating in a Globalized World (MAN 3442) 3 credits**

*Prerequisites: Junior standing and one of the following courses: ANT 2000, HSA 4124, MAN 3025, PSY 1012, SYG 1000 or SYG 2010 with minimum grade of "C"*

This course is aimed at developing expertise in negotiations across cultural borders, working with various suppliers, developing multicultural project teams and sensitivity and developing counter proposals.

### **International Business (MAN 3600) 3 credits**

*Prerequisite: Junior standing*

Learn to navigate the rapidly globalizing business environment. Explore critical topics such as globalization, national differences, global trade and investment, the global monetary system and the strategy and structure of international business. Learn essential skills to excel in today's interconnected world, addressing international issues across various business areas, whether the business is operating domestically or internationally.

### **Cross-Cultural Human Relations and Negotiations (MAN 3611) 3 credits**

*Prerequisite: Junior standing and one of the following: MAN 3025, PSY 1012, ANT 2000, SYG 1000, SYG 2010 or HSA 4124*

A skill-based course which focuses on the impact of culture on business relationships, including negotiations.

### **Honors Seminar in Management (MAN 3939) 3 credits**

*Prerequisite: Permission of Director of Honors Program*

An introduction to management principles including planning, organizing, staffing, leadership, and control techniques. A behavioral focus will be utilized. Honors course accepted in lieu of MAN 3025.

### **Cooperative Education - Management (MAN 3949) 1-4 credits**

No credit toward degree. *Grading: S/U*

### **Leading People and Projects (MAN 4046) 3 credits**

*Prerequisites: Junior standing or higher and MAN 3025*

Course explains theories of leadership and key supervisory skills as well as team dynamics. Students learn the behaviors of successful leaders and team members and apply these skills in a course project.

### **Strategic Human Resource Management (MAN 4301) 3 credits**

*Prerequisite: MAN 3025*

Covers all aspects of modern personnel administration including selection, training, appraisal, compensation, incentives and discipline. Will be taught from the viewpoint of management generalists as well as those planning a career in personnel.

### **Human Resource Recruitment and Selection (MAN 4320) 3 credits**

*Prerequisites: MAN 3025 with grade of "C" or better; Junior standing*

This course is designed to provide an overview of the process by which organizations staff positions. Topics include job analysis and description, references and background checks, social networks and hiring, employment contracts and job offers, career planning and development, interview preparation, interviewing and legal considerations.

### **Leading Change and Development (MAN 4350) 3 credits**

*Prerequisites: MAN 3025, MAN 4301*

Methodologies for systematically bringing about organization change and improvement. Goals are to make an organization more effective and to enhance the opportunity for organization members to develop their personal potential.

### **International Business Operations (MAN 4602) 3 credits**

*Prerequisites: MAN 3600, FIN 3403, and MAR 3023*

The class builds on the concepts presented in MAN 3600, with a specific focus on management of the multinational enterprise's business operations and functional topics related to integrated global management.

### **Global Human Resource Management (MAN 4610) 3 credits**

*Prerequisite: MAN 3025*

The class builds on the concepts presented in MAN 3600, with a specific focus on human resource management in multinational enterprises. Students should be prepared to support the human resource activities including selection, training and development, and compensation of global assignees.

### **Directed Independent Study (MAN 4690) 1-4 credits**

*Prerequisite: Junior standing and a Directed Independent Study form must be signed by the professor concerned and department chair prior to registration*

Directed study forms may be obtained from the departmental secretary. Individual research project or field investigation.

### **Global Strategy and Policy (MAN 4720) 3 credits**

*Prerequisites: Senior standing and grade of "C" or better in FIN 3403, GEB 3213, MAN 3025, MAN 3506, MAR 3023, and QMB 3600*

This is the capstone course for all majors. In this class, students explore the competitive environment on a global basis, examine all external factors that affect the firm domestically and globally and provide solutions that include globalization as a strategic option.

### **Directed Independent Study (MAN 4905) 1-4 credits**

*Prerequisites: Junior standing and a Directed Independent Study form must be signed by the professor and department chair prior to registration*

Directed Study forms may be obtained from the departmental secretary. Individual student research project or field investigation.

### **Directed Independent Research in Management and/or International Business (MAN 4915) 1-3 credits**

*Prerequisite: Permission of instructor*

Students work closely with research mentors to conduct research and inquiry in the fields of management and/or international business. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student with the approval of the department chair.

### **Special Topics (MAN 4930) 1-4 credits**

*Prerequisites: Junior standing or higher, permission of department chair, not open to Economics, International Economics, Health Administration or Pre-Business majors*

Analysis of selected current problems in business. Content will vary.

### **Management Internship (MAN 4940) 1-4 credits**

*Prerequisites: MAN 3025 and (ENT 4024 or MAN 3611 or MAN 4046 or permission of instructor) and three additional hours in core courses, all with minimum grades of "C;" Business majors of senior standing only; overall FAU GPA of 2.5 or greater; instructor approval of intended internship; course must be applied for in the semester prior to the intended internship*

Internships provide students with an opportunity to gain valuable practical experience under the guidance of supervisor (mentor) in the work setting, as well as a professor in the academic setting. Goals are to give students insights into the operations of businesses and organizations and allow them to hone their managerial skills in a real-world setting.

### **Management Research Internship (MAN 4947) 3 credits**

*Prerequisites: MAN 3025 and (ENT 4024 or MAN 3611 or MAN 4046 or permission of instructor) and three additional hours of core courses, all with minimum grades of "C;" Business majors of senior standing only; overall FAU GPA of 2.5 or above; instructor approval of intended internship; course must be applied for in the semester prior to intended internship*

Students design and execute a research project in management or international business. The time commitment is 120 hours in a semester.

### **International Business Study Abroad (MAN 4956) 1-4 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Management Study Abroad (MAN 4957) 1-4 credits**

*Prerequisites: Junior standing and College permission*

Credit for enrollment in approved study abroad programs.

## **Management, International Business and Entrepreneurship Graduate Courses**

### **Venture Creation (ENT 6016) 3 credits**

*Prerequisite: Graduate standing*

A comprehensive study of the elements of entrepreneurship, focusing on the critical factors involved in the initiation of a successful venture. Course provides an overview of the entrepreneurial process beginning with the initial idea through start-up, growth, and harvesting the business.

### **Advanced Business Plan Development (ENT 6116) 3 credits**

*Prerequisites: Graduate standing and ENT 6016*

Designed to help students develop effective written implementation plans for new business ventures. Deals with the critical decisions and actions that entrepreneurs must make in both planning and executing a new venture.

### **Biotechnology Business Development (ENT 6196) 3 credits**

*Prerequisite: Graduate standing*

Biotechnology is the application of basic science discoveries to medicine, agriculture, and the environment. Biotech companies are formed around biotechnology applications and these companies involve both science and business. The goal of this course is to teach students about the relationship between biotech business and biotech science.

### **Entrepreneurial Skills for Managers (ENT 6226) 3 credits**

The course explores issues and problems facing the entrepreneur or intrapreneur in daily business operations. The focus of this course is upon achieving greater entrepreneurial competencies with an emphasis on personalizing an empowerment plan and leadership model.

### **Entrepreneurship and Venture Capital (ENT 6428) 3 credits**

*Prerequisites: Graduate standing and ENT 6016*

Course provides an understanding of new venture finance and related issues including due diligence, valuation, financing, deal structuring, deal sourcing, all within an overall framework of strategic decision making for value creation.

### **Special Topics (ENT 6930) 1-4 credits**

An in-depth analysis of selected current problems in business. Content will vary. Variable title.

### **Entrepreneurial Consulting Project (ENT 6946) 1-4 credits**

Supervised study of a domestic or international business problem for an existing or emerging organization, including establishment of client-consultant relationships, identification of problem(s) or strategic questions, collection and analysis of data, development and reporting of implementable recommendations.

### **The Entrepreneurship Field (ENT 7168) 3 credits**

*Prerequisite: For doctoral students only*

Students are exposed to theoretical perspectives on entrepreneurship, with a focus on the main questions that define the field and the contributions of other disciplines to the study of

entrepreneurship.

### **Communication Strategies for Business Professionals and Core-Course Follow-Up (GEB 6215) 3 credits**

*Prerequisites: Admission to College of Business Master's Degree Programs - M.B.A., M.A.C., M.TX., M.H.A. or M.S. in Finance, Information Technology, Management, and M.S.B.A., M.S.S.C.M. and M.S.I.T.M.*

Course links writing and speaking strategies to (1) critical thinking for problem analysis/solution and persuasive proposals and (2) research for decision making. Students submit papers and presentations from core courses. *Grading: S/U*

### **Communication Strategies for Business Professionals (GEB 6217) 3 credits**

*Prerequisite: Admission to Weekend or Executive MBA program*

Course focuses on a semester-long project that links writing and speaking strategies to (1) critical thinking for problem analysis/solution and persuasive proposals and (2) research for decision making.

### **Directed Project in Business (GEB 6901) 1-6 credits**

Directed learning project that has business world application. Develop learning goals and a plan, locate resources, implement the project, evaluate the results.

### **Current Perspectives in Business (GEB 6905) 1-6 credits**

An overview of the functional areas of business: accounting, finance, marketing, organizational behavior, and the business environment. Team taught with CD-ROM materials.

### **Special Topics (GEB 6930) 3 credits**

An in-depth analysis of selected current problems and issues. Content will vary.

### **Contemporary Issues in Industry: The Executive Forum (GEB 6931) 1 credit**

This course is comprised of presentations by and seminar-like interaction with entrepreneurs and executives focusing on the practical nature of business development. Students and executives discuss current challenges facing business and industry today and consider alternative ways of meeting these challenges. *Grading: S/U*

### **Corporate Management and Environmental Policy (GEB 6944) 2 credits**

*Prerequisite: Graduate standing*

Focus on applied investment decisions integrating environmental standards (ISO 9000 and 14000). How environmental policy compliance can be turned into competitive advantage in business decisions.

### **Environmental Project Management (GEB 6945) 2 credits**

*Prerequisite: Graduate standing*

Apply effective management techniques and project management; how to scope project, hire/manage staff, data collection, analysis, reporting, implementation plan, impact assessment, and evaluation.

**International Business Field Experience (GEB 6957) 1-6 credits**

Directed field trip to one or more foreign countries. Research and write report on the area to be visited. Briefings by business firms, universities, government agencies.

**Graduate Business Study Abroad (GEB 6958) 1-6 credits**

*Prerequisite: Admission to graduate program*

Credit for enrollment in approved study abroad graduate programs.

**Doctoral Seminar in Business Administration (GEB 7936) 1-3 credits**

*Prerequisite: Doctoral standing*

Weekly, informal seminars for discussion of current issues, educational approaches, and career management for Ph.D. students in business administration.

**Human Resources Management (MAN 6156) 3 credits**

*Prerequisites: A graduate course in either Management or Organizational Behavior or permission of the instructor*

A graduate seminar integrating the entire human resources management field through a review of the key concepts of human resource development and personnel and labor relations with discussion of applications to specific problem areas.

**Leadership and Organizations (MAN 6296) 3 credits**

*Prerequisite: Graduate standing*

Provides the foundation for understanding leadership in organizations. Topics include leadership in relation to motivation, communication, performance, group dynamics and organizational change.

**Operations Management (MAN 6501) 3 credits**

Course description located under Information Technology and Operations Management.

**Cross-Cultural Management and Human Resources (MAN 6609) 3 credits**

*Prerequisite: Graduate standing*

The course covers national culture as it affects social processes and human resource practices in international businesses. It addresses international issues in overseas workforce management, expatriate management, and negotiation.

### **International Business Operations (MAN 6614) 3 credits**

An introduction to the institutions, activities, and problems involved in conducting international business. The course also addresses international issues in each of the functional areas.

### **Global Business Strategy (MAN 6721) 3 credits**

*Prerequisites: MAN 6937, MAR 6815, ACG 6315 and FIN 6806*

Strategy, its formulation, articulation, and implementation. Review of current theory and practices and case study as well as the role and responsibility of the general manager in managing the enterprise.

### **Managing Effectively in Emerging Market Economies (MAN 6728) 3 credits**

An examination of management issues and approaches to handling opportunities and risks in the major emerging markets.

### **Global Leadership Assessment and Career Development (MAN 6899) 3 credits**

Employs reviews of publications on leadership, self-leadership and career development to understand requirements for leadership and career planning that may be global in scope. Rigorous leadership, career assessment, coaching and mentoring opportunities are provided to help students understand and develop leadership potential and develop a five-year career plan.

### **Directed Independent Study (MAN 6905) 1-4 credits**

*Prerequisite: A directed study form signed, prior to registration, by the department chair and professor concerned*

Individual student research or study.

### **International Research Consultancy Project (MAN 6915) 4 credits**

*Prerequisites: Graduate standing and admission to MSIB program*

Examination of international activity issues faced by companies. Students conduct research and analysis leading to conclusions that are presented to the management of one or more companies.

### **Field Project (MAN 6926) 3 credits**

*Prerequisites: For students in MBA, MHA programs, concentration in Crisis and Disaster Management Certificate or permission of instructor*

The field project is an applied study conducted within or outside the U.S. using meta-data analysis and/or on-the-ground information from an actual event or simulation exercise. Students also learn to develop hands-on exercises.

### **Special Topics (MAN 6931) 1-4 credits**

*Prerequisite: Permission of department chair*

An in-depth analysis of selected current problems in business. Content will vary.

**Global Environment of Management (MAN 6937) 3 credits**

*Prerequisite or Corequisite: GEB 6215*

Topics include regulation and deregulation, technology, ecology, national industrial policy, social responsibility and ethical reasoning, human resource issues, the globalization of economic conditions, and environmentalism as they affect global managers.

**Graduate Management Internship (MAN 6943) 1-3 credits**

*Prerequisite: Graduate standing*

Internship provides students with practical applications of business under the supervision of both academic and organizational mentors. Industry research and practical experience combine to enhance career development.

**Master's Thesis (MAN 6971) 1-9 credits**

*Prerequisites: Completion of core courses and permission of department chair*

Application of professional and research methodology to a problem or project chosen between student and Thesis Committee.

**Organizational Theory (MAN 7207) 3 credits**

*Prerequisite: Completion of Ph.D. core*

Organization functioning from a macro perspective: emphasis on evolution, structure, design, and processes of complex systems. It will study communication/information networks, intergroup processes, and control strategies.

**Organizational Behavior (MAN 7275) 3 credits**

*Prerequisite: Admission to Ph.D. program or permission of department*

Addresses issues in the individual, interpersonal and group relationships as they apply to the work organization. Topics to be addressed include leadership, motivation, goal seeking and attainment, self-efficacy, and other characteristics of the individual or the work team.

**Scientific Method in Business (MAN 7640) 3 credits**

*Prerequisite: College of Business doctoral students only*

Provides Business Ph.D. students with an exposure to the major issues and debates on the scientific method in business, including the use and applications of insights from philosophy of science as it pertains to the business disciplines and an introduction to research design.

**Strategic Management Seminar (MAN 7729) 3 credits**

*Prerequisite: MAN 6721 or equivalent*

Top management tasks and responsibilities to ensure the creation of the long-term value of the firm. This includes maintaining the legitimacy of the firm in terms of stockholders, world events, and ethical behavior.

### **Advanced Management Theory (MAN 7779) 3 credits**

*Prerequisites: MAN 7729 and admission to a Ph.D. program*

Examines the major theoretical perspectives pertaining to both macro-level functioning of organizations and micro-level individual and group behaviors within organizations, with a special emphasis on the implications for managers.

### **Special Topics in Management (MAN 7931) 3 credits**

*Prerequisite: Permission of instructor*

An advanced study of selected topics in management such as small business entrepreneurship, comparative management, and productivity.

### **Advanced Research in Management (MAN 7978) 1-9 credits**

*Prerequisite: Doctoral standing in the College of Business*

Supervised research for comprehensive exam preparation, dissertation proposal development and/or scholarly paper writing. *Grading: S/U*

### **Doctoral Dissertation - Management (MAN 7980) 1-15 credits**

*Prerequisite: Admission to doctoral candidacy*

Doctoral dissertation research in management.

### **Measurement Design and Evaluation (QMB 7567) 3 credits**

*Prerequisite: Admission to Ph.D. program*

Critical review of the core constructs and processes in business and related literatures with emphasis on the construction and validation of survey scales. Discussion of important attributes of survey scales used in business.

## **MOTION PICTURES**

**Undergraduate Courses** /[link to graduate courses](#)

### **Introduction to the Business of Motion Pictures (GEB 3052) 3 credits**

*Prerequisites: Junior standing and completion of the Gordon Rule composition requirement*

A macro/institutional, descriptive overview covering the industry's business history, industrial and

market structure, economics, and macro statistics, and typical organizational structures and career rules.

### **Special Topics (GEB 4930) 1-3 credits**

The analysis of a selected area or set of issues in business or industry studies. Topics will vary and be reflected in the course title. May be repeated for credit.

### **Motion Picture Graduate Courses**

#### **The Business of Motion Pictures (GEB 6055) 3 credits**

A macro/institutional/descriptive overview of the motion picture business's history, macro statistics, economics, industrial, market, and organizational structures.

## **SPORT MANAGEMENT**

### **Undergraduate Courses** / [link to graduate courses](#)

#### **Introduction to Sport Administration (SPB 3003) 3 credits**

An introduction to all aspects of the sport industry. Areas studied include management, marketing, finance, and law as applied to the sport industry as well as sport industry support areas.

#### **The Management of Intercollegiate Athletics (SPB 3104) 3 credits**

*Prerequisite: SPB 3003*

A study of the principles and practices involved in the management, operation, and administration of an athletic department. Areas covered include marketing, promotion, accounting, finance, human resources management, and issues specific to intercollegiate athletics.

### **Sport Management Graduate Courses**

#### **Financial Aspects of Sport Management (SPB 5817) 2 credits**

*Prerequisite: FIN 6806, SPB 6815*

Course examines general concepts, theories, and principles of the discipline of financial management in sport organizations. Specific areas of discussion include tax, facility financing, valuation of professional franchises, contractually obligated income, sponsorships, leases, lease negotiations, and fundraising.

#### **Management of Intercollegiate Athletics (SPB 6106) 2 credits**

*Prerequisite: SPB 6815*

Course is designed to show the management, administration, and operation of an athletic department in a college or university. Focus is on marketing, promotion, finance/accounting, human resources,

production and operations of an athletic department.

### **Management of Sport, Entertainment and Convention Facilities (SPB 6306) 2 credits**

*Prerequisite: SPB 6815*

Course provides students with a comprehensive look into the management of sport, entertainment, and convention facilities. The entire spectrum of this industry will be covered from feasibility studies and design to the contracting, running, and selling of an event. Students will receive overviews of specific department and job tasks.

### **Sport Law (SPB 6406) 2 credits**

*Prerequisite: SPB 6815*

Course illustrates how general legal precepts and principles are applied to the sports industry. Industry specific topics include collective bargaining agreements, Title IX, franchise agreements, merchandising, television rights, endorsements, contractually obligated incomes, and stadium/arena issues.

### **Sport Marketing (SPB 6716) 2 credits**

*Prerequisite: MAR 6055, SPB 6815, or equivalent*

Students gain an understanding of the various aspects of sport marketing: market research, promotions, advertising, public relations, and sport marketing strategy.

### **Managing the Sport Enterprise (SPB 6815) 3 credits**

This course provides a broad overview of the various sport management industries and factors that impact long and short-term business operations in the sport industry.

### **Internship in Sport Management (SPB 6940) 1 credit**

*Prerequisite: Permission of Program Director and instructor*

Course is designed to provide a supervised exposure to a current and contemporary sports organization. Each field experience will have specific objectives and assignments that are adjusted to meet each student's specific internship setting. *Grading: S/U*

## MARKETING

**Undergraduate Courses** /[link to graduate courses](#)/ [link to hospitality management courses](#)

### **Culture, Consumers and the Global Marketplace (MAR 2142) 3 credits**

This course is an exploration of how cultural influences and marketplace social and economic

conditions can affect consumers and their behavior across national boundaries. It also examines how companies and organizations may design their strategies to meet culturally diverse consumers' needs in global marketplaces, including Non-WEIRD (Western, Educated, Industrialized, Rich and Democratic) countries. This is a General Education course.

### **Special Topics in Marketing (MAR 2930) 1-3 credits**

Specialized course presenting unique topics related to marketing. Content varies by instructor and term.

### **Principles of Marketing (MAR 3023) 3 credits**

*Prerequisites: Sophomore standing*

An introductory overview of how marketing creates, communicates and delivers value by identifying and satisfying customer needs. The course covers strategic planning, consumer behavior, market research, product development, promotion, digital marketing, channels of distribution, price policies, global marketing and analytics.

### **Principles of Advertising (MAR 3326) 3 credits**

*Prerequisite: Junior standing*

An overview of the concepts, strategies and tactics of modern advertising. Explores the role of advertising in society, culture and economics, as well as the advertising industry and its key organizations. Introduces specific practices used to understand account planning, market research, campaign creation, target audiences and integrated marketing communication strategies.

### **Honors Seminar in Marketing (MAR 3939) 3 credits**

*Prerequisites: Junior standing, ECO 2013, ECO 2023, and permission of Director of Honors Program*

The course focuses on the fundamental concepts of marketing management; particularly the selection of target markets and the choice of a marketing mix (products, services, pricing, promotion, distribution, and other ingredients) to satisfy customers and make a profit. Honors accepted in lieu of MAR 3023.

### **Cooperative Education - Marketing (MAR 3949) 1-3 credits**

No credit toward degree. *Grading: S/U*

### **International Marketing (MAR 4156) 3 credits**

*Prerequisite: MAR 3023*

An examination of the new developments in the ever-changing field of international marketing, including foreign marketing in the United States. A study of selected specified products, activities and market areas.

### **Retail Management (MAR 4231) 3 credits**

*Prerequisite: MAR 3023 or equivalent*

Involves the introduction and development of issues relating to: store location and layout decisions; merchandising and promotional practices; buying and control procedures; pricing decisions; and retail strategy formulation.

### **Merchandising Management (MAR 4232) 3 credits**

*Prerequisites: MAR 4231, MAR 3023*

An intensive study of the planning, coordinating and buying of assortments of merchandise and the handling, pricing, selling, and controlling of inventories by retailers.

### **Promotional Management (MAR 4323) 3 credits**

*Prerequisite: MAR 3023*

Fundamental principles and practices of marketing communications planning and management, with emphasis on advertising, publicity and sales promotion.

### **RI: Advanced Advertising: Research, Persuasion and Creativity (MAR 4334) 3 credits**

*Prerequisites: MAR 3326 and STA 2023*

Students learn how to conduct systematic advertising research and integrate research findings with persuasion concepts to set creative message strategy. Students apply creative thinking techniques, advanced copywriting skills and standard technical guidelines to create advertisements and promotional messages for advertising campaigns in the context of business. This course is research intensive (RI).

### **Personal Selling (MAR 4400) 3 credits**

*Prerequisite: Junior standing*

Persuasion and communication theory with specific emphasis on issues involving negotiations and relationship management, including application to sales in a cross-cultural environment.

### **Sales and Sales Management (MAR 4403) 3 credits**

*Prerequisite: MAR 3023*

Fundamental principles and practices of promotional planning and management with emphasis on personal selling and sales management.

### **Strategies in Business Markets (MAR 4453) 3 credits**

*Prerequisite: MAR 3023*

The marketing of goods and services to organizations such as manufacturing firms, government agencies and service institutions.

### **Consumer Behavior (MAR 4503) 3 credits**

*Prerequisite: MAR 3023*

An examination of cultural, social, and individual variables and how they are incorporated into buyer decision processes and marketing practices.

### **RI: Marketing Research and Information Systems (MAR 4613) 3 credits**

*Prerequisites: STA 2023 and MAR 3023, with minimum grade of "C"*

An introduction to procedures for defining marketing problems. Data gathering, analysis, and interpretation techniques and their integration into management decision processes are also discussed. This is a research-intensive course.

### **Business Analytics for Marketing and Customer Relationship Management (MAR 4615) 3 credits**

*Prerequisite: MAR 3023 with minimum grade of "C" or permission of instructor*

In this course, students learn about managing customer databases, statistical tools needed for customer data analysis, implementation of selective tools in spreadsheets and application of the generated knowledge for marketing decisions, especially in customer relationship management.

### **Sports Marketing (MAR 4711) 3 credits**

*Prerequisite: MAR 3023 or PET 4404 or PUR 3463 with minimum grade of "C"*

This course focuses on the marketing of sports and the role marketing plays in planning and decision making in attracting fans and sponsors. The course builds on basic marketing concepts and explores their application in various sports contexts. Topics covered may include sport sponsorships, “marketing of” versus “marketing through” sports, segmentation and targeting, the marketing mix, promotion, fan retention, merchandising, pricing and other contemporary issues that impact sports marketing.

### **Digital Marketing (MAR 4721) 3 credits**

*Prerequisites: MAR 3023, ISM 3011*

Applied digital marketing covering SEO, online advertising, Web analytics, email marketing, social media and reputation management. Lab time required.

### **Introduction to Social Media Marketing (MAR 4724) 3 credits**

Social Media Marketing (SMM) is the use of social media by marketers to increase brand awareness, identify key audiences, generate leads and build meaningful relationships with customers. Social media allows businesses to gain a competitive advantage through the creation and distribution of valuable, relevant and consistent content to attract and retain clearly defined audiences.

### **Introduction to Influencer Marketing (MAR 4725) 3 credits**

*Prerequisite: MAR 3023*

Influencer marketing is a type of social media marketing that uses endorsements and product mentions from influencers. An influencer is a person with sway over their audience. Influencers have specialized knowledge, authority or insight into a specific subject. They are also called content creators, Instagrammers, bloggers or vloggers.

### **Entrepreneurial Marketing (MAR 4765) 3 credits**

*Prerequisite: Senior standing*

Examination of emerging concepts, literature on entrepreneurship from academic and pragmatic perspectives.

### **Marketing Strategy (MAR 4803) 3 credits**

*Prerequisites: Senior standing and MAR 3023, FIN 3403, QMB 3600, MAN 3025*

The application of marketing concepts and analytic techniques to improve decision-making skills in solving strategic problems of selecting customer targets and making marketing mix decisions.

### **Problem-Based Marketing Planning (MAR 4824) 3 credits**

*Prerequisite: MAR 3023 or permission of instructor*

Team-oriented development of a strategic marketing plan integrating customer knowledge gathered by primary and secondary research. This is applied to key strategic decisions in managing the total marketing efforts of firms, focused on specific problems identified by client companies in a regional or national marketing case-based competition.

### **Services Marketing (MAR 4830) 3 credits**

*Prerequisite: MAR 3023*

The study of marketing strategies used in the service industries.

### **Marketing and Product/Service Innovation (MAR 4836) 3 credits**

*Prerequisites: MAR 3023 and junior standing*

The course introduces the fundamental processes, research and testing methods, planning aspects, and integrated promotional programs marketers use in designing and launching innovations, including e-business and marketing plans.

### **Directed Independent Study (MAR 4913) 1-3 credits**

*Prerequisites: Junior standing and a Directed Independent Study form must be signed by the professor and the department chair prior to registration*

Directed Study forms may be obtained from the departmental secretary. Individual research project or field investigation.

### **Directed Independent Research in Marketing (MAR 4915) 3 credits**

*Prerequisites: MAR 3023 and QMB 3600 with grades of "C" or better, junior or senior standing and permission of instructor or department chair*

An in-depth application, analysis and communication of professional and research methodology to a marketing research problem or project chosen between student and marketing faculty member with approval of department chair.

### **Special Topics (MAR 4933) 1-3 credits**

*Prerequisite: Junior standing and permission of department chair*

Analysis of selected current problems in business. Content will vary.

### **Advertising Internship (MAR 4940) 2-3 credits**

*Prerequisites: MAR 3326, MAR 4334, senior standing and permission of instructor*

The advertising internship offers the advanced undergraduate student who has selected a career in the field of advertising practical laboratory learning experiences under the direction of professional executives and educators while employed in the area of advertising.

### **Internship in Retailing (MAR 4945) 2 or 3 credits**

*Prerequisites: MAR 4231, senior marketing major, and permission of instructor*

Directed learning experience to develop skills and apply theories to practices in retail organizations. Following a training plan, the intern will research all major functional areas while employed in an approved retail firm.

### **Marketing Internship (MAR 4946) 3 credits**

*Prerequisites: Overall FAU GPA of 2.5; MAR 3023 and one Marketing elective related to the internship's focus, both with minimum grades of "C"; Marketing majors or minors only; instructor approval of intended internship; course must be applied for in the semester prior to the intended internship; minimum passing grade is a "C"*

Provides students insights into the marketing function of businesses and allows them to hone their marketing skills in a real-world setting.

### **Marketing Study Abroad (MAR 4957) 1-4 credits**

*Prerequisite: Junior standing*

Credit for enrollment in approved study abroad programs.

## **Marketing Graduate Courses**

### **Marketing Functions and Processes (MAR 6055) 3 credits**

*Prerequisite: Graduate standing*

A conceptual treatment of the basic processes influencing the design, implementation, and management of the marketing function. Open only to graduate students lacking an undergraduate course in marketing. Not available as a graduate elective.

**Global Marketing (MAR 6158) 3 credits**

*Prerequisites: ECO 6706 or ECO 6716 or FIN 6605 or MAR 6815*

Course emphasizes applied research and analysis, the Internet, and economic geography and addresses elements of global marketing strategy such as prices, distribution, and promotion and the implementation of such.

**Advanced Promotional Strategy (MAR 6336) 3 credits**

*Prerequisite: Graduate standing and MAR 6815*

Learn how to forecast sales and develop competitive promotional plans; select, understand, and persuade target markets and publics; manage advertising, sales promotion, marketing public relations, sales and sales management; conduct negotiations; and control promotion, especially its ethical aspects.

**B2B Marketing Strategy (MAR 6456) 3 credits**

*Prerequisite: Graduate standing and MAR 6815*

An examination of the marketing of goods and services to organizations. Course provides an in-depth understanding of issues such as product development, pricing, and buyer behavior.

**Marketing Research Methods (MAR 6616) 3 credits**

*Prerequisites: Graduate standing and MAR 6815*

A study of marketing information systems concepts, marketing research techniques, and decision theory applications to marketing problems.

**Digital Marketing (MAR 6735) 3 credits**

*Prerequisite: MAR 6815*

Applied exploration of digital marketing strategy and implementation, including website design, search engine optimization, online advertising, web analytics, email marketing, mobile marketing, social media marketing, content creation, and online reputation management.

**Strategic Marketing Planning (MAR 6807) 3 credits**

*Prerequisite: Graduate standing and MAR 6815*

This course focuses on decision making within a context of strategic marketing planning.

**Advanced Marketing Management (MAR 6815) 3 credits**

*Prerequisites: Graduate standing and MAR 6055 or equivalent*

How marketing managers research, communicate, price, and distribute product and service offerings to profitably satisfy targeted customer segments in a dynamically changing global environment.

### **Marketing Analysis and Executive Action (MAR 6816) 3 credits**

*Prerequisites: Graduate standing and MAR 6815*

Builds decision-making capabilities through readings and cases concerning current marketing challenges, such as managing environmental change; marketing in international, high technology, and service contexts; conducting market planning and developing a marketing plan, etc. Learn to imbue corporate culture and business practice with marketing, customer service, social responsibility, and ethics.

### **Developing and Marketing Innovations (MAR 6837) 3 credits**

*Prerequisite: Admission to an FAU graduate program and MAR 6815*

This course revolves around the key challenges encountered in developing an innovation and creating its marketing plan. The course prepares the student to undertake a leadership role as a manager or entrepreneur in the area of product/service innovation.

### **Advanced Social Media Marketing (MAR 6880) 3 credits**

*Prerequisite: MAR 6815, graduate standing and enrolled as a business degree program*

Social media marketing (SMM) is the use of social media by marketers to increase brand awareness, identify key audiences, generate leads and build meaningful relationships with customers. Social media allows businesses to gain a competitive advantage through the creation and distribution of valuable, relevant and consistent content to attract and retain clearly defined audiences.

### **Advanced Influencer Marketing (MAR 6881) 3 credits**

*Prerequisite: MAR 6815, graduate standing and enrolled as a business degree program*

Influencer marketing is a type of social media marketing that uses endorsements and product mentions from influencers. An influencer is a person with sway over their audience. Influencers have specialized knowledge, authority, or insight into a specific subject. They are also called content creators, Instagrammers, bloggers, vloggers.

### **Directed Independent Study (MAR 6916) 1-3 credits**

*Prerequisite: a Directed Independent Study form must be signed by the professor and the department chair prior to registration*

Individual student research or study.

### **Special Topics (MAR 6933) 1-3 credits**

*Prerequisite: Graduate standing and permission of the department chair*

An in-depth analysis of selected current problems in marketing. Content will vary.

### **Global Marketing Field Experience (MAR 6959) 1-6 credits**

Course is an advanced instruction and study tour program that mixes traditional (book), Internet, and experiential learning to develop first-hand knowledge and experience in marketing in and to foreign countries.

### **Master's Thesis (MAR 6971) 1-9 credits**

*Prerequisites: Completion of core courses and permission of department chair*

An application of professional and research methodology to a problem or project chosen between student and thesis committee.

### **Seminar in Consumer Behavior (MAR 7507) 3 credits**

*Prerequisite: Completion of Ph.D. core*

An interdisciplinary course exploring and critically examining the basic foundations, assumptions, and comprehensive models dealing with human behavior.

### **Seminar in Advertising Effectiveness (MAR 7652) 3 credits**

*Prerequisite: Completion of Ph.D. core*

Seminar examines a large variety of issues related to the understanding of advertising and its effectiveness.

### **Quantitative Methods and Models in Marketing (MAR 7670C) 3 credits**

*Prerequisite: Completion of Ph.D. core*

A seminar that develops an understanding of the role and use of statistical and mathematical models in marketing.

### **Interorganizational Relationships in Marketing (MAR 7459) 3 credits**

*Prerequisite: Completion of Ph.D. core*

Course equips doctoral students with the knowledge and skills required to conduct research in marketing channels, business-to-business marketing and supply chains. The course introduces students to the literature on interorganizational relationships and develops a critical understanding of markets, organizations, and value-adding chains.

### **Scientific Method in Business (MAR 7785) 3 credits**

*Prerequisite: College of Business doctoral students only*

Provides business Ph.D. students with an exposure to the major issues and debates on the scientific

method in business, including the use and applications of insights from philosophy of science as it pertains to the business disciplines and an introduction to research design.

### **The Development of Marketing Theory (MAR 7787) 3 credits**

*Prerequisite: Doctoral standing*

This seminar discusses the development of major approaches to understanding marketing from the evolution of the marketing discipline in the United States.

### **The History of Marketing Thought (MAR 7796) 3 credits**

*Prerequisite: Doctoral standing*

A survey of the literature on markets and marketing from early writers to the present. It includes the institutional framework in which markets and marketing activities evolve as well as the development of contemporary theory in marketing.

### **Special Topics in Marketing (MAR 7931) 3 credits**

*Prerequisite: Doctoral students in Marketing*

This Ph.D. Seminar course engages students in the exploration of contemporary and cutting edge topics in the field of marketing that are not covered by the established sequence of courses and before such topics become part of the regular curriculum.

### **Seminar in Marketing 1 and 2 (MAR 7936) 3 credits**

*Prerequisite: Completion of Ph.D. core*

A sequence of courses dealing with a range of significant topics and issues.

### **Advanced Research in Marketing (MAR 7978) 1-9 credits**

*Prerequisite: Doctoral standing in the College of Business*

Supervised research for comprehensive exam preparation, dissertation proposal development and/or scholarly paper writing. *Grading: S/U*

### **Supervised Research in Marketing (MAR 7979) 1-6 credits**

*Prerequisite: Permission of department*

A directed research experience for doctoral students.

### **Doctoral Dissertation in Marketing (MAR 7980) 1-15 credits**

*Prerequisite: Admission to doctoral candidacy*

Doctoral dissertation research.

## **HOSPITALITY AND TOURISM MANAGEMENT**

## **Undergraduate Courses** /[link to graduate courses](#)

### **An Introduction to the Tourism and Hospitality Industry (HFT 1000) 3 credits**

Course offers students an introduction to the tourism and hospitality industry. An overview of tourism terminology, tourism organizations, hospitality business, travel behavior, tourism planning, tourism research, tourism marketing, sustainable/eco-tourism and related areas are covered.

### **Global Tourism, Culture and Citizenship: A Sustainable Approach (HFT 2710) 3 credits**

This interdisciplinary course uncovers the dynamics of global tourism and cross-cultural encounters. The course introduces students to tourism's cultural, societal, environmental and economic significance, and to motivations and behaviors of travelers using real-world scenarios. By exposing students to the cultures and norms of foreign destinations, the course enhances their global citizenship. Students also learn ways to make tourism sustainable and develop transferable skills beyond the tourism field.

### **Introduction to Hospitality Management (HFT 3003) 3 credits**

*Prerequisite: A minimum of 30 credits earned*

Students in this course study the various segments of the hospitality and tourism industry from a career perspective interacting with business professionals currently holding senior managerial posts in these segments. Additionally, students study current issues, trends, and challenges facing the hospitality industry. In sum, this course provides an overview of the industry, its economic impact, its history, its current and future challenges, and some basic principles related to operating a business within a hospitality segment. Open to all FAU majors.

### **Human Resources Management for the Hospitality Industry (HFT 3221) 3 credits**

This course offers an overview of human resource management as it applies specifically to the hospitality management industry (staffing, appraisal, wage and hour administration, etc.) with an increased emphasis on recruiting, hiring, service, and quality. In comparison to peer service industries, the course has a unique hospitality management emphasis focused on the linkage to successful hospitality operations and, ultimately, profitability via talent recruitment, selection, orientation, and ongoing training.

### **Principles of Food and Beverage Management (HFT 3263) 3 credits**

A full overview of necessary managerial skills required for hospitality management minors and majors who choose to enter the food service portion of the Hospitality industry: catering, restaurant operations, non-commercial/institutional food service, and private restaurant ownership. The course teaches the basics of menu planning and pricing, food cost, nutrition concerns, restaurant marketing, and

production responsibilities.

### **Principles of Hospitality Law (HFT 3603) 3 credits**

This course focuses on the nature and function of the U.S. legal system as it applies to hospitality operations. The course includes cases on and discussion of owner/innkeeper–guest relationships, services contracts, torts (primarily negligence and attractive nuisance), civil rights as they apply to both employees and guests as well as insurable interests.

### **Events Management (HFT 3741) 3 credits**

This course explores the meetings and events industry, its economic impact, operational protocols and challenges, marketing techniques, budgeting and finance needs for successful meetings and events, and strategic planning for a major meeting or event.

### **Casinos and the Gaming Industry (HFT 3785) 3 credits**

This course provides an overview of the gaming industry as well as casino operations. Course content focuses on game selection, game mathematics, casino controls, casino operational structure, departmental procedures and policies, casino marketing and guest services as they relate to the gaming environment.

### **Excellence in Guest Service Management (HFT 4240) 3 credits**

This course offers an in-depth study of the provision and management of high quality service provided within a hospitality business venue. Issues of measurement, continuous service improvement, staff member orientating and training from a guest perspective, and the ability to benchmark among hospitality competitors are discussed. Other topics include the importance of moments of truth, creating and maintaining a service culture, and management of a professional service delivery system.

### **Hotel and Resort Management (HFT 4253) 3 credits**

Examines the operations of hotels and resorts with students gaining a basic understanding of the various departments within these lodging venues. Students are exposed to key abilities and skill sets necessary to manage such facilities through familiarization with the role of the general manager position. Students also study specific competitive benchmark tools used by general managers (i.e., Smith Travel Accommodations report).

### **Club Management (HFT 4277) 3 credits**

Focuses on the operations and management of private clubs including membership, golf, food and beverage, tennis, spa and club marketing. In addition, financial structure, equity/non-equity leadership, amenities management, committee formats and guest service strategies specific to private clubs are examined.

### **Financial Analytics for Hospitality Managers (HFT 4453) 3 credits**

*Prerequisite: HFT 4503, HFT 4253, FIN 3403 with minimum grades of "C" and a minimum of 90 earned credits; Hospitality Management majors only*

This course focuses on the analytical techniques to evaluate operating performance of hospitality businesses. Sources of reliable industry data are investigated, techniques of analysis are implemented and results are applied and discussed in a meaningful capacity.

### **Revenue Management and Predictive Analytics in the Hospitality and Tourism Industry (HFT 4481) 3 credits**

Exploration of revenue management, big data and predictive analytics within the hospitality and tourism industry. The course uses a viewpoint of firm value and overall contribution to financial performance. Students identify direct links between big data and firm performance while utilizing strategic management, prediction and forecasting. A variety of data sources are examined. Through analysis, students learn to manage firms using an analytic culture that turns information into insight.

### **Hospitality Marketing and Revenue Management Practices (HFT 4503) 3 credits**

Students in this course survey marketing practices and revenue management issues that are unique to the hospitality industry. These practices include sales procedures and practices, revenue management, the use of technology to maintain a leadership position compared to one's competitors, building a loyal customer base, a discussion of the relationship of marketing to overall organizational success, and an analysis of a hospitality operation's annual marketing plan.

### **Directed Independent Study (HFT 4905) 3 credits**

*Prerequisites: HFT 3003 with minimum grade of "C" and permission of department*

Independent study formulating a self-directed research project used to expand and integrate student's knowledge and professional expertise on a particular subject specific to hospitality management.

### **Special Topics (HFT 4930) 3 credits**

This course examines a current area of high/critical importance in hospitality management. Topics vary dependent upon current events taking place in the hospitality industry at the time of course offerings.

### **Internship in Hospitality and Tourism Management (HFT 4941) 0 credit**

*Prerequisites: HFT 3003, sufficient work experience and permission of department*

Students must complete 1,000 clock hours of satisfactory, verifiable work experience in the hospitality, retail, tourism or customer/guest-service industries as a major or 500 clock hours of satisfactory, verifiable work experience in the hospitality, retail, tourism or customer/guest-service industries as a minor. *Grading: S/U*

### **International Field Experience in Hospitality Management (HFT 4955) 3 credits**

*Prerequisite: HFT 3003 with minimum grade of "C"*

This course permits students to study the hospitality management industry outside of the United States through a personalized visit to a particular destination. The study tour focuses on general tourism promotional activities of the destination, analysis and personal visits of hospitality venues operating in the destination, and a thorough, written comparative analysis to hospitality operations found in the United States.

### **Hospitality and Tourism Management Graduate Courses**

#### **Hospitality Operations: A Case Approach (HMG 6299) 3 credits**

*Prerequisite: Graduate standing*

This course examines hospitality management using a critical case study approach. Hospitality businesses from the full range of industry segments, including hotels, resorts, casinos, airlines, travel agencies, cruise lines, restaurants, state parks, national parks, tour operators, destination management companies (DMCs), destination marketing organizations (DMOs), theme parks, and related businesses may all be examined using a critical case study method.

#### **Strategic Finance in Hospitality Management (HMG 6467) 3 credits**

*Prerequisite: Graduate standing*

This course focuses on the fundamental concepts of strategic financial management as applied specifically to the hospitality industry. Managerial techniques, analysis processes, tools and strategic frameworks for creating hospitality firm value are all examined.

#### **Contemporary Issues in Hospitality Marketing (HMG 6506) 3 credits**

*Prerequisite: Graduate standing*

This course offers an advanced examination of services marketing and management as applied to the hospitality industry. It includes marketing-management issues within hospitality and explores theories that draw on customer, competitor and core organizational capabilities.

#### **Strategies for Excellence in Guest Service Management (HMG 6546) 3 credits**

*Prerequisite: Graduate standing*

This course explores the provision and management of guest service in the hospitality industry from an advanced managerial perspective. Students investigate service operations management from an integrated viewpoint with a focus on the overarching goal of competitive excellence.

#### **Events Management (HMG 6756) 3 credits**

*Prerequisite: Graduate standing*

This course explores the events industry from an advanced managerial perspective. It examines the structure of the events industry, its global economic impact, the various protocols and procedures in event delivery and the challenges facing today's executives with strategies for operational excellence.

**Directed Independent Study in Hospitality Management (HMG 6901) 3 credits**

*Prerequisite: Graduate standing*

This course is a directed independent study project and includes the formulation and execution of a self-directed research project used to expand and integrate the student's knowledge and professional expertise on a topic specific to the hospitality and tourism industry.

[Link to College of Business Programs](#)





# UNIVERSITY CATALOG

## SUB MENU



### COURSE DESCRIPTIONS

[Arts and Letters](#)

[Business](#)

**[Education](#)**

[Engineering and Computer Science](#)

[Honors College](#)

[Medicine](#)

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[Social Work and Criminal Justice](#)

### GENERAL INFORMATION

### ACADEMIC PROGRAMS

## COLLEGE OF EDUCATION

### COURSE DESCRIPTIONS

- [Communication Sciences and Disorders](#)
- [Counselor Education](#)
- [Curriculum and Instruction](#)
- [Educational Leadership and Research Methodology](#)
- [Special Education](#)

[Link to College of Education Programs](#)

# COMMUNICATION SCIENCES AND DISORDERS

## **Undergraduate Courses** /[link to graduate courses](#)

### **Normal Processes of Speech and Language Development (LIN 4710) 3 credits**

Phonological, semantic, syntactic and pragmatic sequence and processes in the normal development of speech and language.

### **Introduction to Communication Disorders (SPA 4002) 3 credits**

Survey course in communication disorders across the lifespan. Study of normal and disordered speech, language, and hearing.

### **Speech/Hearing Science (SPA 4011) 3 credits**

Study of the physiological, acoustical, and perceptual bases of speech and hearing; the mechanics of phonation, audition, vocal theory, consonant production; the acoustic and physiologic study of speech output and auditory reception.

### **Anatomy and Physiology of the Speech and Hearing Mechanisms (SPA 4101) 3 credits**

Study of the anatomy and physiology of the respiratory system, auditory system, and head and neck related to the production of speech and hearing.

### **Clinical Phonetics for Communication Disorders (SPA 4112) 3 credits**

This course is a prerequisite for the graduate speech-language pathology program. It provides instruction in the fundamentals of general American English speech production including phonetic representation of English, anatomy and physiology of the speech mechanism, vowel and consonant transcription, suprasegmentals and diacritic markers, transcription of connected speech, transcription of dialectal variation of speech and disordered speech, as well as acoustical analysis.

## **Communication Sciences and Disorders Graduate Courses**

### **Introduction to Audiological Sciences (SPA 5033) 3 credits**

This course examines a variety of techniques used for the evaluation of hearing. Additionally, a wide range of conditions resulting in hearing loss is explored. The use of rehabilitation strategies and electronic devices such as hearing aids and cochlear implants and the role of audiologists in the management of hearing loss are described.

### **Neural Bases of Human Communication (SPA 5107) 3 credits**

Study of the neuroanatomy and neurophysiology underlying normal speech, language and hearing.

Study of central and peripheral nervous systems related to human communication. Consideration of embryologic development.

### **Clinical Phonetics for Communication Disorders (SPA 5113) 3 credits**

Students learn how to identify the phonemes of Standard American English as well as dialectal differences and child developmental differences. In addition, students learn to transcribe connected speech and changes based on foreign accent influences in order to identify normal versus disordered speech.

### **Special Topics (SPA 5936) 1-3 credits**

*Prerequisite: Permission of instructor*

### **Professional Practice and Program Organization (SPA 6006) 3 credits**

*Prerequisite: Permission of instructor*

Practice of speech/language pathology in terms of nature, scope, ethics, and exploration of organizational structure of variety of programs with emphasis on settings in which the preschool and school age population are found.

### **Disorders of Articulation and Phonology (SPA 6204) 3 credits**

*Prerequisites: SPA 4002, SPA 4011, SPA 4101, and permission of instructor*

In-depth study of articulation and phonological disorders with varying etiologies. Study of evaluation and treatment procedures and instruments.

### **Voice and Velopharyngeal Disorders (SPA 6211) 3 credits**

*Prerequisites: SPA 4002, SPA 4011, SPA 4101, and permission of instructor*

The normal anatomy and physiology of the phonatory system will be used as a framework for discussing the development and perpetuation of voice disorders. Appropriate diagnosis and remediation will be emphasized, including the use of alternative/augmentative communication in the management of voice disorders to reflect the growing use of AAC in the field.

### **Disorders of Fluency (SPA 6225) 3 credits**

*Prerequisites: SPA 4002, SPA 4011, SPA 4101; and permission of instructor*

An in-depth investigation into the nature, diagnosis, and treatment of stuttering, cluttering, and other disturbances of speech fluency. Current and historical approaches to etiological theories, differential diagnosis of etiological components, and treatment strategies are presented.

### **Motor Speech Disorders and Augmentative Communication (SPA 6230) 3 credits**

*Prerequisites: SPA 4002, SPA 4011, SPA 4101, SPA 4104, and permission of instructor*

The etiology, diagnosis, and treatment of speech disorders resulting from neurological diseases and injuries, including TBI and cerebral palsy. Study of augmentative communication technology.

**Aural Habilitation/Rehabilitation (SPA 6322) 3 credits**

*Prerequisites: SPA 4030 and permission of instructor*

An examination of the traditional aural rehabilitation programs that are usually initiated following audiological evaluation and completion of medical care. Management programs such as speech reading, auditory training, speech pathology treatment programs, etc., will be presented.

**Language Disorders: Birth to Four (SPA 6401) 3 credits**

*Prerequisites: SPA 4002, SPA 4011, SPA 4101, SPA 4104, and permission of instructor*

The study of the nature, diagnosis, and treatment of language disorders in infants, toddlers, and preschoolers. The study of methods and tools for assessment. Clinical intervention techniques and programs.

**Language Disorders: School Age and Adolescent (SPA 6403) 3 credits**

*Prerequisites: SPA 4002, SPA 4011, SPA 4101 and permission of instructor*

The study of the nature, etiologies, evaluation, and treatment of language disorders in school-age children and adolescents.

**Adult Language Disorders (SPA 6410) 3 credits**

*Prerequisites: SPA 4002, SPA 4011, SPA 4101 and permission of instructor*

The study of language disorders in adulthood including aphasia, TBI, and senility. The normal changes in language and memory as a result of aging. The evaluation and treatment of adult language disorders.

**Genetics of Communication Disorders (SPA 6438) 3 credits**

Students study the basic concepts of genetics and its relation to communication sciences and disorders, including but not limited to, the disorders of speech and hearing. They also learn about the hereditary syndromes and birth defects associated with speech, language, cognition and hearing impairments. They gain knowledge about genetic counseling and interpretation of genetic data.

**Clinical Practicum in Speech/Language Pathology (SPA 6505) 1-4 credits**

*Prerequisite: Permission of instructor*

Supervised field experience and opportunity to demonstrate competencies in evaluation, diagnosis, and remediation of children and adults with varieties of communication disorders.

**Counseling and Supervision in Speech-Language Pathology (SPA 6513) 3 credits**

*Prerequisites: Communication Sciences and Disorders (CSD) students: Permission of department; Non-CSD students: Permission of instructor*

This course provides examination and discussion of counseling and supervision issues affecting speech-language pathologists and the discipline of communication disorders. Theories of supervision and counseling are explored, giving students the opportunity to discuss clinical experiences in each area.

**Diagnostic Principles and Procedures in Communication Disorders (SPA 6553) 3 credits**

*Prerequisites: SPA 4002, SPA 4011, SPA 4101 and permission of instructor*

The study of general techniques in the evaluation of communication disorders. Emphasis on diagnostic procedures, history-taking, and differential diagnosis.

**Evaluation and Treatment of Linguistically and Culturally Different Populations (SPA 6558) 3 credits**

*Prerequisites: SPA 4002, SPA 4011, SPA 4101 and permission of instructor*

The principles and procedures employed in the diagnosis and treatment of communication disorders in linguistically and culturally diverse populations. Patterns of speech and language differences.

**Augmentative and Alternative Communication (SPA 6559) 3 credits**

Provides information on augmentative and alternative (AAC) methods for persons with severe communication disorders. Assessment, intervention, and application of AAC systems are covered.

**Dysphagia (SPA 6565) 3 credits**

*Prerequisites: SPA 4002, SPA 4011, SPA 4101 and LIN 4710*

Course provides students with an understanding of anatomy and physiology of the oral and pharyngeal stages of deglutition and disorders of swallowing. Students develop skills in the evaluation and management of swallowing disorders in children and adults.

**Current Research in Communication Sciences and Disorders (SPA 6825) 3 credits**

*Prerequisites: SPA 4002, 4011, 4030, 4101, 4104, 6553*

An in-depth treatment of current theory and research within the field of communication sciences and disorders (CSD). Associations between empirical studies and effective clinical practice will be presented to teach students to properly analyze and utilize research.

**Directed Independent Study (SPA 6905) 1-3 credits**

*Prerequisite: Permission of instructor*

**Directed Research (SPA 6910) 3 credits**

*Prerequisite: Permission of instructor*

### **Master's Thesis (SPA 6971) 1-6 credits**

*Prerequisite: SPA 6825*

The expected outcome of this learning experience is the completion of a quality master's thesis, including an approved draft and a successful public defense.

## **COUNSELOR EDUCATION**

### **Undergraduate Courses** /[link to graduate courses](#)

#### **Career and Lifespan Development (SDS 3340) 3 credits**

This course addresses the history, trends and future direction of the world of work. It focuses on career development theories, searching and exploring job and career opportunities, self-assessment, and being successful in the job market. Attention is also given to issues in the workplace, such as diversity and strategies for advancement.

#### **University Student Mentoring and Peer Coaching (SDS 3483) 2 credits**

*Prerequisites: Permission of instructor; more than 60 undergraduate credits*

This course addresses the importance of mentoring and peer coaching skills and how these skills affect the individual's academic and personal/social development. The focus of the course is on developing mentoring and peer coaching skills to promote and reinforce strategies known for improving the fundamental learning, academic achievement and retention of undergraduate students.

#### **Interpersonal Communication Skills (SDS 4410) 3 credits**

This course addresses the nature and process of interpersonal communication. It focuses on perceptions, self-disclosure, stages of relationships, spoken and unspoken communication, listening and responding strategies and problem-solving skills. Attention is given to understanding cultural diversity, conflict management and communication via electronic means.

#### **High School to University Transition (SLS 1101) 3 credits**

*Prerequisite: Permission of instructor*

Course prepares students in grades 10 - 12 attending Florida Atlantic University High School for a successful transition from high school to university. Emphasis is on presenting a comprehensive set of skills and strategies aimed at student success.

### **Counselor Education Graduate Courses**

#### **Processes in Counseling (MHS 5005) 3 credits**

Examines the development and maintenance of effective counseling relationships and emphasizes the

corresponding competencies and skills in counseling clients.

### **Play Techniques for Counseling Children and Adolescents (MHS 5422) 3 credits**

*Prerequisites: Permission of instructor*

An experiential course designed to increase knowledge and skills in the use of play media and play process as a counselor intervention for working with children and adolescents. Course is designed for students and professionals in the helping professions.

### **Multicultural Counseling for Diverse Populations (MHS 5428) 3 credits**

Examines special issues and methods involved in counseling special populations, including minority, bilingual, low SES and those with disabilities. Emphasizes the competencies of cultural sensitivity and culturally sensitive interventions in counseling clients.

### **Special Topics (MHS 5930) 1-5 credits**

*Prerequisite: Permission of instructor*

Special topics in mental health counseling.

### **Psychopathology in Counseling (MHS 6070) 3 credits**

*Prerequisite: Permission of instructor*

Examines the theory and practice of diagnosis in the assessment and treatment of mental disorders and the use of the DSM-IV multi-axial system; emphasizes diagnostic and treatment competencies in professional counseling settings.

### **Appraisal and Evaluation in Counseling (MHS 6220) 3 credits**

*Prerequisite: Permission of instructor*

Examines the administration, interpretations and applications of tests and other appraisal devices in the competent assessment of clients.

### **Career Development (MHS 6340) 3 credits**

*Prerequisite: Permission of instructor*

Examines career development and emphasizes competency in the process of assisting clients in career planning and decision making.

### **Counseling Theories and Techniques (MHS 6401) 3 credits**

*Prerequisite: Permission of instructor*

Examines the cognitive-behavioral and other counseling theories with an emphasis on case conceptualization and other competencies, skills and techniques in counseling clients.

### **Counseling Children (MHS 6421) 3 credits**

*Prerequisite: Permission of instructor*

Course explores methods and special issues involved in counseling children.

### **Counseling Adolescents (MHS 6423) 3 credits**

*Prerequisite: Permission of instructor*

Course explores methods and special issues involved in counseling adolescents.

### **Family Counseling (MHS 6430) 3 credits**

Examines family systems and family counseling practice and emphasizes the family systems perspective. Includes competencies, skills, ethics, culture and the role of family counseling in various settings.

### **Substance Abuse Counseling (MHS 6450) 3 credits**

*Prerequisite: Permission of instructor*

Examines the history, etiology and maintenance factors and the diagnostic assessment and treatment competencies in counseling clients with substance abuse issues.

### **Traumatic Stress, Trauma and Crisis Counseling (MHS 6466) 3 credits**

This course is designed to help students understand the theory and practice of counseling individuals, groups and/or families in response to a crisis or traumatic event. Students will be able to understand the principles of intervention as well as the impact of crisis, traumatic stress, natural disasters and other trauma-causing events on people. Students will also be able to demonstrate the ability for assessing and managing suicide risk.

### **Counseling and Human Sexuality (MHS 6470) 3 credits**

*Prerequisite: Permission of instructor*

Examines human sexuality considerations in counseling clients with an emphasis on assessment and intervention competencies.

### **Life Span Development (MHS 6482) 3 credits**

Examines the major theories of human development across the lifespan and emphasizes the relationship of developmental stages and tasks to the process of normal development. Skills and competencies in fostering resilience in clients are addressed.

### **Group Counseling (MHS 6510) 3 credits**

*Prerequisite: Permission of instructor*

Examines effective group counseling practice, which emphasizes leadership skills, competencies and

knowledge of organizing, implementing and evaluating group counseling programs. Includes an experiential group component.

### **Consultation and Behavior Management (MHS 6600) 3 credits**

*Prerequisite: Permission of instructor*

A school-based model for school counselor consultation with parents, teachers, and other professionals is introduced and practiced. Emphasis on understanding and managing student behavior in large and small groups. A knowledge base is developed along with skills for creating and maintaining positive learning and social environments. Practice of counselor skills assists in managing groups of students and consulting with parents and teachers.

### **Legal, Ethical, and Professional Issues in Counseling (MHS 6700) 3 credits**

Legal, ethical and professional issues in competent counseling practice are viewed from national, state and local perspectives.

### **Issues in Mental Health Counseling Practice (MHS 6701) 3 credits**

Examines mental health counseling as a profession, including history, identity, roles and trends affecting the field and practice of mental health counseling, and overviews the essential skills and competencies of effective mental health counseling practice.

### **Counseling Research and Evidence-Based Practice (MHS 6710) 3 credits**

*Prerequisites: STA 6113, admission to Counselor Education degree program*

This course focuses on increasing the learner's capacity to critically appraise research to inform evidence-based practice (EBP) in counseling. This entails comprehending statistical methods used in conducting research and program evaluation; interpreting quantitative and qualitative research and applying this knowledge to furthering the use of EBP in counseling.

### **Practicum in Mental Health Counseling (MHS 6800) 3 credits**

*Prerequisite: Permission of instructor*

Supervised counseling practice at a beginning level involving individuals, families and groups in field-placement settings. Includes a University-based seminar in which skills and competencies are evaluated in case reports and session presentations.

### **Advanced Practicum in Counseling (MHS 6801) 3 credits**

*Prerequisites: MHS 6800 and permission of instructor*

Supervised counseling practice at an intermediate level involving individuals, families and groups in field- placement settings. Includes a University-based seminar in which skills and competencies are evaluated in case reports and session presentations.

### **Internship Mental Health Counseling (MHS 6830) 3-6 credits**

*Prerequisites: MHS 6801 and permission of instructor*

Supervised counseling practice at a more advanced level involving individuals, families and groups in field-placement settings. Includes a University-based seminar in which skills and competencies are evaluated in case reports and session presentations.

### **Directed Independent Study (MHS 6905) 1-5 credits**

*Prerequisite: Permission of instructor*

### **Professional Seminar (MHS 6930) 3 credits**

*Prerequisite: Permission of instructor*

Major issues and problems in relation to current research, trends, and developments in counseling.

### **Appraisal of Children, Adults, Couples, and Families (MHS 7222) 3 credits**

*Prerequisite: MHS 6220*

Course is designed to extend the student's knowledge and skills in the appraisal and evaluation of children, adolescents, adults, couples, and families.

### **Advanced Counseling Theories: Contemporary Therapies (MHS 7402) 3 credits**

*Prerequisite: MHS 6401*

Course introduces students to theoretical principles and applied skills in current counseling with an emphasis on contemporary therapy models.

### **Optimal Human Functioning and Development in Counseling (MHS 7406) 3 credits**

A critical review and application of theory and research on human strengths and positive psychology relating to developmental issues in counseling and psychotherapy, including physical and mental health, close intimate relationships, and career development.

### **Counseling Interventions with Children and Adolescents (MHS 7424) 3 credits**

*Prerequisites: MHS 6421, 6423*

Advanced verbal and action techniques and methods with children and young adolescents, with an emphasis on play therapy and action therapy methods.

### **Multicultural, Spiritual, and Professional Issues in Counseling (MHS 7429) 3 credits**

*Prerequisites: MHS 6700, 6701*

An advanced examination of multicultural, religion, spirituality, and professional issues, particularly involving advocacy for clients and the profession as they relate to counseling leadership and practice.

**Theory, Research, and Interventions with Couples, Families (MHS 7431) 3 credits**

An advanced course on contemporary theories and research as they impact interventions in couples and family counseling and therapy.

**Advanced Group Counseling (MHS 7512) 3 credits**

*Prerequisite: MHS 6510*

An examination of group theory and research-based best practices for the advanced group leader.

**Consultation and Leadership in Counseling (MHS 7606) 3 credits**

Course is designed to increase students' awareness of, and skills in, the roles of consultant, leader, and advocate in various clinical, community, and administrative roles.

**Consultation in School and Community (MHS 7608) 3 credits**

Designed to increase students' awareness of, and skills in, needs assessment and planning, implementation and evaluation of counseling services, and preventive programs for children in communities and schools.

**Advanced Instruction in Counselor Education (MHS 7611) 3 credits**

*Prerequisite: Permission of instructor*

The course is a beginning field experience designed to meet CACREP requirements for advanced training and experience in teaching.

**Outcomes Assessment and Evaluation in Counseling (MHS 7714) 3 credits**

*Prerequisite: MHS 6710*

Course critically reviews the literature on intervention outcomes in counseling and related fields.

**Advanced Research in Counseling (MHS 7730) 3 credits**

*Prerequisites: EDF 7482, STA 6113, STA 7114*

Course critically reviews the core constructs, process, and outcome variables in the counseling and psychotherapy research literature with emphasis on research design, measurement, and analysis considerations.

**Advanced Supervision in Counselor Education (MHS 7809) 3 credits**

*Prerequisite: Permission of instructor*

This course is a beginning field experience designed to meet CACREP requirements for advanced training and experience in supervision.

**Directed Independent Study (MHS 7905) 1-5 credits**

**Special Topics (MHS 7930) 3 credits**

*Prerequisite: Permission of instructor*

Topics related to the doctoral program in Counselor Education.

**Practicum in Supervision (MHS 7940) 3 credits**

*Prerequisite: MHS 7611*

This doctoral-level seminar and practicum is designed to provide students with the opportunity to enhance counseling supervision skills.

**Advanced Practicum in Counselor Education (MHS 7942) 3 credits**

*Prerequisite: Program of study approved by doctoral committee*

Course is composed of two parts: (a) a field experience designed to meet CACREP and program requirements for advanced training and experience in counseling practice, supervision, teaching, research, and publication, and/or leadership and professional service; and (b) guided development of a dissertation prospectus.

**Internship (MHS 7945) 3-6 credits**

*Prerequisite: MHS 6830*

An advanced internship designed to enhance the counselor's knowledge, skills, and abilities in assessment, case conceptualization, treatment planning, intervention, and the monitoring and evaluation of the counseling and psychotherapeutic process and outcome.

**Dissertation Seminar (MHS 7978) 3 credits**

*Prerequisite: MHS 7730*

Introduces and oversees dissertation research. Designed to facilitate the process of conceptualization, planning, implementing, and defending a quality doctoral dissertation.

**Dissertation (MHS 7980) 1-6 credits**

*Prerequisite: MHS 7978*

A minimum of 12 dissertation credits is required to complete the doctoral program. *Grading: S/U*

**Special Topics (RCS 5930) 3 credits**

*Prerequisite: Permission of department*

Special topics in rehabilitation counseling.

**Foundations of Rehabilitation Counseling (RCS 6031) 3 credits**

*Prerequisites: Graduate admission and permission of department*

A survey of the historical, sociological, legislative, and operational foundations of rehabilitation and service delivery.

**Medical and Psychosocial Aspects of Disability (RCS 6080) 3 credits**

*Prerequisite: Graduate admission and permission of department*

A survey of the medical, psychosocial, and social aspects of disability.

**Occupational Information and Job Placement (RCS 6320) 3 credits**

*Prerequisite: Graduate admission and permission of instructor*

A survey of the vocational aspects of disability, occupational classification, and career development of persons with disabilities.

**Case Management in Vocational Rehabilitation (RCS 6644) 3 credits**

A survey of the various case management models within a variety of rehabilitation settings: state VR, IL centers, community mental health centers/agencies, private rehabilitation companies, and disability management programs.

**Rehabilitation Counseling Practicum (RCS 6801) 3 credits**

*Prerequisite: Permission of department*

Supervised, highly structured clinical and practical experience in rehabilitation counseling.

**Advanced Practicum in Rehabilitation Counseling (RCS 6805) 3 credits**

*Prerequisite: RCS 6801*

Course provides supervised clinical and practical experience in rehabilitation counseling, rehabilitation case management, and related rehabilitation service provisions. The practicum requires 250 hours of approved clinical time both on campus and off campus at an approved agency setting.

**Rehabilitation Counseling Internship (RCS 6825) 3-6 credits**

*Prerequisites: Permission of department and RCS 6801*

Supervised, but more autonomous, clinical and practical experience in rehabilitation counseling.

**Fundamentals of School Guidance (SDS 5010) 3 credits**

A survey of guidance services available in a school setting including principles, procedures, and emerging trends in guidance services.

**Data Driven Practices in School Counseling (SDS 6316) 3 credits**

*Prerequisites: Counselor Education major and permission of instructor*

An experiential course designed to increase knowledge and skills for managing counselors' time

effectively and also to manage comprehensive school programs to assist students, families, and educators, including students with disabilities and students in diverse populations.

### **Counseling Interventions for College Readiness and Student Success (SDS 6344) 3 credits**

*Prerequisite: Permission of instructor*

Course examines counseling interventions that enhance academic performance, including meta-cognitive and psychosocial variables, learning styles and social-emotional issues. The course covers counseling strategies for enhancing student academic performance and personal/social development.

### **Guidance and Counseling of Gifted Students (SDS 6426) 3 credits**

Guidance and counseling needs of gifted and talented students will be explored. Strategies for use by counselors and teachers in guiding the gifted will be demonstrated.

### **Internship-Counselor Education (SDS 6820) 3-6 credits**

*Prerequisite: Approval of advisor*

This full-time field placement in a public school guidance program is required for all students in the school counseling track.

### **Master's Thesis (SDS 6970) 3 credits**

*Grading: S/U*

## **CURRICULUM AND INSTRUCTION**

### **Undergraduate Courses** /[link to graduate courses](#)

#### **Special Methods - Art (ARE 4240) 3 credits**

Students focus on practical experience in teaching visual art at the middle and secondary levels. Field experience in a visual art class setting at the middle and secondary levels is required.

#### **Art: Elementary School (ARE 4313) 3 credits**

Students focus on foundational methods for teaching visual art in the elementary classroom.

#### **Student Teaching-Art (ARE 4940) 6-12 credits**

#### **Yearlong Student Teaching-Art (ARE 4942) 9-12 credits**

#### **Student Teaching-Elementary ( EDE 4943) 3-9 credits**

*Prerequisite: Permission of instructor*

Course provides a one-semester clinical experience in an approved school setting. Emphasis is on the

Florida Educator Accomplished Practices and a state-approved assessment system. Five day/full day clinical experience required. *Grading: S/U*

### **Yearlong Elementary Student Teaching (EDE 4945) 3-6 credits**

*Prerequisite: Permission of instructor*

A yearlong clinical experience provided in an approved school setting. Emphasis is on the Florida Educator Accomplished Practices and a state-approved assessment system. Available fall/spring semester sequence only. Includes significant field work. *Grading: S/U*

### **Introduction to the Teaching Profession (EDF 2005) 3 credits**

An introduction to the historical, philosophical and sociological foundations of education. Also examined are the legal, social, financial and political environment of schools. A field experience component is required. Not offered in the summer.

### **Introduction to Diversity for Educators (EDF 2085) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Examines how various ethnic/cultural groups are served in U.S. schools. Multicultural content and materials incorporated into various disciplines are surveyed. A field experience component in a culturally diverse school/setting is required.

### **The Educated Citizen in a Global Context (EDF 2854) 3 credits**

A critical examination of education as a human right through investigation of educational purpose, policy, and practice in international contexts. The impact of colonization and modernization and their challenges will be examined. This is a General Education course.

### **Special Topics (EDF 2930) 1-3 credits**

This course offers introductory study of special topics in curriculum, culture and educational inquiry.

### **Equity Issues in Multicultural Education (EDF 3203) 3 credits**

*Prerequisite: EDF 2085 with minimum grade of "C"*

Based on the principles of culturally responsive pedagogy, this course explores contemporary educational issues, policies and teaching practices that support or hinder educational equity for diverse student populations.

### **Applied Learning Theory (EDF 3210) 3 credits**

Factors influencing the general and special learner and the learning process. Implications of learning theories for curriculum, instruction and classroom management. Recent research as reflected in the knowledge base and applied to the classroom.

### **Education in a Multicultural Society (EDF 3610) 3 credits**

Explores the historical perspectives on issues central to education in the context of diversity at the local, national and global levels. Students conduct research on topics in multicultural and global education that highlight the experience and perspectives of under-represented groups.

### **Special Topics (EDF 3930) 1-3 credits**

This course offers a study of special topics in curriculum, culture and educational inquiry. The number of credits varies according to the term and context in which the course is offered. All students receive the same number of credits in a given section/semester.

### **Community Engagement for Global Consciousness (EDF 4802) 3 credits**

*Prerequisite: EDF 2854 with minimum grade of "C"*

An Academic Service Learning (ASL) course in which students critically reflect on their roles as emergent professionals and decision makers in a changing world through the study of a range of global challenges and opportunities pertinent to democracy, sustainability and social justice. Students complete a community engagement project as part of the ASL requirement (15 hours).

### **Directed Independent Study (EDF 4905) 1-5 credits**

### **Special Topics (EDF 4930) 1-3 credits**

This course offers an advanced study of special topics in curriculum, culture and educational inquiry.

### **Special Topics (EDF 4935) 1-5 credits**

May be used with the approval of the department chair and dean. *Grading: S/U*

### **University Honors Seminar in Education (EDG 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in education.

### **Effective Teaching Practices 1 (EDG 3323) 2 credits**

*Prerequisites: LAE 4353, TSL 4080, admission to Elementary Education program or permission of instructor; Postrequisite: EDG 3324*

An introduction to research-based effective teaching practices, focusing on classroom management, organization and development of instruction and verbal and non-verbal communication. Emphasis is on the Florida Educator Accomplished Practices and state-approved assessment system. One day clinical experience per week.

### **Effective Teaching Practices (EDG 3324) 3 credits**

*Prerequisite: Admission to Elementary Education program or permission of instructor*

Preparation for and implementation of current research-supported, effective teaching practices, focusing on planning, presentation of subject matter and assessment. Emphasis is on the Florida Performance Measurement System and the Educator Accomplished Practices. One day clinical experience per week. Students are placed in schools according to the campus where the student has enrolled. Not offered in the summer. This is an Academic Service Learning (ASL) course.

**EDG 3323 and EDG 3324 Grading Policy:** If a student earns a "D" or an "F" in the field evaluation component or a "D" or an "F" in the course work component, then the highest grade the student can receive for the course is a "C-." A "C-" is not considered a passing grade, and the course must be retaken. Students may not take any ETP classes more than twice.

### **Survey of Current Environmental Issues through Service Learning (EDG 4044) 3 credits**

*Prerequisite: Admission to the Pine Jog Fellowship Program*

Emphasis is on knowledge and first-hand exploration of current environmental issues impacting the South Florida region. All issues are addressed by using service learning methodologies. Enrollment in this course is limited to dually enrolled high school and area college students admitted to the Pine Jog Fellowship Program. Course is taught at the Pine Jog Environmental Education Center.

### **Civic Engagement through Environmental Service Learning (EDG 4045) 3 credits**

*Prerequisite: EDG 4044*

Emphasis is on knowledge and practical application of key components required to achieve effective community-based social marketing, civic advocacy, and service learning action projects that address environmental issues. Enrollment is limited to dually enrolled high school and area college students admitted to the Pine Jog Fellowship Program. Course is taught at the Pine Jog Environmental Education Center.

### **The Role of Fine Arts in Education (EDG 4202) 3 credits**

Focuses on the impact that visual and performing arts should have on the K-12 classroom and the strategies for incorporating them into the TEA curriculum. For TEA students only.

### **Classroom Instructional and Assessment Strategies (EDG 4343) 3 credits**

*Prerequisites: Permission of department*

A professional preparation course using research-based strategies that focus on the organization and development of instruction, effective assessment strategies with emphasis on data-driven decision-making, and instructional strategies that include the needs of diverse learners. Course emphasizes the education competencies of the Florida Educator Accomplished Practices.

### **Directed Independent Study (EDG 4905) 1-5 credits**

### **Special Topics (EDG 4930) 1-5 credits**

Topics not covered by other courses. Topics will vary.

### **Special Topics (EDG 4932) 1-5 credits**

Topics not covered by other courses. Topics will vary. *Grading: S/U*

### **Environmental Education Internship (EDG 4940) 3 credits**

*Prerequisite: EDG 4044*

Emphasis is on application and implementation of environmental education curriculum in a variety of settings and with diverse populations. Supervision is provided by qualified personnel on both the local and university levels. Enrollment is limited to dual enrolled high school and area college students admitted to the Pine Jog Fellowship Program. Course is taught at the Pine Jog Environmental Education Center.

### **Designing and Implementing a Blended Curriculum: Birth to Age 8 (EEC 3214) 3 credits**

Course focuses on designing and implementing developmentally appropriate, blended curriculum and materials for young children, birth to age 8, both those developing typically and those with disabilities. Field experience required.

### **Foundations of Early Childhood Environmental Education (EEC 4020) 3 credits**

Focuses on issues as well as trends affecting children's development, health and learning from environmental education and sustainability perspectives. Study of recommended practices as well as programmatic and system requirements in enhancing access to nature, environmental literacy and healthy development of children. Field experience required.

### **Exploring Natural Habitats as a Curriculum for Young Learners (EEC 4237) 3 credits**

Studies of natural habitats as contexts for developing integrated environmental education curriculum appropriate for young children. Participation in field trips and on-site practice of effective teaching approaches are required.

### **Creative Arts for Young Children (EEC 4303) 3 credits**

This course provides developmentally appropriate, inclusive and integrated creative arts curriculum activities for young children in visual arts, dance/movement, music and drama. Practical and hands-on learning provides the context for a thematic approach, including community arts resources and multicultural perspectives. Arts for young children with special needs and English language learners are addressed. Field experience minimum requirement of 10 hours.

### **Blended Early Childhood Methods: Birth to Age 5 (EEC 4313) 4 credits**

*Prerequisites: EEC 3214 with minimum grade of "C"; B.E.C.E. majors only*

Explores an organized approach of teaching young children, with and without disabilities, developmental, educational and functional skills useful in natural environments, including home and educational settings. Field experience required.

### **Community Engagement in Early Childhood Environmental Education (EEC 4404) 3 credits**

This practicum requires collaboration with community agencies in advancing learning, development and health of children through environmental education. In partnership with a community organization, the student engages in learning experiences and contributes in enhancing the community partners' efforts to further the aims of early childhood environmental education. Thirty-six hours of practicum and three hours of consultations with instructor are required. This is an Academic Service Learning (ASL) course.

### **Introduction to Technology for Educators (EME 2040) 3 credits**

An introduction and analysis of educational technologies available to prospective classroom teachers for use in the development and delivery of improved instruction. The technologies and accompanying materials will be demonstrated and used in a wide variety of subjects.

### **Digital Literacy in a Globally Connected World (EME 2620) 3 credits**

Digital technologies have become an influential part of our everyday life. For this reason, digital technology skills have become central across disciplines and are valued as an essential career competency. In this course, students learn how to access, evaluate, apply, participate and interact within the educational and professional digital environments as they solve complex problems within a technology rich world. This is a General Education course.

### **Educational Technology for 21st Century Teaching (EME 4312) 3 credits**

This course prepares learners to integrate technology into the classroom. Emphasis is on the use of current technology tools to facilitate teaching, learning and assessment.

### **Applied Educational Technology (EME 4810) 3 credits**

Systems approach to using traditional and emerging technology in instruction. Emphasis is upon integration of instructional design principles with uses of technology as instructional tools to enhance the quality of classroom instruction and to facilitate the work of the teacher. Includes hands-on experience with traditional educational media, emerging technologies and microcomputer hardware and software.

**Secondary School Effective Instruction (ESE 3940) 3 credits**

A guided field experience including classroom instruction on learner characteristics, cooperative learning, management of student conduct and various domains of the Florida Performance Measurement System (FPMS) and the Educator Accomplished Practices. One day clinical field experience required. Students are placed in schools according to the campus where the student has enrolled. Not offered in the summer.

**Methods of Teaching Foreign Language K-12 (FLE 4333) 4 credits**

Methods of teaching foreign language for students majoring in Foreign Language Education.

**Student Teaching-Foreign Language (FLE 4945) 6-12 credits**

**Yearlong Student Teaching-Foreign Language (FLE 4947) 9-12 credits**

**Language Arts and Literature: Birth through Grade 8 (LAE 4353) 3 credits**

Methods and materials for teaching language arts skills and children's literature from birth through middle school

**Language Arts: Middle and Secondary School (LAE 4360) 3 credits**

*Prerequisite: Permission of instructor*

Techniques of instruction.

**Yearlong Student Teaching-English (LAE 4942) 9-12 credits**

**Student Teaching-English (LAE 4948) 6-12 credits**

**Mathematics Content and Standards for K-6 Teachers (M AE 4310) 3 credits**

*Prerequisites: 6 credits of college-level mathematics with minimum grade of "C"; Elementary Education majors only*

In-depth review of content required to teach K-6 mathematics effectively. Emphasizes relevant Florida mathematics standards and competencies.

**Principles and Methods: K-9 School Math (MAE 4350) 3 credits**

*Prerequisite: MAE 4310, LAE 4353, TSL 4080 (Note: Students majoring in ESE are required to complete 6 credits of college-level math, but are not required to complete MAE 4310 as a prerequisite to this course.)*

A review of mathematics information and skills and a study of methods/materials related to K-9 mathematics teaching in a diverse setting.

**Teaching Middle and Secondary School Mathematics (MAE 4360) 3 credits**

Current materials and strategies for implementing the senior high mathematics curriculum.

**Yearlong Student Teaching-Mathematics (MAE 4944) 9-12 credits**

**Student Teaching-Mathematics (MAE 4945) 6-12 credits**

**Music: Elementary School 1 (MUE 4013) 2 credits**

Students learn the fundamentals of music applicable to teaching music in the elementary classroom.

Content includes learning basic music notation reading, historical and cultural musical styles, as well as the proper techniques for singing and playing instruments. Not open to Music majors.

**Music: Elementary School 2 (MUE 4311) 2 credits**

Open to Music majors only.

[\(See Music courses, College of Arts and Letters section\)](#)

**Secondary Instrumental Methods (MUE 4330) 2 credits**

[\(See Music courses, College of Arts and Letters section\)](#)

**Student Teaching-Music (MUE 4940) 6-12 credits**

**Yearlong Student Teaching-Music (MUE 4941) 9-12 credits**

**Reading Development 1: Birth through Grade 3 (RED 4308) 3 credits**

*Prerequisites: LAE 4353, TSL 4080 with minimum grades of "C"*

This course focuses on emergent and beginning literacy development in children, birth through grade 3. Topics covered include: philosophy; factors affecting literacy success such as child characteristics, family, environment, cultural/ethnic diversity; literacy skills and concepts; assessments; evaluation; approaches, methods and materials using research-based, developmentally appropriate curriculum and practices. Field experience in a classroom setting is required.

**Content Reading: Middle and Secondary Schools (RED 4335) 3 credits**

This course is designed to facilitate the acquisition and integration of reading, writing, and study skills into middle and secondary school content areas.

**Supervised Literacy Practicum (RED 4348) 3 credits**

*Prerequisites: RED 4552 or permission of instructor; for Elementary Education majors only*

*Corequisite: EDE 4943*

Emphasizes relevant Florida Subject Matter Content Standards and Reading Endorsement

Competencies. Supervised field experience (60 in-service hours).

### **Reading Diagnosis and Remediation: Pre-K through Grade 8 (RED 4552) 3 credits**

*Prerequisites: EEX 4250 or (TSL 4080 and LAE 4353 and RED 4308 and RED 4750)*

*Prerequisite or corequisite: RED 4750*

*Prerequisite or corequisite: EEX 4250*

Focuses on the recognition and diagnosis of reading difficulties using a variety of assessment tools and on prescribing and implementing a variety of appropriate methods and materials to improve reading performance. Field experience in a classroom setting is required.

### **Reading Development 2: Grades 3 through 8 (RED 4750) 3 credits**

*Prerequisite: RED 4308*

This course concentrates on strategies and materials appropriate for literacy instruction in grades 3 through 8. Emphasis is placed upon reading and integrating writing into teaching, narrative and non-fiction genres. Utilizing reading to learn is the primary focus.

### **Science Content and Standards for K-6 Teachers (SCE 4113) 3 credits**

*Prerequisites: 7 credits of college level science including 3 credits in physical science, 3 credits in biological science and at least one science laboratory, all with minimum grades of "C"; Elementary Education majors only*

In-depth review of content required to teach K-6 science effectively. Emphasizes relevant Florida Science Standards and Competencies. This is an Academic Service Learning (ASL) course.

### **Principles and Methods: K-9 School Science (SCE 4350) 3 credits**

*Prerequisites: LAE 4353, TSL 4080, SCE 4113 all with minimum grades of "C"*

A review of concepts in science and a study of methods/materials related to K-9 science teaching.

### **Science: Middle and Secondary School (SCE 4360) 3 credits**

*Prerequisite: Senior-level standing in a science discipline*

Techniques of instruction for students enrolled in teacher education programs. This is an Academic Service Learning (ASL) course.

### **South Florida Hydrological Systems (SCE 4843) 3 credits**

*Prerequisite: For high school dual enrollment students*

This course introduces students to scientists who are working in the field of environmental research. Dual enrollment high school students work with scientists and educators to develop an understanding of the interconnectedness and complexity of South Florida water systems and the environmental issues facing them. Students are exposed to engineered research tools that are currently being tested as

solutions to South Florida's environmental challenges.

### **Yearlong Student Teaching-Science (SCE 4941) 9-12 credits**

#### **Student Teaching-Science (SCE 4944) 6-12 credits**

#### **K-9 Social Studies (SSE 4150) 3 credits**

*Prerequisites: LAE 4353 and TSL 4080, with minimum grades of "C"*

Concepts and approaches for teaching social studies in grades K-9.

#### **Social Studies Content and Standards for K-6 Teachers (SSE 4312) 2 credits**

*Prerequisite: For Elementary Education majors only*

In-depth review of content required to teach K-6 social studies effectively. Emphasizes relevant Florida Social Studies Standards and Competencies.

#### **Social Studies: Middle and Secondary School (SSE 4361) 3 credits**

Techniques of instruction for students enrolled in teacher education programs.

### **Yearlong Student Teaching-Social Science (SSE 4941) 9-12 credits**

#### **Student Teaching-Social Science (SSE 4944) 6-12 credits**

#### **Introduction to Theories and Practices of TESOL (TSL 4080) 3 credits**

TSL 4080 is a practical course designed to introduce students to the special methods and unique experiences involved in the teaching of English to speakers of other languages.

#### **TESOL Issues and Practices (TSL 4081) 3 credits**

*Prerequisite: TSL 4080*

Designed to serve as the culminating experience in the area of ESOL for the elementary education major. The main goal of this course is to make the connection between theory and practice. Special attention will be given to the areas of methodology and curriculum. Limited summer enrollment may be available by special permission only.

#### **Applied Linguistics and TESOL (TSL 4251) 3 credits**

Applying linguistics, psycholinguistics, and sociolinguistics to teaching English as a second language with emphasis on pronunciation, intonation, structural analysis, morphophonemics and decoding from print to sound.

#### **ESOL Strategies for Content Area Teachers (TSL 4324) 3 credits**

This course features the study and application of methods, strategies, issues, and materials for teaching Limited English Proficient students. Emphasis will be placed on the areas of language acquisition, multicultural concerns, ESOL through the content areas, and current trends in ESL teaching and learning. The LULAC-META Consent Decree will be explored. This course meets all DOE identified competencies for all special area teachers and all secondary education in service or preservice teachers in all content areas except English.

## **Curriculum and Instruction Graduate Courses**

### **Curriculum in Art Education (ARE 6141) 3 credits**

Explores planning, organizing, and writing curriculum guides in art for various educational levels: elementary, secondary, K-12 programs, community college, and adult education.

### **Art Education (ARE 6142) 3 credits**

Course focuses on current and historical philosophy of art education, including aesthetics, art criticism, and studio methods, to develop an understanding of contemporary issues and their application to practice.

### **Art: Elementary School 2 (ARE 6315) 3 credits**

*Prerequisite: ARE 4313 or equivalent*

An advanced study in techniques and materials in art for the elementary school.

### **Art Education in Elementary School (ARE 6317) 3 credits**

Course focuses on foundational methods for teaching visual art in the elementary classroom with special attention to art integration. Field experience in a visual art class setting at the elementary level is required.

### **Art Education in Secondary School (ARE 6342) 3 credits**

Focuses on art education in middle and high schools through analysis and study of theories, use of visual art materials, curriculum planning and review of practices and research in art education.

### **Curriculum: Elementary School (EDE 6205) 3 credits**

A study of curriculum theory and practice in elementary school.

### **Yearlong Elementary (Grades 1-6) Internship (EDE 6947) 6-9 credits/two semesters**

Yearlong clinical experience in an urban or rural disadvantaged area. Emphasis on Educator Accomplished Practices. First semester: four partial days, one full day clinical experience and two, three-hour class sessions per week. Second semester: five full days per week clinical experience.

### **Classroom Evaluation (EDF 5460) 3 credits**

A general survey of practical methods, designed especially for non-degree-seeking students, for evaluation in the classroom.

### **Research (EDF 5480) 3 credits**

### **Human Development: Applications for Education (EDF 6113) 3 credits**

Explores human development from infancy through adulthood with a focus on its relevance for educational contexts. Topics include physical, cognitive, social, emotional and moral development. Implications of developmental theories for curriculum, instruction and classroom management are discussed.

### **Child Development in Educational Psychology (EDF 6126) 3 credits**

Focus is on the development of understanding concerning physical, social, emotional, and cognitive growth, learning skills, and special needs of children from conception to age eight.

### **Adolescence and Young Adulthood in Educational Psychology (EDF 6138) 3 credits**

Focus is on human development from puberty through young adulthood, including physical, cognitive, social, emotional and moral development to enable teachers to more effectively understand and assist student learning in secondary and higher education.

### **Learning and Cognition in Education (EDF 6142) 3 credits**

Examination of the influence of applied cognition and learning theories to enable educational practitioners to more effectively understand and assist students in the learning process.

### **Educational Psychology (EDF 6229) 3 credits**

Application of psychological principles and related research to assist teachers in promoting academic achievement and fostering progress toward educational goals.

### **Personality Theories in Education (EDF 6339) 3 credits**

Research in personality development, personality theories and social and emotional learning as applied to classroom and educational settings are examined in order to assist educational professionals in promoting students' learning.

### **Discourse Analysis in Education (EDF 6499) 3 credits**

This course introduces theories and methodologies for the study of language in use (i.e., discourse) and offers students a conceptual and analytical framework that can provide a means to make visible the cultural assumptions and "commonsense" values in educational texts and discourses. Different discourse analysis approaches, such as multimodal analysis, interactional sociolinguistics, grounded

theory and ethnography of communication (among others) are discussed as context to then focus on exploring issues of power relations in education and other realms through critical discourse analysis and systemic functional linguistics.

**Black Perspectives in Education (EDF 6615) 3 credits**

Drawing on black epistemologies and research traditions, this course examines historical and contemporary issues and their impact on diverse immigrant and nonimmigrant black populations.

**Race, Class and Gender in Education (EDF 6637) 3 credits**

Drawing on the principles of critical pedagogy, this course examines how the social constructions of race, class and gender influence educational decision making. Analyzes data related to social diversity and examines the implications for equity in education.

**Foundations of Global Education (EDF 6800) 3 credits**

Addresses the nature and scope of global education, multiple national cultures, and their impact on educational practice, international responses to common educational issues, and the representation of global social problems in curricula.

**Foundations of Multicultural Curricula (EDF 6887) 3 credits**

An overview of the historical, philosophical and social foundations of curriculum in the context of the education of diverse populations. Diverse curriculum theories and their implications for curriculum development, educational policy and pedagogical practice are explored.

**Directed Independent Study (EDF 6905) 1-5 credits**

Requires approval by assigned faculty advisor.

**Action Research in Schools and Communities (EDF 6918) 3 credits**

Students engage in collaborative planning for doing action research based on an inquiry question grounded in practice. The readings provide historical, critical, and conceptual frameworks for action research locally, nationally, and internationally.

**Master's Thesis (EDF 6971) 3 credits**

Requires approval by assigned faculty advisor.

**Critical Foundations of Education Inquiry (EDF 7578) 3 credits**

A survey of the multiple forms of critical theory in educational inquiry and their methodological implications. Students will analyze critical research studies and develop theoretical and methodological frameworks for research involving diverse populations.

### **Trends in Analyzing Instructional Practices (EDF 7758) 3 credits**

Students examine teaching practices as "models" or "structures" that guide teaching. Students analyze their own teaching, conduct analysis of student work, and explore research on pedagogy.

### **Instructional Policies and the Teaching Profession (EDF 7917) 3 credits**

Students examine the current political, economic, and social challenges and dilemmas for the teaching profession. The course includes analysis of teacher certification trends, teacher education models, and research on teacher learning.

### **Multicultural Education (EDG 5705) 3 credits**

An introduction to the field of multicultural education, the multiple dimensions of sociocultural diversity and the implications and challenges for equitable education.

### **Special Topics (EDG 5931) 1-5 credits**

### **Curriculum Leadership (EDG 6223) 3 credits**

Course focuses on historical, theoretical, and practical perspectives of curriculum and instruction at the national, state, and local levels. Course is designed for graduate students preparing to assume professional responsibilities as administrators and curriculum developers in institutions associated with K-12 education.

### **U.S. Curricular Trends and Issues (EDG 6224) 3 credits**

Major trends impacting school curriculum from national, state, and local levels and their interactions in terms of the development, implementation, and evaluation of curriculum.

### **Design Components of Curriculum (EDG 6253) 3 credits**

Emphasis upon knowledge and application of design components of curriculum including scope, integration, sequence, continuity, balance, and knowledge representation systems.

### **Instructional Program Development (EDG 6255) 3 credits**

*Prerequisite: Permission of instructor*

Specific methods for organizing knowledge based upon contemporary ideas of how humans think and learn. Examines the latest ideas and research in instructional program development.

### **Program Evaluation in Curriculum and Instruction (EDG 6285) 3 credits**

This course enables students in Curriculum and Instruction to survey program evaluation strategies used in C and I content areas. An emphasis is placed on analyzing and interpreting evaluation literature in subject specific areas. In addition, students examine national and state trends in program evaluation.

### **Instructional Strategies and Assessment Practices (EDG 6345) 3 credits**

A professional initial certification course using research-based strategies to focus on organization and development of instruction, effective lesson planning, instructional strategies to meet the needs of diverse learners through differentiated instruction, and assessment techniques with emphasis on data-driven decision making. FEAPS are emphasized.

### **Global Perspectives of Curricular Trends Across Nations (EDG 6625) 3 credits**

Focuses on comparison, analysis, and evaluation of curricular trends, issues, pedagogy, and resources in education systems in developing and industrialized nations, and implications for national and global citizenship for the 21st century.

### **Documentation and Assessment in Curriculum and Instruction (EDG 6628) 3 credits**

*Prerequisite: Graduate standing*

Offers participants operational definitions and experiences in documentation and assessment for educators. Students combine readings, analyses of experiences in learning environments, critiques of the existing assessment culture and field work.

### **Directed Independent Study (EDG 6906) 1-5 credits**

### **Special Topics (EDG 6931) 1-3 credits**

This course offers an in-depth study of a specialized topic in curriculum, culture and educational inquiry at the graduate level.

### **Seminar in Curriculum (EDG 6935) 3 credits**

A study of curriculum principles, structure, and theories.

### **Special Topics (EDG 6937) 1-5 credits**

Selected topics in education.

### **Internship (EDG 6940) 6-10 credits**

*Prerequisite: Approval of student's major advisor in the appropriate graduate program*

The advisor in the department in which the student is enrolled works mutually with the student and the Director of Student Teaching in assigning the student specialized and professional field experiences. Supervision is provided by qualified personnel on both the local and University level. *Grading S/U*

### **Master's Thesis (EDG 6971) 3 credits**

### **Curriculum Theory (EDG 7221) 3 credits**

The analysis of the historical and philosophical foundations of curriculum theory in the U.S. through the study of the original work of key theorists.

### **Curriculum Implementation for School Improvement (EDG 7251) 3 credits**

*Prerequisites: Must be enrolled in one of the following levels: Doctoral and Education Specialist and permission of instructor*

Prepares educators to proceed to curriculum approval, dissemination and implementation once a curriculum is designed. Content will include preparing and presenting a comprehensive implementation plan and subsequent/on-going curriculum refinement.

### **Directed Independent Study (EDG 7906) 1-5 credits**

### **Praxis in Curriculum and Instruction (EDG 7918) 3 credits**

A capstone experience in which students are guided through the design, implementation and reporting on a study of professional practice in diverse community- or school-based contexts. The final capstone project comprises an oral presentation and a written report.

### **Special Topics (EDG 7932) 1-3 credits**

This course offers an in-depth study of a specialized topic in curriculum, culture and educational inquiry at the doctoral level.

### **Foundations of Curriculum Inquiry (EDG 7938) 3 credits**

*Prerequisite: Admission to doctoral program*

This course should be taken immediately after the candidate is admitted to the doctoral program. It is designed as an introduction to the process of doctoral studies and the nature and purpose of educational research in curriculum and instruction.

### **Research in Curriculum and Instruction (EDG 7944) 3 credits**

*Prerequisites: EDF 7758, EDF 7917, EDG 7221, EDG 7938*

Projects completed in doctoral seminar will be scrutinized to determine their research quality and educational contributions. Emphasis is placed on accurate integration among research, curriculum, and instruction protocols.

### **Dissertation (EDG 7980) 1-15 credits**

### **Motivational Theories in Educational Psychology (EDP 6218) 3 credits**

Application of motivational principles to educational settings in order to assist educational professionals in promoting and maintaining student motivation. Emphasis on learners' internal motivation, including students' goal orientations and mindset, self-efficacy, self-regulated learning and

resilience. Both instructional influences and school-family partnerships are discussed.

### **Field Project in Educational Psychology (EDP 6944) 3 credits**

*Prerequisite: Permission of instructor*

This course is individually designed according to student professional goals. It focuses on extending theoretical knowledge in educational psychology through a field-based experiential capstone learning project.

### **Foundations of Early Childhood Environmental Education (EEC 6026) 3 credits**

Focus on issues as well as trends affecting children's development, health and learning from environmental education and sustainability perspectives. Study of recommended practices as well as programmatic and system requirements in enhancing access to nature, environmental literacy and healthy development of children. Field experience required.

### **Principles and Models of Early Childhood Curriculum (EEC 6236) 3 credits**

This course will provide a conceptual framework for the analysis and practical implementation of early childhood curriculum models. 10 hours of field experience required.

### **Exploring Natural Habitats as a Curriculum for Young Learners (EEC 6239) 3 credits**

Study of natural habitats as contexts for developing integrated environmental education curriculum appropriate for young children. Participation in field trips and on-site practice of effective teaching approaches are required.

### **Integrated Curriculum in Early Childhood (EEC 6246) 3 credits**

*Prerequisites: EEC 6236, EEX 5015*

This course focuses on an integrated math, science, and social studies curriculum for preschool programs. Special emphasis on teaching, planning, implementing, and evaluating integrated curriculum. 20 hours of field experience will be required.

### **Effective Practices in Early Childhood Environmental Education (EEC 6327) 3 credits**

Focus on environmental awareness and learning in both indoor and outdoor settings. Developing a sense of place through curricular activities promoting active content learning, healthy habit development, environmental literacy skills and sustainable choice-making are emphasized. Field trips required.

### **Creative Arts for Young Children (EEC 6711) 3 credits**

Addresses children's creative processes and classroom practices with the goal of promoting children's artistic expression in the visual arts, dance/movement, music and drama. Includes assessment of

creative processes and products, as well as inclusive and multicultural contexts and arts activities.

### **Seminar in Early Childhood Education (EEC 6932) 3 credits**

*Prerequisite Permission of instructor*

An overview of current practices, problems, programs, and issues. It includes analysis of current research and its implications for early childhood education.

### **Field Project/Portfolio in Early Childhood Education (EEC 6947) 3 credits**

*Prerequisites or Corequisites: EDF 6481 and STA 6113 and completion of at least 21 credits of early childhood coursework*

The field project is an individually designed learning activity and a culminating experience for graduate early childhood education students. Students have the opportunity to develop their professional strengths and interests and create a professional portfolio.

### **Survey of Early Childhood in Exceptional Student Education (EEX 5015) 3 credits**

Methods in Early Childhood Student Education (EEX 5245) 3 credits

[\(See Special Education courses, this section\)](#)

### **Models of Learning and Instruction (EME 6051) 3 credits**

Models for designing instruction with emphasis on interface design, feedback mechanisms, new instructional paradigms, trends, issues, and current research.

### **Self-Regulated Learning Systems (EME 6209) 3 credits**

An in-depth examination of the development of instructional materials and the design of instructional systems based upon contemporary learning theories and the evolving view of a technological future.

### **Courseware Design (EME 6415) 3 credits**

*Prerequisite: Permission of instructor*

An introduction to design, development, implementation, and assessment of technology-based learning environments.

### **Digital Literacy for Global Educators (EME 6426) 3 credits**

A survey of the fundamental applications of technology for instructional delivery, digital citizenship, current technology issues and trends.

### **K-12 Online Teaching Foundations (EME 6456) 3 credits**

This course examines strategies to design, manage and deliver meaningful online learning experiences in K-12 learning environments. The practical skills and pedagogical principles to teach K-12 online learning environments utilizing current and emerging technologies are explored.

### **Distance Education in Theory and Practice (EME 6458) 3 credits**

Provides skills and knowledge to plan, develop, and deliver instruction using distance learning education technology. Students will be exposed to knowledge, skills, and tools useful in creating and maintaining an online learning environment. Topics covered include interactivity, communications, curriculum design, instructional design, website design, and distance education software.

### **Instructional Design (EME 6601) 3 credits**

A systems model for instructional design.

### **Technological and Theoretical Foundations of Learning (EME 6623) 3 credits**

An examination of the role of learning theories, including behaviorist, cognitivist, and constructivist perspectives, in the context of technology-rich and technology-infused classroom settings. The integrative use of computer- and internet-based technology to support each of the learning theory perspectives is presented and examined.

### **Organization and Management Learning Technologies (EME 6716) 3 credits**

Organization and management principles, models, and contemporary ideas that point to a redefinition, rebuilding, and reorganization of traditional educational environments. Emphasis is on Total Quality Learning.

### **Authentic, Standards-Based Assessment for 21st Century Learners (EME 6816) 3 credits**

*Prerequisite: Permission of instructor*

A comprehensive overview of the theory and practice of assessment, emphasizing the role of technology in conducting assessments, analyzing data, and using assessment data to improve student achievement. Technology-based assessment tools are explored, including online standardized testing tools, constructivist-based alternative assessment tools, and other web-based technologies.

### **Field Experience in Education and Technology (EME 6945) 1-8 credits**

*Prerequisite: Media core courses*

Practical and professional experiences under qualified supervision and in specific areas of educational media and technology.

### **Senior High School Curriculum (ESE 6215) 3 credits**

Curriculum theory, principles, and practices for the senior high school.

### **Language Arts: Elementary School (LAE 6352) 3 credits**

Modern viewpoints and approaches in teaching language arts; the relation of the contemporary

language description and research to the teaching of language arts in the elementary school. It also offers an in-depth study of selected topics.

**Literature: Elementary School (LAE 6415) 3 credits**

Methods and materials for the creative teaching of children's literature in the elementary school.

**Mathematics: Elementary and Middle School (MAE 6151) 3 credits**

A study of contemporary thinking, practices, and research in the teaching of mathematics to elementary and middle school children.

**Teaching Mathematics: Middle and High School (MAE 6155) 3 credits**

A study of contemporary thinking, practices, and research in the teaching of mathematics to middle and high school students.

**Beginning Reading K-3 (RED 6303) 3 credits**

*Prerequisites: RED 4552, with permission of instructor and/or advisor, and teaching experience*

Designed for the classroom teacher and focuses on an overview of current beginning reading philosophy, curriculum, programs, and materials. Some emphasis is placed on diagnostic and remedial techniques suitable for the K-3 classroom.

**Developmental Reading (RED 6351) 3 credits**

*Prerequisite: LAE 4353*

Course provides an advanced study of theory and practice related to developmental reading instruction. Emphasis is on theoretical considerations of basic reading skills using an interdisciplinary approach.

**Picture Books for Content Learning (RED 6356) 3 credits**

This course emphasizes the identification and integration of picture books and the use of read-alouds for the development of reading and literacy skills in content areas.

**Teaching Reading in Secondary and Middle School (RED 6361) 3 credits**

Emphasis is placed on the reading efficiency and study habits of high school and middle school students. Integrating reading and writing into content fields and reviewing reading materials will also be emphasized.

**Reading Diagnosis (RED 6546) 3 credits**

*Prerequisite: RED 6351*

A formal as well as informal diagnosis of reading problems in a clinical setting. An introduction to and writing of case reports is included.

### **Remedial Reading (RED 6548) 3 credits**

*Prerequisite: RED 6351*

Detailed analyses of case studies in reading with primary emphases on theoretical and etiological factors of reading disability. Classical remedial approaches are included.

### **Trends and Issues in Reading Education (RED 6656) 3 credits**

*Prerequisite: RED 6351 or permission of instructor*

Modern approaches to reading instruction; includes a critical review of issues and innovations.

### **Reading Practicum (RED 6836) 3 credits**

*Prerequisite: RED 6548*

Supervised tutorial experience in working with children exhibiting special reading problems.

### **Topics in Reading Education (RED 7933) 3 credits**

An analysis of specific topics in the area of reading which the instructor will choose. Emphasis will be on the review of literature and active programs related to the topic(s).

### **Seminar in Reading Education (RED 7948) 3 credits**

An analysis of doctoral research proposals in reading education. Emphasis is on critiquing individual student presentations, projects, and investigations.

### **Science: Elementary and Middle School (SCE 6151) 3 credits**

This course covers contemporary thinking, practices, and research in the teaching of science to elementary and middle school children. This is an Academic Service Learning (ASL) course.

### **Capstone Study in Environmental Education (SCE 6196) 3 credits**

*Prerequisites: SCE 6644 and permission of instructor; Graduate Environmental Education majors only*

Course content is individualized according to goals and interests. Requirements: readings, directed independent study/internship, poster/media presentation and research paper linking content in all courses to goals after graduation. Completed during the last semester of the master's degree in Environmental Education. Course is taught at the Pine Jog Environmental Education Center.

### **Advanced Methods of Environmental Education (SCE 6344) 3 credits**

Examines multiple contexts for modern environmental education by visiting community providers including parks, nature centers and wildlife rehabilitators. Requirements: readings, discussions, field trips, interviews, final project. Course is taught at the Pine Jog Environmental Education Center.

### **Perspectives of Environmental Education (SCE 6345) 3 credits**

Provides an overview of the historical and conceptual frameworks that define the field of environmental education, with a focus on future growth and possibilities. Includes readings, discussions, service learning, presentations, field trips and a project linking course content to career goals. Course is taught at the Pine Jog Environmental Education Center.

**Trends and Issues in Environmental Education (SCE 6644) 3 credits**

This course analyzes trends, issues and new research impacting the field of environmental education, including effective program design and assessment. Requirements include readings, discussions, papers, curriculum design and critical review. Course is taught at the Pine Jog Environmental Education Center.

**Social Studies: Elementary and Middle School (SSE 6151) 3 credits**

This course studies and analyzes social studies research and includes selection and organization of learning designs.

**Curriculum Development in TESOL and Bilingual Education (TSL 5142) 3 credits**

Focuses on curriculum and materials selection and development in TESOL and bilingual education from Pre-K to adult for a variety of national and international contexts.

**Methods of TESOL and Bilingual Education (TSL 5345) 3 credits**

The study and applications of methodologies, strategies and materials for teaching English learners (ELs) and bilingual students in a variety of educational settings. For teachers of Pre-K students and adults .

**Assessment Issues for ESOL and Bilingual Populations (TSL 5440) 3 credits**

This course focuses on the theory, research, and practice of assessment related to equity and the education of English and bilingual learners.

**Pedagogical Grammar for ESOL and Bilingual Populations (TSL 6350) 3 credits**

Course focuses on helping teachers develop a repertoire of strategies for planning and delivering "balanced" grammar instruction using fluency- and accuracy-oriented activities to help ESOL and bilingual students use standard English effectively in a variety of educational contexts.

**Teaching Pronunciation in ESOL and Bilingual Programs (TSL 6375) 3 credits**

Course addresses theoretical and practical issues associated with teaching pronunciation to children and adults in English as a second language (ESL), English as a foreign language (EFL), bilingual education, and foreign language education settings.

**Developing Literacy for ESOL and Bilingual Populations (TSL 6376) 3 credits**

*Prerequisites: TSL 6642 and TSL 6700*

Course presents an overview of the research and field-tested methods of teaching literacy in ESOL, EFL (English as a foreign language) and bilingual education programs for Pre-K-12 learners and adults.

### **Theories of TESOL and Bilingual Education (TSL 6642) 3 credits**

For school administrators, in-service teachers, and graduate students in TESOL/Bilingual Education. Addresses theories, underlying principles, and research related to TESOL and bilingual education, especially as they relate to school policies, programs, and services.

### **Language Policy and Planning in Education (TSL 6700) 3 credits**

For school administrators and graduate students in Teaching English to Speakers of Other Languages (TESOL)/Bilingual Education. Addresses language-related policies and procedures in educational settings.

### **TESOL and Bilingual Education Practicum (TSL 6944) 3-9 credits**

*Prerequisites: Completion of all other core courses and permission of instructor*

An intensive observation, learning, and teaching experience in which participants work in a classroom setting under the supervision of a master teacher and/or supervisor of TESOL or Bilingual Education.

## **EDUCATIONAL LEADERSHIP AND RESEARCH METHODOLOGY**

**Undergraduate Courses** /[link to graduate courses](#)

### **Multidisciplinary Introduction to Research (EDF 2910) 1-3 credits**

This course provides students an introduction to research in a variety of disciplines. It is inclusive of multiple disciplines and methodologies, as opposed to a comprehensive survey, and covers material that is both common to research in all disciplines and specific to the students' research interests. Over the course of the semester, students not only begin to build basic research knowledge and skills common to all disciplines, but they also begin to hone their own research interests.

### **Multidisciplinary Research Methods 1 (EDF 2911) 1 credit**

This course allows students to build common research skills and receive guidance in finding a faculty research mentor. It is inclusive of multiple disciplines and methodologies, as opposed to a comprehensive survey, and covers material that is both common to research in all disciplines and specific to the student's research interests. Over the course of the semester, students begin to build basic

research knowledge and skills common to all disciplines. They will also begin to hone their own research interests.

### **Educational Measurement and Evaluation (EDF 3430) 3 credits**

A basic course to train students/teachers to integrate classroom assessment into instructional planning to improve student learning. Along with basic terminology, students develop particular skills in writing instructional objectives, developing test items of various types, constructing rating scales and understanding the interpretation of standardized tests .

### **RI: Multidisciplinary Research Methods 2 (EDF 3912) 1-3 credits**

This course supports students who already have a faculty research mentor as they navigate the undergraduate research process. It is inclusive of multiple disciplines and methodologies, as opposed to a comprehensive survey. Additionally, it covers material that is both common to research in all disciplines and specific to the students' research interests. As a part of this course, students have the opportunity to apply for research grants to fund their own research study. This is a research-intensive (RI) course.

### **RI: Multidisciplinary Research Methods 3 (EDF 3913) 1 credit**

This course supports students who have a faculty research mentor as they navigate the undergraduate research process. This course is inclusive of multiple disciplines and methodologies, as opposed to a comprehensive survey and covers material that is both common to research in all disciplines and specific to the student's research interests. Students learn how to find presentation/publication opportunities and develop their own project into a research presentation for the FAU Undergraduate Research Symposium. This is a research-intensive (RI) course.

### **Exploring Multidisciplinary Research (EDF 4911) 3 credits**

This course guides students through an exploration of the world of academic and applied research, covering concepts that are both common to research in all disciplines and specific to the students' individual research interests. Over the course of the semester, students identify and connect the unifying principles of research across disciplines, gain content knowledge in their areas of interest, experience firsthand the benefits and challenges of conducting a research study from beginning to end and become equipped to make an informed decision on how to incorporate research into their academic and professional paths.

### **Special Topics (EDF 4932) 1-3 credits**

This course offers an advanced study of special topics in educational leadership and research methodology.

### **Introduction to Leadership (LDR 2010) 1-2 credits**

Exposes students to the basic foundation of leadership and its application to college experiences in student leadership roles. Students engage in activities and projects that increase self awareness through the exploration of values, beliefs, culture and identity.

### **Contemporary Issues in Leadership (LDR 3115) 3 credits**

This course offers students interested in the dynamics of contemporary leadership the opportunity to explore relevant leadership trends and examine contemporary leadership theories and schools of thought using articles, film/documentaries, group learning/projects and experiential activities as the learning medium.

### **Leadership in the Fraternal Movement (LDR 3214) 3 credits**

Designed for members of the FAU Fraternity and Sorority Community. Through discussion, group process, experiential learning and application, students learn best practices for building and leading their fraternity or sorority from both a corporate and fraternal perspective. Further, the course positions students to develop and define their leadership through a values-based, ethical leadership lens.

### **Leadership and Social Change (LDR 3216) 3 credits**

Explores the role of leadership in movements of social change. Grand feats to small initiatives and even failed attempts are analyzed in order to consider the common practices of those who seek to improve society.

### **Theories of Leadership (LDR 4104) 3 credits**

This course provides learners with a review of major leadership theories designed to incorporate research findings, practice, skill-building and direct application to real-work scenarios. Specifically, this course covers a variety of topics impacting today's student, public leaders and private-section leaders as a foundation for learning, including power and ethics, diversity, teamwork, leadership development, politics, coaching and mentoring, motivation, creativity, conflict and communication.

### **Ethics and Power in Leadership (LDR 4204) 3 credits**

This course reviews the arguments for ethics in leadership as proposed contemporary leadership theories. It also examines theories of power and authority and seeks answers to the apparent dilemmas through applied moral theory and psychology.

### **Introduction to Field Leadership (LDR 4250) 3 credits**

This course is an introduction to field leadership delivered in an experiential education format. Content includes field leadership theories, program management and design and basic technical skills. The course is a mix of classroom and in-field experiences.

### **Media Literacy and Leadership (LDR 4276) 3 credits**

This course provides an introduction to leadership and media literacy and teaches the skills needed to examine many genres of media, including news, the Internet and more. The class focuses on the ethical principles of leadership via journalism and examines convergence, media ownership and the role of the “citizen journalist.” Through analysis of current leadership styles, research, deconstructing media and guest lectures, the course focuses on the importance of leadership, media literacy and learning how to use media to become active citizens and empowered leaders.

### **Facilitation and Group Development (LDR 4366) 3 credits**

Provides theoretical and experiential understanding of the use of group development activities for facilitating individual and group learning.

### **Capstone Seminar on Leadership (LDR 4951) 3 credits**

The goal of this course is to assist students in the integration of their academic study of leadership and their leadership experiences in preparation for their roles as members of the contemporary work force. Students analyze and synthesize the concept of leadership using cultural, ethical, sociological and historical perspectives.

## **Educational Leadership and Research Methodology Graduate Courses**

### **Leadership Foundation**

#### **Leadership 1: Adult Learning and Assessment (ADE 6381) 3 credits**

*Prerequisite: Graduate standing*

This foundational course focuses on the continuous learning that is essential for all individuals in an effective, dynamic educational unit or organization. It emphasizes analysis of oneself and of organizations and groups as learners and provides an opportunity to explore concepts, processes, and barriers in adult learning.

#### **Leadership 2: Theories and Assessment (EDS 6100) 3 credits**

*Prerequisite: Graduate standing*

The study of leadership theories, characteristics, behaviors, and use of instruments that will provide indicators of leadership style with emphasis on the development of skills and abilities essential for effective leadership for different group situations, and applying knowledge and skills in context of a workplace environment.

#### **Leadership 3: Administrative Processes (EDA 6103) 3 credits**

*Prerequisite: Graduate standing*

Explores processes necessary for leadership. Allows practitioners to develop the decision-making, problem-solving, communications, motivation, and conflict management skills for team building, consensus building, and group leadership.

### **Leadership 5: Reframing Educational Organizations (EDA 7106) 3 credits**

*Prerequisite: Graduate standing*

This course focuses on the structural, human resource, political, and symbolic dynamics of organizational life and the skills necessary to develop a learning organization. Provides understanding of: (1) organizational models, (2) use of organizational structures and behavior, and (3) change models and processes.

### **Educational Leadership Foundations (EDA 7196) 3 credits**

*Prerequisite: Permission of instructor*

This course examines the major philosophies of education and contemporary education sociology and education psychology theories that are foundational to educational leadership. Knowledge of these philosophies and theories of applied disciplines in education inform deeper understanding of current issues and problems facing educational leaders (aims of education, methods of education, teaching and learning, the role of educators and educational leaders) and educational leadership policy and practice. Course content includes: the relationship between philosophy and education and the major schools of philosophy; the relationship between sociology and education; the relationship between psychology and education; and the history of how these three disciplines have changed and influenced educational leadership.

### **Advanced Research Seminar in Educational Leadership for School Leaders (EDA 7918) 3 credits**

*Prerequisite: For doctoral candidates or permission of instructor*

This course is limited to Ph.D. students who have reached candidacy. This is an advanced research course that offers supervised research and instruction on dissertation proposal development and scholarly writing. It may be taken more than once and can be counted towards the 20 required dissertation credits or substituted for EDA 7980. *Grading: S/U*

### **Leadership 6: Seminar in Leadership (EDA 7931) 3 credits**

*Prerequisite: Graduate standing*

Focuses on mind-set and process skills used to lead organizations. Provides practitioners with skills to (1) envision the future, (2) develop coherence, (3) build organizational capacity, and (4) continuously improve their organization.

### **Professional Knowledge School Leaders (K-12)**

### **School Improvement (EDA 6062) 3 credits**

This course examines current issues in school reform and effective strategies for change. It develops an understanding of the role of school leaders in improving school programs and performance. The major focus is placed on school organization, curriculum, and assessment, with the aim of establishing a process of continuous school improvement.

### **Leadership for Social Justice (EDA 6191) 3 credits**

Course provides school leadership learning needed for advocating for student voice through awareness and action. Centered on social, political and economic injustices that should be addressed within schools and their populations, it promotes an inclusive environment that is equitable and culturally relevant for schools' students, teachers, staff, parents and communities.

### **School Operations (EDA 6207) 3 credits**

Course focuses on developing and analyzing school organizational systems for effective and continuous improvement. The course covers how the systems are interconnected to support student learning, understanding the impact of other systems, developing systems for communications with school stakeholders and community, and developing a comprehensive plan for improving their school's systems.

### **Law and Policy (EDA 6232) 3 credits**

This course focuses on the practical aspects and applications of constitutional, statutory and case law relating to education, with particular emphasis on Florida and the law and policy implications and processes related to school leadership.

### **Systems and Community (EDA 6300) 3 credits**

This course covers the philosophy, principles, practices, agencies and organizations involved in or influencing school community programs and initiatives, including collaborative efforts to provide for the educational needs of a multicultural community.

### **Education and Philanthropy (EDA 6375) 3 credits**

The study of the integral role that philanthropy and fundraising play in sustaining educational institutions. Practical and theoretical foundations and emerging trends are also covered.

### **Clinical Evaluation (EDA 6507) 3 credits**

This course focuses on developmental skills for instructional coaches and mentors in formative observation, clinical supervision, feedback skills and professional development planning for increased instructional effectiveness with K-12 teacher preparation students.

### **Evaluation and Leadership Theory for Educational Leaders (EDA 6508) 3 credits**

This course studies leadership theories, characteristics, behaviors and the use of instruments that provide indicators of leadership styles, especially those most applicable to teacher leadership. Students apply knowledge and skills with specific emphasis on impacting K-12 students' learning and achievement in the school setting.

### **Internship 1: Fall (EDA 6945) 3 credits**

One of three internship courses, this is also a corequisite requirement for all school leader educational leadership programs leading to level 1 certification. A stand-alone course, it requires six on-campus seminars and 150 hours of logged tasks, during which interns will be involved on the continuum of observing, participating and leading.

### **Internship 2: Spring (EDA 6946) 3 credits**

One of three internship courses, this is also a corequisite requirement for all school leader educational leadership programs leading to level 1 certification. A stand-alone course, it requires six on-campus seminars and 150 hours of logged tasks, during which interns will be involved on the continuum of observing, participating and leading.

### **Internship 3: Summer (EDA 6947) 3 credits**

This course is one of three internship courses that are a corequisite requirement for all school leader educational leadership programs leading to Level 1 certification. A stand-alone course, it requires six on-campus seminars and 150 hours of logged tasks during which interns will be involved on the continuum of observing, participating and leading.

### **The Context of Educational Administration (EDA 7061 ) 3 credits**

*Prerequisite: Educational Leadership majors only*

The purpose of the course is to prepare school leaders to understand the role of administrators in differing organizational, governance, and policy contexts in which leadership is practiced. The course centers on the belief that administrators must understand the context in which they work prior to attempts at leadership.

### **Ethics and Policy Alternatives (EDA 7069) 3 credits**

*Prerequisite: Educational Leadership majors only*

This course provides a reflective (and reflexive) overview of the educational policy-making process at local, state, and national levels, and of the ethical principles that can influence such policy-making.

### **Seminar in School Law (EDA 7235) 3 credits**

*Prerequisites: Educational Leadership majors only and EDA 6232*

A seminar exploring, through the problem method, various legal aspects related to the administration and organization of American education. Individuals will study and research selected topics in depth.

### **Seminar in School Administration (EDA 7930) 3 credits**

*Prerequisite: Educational Leadership majors only*

Discussion of problems in school administration, patterns of curriculum organization, and research projects. Open only to Educational Leadership and Research Methodology Ed.S. and Ed.D. students who have completed the core courses.

### **Instructional Leadership 1: Role of the Leader in Continuous School Improvement (EDS 6050) 3 credits**

*Prerequisite: Educational Leadership majors only*

The focus of this course is on the role of the instructional leader in continuous whole school improvement to meet state and national requirements; to develop objectives for implementing, assessing, and revising a school improvement plan; and to monitor its ongoing progress and the attainment of its goals.

### **Instructional Leadership 2: Role of the Leader in Improvement of Student Learning (EDS 6052) 3 credits**

The focus of this course is on the instructional leader's role in improvement of student learning and meeting students' needs through professional development growth plans, supervision, and evaluation of teachers to improve classroom performance and student learning.

### **Legal Foundations of Special Education (EEX 7520) 3 credits**

[\(See Special Education courses, this section\)](#)

## **Professional Knowledge Adult and Community Educational Leaders**

### **Adult and Community Education in a Changing Society (ADE 5185) 3 credits**

*Prerequisite: Educational Leadership majors only*

An overview of adult and community education: history, philosophical-based scope, processes, and trends. Special emphasis is placed on the role of lifelong learning in a rapidly changing society.

### **Program and Curriculum Development for Adults (ADE 6184) 3 credits**

*Prerequisite: Educational Leadership majors only*

Philosophy, principles, and practices in designing, implementing, and evaluating programs and curricula for adults in a wide variety of settings.

### **Aging Consideration and Programs (ADE 6194) 3 credits**

*Prerequisite: Educational Leadership majors only*

An examination of the issues, concerns, and best practice in the provision of continuing educational opportunities for the older adult.

### **Organization and Administration of Adult and Community Education (ADE 6265) 3 credits**

*Prerequisite: Educational Leadership majors only*

A comprehensive overview of the principles and processes essential for effective management of adult or community education programs. Addresses the state competencies for adult education administrators.

### **Leading Adult and Professional Learning in Schools (ADE 6268) 3 credits**

This course focuses on the continuous professional learning that is essential for all adults in school settings. It emphasizes self-directed learning and self-analysis while analyzing school and instructional teams through the lens of andragogy and constructive developmental theories.

### **Grant Writing and Program Management for Adult and Community Nonprofit Organizations (ADE 6285) 3 credits**

*Prerequisites: ADE 6381 or permission of instructor; graduate standing*

An opportunity to explore the historical and philosophical approaches to grant writing and resource development in adult and community education, nonprofit organizations or other community-serving organizations, as well as the trends that are evolving such as the use of technology, sustainable practices, data management and analysis.

### **Workplace Learning and Development (ADE 6387) 3 credits**

*Prerequisite: Graduate standing*

Course introduces learners to theoretical foundations and practical applications of workplace learning and development in educational, governmental, community, and private organizations. Formal learning and training, informal and self-directed learning, and career development will be considered from the individual, group, and organizational levels from a multidisciplinary perspective.

### **Assessment, Planning and Sustainability with Geospatial Technologies (ADE 6774) 3 credits**

*Prerequisite: Graduate standing*

An overview of evolving geospatial technologies, the impact of developments in geospatial technology on the individual and society and questions regarding how economics, politics, culture and values affect technological development.

### **Sustainability Leadership for ACE Entrepreneurs and Change Agents (ADE 6695) 3 credits**

*Prerequisites: ADE 6381 or permission of instructor; graduate standing*

This course offers a comprehensive overview of the field of sustainability leadership and the best practices of starting and growing successful triple-bottom line (TBL) for-profit/nonprofit ventures as the sustainability leaders serve more people and deliver more of their nonprofit services to wider audiences.

### **Seminar in Adult/Community Education (ADE 6930) 1-5 credits**

*Prerequisites: Permission of instructor and two courses in adult education*

Selected topics in adult education. Students may select any one or a combination of topics for a maximum of 5 credits.

### **Advanced Seminar in Adult/Community Education (ADE 7935) 3 credits**

*Prerequisite: Graduate standing*

Course provides an opportunity for learners to critically and reflectively examine important topic areas, questions, issues or trends in the field, considering diverse perspectives and identifying productive areas of research. Forming a learning community, the group will examine basic source data and then will develop a major project (individual, group or both) related to the topic.

## **Professional Knowledge Higher Education Leaders**

### **Student Development Theory (EDH 6040) 3 credits**

*Prerequisite: Graduate standing*

Focuses on the study of student development theories in higher-education settings. Meaningful connections between theory, practice and research will be emphasized in the context of colleges, universities and proprietary institutions.

### **Student Affairs Leadership (EDH 6045) 3 credits**

*Prerequisite: Educational Leadership majors only*

Course examines student affairs programs in public and private colleges and universities. Topics include services and programs, issues and ethics, and historical and philosophical foundations.

### **Introduction to Higher Education (EDH 6051) 3 credits**

*Prerequisite: Graduate standing*

Course examines key aspects of higher education in the U.S. within four frameworks: academic affairs, student services, administration, and governance/policy issues. Comparative perspectives are also provided. Students become familiar with leading professional resources and associations.

### **International Comparative Higher Education (EDH 6058) 3 credits**

*Prerequisite: Open to post-baccalaureate, master's and doctoral students only*

Course provides a broad survey of international comparative higher education, including a cross-cultural perspective on historical and contemporary issues related to the structure and governance of higher education systems in various world regions and individual countries.

### **History and Philosophy of Higher Education (EDH 6065) 3 credits**

*Prerequisite: Educational Leadership majors only*

A study of the evolution of western higher education and its philosophical basis. Primary emphasis is on the American college and university movements.

### **Social Justice in Higher Education (EDH 6085) 3 credits**

In this course, students explore issues surrounding various social identities, examine epistemologies that attempt to explain the role these identities play in understanding culture in higher education settings and critically analyze previous and existing higher education policy and practice to better understand the influence of culture, identity and social justice in higher education.

### **Community College Curriculum (EDH 6215) 3 credits**

*Prerequisite: Graduate standing*

An examination of the background, development, function, and goals of the curriculum of the community college.

### **Improvement of Instruction in Colleges (EDH 6305) 3 credits**

*Prerequisite: Graduate standing*

A study in purposes, trends, outcomes, and special programs in the curriculum. It considers techniques for identifying, improving, and rewarding good college teaching. Test construction, measurement, and learning theories are studied.

### **Contemporary Issues in Student Affairs (EDH 6367) 3 credits**

*Prerequisite: Baccalaureate degree*

Designed to acquaint students with an overview of the contemporary, critical issues and challenges involved in the administration and management of student affairs. In addition to reading in the field, practical applications to current issues are discussed.

### **Organization and Administration of Higher Education (EDH 6635) 3 credits**

*Prerequisite: Educational Leadership majors only*

Purposes, organization, and administration of institutions of higher education in the U.S., both public and private, are studied.

### **Special Topics in Higher Education (EDH 6931) 3 credits**

*Prerequisite: Graduate standing in Higher Education*

Focuses on various aspects of higher education in public and private universities, colleges, state colleges and independent, proprietary, private religious and technical institutes.

### **Internship/Exchange (EDH 6941) 3-6 credits**

The course requires 75-150 hours of on-the-job experience and 50 hours of preparation. Supervision is provided by the field professional and the university supervisor. Requires advisor signature to enroll.

Grading: S/U

### **Legal Issues in Higher Education (EDH 7405) 3 credits**

*Prerequisite: Educational Leadership majors only*

This course explores, through the problem method, various legal issues related to American higher education and will enable the individual to study and research in-depth selected topics.

### **Higher Education Business and Finance (EDH 7505) 3 credits**

*Prerequisite: Educational Leadership majors only*

An introduction to concepts and practices of administering business and financial operation in colleges and universities.

### **Doctoral Special Topics in Higher Education (EDH 7932) 1-3 credits**

*Prerequisite: Permission of instructor*

This is a special topics course is intended for higher education leadership Ph.D. students. The title of the course and the topics vary and focus on higher education and research at the Ph.D. level.

### **Higher Education Doctoral Seminar (EDH 7935) 3 credits**

*Prerequisite: Higher Education doctoral students only*

Addresses an eclectic array of issues and challenges facing higher education leaders with an emphasis on connections among theories, practices and research.

### **Dissertation Seminar in Higher Education (EDH 7983) 3 credits**

*Prerequisite: Higher Education doctoral candidates only or permission of instructor*

This dissertation seminar is for Higher Education Leadership Ph.D. students who have reached candidacy. This dissertation seminar offers supervised research and instruction on dissertation proposal, data collection, research and writing. This seminar is designed to facilitate the process of conceptualization. Planning, implementing and defending a quality doctoral dissertation. This seminar may be taken more than once and can be counted towards the 20 required dissertation credits or

substitute EDA 7980. *Grading: S/U*

## **Experiential Component**

Students must have the approval of their advisor or course professor prior to enrolling in experiential courses. A record of the experiential activity must be filed in their department folder.

### **Directed Independent Study (EDA 6905) 1-3 credits**

Requires advisor signature to enroll.

### **Administrative Externship 1, 2, or 3 (EDA 6925) 3-6 credits**

Requires advisor signature to enroll. *Grading: S/U*

### **Principal-Internship (EDA 6942) 3 credits**

*Prerequisites: Leadership and Professional Knowledge courses, permission of instructor*

A capstone course that combines seminars using case study methods and reflective practice along with a 100-hour internship either at the student's home school site or other suitable placement.

### **Directed Independent Study (EDA 7905) 1-3 credits**

Requires advisor signature to enroll.

### **Internship (EDA 7940) 3 credits**

### **Field Project 1 (EDA 7943) 3-6 credits**

The field project is a small research project directly related to the student's work and/or interest in educational leadership. The project is to be planned by the student and advisor and may be completed over more than one semester. The field project can include participation in school plant surveys, accreditation visitation, curriculum studies, administrative analysis, and field research. Requires advisor signature to enroll. *Grading: S/U*

### **Field Project 2 (EDA 7944) 3-6 credits**

This course requires 75 hours of on-the-job experience and 25 hours of preparation. Supervision is provided by the field professional and the university supervisor. Requires advisor signature to enroll. *Grading: S/U*

### **Advanced Leadership Externship 1, 2 or 3 (EDA 7948) 3-6 credits**

*Prerequisites: STA 7114, EDA 6415, EDA 7106, graduate standing and permission of instructor*

Students apply leadership theory to practice inquiry methods to study a current, complex problem of practice.

## **Research and Technology Foundation**

### **Special Topics (EDA 5931) 1-5 credits**

Topics not covered by other courses. Topics will vary.

### **Introduction to Qualitative Inquiry (EDA 6415) 3 credits**

*Prerequisite: Graduate standing*

Introduction to qualitative research design, data collection techniques, fieldwork relations, and data analysis.

### **Educational Research (EDA 6931) 3 credits**

A broad-based consumer-oriented research methods course for Educational Specialist students in Educational Leadership and Research Methodology.

### **Master's Thesis (EDA 6971) 3 credits**

Requires advisor signature to enroll.

### **Advanced Qualitative Inquiry (EDA 7416) 3 credits**

*Prerequisite: EDA 6415*

Qualitative research design, theory building, data analysis, and how to write up qualitative research will be studied. Students will design and implement an individually defined study. Requires professor signature to enroll.

### **Introduction to Modes of Inquiry for Educational Leadership (EDA 7421) 3 credits**

*Prerequisite: Permission of instructor*

This course prepares graduate students to think like researchers and to be able to critique and reframe studies using various modes of inquiry and critical lenses. Students explore how the senses, intuition, along with different genres, such as the arts, are modes of inquiry. This course builds upon a foundational knowledge of quantitative and qualitative research methodology. Students have an opportunity to engage with their own research topic through multiple lenses.

### **Advanced Research (Literature Review) (EDA 7912) 3 credits**

*Prerequisite: Qualifying Exams*

An advanced research methods course with emphasis on review of literature for the dissertation proposal. Requires advisor signature to enroll.

### **Seminar: Apprenticeship in Educational Leadership Research (EDA 7935C) 3 credits**

*Prerequisite: Permission of instructor*

Applying concepts to practice, doctoral students develop their individual research agendas in the context of a small learning community of scholars. The course builds upon students' foundation in qualitative and quantitative research methodology together with the educational leadership canon. The seminar is organized to reflect the work and life of a scholar.

### **Seminar in Educational Leadership Research: Contemporary Problems of Practice (EDA 7936C)**

#### **3 credits**

*Prerequisite: Permission of instructor*

In this course, students examine contemporary problems of practice in educational leadership. They explore how problems can be addressed through the research process and with multiple lenses. The seminar provides opportunities for students to apply new skills and knowledge to their own research projects.

### **Seminar: Multiple Frameworks of Educational Leadership Research (EDA 7937C) 3 credits**

*Prerequisite: Permission of instructor*

In this course, students examine critical issues in educational leadership research. Applying concepts of quantitative and/or qualitative research, doctoral students develop their individual research agendas. They explore how critical problems can be addressed through the research process and with multiple lenses. The course builds upon students' foundation in qualitative and quantitative research methodology together with the educational leadership corpus of knowledge. The seminar provides opportunities for students to apply new skills and knowledge to their own research projects.

### **Seminar: Demystifying Complex Research Questions (EDA 7938C) 3 credits**

*Prerequisite: Permission of instructor*

Students address research questions as an integral part of the research process. Doctoral students develop their individual research agendas in the context of a small learning community of scholars and examine problems of practice in educational leadership. The course builds upon students' foundation in qualitative and quantitative inquiry and provides opportunities for students to apply new skills and knowledge to their own research projects.

### **Seminar in Theory, Policy and Practice: Implications for Research in Educational Leadership (EDA 7939C) 3 credits**

*Prerequisite: Permission of instructor*

Applying concepts to practice, doctoral students develop their individual research projects and consider strategies to disseminate new research. Students are guided to write up research findings for scholarly Tier 1 journals, books and practitioner journals. Further, students consider the implications of research findings to their research project, including relevance and policy implications.

### **Dissertation (EDA 7980) 1-15 credits**

*Prerequisite: Permission of instructor*

A minimum of 20 dissertation credits is required. Students must have been admitted to candidacy and have signature of advisor to enroll. *Grading: S/U*

### **Measurement (EDF 6432) 3 credits**

Basic concepts in measurement and statistics and their application to research and the evaluation of classroom learning. Covers important attributes of instruments used in educational situations, with particular emphasis on the selection and development of instruments for the collection of research data.

### **Educational Research (EDF 6481) 3 credits**

*Prerequisite or corequisite: STA 6113*

Provides the student with the skills necessary to locate, interpret, and analyze educational research. Emphasis is placed on the concepts involved in the critical consumption of educational research.

### **Policy and Politics (EDF 6786) 3 credits**

*Prerequisite: Educational Leadership majors only*

This course facilitates school leadership learning concerning the values, governance, legal and political systems that impact the educational process and learning environment. Important elements include professional, ethical and moral leadership; governance structures, school law and policy, advocacy and the interconnection of inclusive systems that impact the decision making that happens in schools.

### **Educational Research: Presentation and Critique (EDF 6931) 2 credits**

*Prerequisite: EDF 6940*

Formal presentation and evaluation of student's completed investigation of a problem in educational research.

### **Educational Research: Implementation and Evaluation (EDF 6940) 3 credits**

*Prerequisites: EDF 6481 and permission of instructor*

Further study of educational research and design. Includes seminars on selected research and student placement in the educational field to implement the student's research proposal.

### **Advanced Educational Research (EDF 7482) 3 credits**

*Prerequisites: EDF 6481, permission of major professor, and approved dissertation topic*

An in-depth analysis of descriptive and experimental research designs that are appropriate for specific educational problems. An original research report will be produced by the student.

### **Digital Literacy for Global Educators (EME 6426) 3 credits**

(See Curriculum and Instruction courses, this section)

### **Educational Statistics (STA 6113) 3 credits**

*Prerequisite: Graduate standing*

Provides the student with a broad knowledge of statistical concepts and techniques necessary for critical consumption of educational research.

### **Advanced Statistics (STA 7114) 3 credits**

*Prerequisite: STA 6113*

Advanced univariate and multivariate statistical techniques used in educational research are covered. Students are expected to gain knowledge and experience in the use of packaged statistical software in data analysis.

## SPECIAL EDUCATION

**Undergraduate Courses** /[link to graduate courses](#)

[Link to Academy for Community Inclusion Courses](#)

### **Responsible Conduct of Research (EDG 4361) 2 credits**

This course offers participants across disciplines the opportunity to develop awareness and competence in promoting ethics, integrity and the responsible conduct of research (RCR). Students gain knowledge and skills necessary for academic, industrial and institutional researchers to ensure federal compliance with requirements outlined by the U.S. Department of Health and Human Services, Office of Research Integrity. *Grading: S/U*

### **Building Classroom Management and Discipline (EDG 4419) 3 credits**

Course provides an overview of strategies and techniques for organizing and managing classroom settings. Strategies and techniques include arrangements for managing students, materials, time, and space. The course is appropriate for both elementary- and secondary-level teachers.

### **Disability and Society (EEX 2091) 3 credits**

This is an introductory course providing life-span perspectives on disability (applicable to both non-education and education majors), analyzing personal, historical, political, economic, and societal perspectives on individuals with disabilities in society. The course provides a general introduction to disability, using a social science framework understood as sociology, geography, psychology,

anthropology, economics, and political science, and their relationships with history and how they work together to help understand the world. This is a General Education course.

**RI: Disability and Society (EEX 2091) 3 credits**

This is an introductory course providing life-span perspectives on disability (applicable to both non-education and education majors), analyzing personal, historical, political, economic, and societal perspectives on individuals with disabilities in society. The course provides a general introduction to disability, using a social science framework understood as sociology, geography, psychology, anthropology, economics, and political science, and their relationships with history and how they work together to help understand the world. This is a General Education and research-intensive (RI) course.

**Typical/Atypical Child Development, Birth to Age Eight (EEX 3201) 3 credits**

In-depth examination of the theories of child development, physical/brain development, social/emotional, cognitive, and creative development of children birth to age eight who are developing typically as well as those with delays and disabilities.

**Assessment of All Young Children (EEX 3226) 3 credits**

*Prerequisites: EDF 3430, EEX 3201 with minimum grades of "C"; B.E.C.E. majors only*

Focuses on assessment of all young children. Includes identification, administration and interpretation of assessment instruments and processes for intellectual, social, physical, emotional, educational and language evaluation.

**Positive Behavioral Supports in Inclusive Early Childhood Settings (EEX 3603) 3 credits**

*Prerequisites: EEX 3226 with minimum grade of "C"; B.E.C.E. majors only*

Focuses on promoting positive behavior and reducing challenging behavior in children with and without disabilities from infancy to grade 3. Methods and materials using research-based, developmentally appropriate practices are covered. Eight hours of field observation are required.

**Building Family, Community and School Partnerships (EEX 3754) 2 credits**

*Prerequisite: B.E.C.E. majors only*

Focuses on the skills necessary to create positive working relationships with families. Different approaches, methods and materials using research-based developmentally appropriate practices are covered.

**Overview of Programs for Students with Exceptionalities (EEX 4050) 3 credits**

*Prerequisite or corequisite: EEX 2091 or equivalent*

An overview course examining issues in providing educational services to individuals with mild/moderate mental retardation, specific learning disabilities, and/or emotional handicaps. Emphasis

will be placed on definitions and concepts, theories of learning, classification, prevalence, etiology, behavioral characteristics, prevention and intervention strategies, multicultural issues, and family involvement. Service delivery systems will be reviewed and current trends discussed. Four lecture hours per week plus 15 clock hours of field-based observation are required.

### **Instructional Practices for Students with Mild Disabilities (EEX 4066) 3 credits**

*Prerequisites: All required Education courses, programmed major; Corequisite: EEX 4843*

A course covering curriculum methods and materials (academic, behavioral, and life skills) used in programs for individuals with mild learning and behavioral disabilities. Topics include instructional models, curricula development for academic, social, and vocational skills, and accommodations.

### **Inclusive Education for General Educators (EEX 4070) 3 credits**

This course offers education majors the opportunity to understand their roles and responsibilities in teaching students with special needs. Students will explore communication skills necessary for effective collaboration among students, parents, and other school professionals. Three lecture hours per week plus 15 clock hours in field-based observation are required.

### **Language and Speech Disorders (EEX 4101) 3 credits**

*Prerequisite or corequisite: EEX 2091 or equivalent*

Language and speech disorders, as well as dialect and language differences, will be studied in relation to physical, mental, and social characteristics of individuals with language and/or speech disorders/differences. The impact of these characteristics on academic and functional skill acquisition is discussed in relationship to implementation strategies. Three lecture hours per week plus 20 clock hours in field-based observation with elementary and secondary students are required.

### **Language Development and Intervention in Young Children (EEX 4112) 3 credits**

*Prerequisites: EEX 3226 and B.E.C.E. majors only*

Topics include oral language development, strategies to facilitate development, and appropriate intervention strategies for young children birth to age eight with and without language delays or disorders. Field experience required.

### **Assessment of Exceptional Individuals (EEX 4221) 3 credits**

*Prerequisites: EEX 2091 or equivalent, EEX 4050, EEX 4101; ESE majors only*

An introductory course in the assessment of exceptional students designed to present guidelines for assessment procedures. Emphasis is placed upon the utilization of test results, informal evaluation, and classroom assessment.

### **Reading Instruction in Special Education (EEX 4250) 3 credits**

*Prerequisites: EEX 2091 or equivalent, EEX 4050, EEX 4101; ESE majors only*

Course focuses on acquisition of knowledge and skills associated with instructing students who experience mild to moderate problems in learning how to become fluent, independent readers. Emphasis on the areas of phonological awareness, word identification, vocabulary, fluency, and reading comprehension. For ESE students in grades K-12.

### **Instructional Practices for Students with Moderate/Severe Disabilities (EEX 4472) 3 credits**

*Prerequisites: EEX 2091 or equivalent, EEX 4050, EEX 4101, EEX 4221; ESE majors only*

*Corequisite: EEX 4601, EEX 4842*

Course covers basic instructional practices for students with moderate to severe disabilities. Topics include identification of the population, service delivery, the roles and responsibilities of families and professionals, ethical considerations for curriculum development, cultural and linguistic considerations, and best instructional practices in inclusive and non-inclusive settings.

### **Behavior Change Strategies (EEX 4601) 3 credits**

*Prerequisites: EEX 4050, EEX 4101, EEX 4221, programmed major*

This course focuses on applied behavior analysis procedures as used in instructional settings. Emphasis is on designing programs for academic, behavior, and social changes.

### **Classroom Management (EEX 4604) 3 credits**

*Prerequisites: All required Education courses, programmed major; Corequisite: EEX 4843*

An overview of strategies and techniques for organizing and managing classroom settings. Strategies and techniques include classroom arrangements for managing students, materials, time, and space. Emphasis is on working with large groups and multiple groups of students with diverse learning, behavioral, linguistic, and cultural characteristics.

### **Classroom Management for Inclusive Elementary Schools (EEX 4616) 3 credits**

*Corequisite: EDG 3324*

This course provides an overview of strategies and techniques for elementary school teachers learning to organize and manage K-5 classroom settings. Emphasis is placed on working with large groups and multiple groups of students with diverse learning, behavioral, linguistic and cultural characteristics.

### **Collaboration with Professionals and Families (EEX 4751) 2 credits**

*Corequisite: EEX 4946*

Course covers strategies to collaborate with parents and family members of students with disabilities and with school and community personnel who work with these students and families.

### **Special Education Technology (EEX 4763) 3 credits**

Students use, design, and apply the principles of Universal Design for Learning for people with a range of disabilities in class and during field experiences. The course culminates in the development of a technology portfolio that includes teacher tools, assistive technology, curricular content adaptations, and alternatives for instructional delivery and assessment. Field activities are part of this course.

**Practicum 1: Students with Moderate/Severe Disabilities (EEX 4842) 1-3 credits**

*Prerequisites: Programmed major and the following courses with a minimum grade of "C:" EEX 2091, EEX 4050, EEX 4101, EEX 4250, EEX 4221*

*Corequisites: EEX 4472, EEX 4601*

In this in-depth supervised field experience, the student spends a minimum of 6-9 hours per week over a 3-day period in an educational setting. *Grading: S/U*

**Professional Development Practicum in Exceptional Student Education (EEX 4840) 3 credits**

*Prerequisite: Permission of department chair*

A field-based experience in which a professional development plan based upon the needs of the individual student and containing objectives with observable, measurable desired outcomes is implemented. *Grading: S/U*

**Practicum 2: Students with Mild Disabilities (EEX 4843) 3 credits**

*Prerequisites: All required Education courses, programmed major; Corequisites: EEX 4066, 4604*

An in-depth supervised field experience. The student will spend a minimum of six-to-nine hours per week over a three-day period in an educational setting. *Grading: S/U*

**Directed Independent Study (EEX 4905) 3 credits**

**Developing Individual Education Programs (EEX 4932) 1 credit**

*Prerequisites: Programmed ESE major; all General Education courses and Student Teaching prerequisites*

*Corequisites: EEX 4946 and EEX 4751*

Addresses the development of Individual Education Programs (IEP) for students with disabilities who are served in the school system. The course is delivered in a three-day seminar prior to the beginning of Student Teaching with a follow-up session later in the semester.

**Honors Seminar in Exceptional Student Education (EEX 4934) 1-2 credits**

*Prerequisites: EEX 2091, 4050, 4101, 4250, 4221 with grades of "C" or better; Honors in ESE students only*

Guides students to integrate and apply knowledge that serves as the foundation for creating, implementing and evaluating interventions that improve the lives of persons with disabilities across

domains, including: employment, independent living, leisure/recreation and social relationships. This seminar is to be taken the first fall semester of the students' senior year in the ESE program.

### **Special Topics (EEX 4937) 1-3 credits**

Topics in Exceptional Student Education not covered by other courses. Topics will vary.

### **Student Teaching: Exceptional Student Education (EEX 4946) 4-9 credits**

*Prerequisites: All required Education courses, programmed major, permission of advisor*

Final field experience involving demonstration of competencies in assessment, strategic and tactical planning, instructional methods, curricula for academic, social, vocational skills development, and collaborative consultation. *Grading: S/U*

### **Out-of-Field Training Program**

(All courses are permission only)

### **Developing Teacher Internship (EEX 4861) 1 credit**

*Prerequisites: 4611, 4223, 4081, 4241, 4613*

*Corequisites: 4102, 4243, 4762, 4753*

A supervised field experience, including data-based instruction, classroom management, and assessment. Teachers are provided formative and summary evaluations throughout the semester. This course has a significant field experience requirement. This course is required to be taken for two consecutive semesters.

### **Academy for Community Inclusion Program**

### **Emergency Preparation (FFP 1801) 2 credits**

Course provides a fundamental understanding of strategies for preparing and planning for emergency situations. Increasing awareness and developing a personal plan for emergency response is central to the course.

### **Health, Fitness for Life (HSC 2100) 2 credits**

[\(See Exercise Science and Health Promotion courses in the College of Science\)](#)

### **Community Citizenship (ISS 1121) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

This course focuses on concepts and approaches for teaching about citizenship and voting including both rights and responsibilities. It emphasizes the rationale for governance, the history of voting and the process of civic participation through voting.

### **Reading for Life (REA 1105) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

In this class, students learn strategies to increase comprehension and vocabulary skills. Readings in the course are based on students' interests fostering the idea of reading beyond school.

### **College Experience (SLS 1102) 2 credits**

Exploration of the numerous opportunities, resources and services available to university students as well as skills to optimize the college experience.

### **Increasing Personal Effectiveness (SLS 1200) 2 credits**

*Prerequisite: ACI students only*

*Corequisites: SLS 1304 and SLS 1570*

This course reviews key strategies for personal growth, analyzes personal strengths and weaknesses, identifies personal goals and motivates the participant toward those goals.

### **Personal Development (SLS 1201) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

This course is focused on the development of self-understanding, overcoming obstacles and communicating strengths and weaknesses.

### **Recreation and Leisure Skills (SLS 1224) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

The course offers the fundamentals of choosing, identifying and registering for or planning for recreation activities. Students engage in recreational activities both on and off campus to fulfill the requirements of this course.

### **Residential Experience (SLS 1250) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

This course provides a discussion of interpersonal relationships and the use of life skills such as proactive communication skills, active listening and response skills and conflict resolution techniques.

### **Social Skills (SLS 1251) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

Course is designed to assist students in developing conversation skills, resolving interpersonal conflict and enhancing interpersonal effectiveness in a variety of settings.

### **Getting Around the Community (SLS 1266) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

This course serves as a guide for students to be able to independently access the community through forms of public transportation as well as to review pedestrian and bike safety rules.

### **Diverse Communities (SLS 1281) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

Course is designed to expand students' awareness of the skills necessary to effectively interact with diverse populations. Emphasizes attitudes and competencies that are important in their lives beyond college as well as their interactions with others.

### **Career Exploration (SLS 1304) 2 credits**

*Prerequisite: ACI students only*

*Corequisites: SLS 1200 and SLS 1570*

Structured for self-directed and individualized career exploration. Includes systematic review of career development and exploration with the use of assessment materials and computer-based career development programs such as YES, Self-Directed Searches and preferential inventories. Includes the information of an individual work portfolio.

### **Professional Career Development (SLS 1305) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

Students develop a personal profile of skills, interests and values in the process of clarifying career goals. The course activities include exploring occupational options and responsibilities, developing a career path and making career-based decisions.

### **World of Work (SLS 1321) 2 credits**

This course is designed to assist the student with personal and professional development for employment with a concentration on developing a positive self-image, career expectations, learning job search techniques and résumé preparation.

### **Employability Skills (SLS 1350) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

Students learn to identify methods to locate, apply for and keep a job.

### **Workplace Relationships (SLS 1354) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

This course provides students the opportunity to study how to build appropriate interpersonal relationships with coworkers, supervisors and customers.

### **Business Technology for Community Living (SLS 1392) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

Course introduces students to the technology utilized in the business world including résumé writing and editing, seeking information through the Internet, Microsoft Office skills and clerical skills.

### **Critical Thinking (SLS 1505) 2 credits**

Course provides problem-solving techniques and helps students learn how to apply critical thinking skills in their daily activities.

### **Learning with Technology 1 (SLS 1570) 2 credits**

*Prerequisite: ACI students only*

*Corequisites: SLS 1200 and SLS 1304*

An introductory course on today's technology basics to include cellphones, tablets and other types of common technology tools to help students become more skilled in their use in college and on the job. Students also learn skills and techniques in using productivity tools and applications.

### **Learning with Technology 2 (SLS 1571) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

Students continue to develop technology skills that support their academic, social and employment activities. The central focus of the course is to develop skills using mobile technology, including cell phones and tablets, especially on the job.

### **Be Safe, Stay Safe (SLS 1601) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

Students learn basic skills that will help them to be safe and stay safe in a variety of settings. Students learn how to identify and avoid common threats to personal safety.

### **Living with Roommates (SLS 1602) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

This course discusses the differences in living situations and explores how to interpret human behavior and how to adjust, share and compromise in multiple residential settings.

### **Community Resources (SLS 1603) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

An overview of how to access community resources that are available in the domains of employment, community access, independent living and recreation/leisure.

### **Personal Finance for Community Living ( SLS 1605 ) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

This course teaches students the personal finance skills they need to succeed in adult life. Topics include, but are not limited to, determining financial goals, budgeting, banking and credit.

### **Service Learning (SLS 1940) 2 credits**

Students participate in a variety of service learning activities both on and off campus. Students have the opportunity to reinforce and refine skills including completing a job application, interviewing and personal presentation.

### **Emotional and Behavioral Control (SLS 2202) 2 credits**

*Prerequisite or Corequisite: SLS 2212*

Students develop self-regulation strategies that fall under executive functioning and effortful control to support their academic, social and employment activities. The central focus of this course is to develop skills using strategies that support students in inhibition, flexibility and conflict resolution, leading students to a successful college career, as well as success in the work environment. This course is open to all FAU students.

### **Self-Monitoring of Performance and Attention (SLS 2212) 2 credits**

Students develop and apply self-monitoring strategies that support their academic, social and employment activities. The central focus of this course is to develop skills using a variety of available resources that will help students monitor and control their attention and behavior, contributing to college and career success. This course is open to all FAU students.

### **Personal Well-Being (SLS 2222) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

This course increases students' understanding of health information. Students learn how to connect with the health care system and become better consumers of health services.

### **Life Planning (SLS 2225) 2 credits**

*Prerequisite: ACI students only*

Students learn to understand the self and gain an opportunity to develop personal goals and steps needed to achieve those goals. Designed to provide opportunities to gain insights into motivators, values, strengths and personality types.

### **Planning and Prioritizing (SLS 2227) 2 credits**

*Prerequisites: SLS 2202 and SLS 2212 with minimum grades of "C"*

Students develop strategies that will support their academic, career-related and social/leisure activities. The central focus of this course is to develop and generalize skills using strategies that will support students in utilizing their working memory, while continuously updating information. This leads to

students becoming more automatic in their planning, preparing and prioritizing skills, putting major emphasis on time management in these three focal areas. This course is open to all FAU students.

### **Professional Portfolio (SLS 2340) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

Course assists in developing a professional career portfolio that helps students document and showcase specific skill area achievements, competencies and career readiness for potential employers. Students demonstrate positive self-presentations to potential employers.

### **Effective Living (SLS 2604) 2 credits**

*Prerequisite: ACI students only*

Students learn how to handle stressful issues that can make life hard. Topics include the mind-body connection, stress management and making healthy life choices. Also the course provides students with a broad base of information to enhance personal decision making.

### **Career Seminar (SLS 2930) 2 credits**

*Prerequisite: SLS 1200 or permission of instructor*

In this course, students learn the necessary details and specifics of their chosen career field so as to enhance their skills and obtain employment. *Grading: S/U*

### **Career Internship (SLS 2943) 2 credits**

*Prerequisite: ACI students only*

An in-depth supervised field experience. Students spend an average of 10 hours per week over a 15-week semester in a job matching their interests. *Grading S/U*

## **Special Education Graduate Courses**

### **Responsible Conduct of Research (EDG 6364) 2 credits**

This course offers participants across disciplines the opportunity to develop awareness and competence in promoting ethics, integrity and the responsible conduct of research (RCR). Students gain knowledge and skills necessary for academic, industrial and institutional research to ensure federal compliance with requirements outlined by the U.S. Department of Health and Human Services, Office of Research Integrity. *Grading: S/U*

### **Managing Inclusive Classrooms: Effective Discipline, Curriculum, and Behavior Strategies (EDG 6408) 3 credits**

Course is designed to prepare educators to meet the needs of all students in diverse, inclusive classrooms. Topics include teaching strategies for academic and behavior problems, effective

discipline, behavioral support, and academic interventions.

### **Survey and Assessment in Early Childhood Education and Early Childhood Special Education (EEX 5015) 3 credits**

Historical, legal, educational, and theoretical rationales for the observation and assessment of young children (birth to age 8). Included will be intellectual, psychosocial, physical, emotional, and educational assessment instruments, procedures, and research implications.

### **Introduction to the Severely and Profoundly Handicapped (EEX 5016) 3 credits**

*Prerequisite: EEX 5051 or permission of instructor*

An overview of concerns related to the severely and profoundly handicapped, including definitions, characteristics, etiological concerns, assessment and programming models, supportive and related services, parent training, and counseling procedures.

### **Atypical Development in Early Childhood Exceptional Student Education (EEX 5017) 3 credits**

This course will provide students with knowledge of theories of typical and atypical child development, with emphasis on stages and sequences of skill acquisition and the impact of disabilities and biomedical risk factors on learning from birth to age 8.

### **Individuals with Disabilities (EEX 5051) 3 credits**

A survey of the various exceptionalities including etiology, incidence, assessment, characteristics, and philosophical and educational implications. Eight hours of observation in special education programs is required.

### **Methods in Early Childhood Special Education (EEX 5245) 3 credits**

*Prerequisite: EEX 5015 or EEX 5017*

A comprehensive course on instructional practices, curriculum and materials to facilitate early development and learning for young children with special needs and children at risk for developmental or learning problems. Course will include best practice in teaching and facilitating learning in natural environments and inclusive settings.

### **Applied Behavior Analysis (EEX 5612) 3 credits**

Theoretical perspectives and practical application of behavior analytic techniques including precision teaching are presented. Also includes classroom organization and consultation skills.

### **Enhancing Collaborations between School, Communities and Families of Students with Special Needs (EEX 5622) 3 credits**

*Prerequisite: EEX 2091 or EEX 5051 or equivalent*

This course emphasizes the collaborative skills for special educators to create and maintain optimal working relationships within families with students with special needs, schools, communities and related stakeholders. Various evidence-based practices or approaches are discussed and applied to various course requirements.

**Family and Community Resources in Early Childhood Special Education (EEX 5755) 3 credits**

Course will focus on family collaboration and support, with emphasis on family systems theory and interaction, community resources, case management and transition for infants, toddlers, and young children with special needs.

**Observation and Participation (EEX 5841) 1 credit**

*Corequisite: EEX 6247*

This course is designed to give graduate students the opportunity to learn how schools and classes provide services to students with disabilities. This course requires a minimum of 30 hours in a field placement. *Grading: S/U*

**Special Topics (EEX 5936) 1-3 credits**

**Seminar in Special Education (EEX 6027) 3 credits**

*Prerequisite: Permission of instructor*

This course should be taken toward the end of the degree program. Critical issues and trends in both categorical and non-categorical areas of special education will be examined through review of current research findings and legal mandates. Students are expected to participate in small group study of topics such as due process, service delivery, and teacher competency.

**Transition Planning for Individuals with Disabilities (EEX 6065) 3 credits**

A comprehensive course covering development and implementation of curricula (social, vocational, academic, and daily living) for individuals with disabilities.

**Nature and Characteristics of Autism Spectrum Disorders (EEX 6095) 3 credits**

Focuses on students with autism spectrum disorders (ASD), including examination of possible etiologies, diagnosis and classification, as well as appropriate curriculum, family involvement and community-referenced behavioral techniques. Requires 20 field experience hours.

**Language and Students with Disabilities (EEX 6121) 3 credits**

Attention is given to the language patterns of several types of exceptional students. Language models, educational strategies, and evaluative instruments are included. The impact of language disorders on academic and functional skills acquisition is highlighted. Eight hours of observation in special

education programs is required.

### **Diagnosis, Assessment and Instructional Decision Making for Students with Autism Spectrum Disorders (EEX 6210) 3 credits**

*Prerequisites: EBD 5246 or EEX 4070 or EEX 5051 or EEX 6095 or equivalent*

A course in the assessment of individuals with autism spectrum disorders (ASD) designed to examine assessment procedures. Emphasis is placed upon the utilization of assessment results for the purpose of instructional decision making.

### **Assessing Students with Disabilities (EEX 6225) 3 credits**

*Prerequisite: EEX 2091 or EEX 5051 or equivalent*

This course describes assessment methods (e.g., instruments, data, procedures) and how they are used and interpreted within multi-tier systems to support and inform instruction of students who are being served in special education and are from cultural, social and economically diverse backgrounds.

### **Program Design in Special Education (EEX 6247) 3 credits**

*Prerequisites: EEX 5612, 6225, 6602; Corequisite: EEX 5841*

A foundational course to help the learner comprehend how assessment, data analysis and instruction are linked in instructional design. This course is paired with a one-credit graduate teaching practicum.

### **Cognitive and Meta-Cognitive Learning Strategies (EEX 6259) 3 credits**

*Prerequisite: EEX 6247 or permission of instructor*

Designed to prepare teachers to develop and use cognitive and meta-cognitive learning strategies (i.e., direct instruction, scaffolding, reciprocal teaching, attribution retraining, and generalization) to promote independent, motivated users of strategies in both academic and social learning.

### **Mathematics Remediation and Interventions for Students with Disabilities (EEX 6290) 3 credits**

*Prerequisite: EEX 6480*

This course emphasizes the approaches to evaluate the gaps and misconceptions students with disabilities have in their understanding of mathematical concepts. Evidence-based instructional practices and interventions are modeled and practiced to address gaps in mathematical conceptual understanding and mastery.

### **Literacy Remediation and Interventions for Students with Disabilities (EEX 6292) 3 credits**

*Prerequisite: EEX 6480*

This fully online asynchronous course addresses principles and practices of evidence-based literacy interventions for students with learning disabilities and other learning needs. Students are able to identify and implement effective interventions in both reading and writing. Topics include theoretical

explanations of reading and writing difficulties, research-based approaches to intervention and procedures for evaluation. This course requires access to a student with a disability to complete the course project.

### **Intervention for Social, Communication, Academic and Functional Skills for Students with Autism Spectrum Disorders (EEX 6298) 3 credits**

*Prerequisites: EBD 5246 or EEX 4070 or EEX 5051 or EEX 6095 or equivalent*

A comprehensive course covering effective instructional practices for teaching social, communication, academic and functional skills to students with autism spectrum disorders (ASD).

### **Program Evaluation of Special Education Programs, Supports and Services (EEX 6320) 3 credits**

*Prerequisite: EEX 2091 or EEX 5051 or equivalent at advisor's discretion*

This course addresses program evaluation for systems, programs and services to enhance the lives of individuals with exceptionalities. The course emphasizes developing a methodology for continuous progress monitoring and improvement of the implementation of evidence-based practices and structures as a part of the process of program proposal development and evaluation.

### **Instructional Design in Special Education (EEX 6480) 3 credits**

*Prerequisite: EEX 2091 or EEX 5051 or equivalent*

This course addresses the methods for special educators to use data and knowledge of general and specialized curricula to improve special education programs for students with exceptionalities using evidence-based practices and effective teaching strategies.

### **Special Education Leadership, Policy and Ethics (EEX 6515) 3 credits**

*Prerequisite: EEX 2091 or EEX 5051 or equivalent at advisor's discretion*

Course is designed to present school professionals with an overview of the special education leadership and policy issues as well as to examine the skills and knowledge required to supervise and lead high quality programs for students with disabilities.

### **Behavior Change and Management Strategies (EEX 6602) 3 credits**

*Prerequisites: EEX 5612 with grade of "B" or higher; enrollment in Exceptional Student Education or a closely related major or permission of instructor*

Specialized behavior-management techniques for use with students who are emotionally handicapped. The course prepares teachers to apply behavior analytic techniques, manage crisis situations and functionally assess problem behaviors. Ethical issues will be considered as will counseling skills for teachers working with disturbed children in schools.

### **Behavior Analytic Teaching (EEX 6609) 3 credits**

*Prerequisite: EEX 5612 with grade of "B" or higher; enrollment in Exceptional Student Education or a closely related major or permission of instructor*

Course presents a behavior analytic framework for teaching and skill development. Course also addresses the scientific research base, rationale, and context for using behavioral teaching.

### **Behavior Assessment and Intervention Selection (EEX 6615) 3 credits**

*Prerequisites: EEX 5612 with grade of "B" or higher; enrollment in Exceptional Student Education or a closely related major or permission of instructor*

This course is an advanced study of behavior assessment, emphasizing functions of problem behavior in school, community, and home settings. Students learn steps and tactics of indirect, descriptive, and analogue assessment (emphasizing experimental assessment in natural settings). Students analyze and interpret data and select intervention strategies based on that analysis.

### **Behavior Analytic Supervision and Management (EEX 6626) 3 credits**

*Prerequisites: EEX 5612, EEX 6602, EEX 6609, EEX 6615, EEX 7618 or permission of instructor*

This course prepares student seeking BCBA certification and special education leadership skills to serve as supervisors for staff disseminating procedures rooted in ABA and related fields. Students learn how to supervise, train, mentor and coach special education professionals and other human service staff based on foundational principles and methods of ABA by working collaboratively with each other and providing constructive feedback. The emphasis is on fostering a work culture that is motivating for all staff while maximizing work performance and minimizing unethical and counter-productive behaviors. Scientific foundations of behavior analysis are integrated in shaping future supervisors as effective trainers, mentors and coaches. Ethical issues are also examined with careful consideration given to supervisory roles across environments and context.

### **Early Intervention Services (EEX 6707) 3 credits**

*Prerequisite: EEX 5015 or 5017, or permission of instructor*

Course provides knowledge and skills to facilitate family-centered early intervention services to infants and toddlers with disabilities or at risk of developing disabilities. These services promote collaboration with families and intervention in natural environments.

### **Ethics in Applied Behavior Analysis (EEX 6747) 3 credits**

*Prerequisites: EEX 5612, EEX 6602, EEX 6609, EEX 6615 and EEX 7618 all with a grade of "B" or higher; enrollment in Exceptional Student Education or closely related major or permission of instructor*

The objective of this course is to enhance understanding of ethical and legal issues behavior analysts face when working in the field. This course also aims to build capacity for correctly implementing

behavior analytic procedures and equipping students with the skills and knowledge needed to become ethically and professionally skilled behavior analysts.

### **Assistive Technology for Educators (EEX 6766) 3 credits**

Theory and application of assistive and adaptive technology and its impact on persons with disabilities and their special and general education teachers.

### **Graduate Teaching Practicum (EEX 6849) 1 credit**

*Prerequisites: EEX 5841, EEX 6247*

*Corequisite: EEX 6480*

This course is an advanced skills practicum for graduates to take before internship but after EEX 5841. In this course students teach students with disabilities and receive feedback on their instruction. This course requires a minimum of 60 hours in a field placement.

### **Graduate Internship in Special Education (EEX 6863) 3-6 credits**

*Prerequisite: Permission of instructor*

Supervised field experience providing students with an opportunity to demonstrate competencies in diagnosis and programming for students in special education. A 6-credit internship is required for students with no previous student teaching and is a full-time internship (i.e., five full days per week in a school). May be repeated for credit.

### **Directed Independent Study (EEX 6905) 1-3 credits**

*Prerequisite: Permission of instructor*

### **Field Project in Special Education (EEX 6942) 3 credits**

*Prerequisite: Permission of instructor*

The field project extends and integrate the student's knowledge and experience. The project involves the demonstration of competencies in selected skills determined by the student's knowledge and interests.

### **Master's Thesis (EEX 6971) 1-3 credits**

### **Contemporary Trends in Special Education (EEX 7025) 3 credits**

*Prerequisite: Admission to the Special Education doctoral program or permission of instructor*

This course provides emerging scholars in special education with opportunities to engage with critical trends in the field. Students are expected to attain expertise in these trends, reflect on them, value them and respond to questions about how these trends shape the future of special education services.

### **Historical, Theoretical and Legal Foundations of Special Education (EX 7026) 3 credits**

*Prerequisite: Admission to the Special Education doctoral program or permission of instructor*

This course examines the historical foundations, theoretical frameworks, legal policies and current trends in special education. This course is designed for students to explore the principles of special education and the impact legislation and past policies have on current special education identification and programming. Students also identify and recognize the basic learning and behavioral characteristics of students with disabilities, including those with learning disabilities, intellectual disabilities, autism and emotional behavioral disorders. The goal of the course is for students to acquire a background of the theoretical and empirical research as a foundation for future investigation.

### **Learning and Behavioral Characteristics of Individuals with Disabilities (EEX 7055) 3 credits**

*Prerequisite: Permission of instructor or admission to ESE Doctoral Program*

A general overview of the theories and characteristics related to all exceptionalities. Focuses on the behavioral and learning characteristics of each disability through the investigation of historical and classic research findings.

### **Doctoral Seminar: Exceptional Student Education (EEX 7341) 3 credits**

*Prerequisites: EEX 7055, EEX 7525, and permission of instructor*

An analysis and synthesis of the theoretical and research issues in special education. Allows student to investigate specialization area in depth, generate research proposal, and helps prepare for the comprehensive exam.

### **Legal Foundations of Special Education (EEX 7525) 3 credits**

*Prerequisite: Permission of instructor or admission to the ESE Doctoral Program*

Exploration of various legal aspects as related to administration, organization, and service delivery models of special education and a study of the ethical and legal principles supporting statutory and judicial activities in special education.

### **Grant Writing (EEX 7526) 3 credits**

*Prerequisite: Admission to a graduate program or permission of instructor*

Course examines the grant writing process involved in obtaining funds in local, national, foundation, corporate, and state funding environments. Students explore funding in the areas of exceptional student education service delivery, research, and personnel preparation. Emphasis on preparing doctoral-level students to develop and write research proposals.

### **Advanced Applied Behavior Analysis (EEX 7618) 3 credits**

*Prerequisite: EEX 5612, EEX 6615, and either EEX 6609 or EEX 6602 all with grades of "B" or higher; enrollment in Exceptional Student Education or a closely related major or permission of*

*instructor*

Course is an advanced study of applied behavior analysis that enlarges and expands on behavior analytic procedures. It emphasizes single-subject research and examines the theory and application of a variety of models of behavior analysis applied to education.

**Cultural and Linguistic Diversity: Issues and Implications in Special Education (EEX 7795) 3 credits**

*Prerequisites: ESE doctoral students or permission of instructor*

This course is designed to examine the critical cultural and linguistic diversity (CLD) issues specific to special education. Issues such as the influence of CLD on prereferral, assessment, placement of CLD students with disabilities, disproportionality, and effective pedagogy for CLD exceptional learners will be examined through a review of current literature.

**Teaching and Learning for Individuals with Disabilities (EEX 7866) 3 credits**

*Prerequisite: Admission to Special Education doctoral program or permission of instructor*

This course provides doctoral students with an in-depth study into teaching and learning for individuals with disabilities. Students are introduced to the teaching and learning process for individuals with disabilities through content (e.g., math, science), populations (i.e., 14 disability categories as described in the Individuals with Disabilities Education Act), learning theory and contexts where teaching and learning take place. The course also provides an overview of large-scale implementation of teaching and learning processes for individuals with disabilities within systems (e.g., classrooms, schools and school districts).

**Directed Independent Study (EEX 7906) 1-5 credits**

*Prerequisite: Permission of instructor*

**Pre-Candidacy Research in Special Education (EEX 7918) 1-6 credits**

*Prerequisite: Permission of instructor*

Pre-candidacy research is an individually designed research experience, meant to engage doctoral students in an active, field-based study. The course requires the design and implementation of a preliminary research project (e.g., pilot or small-scale study) directly related to the student's scholarly interest in ESE. The study is to be planned by the student and a faculty member and may be repeated for credit. An original research report will be produced by the student. *Grading: S/U*

**Seminar in Exceptional Student Education Leadership (EEX 7938) 1 credit**

*Prerequisite: Admission into ESE doctoral program*

Course provides doctoral students with an overview of the roles, responsibilities, and expectations of

doctoral leadership graduates. Each seminar includes directed study in a number of topics relating to professional practices in higher education and other leadership positions. Students enroll in this professional seminar for six semesters, earning 1 credit each semester.

### **Doctoral Internship in Special Education (EEX 7945) 3 credits**

*Prerequisites: Admission to doctoral program in Special Education or permission of instructor*

The course is designed to help doctoral students gain experience in preparing, delivering and teaching an undergraduate course. Students work under the supervision of a faculty mentor, who will co-teach an undergraduate course in special education. *Grading: S/U*

### **Dissertation (EEX 7980) 1-10 credits**

*Grading: S/U*

### **Doctoral Residency in Special Education (EEX 7982) 3 credits**

*Prerequisite: Admission to doctoral program in Special Education or permission of instructor*

Students work under the supervision of a faculty mentor to further the college teaching experience or engage in a research apprenticeship. *Grading: S/U*

### **Educating Special Populations of Gifted Learners (EGI 5246) 3 credits**

An in-depth study of diverse populations of gifted learners including gifted students with disabilities, gifted students from minority groups, gifted females, and young gifted children.

### **Theories and Characteristics of Gifted Learners (EGI 5302) 3 credits**

The theories, characteristics, definitions, and identification procedures for the gifted. Field observations are included.

### **Theory and Development of Creativity (EGI 5305) 3 credits**

An in-depth study of creativity, the creative process, the role of creativity in the classroom, and how it can be measured.

### **Designing Programs for Gifted Learners (EGI 6235) 3 credits**

*Prerequisite or corequisite: EGI 5302 or EGI 5246*

An in-depth study of methods and programming procedures utilized in gifted education.

### **Guidance and Counseling of Gifted Students (SDS 6426) 3 credits**

[\(See Counselor Education courses, this section\)](#)

[Link to College of Education Programs](#)





# UNIVERSITY CATALOG

## SUB MENU



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### GENERAL INFORMATION

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# CIVIL, ENVIRONMENTAL AND GEOMATICS ENGINEERING

**Undergraduate Courses** / [Link to Graduate Courses](#)

## **RI: Construction Project Management (CCE 4031) 3 credits**

*Prerequisites: Senior standing and permission of department*

Topics covered include planning, design, document preparation, bidding, bid tabulation, construction management, cost estimating, conflict resolution, and scheduling of engineering projects. This is a research-intensive (RI) course and an Academic Service Learning (ASL) course.

**Introduction to Laser Mapping Technology (CCE 4514C) 3 credits** Terrestrial laser mapping technology, current state of the technology, data collection methodologies and requirements, data processing, calibration, errors, database management, filtering techniques, product generation and applications. Lab included.

## **Soil Mechanics (CEG 3011C) 3 credits**

*Prerequisite: EGN 3331 with minimum grade of "C"*

Soil properties, identification and classification of earth materials, stress-strain behavior of soils, movement of water through soils. Introduction to geotechnical design. Laboratory included.

## **Foundation Engineering (CEG 4012) 3 credits**

*Prerequisite: CEG 3011C with minimum grade of "C"*

Fundamental concepts of foundation engineering. Geotechnical engineering theory applied to practical foundation design problems.

## **Ground Improvement Design (CEG 4122) 3 credits**

*Prerequisite: CEG 3011C with minimum grade of "C"*

Physical and mechanical properties of soil; ground improvement techniques and classifications; chemical and mechanical stabilization; ground improvement design concepts and procedures; design of reinforced soils; designing with geosynthetics; foundations and pavement applications.

## **Pavement Design (CEG 4126) 3 credits**

*Prerequisite: CEG 3011C with minimum grade of "C"*

Introduction to analysis of stress, strain, and deflection in flexible and rigid pavements, materials characterization, traffic analysis, AASHTO and mechanistic design, non-destructive design, and pavement rehabilitation.

## **Analysis of Structures (CES 3102C) 3 credits**

*Prerequisite: EGN 3331 with minimum grade of "C"*

Analysis of statically determinate structures, force and displacement methods of analysis of statically indeterminate structures, and matrix method of analysis of large scale structures.

### **Structural Damage Detection (CES 4160) 3 credits**

*Prerequisite: CES 3102C with minimum grade of "C"*

Introduction to structural health monitoring, damage detection sensing technology, signal processing, machine learning and optimization. Students learn about sensor-embedded structural maintenance systems and how to visualize and process sensor data of structures.

### **Structural Design of Buildings (CES 4225) 3 credits**

*Prerequisite: CES 3102C with minimum grade of "C"*

Course covers the fundamental concepts to determine the wind and seismic forces used in the design of buildings. Using the provisions of ASCE 7, wind and seismic force magnitudes, distributions and direction are determined for typical buildings. Wind forces are studied for the MWFRS and for the Components and Cladding. Dynamic analysis of SDOF and MDOF building models are studied. Load transfer through the diaphragm to the lateral force resisting system is studied to determine member forces, drift and torsion.

### **Nonlinear Behavior of Structures (CES 4526) 3 credits**

*Prerequisite: CES 3102C with minimum grade of "C"*

Course provides an introduction to the fundamental concepts used to analyze the nonlinear behavior of structures under static loading conditions. Displacements, member forces and collapse conditions are studied considering equilibrium in the deformed configuration and linear-elastic, perfectly plastic material behavior. Assignments require the development of computer programs written in MATLAB (or Excel) and their solutions verified using the nonlinear modeling capabilities of MASTAN2.

### **Structural Steel Design (CES 4605) 3 credits**

*Prerequisite: CES 3102C with minimum grade of "C"*

AISC specifications for loads and methods of design; design of tension and compression members; design of beams, floor systems bearing plates, column base plates, beam-columns; interaction formulae, moment amplification; simple connections: bolted shear connections, high strength bolts in tension, combined shear and tension fasteners, welded connections.

### **Reinforced Concrete Design (CES 4702) 3 credits**

*Prerequisite: CES 3102C with minimum grade of "C"*

Behavior of reinforced concrete structural elements, concepts of design and proportioning sections for strength and serviceability; background of ACI 318 specification requirements; strength design of

beams, columns, and members under combined axial load and bending; design of footings; introduction to prestressed concrete.

### **Prestressed Concrete Design (CES 4711) 3 credits**

*Prerequisite: CES 4702 with minimum grade of "C"*

Behavior of prestressed concrete structural elements, analysis and design of pre-tensioned and post-tensioned concrete structural members; design for flexure and shear. Anchorage design, partial prestressing, serviceability and structural efficiency of beams, slabs.

### **Computer Aided Design (CGN 2327) 3 credits**

Fundamentals of graphical and spatial analysis; graphics and drafting principles; computer-aided drafting; 2D and 3D visualization, modeling, and construction; engineering applications.

### **Civil Engineering Materials (CGN 3501C) 3 credits**

*Prerequisite: EGN 3331 with minimum grade of "C"*

Aggregates; concrete and other cementitious materials, properties of concrete, mix proportioning; wood and wood products, durability, mechanical properties and allowable values; iron and steel; bituminous materials and mixtures; soils; fiber composites. Laboratory and field trip included.

### **Undergraduate Research in Civil Engineering 1 (CGN 3910) 1 credit**

*Prerequisites: EGN 3331 with minimum grade of "C" and permission of department*

Introduction to research exposure and skill building focused on the scientific process and nature of discovery. Students define research topics, formulate research questions, develop research proposals, prepare experimental plans and develop research communication skills.

### **Special Topics in Civil Engineering (CGN 3930) 1-4 credits**

*Prerequisite: Permission of department*

Topics in civil engineering not covered by other courses.

### **GIS for Civil Engineering Applications (CGN 4321) 3 credits**

*Prerequisite: Permission of instructor*

Presents a comprehensive view of spatial analysis tools with an emphasis on Geographical Information System (GIS) methodology and its application for civil engineering problems.

### **RI: Data-Driven Civil Infrastructure (CGN 4344) 3 credits**

*Prerequisite: EGN 2213 with minimum grade of "C"*

This course covers data-driven infrastructure design, sensor-data analytical approaches and technological applications with civil infrastructure management and planning for smart cities.

Throughout this course, students are expected to learn how to ethically analyze real-world datasets collected from civil infrastructures and have access to various time-series data and spatiotemporal data (e.g., vibration data, temperature, images, trajectories). This is a research-intensive (RI) course.

**RI: Civil, Environmental and Geomatics Engineering Design 1 (CGN 4803C) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: CEG 3011C, CES 3102C, CGN 3501C, CWR 3201C, ENV 3001C, SUR 4463 and TTE 3004C, all with minimum grades of "C," GPA greater than 2.0, and permission of department*

*Corequisite: Registration with the NCEES for the Fundamentals of Engineering Exam or Fundamentals of Surveying Exam*

Multidisciplinary design teams are formed for senior capstone design projects with multiple realistic constraints. Projects are developed with the approval of a sponsor/client. Professional practice issues are also presented and discussed. Laboratory included. This is a research-intensive (RI) course and an Academic Service Learning (ASL) course.

**RI: Civil, Environmental and Geomatics Engineering Design 2 (CGN 4804C) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: CGN 4803C and a Structural Design restricted elective, both with minimum grades of "C," GPA greater than 2.0, permission of department*

*Prerequisites or Corequisites: Geotechnical design restricted elective, Transportation design restricted elective and Water Resources design restricted elective*

Continuation of CGN 4803C. Multidisciplinary team design projects with multiple realistic constraints culminate with written and oral reports. Design and professional practice issues are also presented and discussed. Laboratory included. This is a research-intensive (RI) course and an Academic Service Learning (ASL) course.

**Directed Independent Study in Civil Engineering (CGN 4905) 1-3 credits**

*Prerequisite: Permission of department*

Study of topics in civil engineering relating to the special needs and interests of individual students.

**Undergraduate Research in Civil Engineering 2 (CGN 4911) 1 credit**

*Prerequisites: CGN 3910 with minimum grade of "C," and permission of department*

Faculty-student mentored research projects including design, literature review, testing, analysis and conclusions.

**Special Topics in Civil Engineering (CGN 4930) 1-4 credits**

*Prerequisite: Permission of instructor*

Topics in civil engineering not covered by other courses.

### **Applied Hydraulics (CWR 3201C) 3 credits**

*Prerequisites: EGN 3311 and (MAP 2302 or MAP 3305) with minimum grades of "C"*

Fundamental properties of incompressible fluids; hydrostatics and fluid motion in closed conduits and open channels; potential flow; boundary layers; preliminary design of hydraulic structures. Laboratory included.

### **Hydrologic Engineering (CWR 4202) 3 credits**

*Prerequisite: CWR 3201C with minimum grade of "C"*

Fundamental components of the hydrologic cycles, rainfall-runoff processes, evaporation, infiltration and groundwater flow water budgets, introduction to water resources system engineering analysis, hydrologic modeling using simulation and spatial analysis tools.

### **Stormwater Modeling and Management (CWR 4307) 3 credits**

*Prerequisite: Hydrology course or permission of instructor*

Presents a comprehensive view of stormwater modeling and management with an emphasis on current modeling techniques and design practices. Provides an in-depth review of fundamentals of hydraulics and hydrology along with spatial analysis tools required for effective stormwater modeling and management.

### **Statics (EGN 3311) 3 credits**

[\(See Interdisciplinary courses, this section\)](#)

### **Strength of Materials (EGN 3331) 3 credits**

[\(See Interdisciplinary courses, this section\)](#)

### **Fundamentals of Energy Engineering (EGN 4732) 3 credits**

*Prerequisite: PHY 2048 with minimum grade of "C"*

This course provides an overview of renewable energy technology and outlines the basic principles of solar electricity, solar water heating, wind power, marine renewable energy, micro-hydro biomass, and heat pumps and their application in urban and rural environments. In addition, the fundamentals of conventional power generation (fossil fuel, nuclear, etc.) are discussed.

### **Environmental Science and Engineering (ENV 3001 C ) 3 credits**

*Prerequisites: CHM 2045 and CHM 2045L or equivalents with minimum grades of "C"*

Physical, chemical, and microbiological components of environmental systems in science and engineering. Introduction to water quality management, air pollution control, solid waste management, pollution prevention techniques, and risk analysis.

**RI: Environmental Fate and Transport (ENV 4053) 3 credits**

*Prerequisites: ENV 3001C, CHM 2046 and CHM 2046L all with minimum grades of "C"*

This course introduces students to the study of the major physical, chemical and biological processes of pollutant transformation and transport between air, water and the subsurface. This is a research-intensive (RI) course.

**Introduction to Pollution Prevention and Sustainability (ENV 4072) 3 credits**

*Prerequisites: PHY 2048 with minimum grade of "C" and permission of department*

This course introduces students to the principles of sustainability, life cycle cost analysis, pollution prevention, environmental impacts of engineering and infrastructure planning and design.

**Air Pollution and Control Systems (ENV 4112) 3 credits**

*Prerequisites: ENV 3001C and CWR 3201C with minimum grades of "C;" permission of department*

*Corequisite: ENV 4112L*

This course introduces students to the regulations dealing with air quality, basic meteorology, the physics at atmospheric dispersion, indoor air quality and design of air pollution control systems.

**Air Pollution Lab (ENV 4112L) 1 credit**

*Prerequisites: ENV 3001C and CWR 3201C with minimum grades of "C;" permission of department*

*Corequisite: ENV 4112*

Practical laboratory work in air sampling and analysis, source testing, instrumentation, criteria air pollutants and dispersion modeling.

**RI: Solid and Hazardous Waste and Site Remediation (ENV 4341) 3 credits**

*Prerequisites: ENV 3001C with minimum grade of "C" and permission of department*

Topics include regulations, collection and design of solid/hazardous waste management facilities, hazardous waste treatment, and site remediation design. This is a research-intensive (RI) course and an Academic Service Learning (ASL) course.

**RI: Water and Wastewater Treatment Systems (ENV 4514) 3 credits**

*Prerequisites: CWR 3201C and ENV 3001C with minimum grades of "C"*

Principles and design of physical, chemical, and biological treatment systems for potable water and wastewater applications. This is a research-intensive (RI) course.

**Special Topics in Environmental Engineering (ENV 4930) 1-4 credits**

Topics in environmental engineering of interest to engineering students.

**RI: Engineering Technology Capstone (ETG 4951) 3 credits**

### *Writing Across Curriculum (Gordon Rule)*

*Prerequisites: SUR 4463 and SUR 3463L with minimum grades of "C", senior standing, GPA greater than 2.0, and permission of department*

*Corequisite: Proof of registration with the NCEES for the FS exam*

Design teams are formed for senior capstone design projects with multiple realistic constraints. Projects are developed with the approval of a sponsor or client. Professional practice issues are also presented and discussed. Laboratory included, This is a Research-Intensive (RI) course and an Academic Service Learning (ASL) course.

### **Introduction to Geomatics Engineering (SUR 2034) 3 credits**

An introduction to the fundamental concepts of geomatics engineering philosophical thought; the technical, professional, ethical, and social responsibilities of the geomatics engineer; geomatics engineering professional and career opportunities; professional ethics and safety.

### **Geomatics ( SUR 3103 ) 2 credits**

*Prerequisites: MAC 1147 or MAC 2210, or both MAC 1140 and MAC 1114, or MAC 2311 with a minimum grade of "C"*

*Corequisite: SUR 3103L*

Theory and application of methods used in geospatial data acquisition, such as distance, direction and angle measurements, traverse computation, trigonometric leveling and height determination, topographic surveying, horizontal/vertical curves, terrestrial positioning with GPS.

### **Geomatics Lab (SUR 3103L) 1 credit**

*Prerequisites: MAC 1147 or MAC 2210, or both MAC 1140 and MAC 1114, or MAC 2311 with a minimum grade of "C"*

*Corequisite: SUR 3103*

Theory and application of methods used in geospatial data acquisition, such as distance, direction and angle measurements, traverse computation, trigonometric leveling and height determination, topographic surveying, horizontal/vertical curves, terrestrial positioning with GPS.

### **Automated Surveying and Mapping (SUR 3141) 2 credits**

*Prerequisites: SUR 3103 and SUR 3103L with minimum grades of "C"*

*Corequisite: SUR 3141L*

Use of computer-aided drafting and mapping from surveyed field data, familiarization with hardware and software available for surveying and mapping computations and drafting, data storage and output from automated devices used in surveying, use of total stations and electronic field data collection systems, field-to-finish products.

### **Automated Surveying and Mapping Lab (SUR 3141L) 1 credit**

*Prerequisites: SUR 3103 and SUR 3103L with minimum grades of "C"*

*Corequisite: SUR 3141*

Use of computer-aided drafting and mapping from surveyed field data, familiarization with hardware and software available for surveying and mapping computations and drafting, data storage and output from automated devices used in surveying, use of total stations and electronic field data collection systems, field-to-finish products.

### **Engineering and Construction Surveying (SUR 3205) 2 credits**

*Prerequisites: SUR 3141 and SUR 3141L with minimum grades of "C;" Corequisite SUR 3205L*

Surveying applications for engineering, construction, and transportation work. Route surveying and geometric design; topographic site surveys and mapping; earthwork computations.

### **Engineering and Construction Surveying Laboratory (SUR 3205L) 1 credit**

*Prerequisites: SUR 3141 and SUR 3141L with minimum grades of "C;" Corequisite: SUR 3205*

Surveying applications for engineering, construction, and transportation work. Route surveying and geometric design; topographic site surveys and mapping; earthwork computations.

### **Land Subdivision and Platting Lab (SUR 3463L) 1 credit**

*Prerequisites: EGN 1002 and MAC 2311 and CGN 2327, all with minimum grades of "C"*

*Corequisite: SUR 4463*

Physical elements of designing land subdivisions, including circulation systems, sewer systems, drainage systems, soils and earthwork grading considerations, erosion control, lot and block arrangement, topography and existing land use factors, geometric analysis procedures, presentations to city planning and zoning boards.

### **Measurement Theory and Data Adjustments (SUR 3520) 3 credits**

*Prerequisites: SUR 3103, SUR 3103L, MAC 2311 and introductory course in statistics, all with minimum grades of "C"*

Applications of mathematics in surveying; measurement theory, analysis of measurements, computation and adjustment of spatial data. Emphasis on computer applications for adjustments and analysis.

### **Special Topics in Geomatics Engineering (SUR 3930) 3 credits**

Selected topics in Geomatics Engineering.

### **Digital Photogrammetry Principles and Applications (SUR 4331C) 3 credits**

*Prerequisites: SUR 3103 and SUR 3103L with minimum grades of "C"*

Use of aerial photographs for mapping, geometry of single photo and stereographic models, scale and relief displacement, vertical and titled photos, parallax, photo mosaics, ground control, stereoplotters, resection, orthophotos, oblique photos. This course also provides an overview of digital photogrammetric principles and its applications in low altitude and close range mapping. Lab exercises are included in the course.

### **Thermal Infrared Remote Sensing and Applications (SUR 4384) 3 credits**

Methods and applications of thermal infrared remote sensing, temperature information with an appropriate spatial and temporal coverage at local and regional scales, use of thermal infrared thermometer and thermal camera technologies.

### **Cadastral Principles and Legal Aspects (SUR 4403) 3 credits**

*Prerequisites: SUR 3141 and SUR 3141L with minimum grades of "C"*

Cadastral systems, legal principles of property boundary retracement, land descriptions, parcel identification, rights-of-way and legal descriptions of real property. Ethical and legal aspects of practice, surveyor as expert witness, surveyor-client relationship, responsibilities to the profession.

### **Subdivision Design (SUR 4463) 2 credits**

*Prerequisites: EGN 1002 and (CGN 2327 or EGN 1111C), all with minimum grades of "C"*

Physical elements of planning subdivision layouts, including circulation, water/sewer, drainage, earthwork grading, erosion control, topography and existing land use factors, geometric analysis procedures, plan/profile views of neighborhood infrastructure, zoning restrictions, easements and setbacks.

### **RI: Foundations of Unmanned Aerial Systems (UAS) Mapping (SUR 4503C) 3 credits**

*Prerequisite: Permission of instructor*

Course covers the fundamental components of small unmanned aerial systems (sUAS) and how they are used to produce high resolution, spatially accurate planimetric maps and 3-D models of the terrain. This is a research-intensive (RI) course.

### **Geodesy and Geodetic Positioning (SUR 4530 ) 2 credits**

*Prerequisites: SUR 3141, SUR 3141L with minimum grades of "C"*

*Corequisite: SUR 4530L*

Concepts of geodesy, ellipsoidal geometry, geodetic coordinates, gravity, datums, satellite orbits and practical applications of GPS data collection, post-processing and adjusting networks.

### **Geodesy and Geodetic: Positioning Lab (SUR 4530L) 1 credit**

*Prerequisites: SUR 3141, SUR 3141L with minimum grades of "C"*

*Corequisite: SUR 4530*

Concepts of geodesy, ellipsoidal geometry, geodetic coordinates, gravity, datums, satellite orbits, and practical applications of GPS data collection, post-processing and adjusting networks. Lab is coordinate with lecture.

### **Directed Independent Study in Geomatics Engineering (SUR 4905) 1-3 credits**

*Prerequisite: Permission of department*

Study of topics in geomatics engineering relating to the special needs and interests of individual students.

### **Special Topics in Geomatics Engineering (SUR 4930) 3 credits**

Selected topics in Geomatics Engineering.

### **Introduction to Transportation Engineering (TTE 3004C) 3 credits**

*Prerequisite: EGN 1002 with minimum grade of "C" or permission of instructor*

Introduction to transportation engineering, including planning, permitting, and environmental considerations; design calculations; capacity analysis and simulation; presentation skills necessary for the proper development of transportation improvements.

### **Transportation Planning and Logistics (TTE 4005C) 3 credits**

*Prerequisite: TTE 3004C with minimum grade of "C"*

Fundamental concepts for multimodal transportation engineering, planning, and systems analysis. Topics include transportation demand and supply system simulations, impact estimation, linear and integer programming, and the evaluation of competing transportation alternatives.

### **Transportation Operations and Logistics Management (TTE 4105) 3 credits**

*Prerequisite: TTE 3004C or URP 3000 with minimum grade of "C" or permission of instructor*

Provides multimodal solutions that relieve congestion, optimize infrastructure investments, promote travel options and reduce greenhouse gas emissions. Modeling of complex interactions and causal relationships among current issues. Topics include transportation modes and technologies, vehicle dynamics, basic facility design, capacity analysis, transportation planning, evaluation and choice, network analysis, logistics and ITS. Additional topics include transportation risk assessment and computation, evacuation modeling, reliability analysis, infrastructure interdependency analysis and network impact assessment.

### **Highway Engineering (TTE 4810) 3 credits**

*Prerequisite: TTE 3004C with minimum grade of "C"*

Course covers planning, design and operation of highway geometric design, modern methods for traffic control, traffic flow capacity, highway location and design, highway engineering economics, traffic measurement devices and technologies; signal systems, corridor control, automatic driver information; incident detection; and autonomous vehicle operation.

## **Civil, Environmental and Geomatics Engineering Graduate Courses**

### **Civil Engineering Project Management (CCE 5036) 3 credits**

This is a course in which planning, design, document preparation, bidding, big tabulation, construction management, cost estimation, conflict resolution and scheduling for civil engineering projects are covered.\

### **Advanced Foundation Engineering (CEG 6105) 3 credits**

Rigid and flexible earth retaining structures; shallow and deep foundations; laterally loaded piles; sheet-pile walls, braced excavations, cellular cofferdams, and buried culverts; consolidation settlement, stress distribution, elastic settlement, load bearing capacity; seepage and dewatering of foundation excavations.

### **Soil Stabilization and Geosynthetics (CEG 6124) 3 credits**

Soil chemistry, mineralogy, and properties; techniques of soil reinforcement, soil improvement, and soil treatment; chemical stabilization; mechanical stabilization; designing with geosynthetics; foundations and pavement applications.

### **Pavement Analysis and Design (CEG 6129) 3 credits**

Stresses and strains in flexible and rigid pavements, materials characterization, pavement performance, mechanistic design principles, AASHTO design method, pavement rehabilitation.

### **Terrestrial Laser Scanning (CEG 6304C ) 3 credits**

This course gives an introduction to applications of terrestrial laser scanning systems in geosciences, engineering, urban planning, forestry, architecture, emergency planning and forensics.

### **Structural Health Monitoring (CES 5164) 3 credits**

*Prerequisite: CES 3102C with minimum grade of "C"*

This course explores the theory and applications of structural health monitoring, which is a new technology to diagnose the state of structural conditions based on sensor data and novel data analytics approaches. This course covers various important topics, including sensing technology, signal processing, machine learning and optimization. Students are expected to gain a deep understanding of sensor-embedded structural maintenance systems and to learn how visualize and process sensor data.

**Nonlinear Behavior of Structures (CES 5527) 3 credits**

This course provides an introduction to the fundamental concepts used to analyze the nonlinear behavior of structures under static loading conditions. Displacements, member forces and collapse conditions are studied considering equilibrium in the deformed configuration and linear-elastic, perfectly plastic material behavior. Assignments require the development of computer programs written in MATLAB (or Excel) and their solutions verified using nonlinear modeling capabilities of MASTAN2.

**Advanced Building Design (CES 5583) 3 credits**

*Prerequisite: CES 3102C*

This course covers the fundamental concepts to determine the wind and seismic forces used in the design of buildings. Using the provisions of ASCE 7, wind and seismic force magnitudes, distributions and direction are determined for typical buildings. Wind forces are studied for the MWFRS and for components and cladding. Dynamic analysis of SDOF and MDOF building models are studied. Load transfer through the diaphragm to the lateral force resisting system is studied to determine member forces, drift and torsion.

**Advanced Structural Analysis (CES 6106) 3 credits**

Review of matrix-force and displacement methods and their applications to civil structures.

**Finite Element Methods in Civil Engineering (CES 6119) 3 credits**

Variational principles, weighted residual methods, convergence criteria, shape functions for one-, two-, and three-dimensional elements, isoparametric elements, and applications to structural and geotechnical engineering

**Bridge Design (CES 6325) 3 credits**

Planning, design, and construction of bridges. Discussion of bridge types and factors affecting the selection of type: concrete versus steel, prestressed, composite, segmental concrete bridges; design issues and techniques; detailed case study of a particular bridge; recent technological developments in bridge engineering.

**Structural Dynamics (CES 6585) 3 credits**

Response of lumped parameter systems to dynamic loading: formulation and solution of problems of one or more degrees of freedom for discrete systems, modal analysis, numerical integration, and transform techniques. Response of continuous systems. Introduction to earthquake engineering: response spectra, energy absorption capacity of structures, estimation of damping, seismic design, seismic codes, and soil-structure interaction. Wind effects on structures and hurricane-resistant design.

Blast-resistant design. Approximate design methods.

### **Advanced Steel Structures (CES 6607) 3 credits**

Review of basic steel design; beam columns; interaction formulas; first-order and second-order moments; eccentric bolted and welded connections; moment resisting connections; composite construction; effective flange width; shear connectors; composite beams with formed steel deck; plate girder proportions; AISC requirements; flexure-shear interaction.

### **Advanced Reinforced Concrete (CES 6706) 3 credits**

Analysis and design of two-way slabs, floor systems, deep beams, shear walls and footings. Limit state, yield line and deflection analysis. Continuity, tall buildings, seismic, and hurricane-resistant design. Torsion.

### **Prestressed Concrete (CES 6715) 3 credits**

Behavior, analysis and design of pretensioned and post-tensioned concrete structures. Flexural, shear, bond and anchorage zone design. Partial prestressing strength, serviceability and structural efficiency of beams, slabs, tension and compression members. Frameworks and bridges.

### **Design and Analysis for Engineering Data (CGN 5716) 3 credits**

*Prerequisites: Basic course in statistics or permission of instructor*

Course covers development of hypothesis and thesis-driven data analysis via applications of the basic principles of experimental design to analysis of engineering data, computational algorithms for sample size optimization, analysis of variance for experiments with a single factor, multi-variate analysis.

### **Special Topics in Civil Engineering (CGN 5935) 3 credits**

*Prerequisite: Permission of instructor*

Study relating to specialized topics associated with civil engineering.

### **Graduate Seminar (CGN 5937) 0 credit**

*Prerequisite: Graduate standing*

The objective is to encourage and enhance graduate student participation in technical seminars or presentations deemed appropriate by the department for graduate students. This course requires participation of graduate students in a minimum of five technical seminars or presentations in one semester. *Grading: S/U*

### **Infrastructure Maintenance and Management (CGN 6616) 3 credits**

The course involves evaluating infrastructure systems (water, sewer, stormwater, roads, bridges, rail, power) to identify concepts on repair, replacement and maintenance, including dollars to spend on

same.

### **Directed Independent Study (CGN 6905) 1-3 credits**

*Prerequisite: Permission of instructor*

Study of topics in civil engineering relating to the special needs and interests of individual students.

### **Special Topics (CGN 6930) 1-3 credits**

*Prerequisite: Permission of instructor*

Topics in civil engineering.

### **Master's Thesis (CGN 6971) 1-10 credits**

### **Advanced Research (CGN 7978) 1-9 credits**

*Prerequisite: Permission of department*

Course covers research that is relevant to the student's course of study in the Ph.D. program. This course requires oversight by the student's advisor who can assess the student's performance at the end of the semester. This course can be taken prior to admission to candidacy for the doctoral degree and may be repeated in multiple semesters. *Grading: S/U*

### **Dissertation - Transportation and Environmental Engineering (CGN 7980) 1-15 credits**

*Prerequisite: Permission of department*

*Grading: S/U*

### **Stormwater Modeling and Management (CWR 5308) 3 credits**

The course presents a comprehensive view of stormwater modeling and management with an emphasis on current modeling techniques and design practices. The course provides an in-depth review of fundamentals of hydrology along with spatial analysis tools required for effective stormwater modeling and management.

### **Groundwater Flow (CWR 6125) 3 credits**

Infiltration; Capillarity; Groundwater and Aquifers; Anisotropy; Groundwater motion; Darcy's law, Dupuit-Forcheimer's law; Potential flow; Flow nets; Conformal mapping; Unsaturated flow; Diffusion and dispersion; Well hydraulics, Theis equation; Drainage; Salt water intrusion; Legal doctrines; Economics of groundwater.

### **Open-Channel Hydraulics (CWR 6235) 3 credits**

Review of basic hydraulics: Continuity, momentum and energy balance; Uniform and steady flow; Non-uniform flow; Critical flow; Gradually-varied flow; Surface profiles; Chezy's and Manning's

formulas; Laminar and turbulent flow; Velocity distribution; Unsteady flow; Rapidly varying flow; Flood routing; Design of open-channels.

### **Dynamic Hydrology (CWR 6525) 3 credits**

Dynamics and statistics of principal hydrometeorological processes; Hydrologic cycle; Precipitation, Infiltration; Evapotranspiration; Surface runoff; Percolation; Groundwater motion; Storm water management; Hydrologic modeling; Water budget; Hydrologic time series, Stochastic analysis; ARARMA models.

### **Water Resource System Engineering (CWR 6818) 3 credits**

Nature of water resource systems; Systems analysis, Objective functions; Optimal policy analysis; Linear programming; Dynamic programming; Political and economic objectives; Water resource subsystems; Deterministic and stochastic parameters; Large-scale, multi-objective projects; Water allocation; Supply and demand; Hierarchical modeling of water resource systems.

### **Modeling Methods in Water Resources and Environmental Engineering (EES 6025) 3 credits**

Classification of PDEs; fundamentals of numerical analysis; numerical stability, consistency, and convergence; method of characteristics; variational principles; finite differences; finite elements; integral-boundary element method; applications to water resource and environmental engineering problems.

### **Energy Engineering ( EGN 5735 ) 3 credits**

This course provides an overview of renewable energy technology and outlines the basic principles of solar electricity, solar water heating, wind power, marine renewable energy, micro-hydro, biomass and heat pumps and their application in urban and rural environments. In addition, the fundamentals of conventional power generation (fossil fuel nuclear, etc.) are discussed.

### **Water and Wastewater Treatment (ENV 5510) 3 credits**

*Prerequisites: CWR 3201C or equivalent, ENV 3001C or equivalent, and permission of instructor*

This course introduces students to the principles and design of physical, chemical and biological treatment systems for potable and wastewater applications.

### **Hydraulic Systems Engineering (ENV 5565C) 3 credits**

This class is outlines the concepts behind the design of piping and pumping stations. The class includes a review of hydraulics and piping networks, pipe materials, pump selection, multiple pump systems, sewer pumping networks and pump station design and appurtenances.

### **Special Topics in Environmental Engineering (ENV 5935) 3 credits**

*Prerequisite: Permission of instructor*

Study relating to specialized topics associated with environmental engineering.tte

### **Air Pollution and Control (ENV 6115) 3 credits**

Review of air quality and air pollution problems. Sources, characteristics, and effects of specific air pollutants; Lower atmospheric motion dynamics; Dispersion and interaction of pollutants in the atmosphere; Smog effects; Air quality standards and regulations; Air pollution control methods; Acid rain.

### **Solid Waste Management (ENV 6356) 3 credits**

Quantities and composition of refuse; Municipal and industrial solid waste disposal methods; Sanitary landfills; Incineration; Grinding and composting of refuse; Energy recovery from solid wastes; Hazardous waste; Optimization techniques to solid waste operation and management.

### **Water Supply and Treatment (ENV 6418) 3 credits**

Bacteriological, chemical, and physical water quality standards; distribution systems; water treatment theory and design; aeration; coagulation and flocculation; sedimentation; filtration; disinfection; softening; membranes.

### **Contamination of Aquatic Sediment (ENV 6441) 3 credits**

*Prerequisites: ENV 3001C*

Topics include: cohesive sediments, settling, re-suspension, aggregation, flocculation, pollutant adsorption/desorption; partitioning of chemicals, sediment toxicity assessment, bioassays/bioassessments, aquatic sediment sampling.

### **Wastewater Engineering (ENV 6507) 3 credits**

Wastewater characterization, collection, and pumping. Physical unit operations and biological treatment unit process design including screening, sedimentation, filtration, activated sludge, disinfection, sludge digestion, and sludge disposal.

### **Environmental Systems and Processes (ENV 6668) 3 credits**

Physical, chemical, and biological processes, reactor theory, particle transport, mass transfer, mixing, advection, dispersion, diffusion, sorption, phase transfer.

### **Sustainability and Pollution Prevention (ENV 6932) 3 credits**

This course introduces students to the principles of engineering sustainability, life cycle cost analysis, pollution prevention and environmental resource management of infrastructure planning and design.

### **Offshore Structures (EOC 6431) 3 credits**

(See [Ocean and Mechanical Engineering courses](#), this section)

### **Special Topics in Geomatics Engineering (SUR 5935) 3 credits**

*Prerequisite: Permission of instructor*

Study relating to specialized topics associated with geomatics engineering.

### **Digital Photogrammetry and Image Interpretation (SUR 6335C) 3 credits**

This course provides students with an advanced understanding of digital photogrammetric principles and their applications. This includes the techniques for calibration of digital cameras, extraction of point and linear features and 3D reconstruction of visible surfaces. The course also enables students to independently implement the digital photogrammetric concepts throughout projects, such as calibration of mobile phone camera and 3D surface reconstruction from stereoscopic images.

### **Thermal Infrared Remote Sensing (SUR 6387C) 3 credits**

*Prerequisite: GIS 4035C with minimum grade of "C" or permission of instructor*

Temperature is one of the most important physical variables. Temperature information with an appropriate spatial and temporal coverage is a key to addressing most of the environmental challenges on both local and regional scales. Measuring temperature remotely by thermal infrared is a new technology, which has found a wide area of applications. In this course, students learn the basic theory of sensors and data processing and analysis. They also investigate new applications of thermal infrared remote sensing on civil infrastructure and environmental systems monitoring.

### **Advanced Unmanned Aerial System Mapping (SUR 6402) 3 credits**

Covers the fundamental components of small unmanned aerial systems (sUAS) and how they are used to produce high resolution, spatially accurate, planimetric maps and 3-D models of the terrain.

### **Traffic Signal Systems (TTE 6259) 3 credits**

This course teaches students about advanced concepts of traffic signal systems that are currently used in the U.S. Students design, evaluate and optimize various components of traffic signal operations both for individual intersections and coordinated traffic signal systems.

### **Intelligent Transportation Systems (TTE 6272) 3 credits**

Provides instruction on topics related to intelligent transportation systems, including theoretical fundamentals of systems engineering, traffic flow theory, architecture of telecommunications networks, freeway and arterial management and other topics related to ITS.

### **Transportation System Analysis (TTE 6501) 3 credits**

Concepts of operations research using various models to optimize holistic operations of transportation systems from the perspectives of sustainability, resilience, environmental impacts and robustness are discussed. Programming model development and optimizations based on mathematical interpretations of descriptive problems are also covered.

### **Highway Traffic Characteristics and Measurements (TTE 6505) 3 credits**

This course instructs students on the concept of advanced traffic operations including the characteristics of functional relationships between traffic modeling and travel demand forecasting. Students evaluate transportation scenarios and design solutions to improve traffic operations.

### **Transportation and Supply Chain Systems (TTE 6507) 3 credits**

A study of engineering decision problems for transportation and supply chain systems, relying primarily on the quantitative methods of operations research. Topics include an introduction to the components of logistics systems, such as suppliers, customers, inventory, orders and freight transportation systems and the interactions between these components; a thorough coverage of models and solution techniques for the design and control of logistics systems, primarily network and network-based optimization models; and study in the application of such models and solution techniques.

### **Maritime Freight Operations (TTE 6508) 3 credits**

Addresses important transportation modeling techniques for maritime freight transport. Mathematical models are used to represent transportation problems, and commercial computer software packages are used to evaluate and investigate modern freight transportation systems.

### **Sustainable Public Transportation (TTE 6651) 3 credits**

Designed to outline the principles of transit systems in the urban transportation arena, functional relationships that govern bus and rail transit, and issues associated with unbalanced flow and lane control, transportation system management and railroad economics and policies.

### **Highway Engineering (TTE 6815) 3 credits**

Route selection including environmental impacts, vertical and horizontal alignment, intersection design, evaluation of subgraded soil strengths, and pavement design, drainage, and overlay design.

## **ELECTRICAL ENGINEERING AND COMPUTER SCIENCE**

**Undergraduate Courses** / [Link to Graduate Courses](#)

### **Biomedical Instrumentation and Measurements (BME 4503C) 3 credits**

*Prerequisite: EEL 3502 with minimum grade of "C"*

This course covers design of biomedical instrumentation and diagnostic devices (aspects of electronic, mechanics, chemical and biological components) to measure physiological parameters. It also covers design of diagnostic devices and methods for point-of-care detection of biomarkers in tissue.

**Artificial Intelligence for Cybersecurity (CAI 4802) 3 credits**

*Prerequisites: CAP 4773 and (COP 3410C or COP 3530C) with minimum grades of "C"*

This course introduces artificial intelligence methods within the field of cybersecurity. Students learn how supervised learning, unsupervised learning and big data are applied in practice to relevant various cybersecurity models, including in characterizing cyber-attacks, malware and intrusion detection, and threat modeling. The importance of fairness, transparency and explainability in cybersecurity machine learning models is highlighted.

**Applications of Artificial Intelligence (CAP 2603) 3 credits**

This course provides an overview of the field of artificial intelligence (AI) with emphasis on contemporary techniques and applications of AI in many areas, including computer vision, natural language processing and medical diagnosis. The course broadens the participants' view of the field of AI, allowing a better understanding of its foundations, risks, applications and implications.

**Tools for Data Science (CAP 2751) 3 credits**

This course focuses on data manipulation, curation, visualization, exploration, interpretation and modeling using standard packages and tools employed in the field of data science, as well as best practices for maintaining data and software using version control.

**RI: Experimental Design and Data Analysis (CAP 2753) 3 credits**

*Prerequisite: STA 2023 or equivalent*

This course deals with principles of experimental design and data analysis. Topics covered include design of experiments, sampling and analysis of resulting data. This is a research-intensive (RI) course.

**Introduction to Game Programming (CAP 4028) 3 credits**

*Prerequisite: COP 3530*

Introduction to designing and building video games using high level programming languages and animation libraries. The techniques learned can be applied to simulations, instrumentation, and educational software and other software applications that require dynamic high speed interactive displays of graphic objects.

**Digital Image Processing (CAP 4401) 3 credits**

*Prerequisites: (EEE 4541 or STA 4821) and COP 3530 or permission of instructor*

Introduction to digital image processing principles, tools and algorithms. Includes topics in image representation, encoding and analysis, such as filtering, transformation, segmentation, feature extraction and pattern recognition. Use of image processing software tools for lab assignments and projects.

### **Computational Genomics (CAP 4511) 3 credits**

*Prerequisites: (COP 2220 or COP 3035) and STA 2023 and PCB 3063, all with minimum grades of "C" or permission of instructor*

This course focuses on the computational analysis of modern high throughput genomic data. In particular, the course covers the application of R packages in performing exploratory data analysis, predictive modeling and addressing questions about different types of genomic data.

### **Algorithms for Bioinformatics (CAP 4543) 3 credits**

*Prerequisites: (COP 3530 or COP 3410) and PCB 3063, all with minimum grades of "C" or permission of instructor*

This course covers the data structures and algorithms commonly used in the field of bioinformatics. Emphasis is on topics related to classical and modern techniques employed for biological sequence analysis.

### **Applied Machine Learning and Data Mining (CAP 4612) 3 credits**

*Prerequisite: STA 2023 or equivalent*

This course covers theoretical foundations and tools for machine learning and data mining. The class introduces fundamental machine learning topics such as data engineering, supervised learning and unsupervised learning with case studies. Credit will not be given for both CAP 4612 and CAP 6610.

### **Introduction to Deep Learning (CAP 4613) 3 credits**

*Prerequisite: COP 3530 or COP 3410 with minimum grade of "C" or permission of instructor*

This course teaches students basic concepts of deep learning. The course covers three major topics, including statistical machine learning, neural network structures and deep neural networks. Detailed topics include introduction to machine learning algorithms, perceptron learning, multi-layer neural networks, and deep neural network structures and learning algorithms. The lectures include practical sessions dedicated to the implementation and programming of deep learning frameworks.

### **Trustworthy Artificial Intelligence (CAP 4623) 3 credits**

*Prerequisites: COP 4773 and (COP 3014C or COP 3530C)*

Topics include preliminary materials security, trust and AI; human agency and oversight; technical robustness and safety; privacy and data governance; transparency; diversity, non-discrimination and fairness; societal and environmental well-being; and accountability.

### **Introduction to Artificial Intelligence (CAP 4630) 3 credits**

*Prerequisite: COP 3530 or COP 3410 with minimum grade of "C" or permission of instructor*

A broad introduction to the core concepts of artificial intelligence, including intelligent agents, problem solving by search, knowledge representation and reasoning and learning from examples. Programming in Python and possibly other software environments.

### **Introduction to Data Mining and Machine Learning (CAP 4770) 3 credits**

*Prerequisites: (COP 3530 or COP 3410) and (EEE 4541 or STA 4821 or STA 2023 or equivalent) with minimum grades of "C"*

This course teaches the principles of data mining and machine learning. Topics include classical machine learning algorithms, such as regression, classification and clustering, feature selection methods and applications of machine learning.

### **Introduction to Data Science and Analytics (CAP 4773) 3 credits**

*Prerequisites: (COP 2220 or COP 3035) and (EEE 4541 or STA 4821 or STA 2023) with minimum grades of "C" or permission of instructor*

This course deals with the principles of data science and analytics. Topics covered include statistical analysis of data, measurement techniques and tools, machine learning methods, knowledge discovery and representation, classification and prediction models.

### **Modeling and Simulation of Systems (CAP 4833) 3 credits**

*Prerequisites: COP 3014, COP 3014L, and STA 4821*

Extending the classical world views of computer simulation with object-oriented programming and analysis. Examples from computer systems, ecology, service and manufacturing systems.

### **Introduction to Logic Design (CDA 3201C) 4 credits**

*Prerequisite or Corequisite: COP 2220*

Fundamentals of logic design, Boolean algebra, simplification of Boolean expressions, design of combinational circuits, design with SSI and MSI logic ICs including PLDs. Flip flops, analysis and synthesis of sequential circuits, design with MSI and LSI logic ICs. Training kits will be used in the lab to build logic circuits.

### **Computer Logic Design (CDA 3203) 3 credits**

This course introduces Boolean algebra, logic gates. Students use combinational logic and build a set of adders, leading up an arithmetic-logic unit (ALU). Students learn sequential logic and build a set of registers, memory devices and RAM. Course also introduces machine language and instruction sets. Students learn the concepts by implementing a series of small projects using design tools as well as

hardware description languages (HDLs).

### **Introduction to Microprocessor Systems (CDA 3331C) 3 credits**

*Prerequisites: CDA 3201C and COP 2220 with minimum grades of "C"*

Architecture of a 32-bit microprocessor, addressing modes, instruction set, assembly language programming, program design, hardware model, exception handling and interface to memory and peripherals. Training kits will be used in the lab to run assembly programs.

### **Computer Architecture (CDA 4102) 3 credits**

*Prerequisites: CDA 3203 and COP 2220 or COP 3275C with minimum grades of "C"*

This course teaches fundamental concepts in computer architecture with emphasis on the impact of the architecture software performance. Students learn the concepts by implementing a series of small programming projects to learn and exercise concepts such as pipelining, caching and instruction level parallelism.

### **CAD-Based Computer Design (CDA 4204) 3 credits**

*Prerequisite: CDA 3201C; Corequisite: CDA 3331C (may be taken before CDA 4204)*

Use of Verilog hardware description language for hierarchical behavioral level design of a CPU using current industry standards and design methodologies. Techniques for performance enhancement.

### **Introduction to VLSI (CDA 4210) 3 credits**

*Prerequisites: CDA 3203 and EEE 3300 with minimum grades of "C" or permission of instructor*

Exposes students to digital VLSI design and simulation tools with simple examples. Use of commercial state-of-the-art industrial CAD/CAE tools. This is an Academic Service Learning (ASL) course.

### **Design of Digital Systems and Lab (CDA 4240C) 3 credits**

*Prerequisite: CDA 3203 with minimum grade of "C"*

In this course, students learn to use a hardware description language (mainly VHDL) in the digital design process. Emphasis is on system-level concepts and high level design representations. Students also have the opportunity to use a commercial synthesis tool to automatically map high level descriptions to field programmable gate arrays (FPGAS). The lab-intensive, hands-on aspect of this course presents different approaches to digital system modeling and design with the use of HDLS.

### **Introduction to Cryptographic Engineering (CDA 4321) 3 credits**

*Prerequisite: COP 2220*

This course is devoted to the state-of-the-art in cryptographic hardware/software and embedded systems. Students learn about computational algorithms and architecture of the cryptographic devices. Students also re-learn programming of cryptographic primitives on ASM and C on PC or embedded

devices.

### **Hardware Security (CDA 4323) 3 credits**

*Prerequisite: CDA 4240C with minimum grade of "C"*

This course covers an introduction to hardware security and trust, introduction to cryptographic processors and processing overhead analysis, physical attacks and countermeasures, field-programmable gate array (FPGA) security, hardware Trojan detection and isolation, side-channel analysis, integration of security as a design metric and counterfeit electronics detection and prevention.

### **Introduction to Embedded System Design (CDA 4630) 3 credits**

*Prerequisite: CDA 4240C with minimum grade of "C"*

This is a practical, hands-on course that teaches the design and analysis of embedded computing systems that interact with physical processes. Topics covered include embedded architectures, interaction with devices (I/O), concurrency, real-time principles and embedded software. Students learn concepts through a series of laboratory exercises with state-of-the-art embedded processors and industry-standard development tools. Students design and build an embedded system with a custom PCB.

### **Introduction to Software Design (CEN 3062C) 3 credits**

*Prerequisite: COP 3035C with minimum grade of "C"*

This course introduces fundamental programming concepts in object-oriented design and abstraction. Design, implementation, testing and debugging object-oriented programs are emphasized, as well as how to analyze, instantiate and connect components that are reusable parts.

### **Principles of Software Engineering (CEN 4010) 3 credits**

*Prerequisite: COP 3530 or COP 3410*

An introduction to the basic principles and practices of software engineering. Exposes students to a wide range of software engineering concepts and state-of-the-art technologies. Emphasis is placed on learning and practicing software engineering principles through team course project and gaining appreciation of “programming in the large.” Topics include both technical aspects and non-technical aspects of software engineering, such as software life cycle models, specification and design methods, implementation and testing issues, deployment and post maintenance. Students are required to complete a team project involving written and oral presentations and demonstrations. This is an Academic Service Learning (ASL) course.

### **Hardware Software Codesign (CEN 4214) 3 credits**

*Prerequisites: CDA 3203 and EEE 3300 with minimum grades of "C" or permission of instructor*

This course helps students learn the concepts of top-down design, system design methodology and HW design workflow. Students also receive an introduction to field-programmable gate array (FPGA) design and learn about various embedded system platforms available in the market that can be utilized for HW/SW codesign.

### **Introduction to Computer Systems Performance Evaluation (CEN 4400) 3 credits**

*Prerequisites: COP 3014 and (EEE 4541 or STA 4821 or STA 2023 or equivalent)*

Principles of the quantitative evaluation techniques for computer system hardware and software, emphasizing the establishment and analysis of performance criteria. Deterministic and stochastic methods will be discussed.

### **Software Engineering Project (CEN 4910) 3 credits**

*Prerequisite: CEN 4010*

Applies software engineering principles and practices taught in CEN 4010. Students work in teams to develop a software system, following a process similar to industry practices coupled with the software engineering method and theory. Students complete a team project involving written and oral presentation and demonstrations.

### **Cooperative Education - Information Engineering Technology (CET 3949) 1-3 credits**

*Prerequisite: Permission of instructor*

Supervised work experience in information engineering technology. Open only to students in the B.I.E.T. program. *Grading: S/U*

### **Computer Organization and Design (CET 4333) 3 credits**

*Prerequisite: COP 2220 or equivalent*

Basic computer systems design and architecture. An introduction to design of computer memories, CPUs, I/O devices, buses, and addressing schemes. Open only to students in the B.I.E.T. program. Credit will not be given for both CET 4333 and CDA 3331C.

### **Database Application Development (CET 4427) 3 credits**

*Prerequisite: COP 3014 or equivalent*

Design and implementation of database applications within the concept of central administration. Oracle is used as a vehicle. Programming project is required. Open only to students in the B.I.E.T. program. Credit will not be given for both CET 4427 and COP 3540.

### **Capstone Project (CET 4915) 4 credits**

*Prerequisites: Senior standing, B.I.E.T. majors*

Working in groups, students undertake a complete project from specification through implementation

and deployment. Open only to students in the B.I.E.T. program.

### **Topics in Information Engineering Technology (CET 4930) 1-3 credits**

*Prerequisite: Permission of instructor*

Topics not covered by existing courses. Course content varies by offering. Open only to students in the B.I.E.T. program.

### **Topics in Computer Science and Engineering (CIS 2930) 1-4 credits**

Study relating to topics in computer science and computer engineering.

### **Cyber Physical System Security (CIS 4213) 3 credits**

*Prerequisite: COP 3530 or permission of instructor*

This course exposes students to fundamental aspects of security regarding cyber-physical systems, so they may apply the techniques to tackle a broad scope of current and future security challenges.

Students study several tools and techniques commonly used by hackers to compromise a system. Then they learn methods to defend against these attacks.

### **Operating Systems Security (CIS 4367) 3 credits**

*Prerequisite: COP 4610 or permission of instructor*

This course is an introduction to the secure design of operating systems. Through hands-on experimentation, students gain an understanding of how hardware and software constructs protect modern operating systems.

### **Applied Cryptography and Security (CIS 4634) 3 credits**

*Prerequisite: MAD 2104 with minimum grade of "C"*

Topics covered include mathematical background, algorithmic number theory, classical crypto, implementation aspects of private- and public-key crypto, and advanced topics such as crypto primitives, rational crypto, secure multiparty computation, hash functions, digital signatures, and privacy-preserving protocols. Students may not enroll in this course and CIS 5371.

### **Communication Networks (CNT 4007) 3 credits**

*Prerequisite: COP 3530 or COP 3410 with minimum grade of "C"*

An introductory course in computer networks with focus on internet protocol (IP) networks. Topics covered include congestion/flow/error control, routing, addressing, naming, multi-casting, switching, internetworking and network security. Students learn the concepts by implementing a series of modeling and implementation projects requiring significant design and performance evaluation.

### **Introduction to Data Communications (CNT 4104) 3 credits**

*Prerequisite: COP 3530 and CDA 3331C*

To develop an understanding of the various aspects of data communications and computer networking systems. Topics include data transmission, multiplexing, switching, Ethernet and WiFi, Internet protocols and architecture, Internetworking, transport and application layer protocols.

**Introduction to the Internet of Things and Sensor Networks (CNT 4164) 3 credits**

*Prerequisite: Senior standing or permission of instructor*

The course covers applications, architecture, routing and communication protocols for Internet of Things (IoT) and sensor networks. Technical and operational aspects of these communication networks are also discussed. The role of artificial intelligence in developing smart communication protocols and applications of IoT and sensor networks is discussed. Finally, the course includes discussions of emerging challenges, opportunities and future directions.

**Foundations of Cybersecurity (CNT 4403) 3 credits**

*Prerequisites: (COP 3410C or COP 3530C) and (CNT 4007 or COP 3813 or COP 3834)*

Overview of technical aspects of data security with emphasis on the Internet. Attacks and defenses. The design of secure systems.

**Network and Data Security (CNT 4411) 3 credits**

*Prerequisites: COP 3530 and COT 4400 or permission of instructor*

This course is an introduction to the broad field of computer, data and information security. It covers both computer security (e.g., security policies, access control, viruses, etc.) and network security (e.g., protocols for maintaining confidentiality for email or for secure web transactions), along with relevant background in basic cryptography (e.g., encryption/digital signatures).

**Computer Network Projects (CNT 4713) 3 credits**

*Prerequisite: COP 3530*

Course provides conceptual and practical understanding of the various aspects of computer networks protocols, technologies, and measurements. Introduction to network programming with emphasis on the TCP/IP protocol suite.

**Computer Programming and Data Literacy for Everyone (COP 1031C ) 3 credits**

This course introduces students from outside the College of Engineering and Computer Science to computational thinking and the art of computer programming using Excel and Python. No prior programming background is required. This is a General Education course and an Academic Service Learning (ASL) course.

**Mobile Applications for Android (COP 1660) 3 credits**

*Prerequisite: Permission of instructor*

The course helps students develop applications for the smart phone. They use a software emulator to develop the application and a real phone to demonstrate its viability. The focus is on computer science and engineering aspects to develop, debug, test and obtain performance metrics to compare and contrast the two implementations.

### **Programming 1 (COP 2220C) 0 or 3 credits**

This course teaches computational thinking and problem solving. Students learn the Python programming language, foundational programming concepts, abstraction, program design and software development tools. Students also learn the concepts by developing a series of small programs. A final project allows students to put together the programming concepts learned in the course.

### **Programming 2 (COP 3014) 3 credits**

*Prerequisite: COP 2220 with a "C" or better*

This course covers the fundamentals of object-oriented programming using the C++ language. It introduces object-oriented principles such as abstraction, composition, classes, objects, inheritance, polymorphism and interfaces. Other topics covered in the context of solving problems include Standard Template Libraries, iterators and collections, lambda expressions and elements of functional programming.

### **Foundations of Computer Science Lab (COP 3014L) 1 credit**

*Corequisite: COP 3014*

Laboratory experiments and exercises in Computer Science will be done. Students will learn to use Unix.

### **Introduction to Programming in Python (COP 3035C) 0 or 3 credits**

Introduction to programming with Python for students with no prior programming experience. Course introduces programming fundamentals, algorithm development, debugging, testing and visualization with applications.

### **Systems Programming with C++ (COP 3275C) 3 credits**

*Prerequisite: COP 2220C or COP 3035C with minimum grade of "C"*

*Corequisite: CEN 3062C*

This course builds on the foundations of programming skills, with an introduction to C++, machine characteristics and low-level data representation, memory management, modern libraries and language features, Linux system, interacting with operating-system services and introduction to concurrent programming.

### **Data Structures and Algorithm Analysis with Python (COP 3410C) 0 or 3 credits**

*Prerequisite: (COT 2000C or MAD 2104) and (CEN 3062C or COP 3035C) with minimum grades of "C"*

This course is an advanced programming class that covers data structures and algorithm analysis using the Python programming language. The course covers various data structures (including arrays, linked lists, stacks, queues, trees) and abstract data types in the design and implementation of computer programs.

### **Data Structures and Algorithm Analysis (COP 3530C) 0 or 3 credits**

*Prerequisites: (COT 2000C or MAD 2104) and (COP 3014 or COP 3275C) with minimum grades of "C"*

The design, implementation and run-time analysis of important data structures and algorithms. The data structures considered include sorted arrays, linked lists, stacks, queues, and trees. An approach based on abstract data types and classes will be emphasized. The use of recursion for algorithm design. Class design and implementation in C++. Programming assignments in the C++ language.

### **Introduction to Database Structures (COP 3540) 3 credits**

*Prerequisite: COP 3530 or COP 3410 with minimum grade of "C"*

An introduction to the design, implementation and application of database systems, with a focus on relational databases. Key core topics include relational algebra, data models, normalization, file storage, indexing, memory and transaction management and the SQL programming language. Advanced topics related to contemporary database design and applications are also covered.

### **Introduction to Internet Computing (COP 3813) 3 credits**

*Prerequisite: COP 3014 or COP 2034*

This course teaches students how to design web pages and develop websites at the introductory to intermediate level. The course is project oriented. Students are required to finish several Internet-based projects using the tools introduced in class.

### **Introduction to Web Programming (COP 3834) 3 credits**

*Prerequisite: CEN 3062C or COP 3014 or COP 3410C with minimum grade of "C"*

This course introduces frontend and backend development skills, and experience with layout, functionality and interactivity of websites. Students gain knowledge to build fast, responsive and personalized user experience websites.

### **Principles of Programming Languages (COP 4020) 3 credits**

*Prerequisites: (COP 3530 or COP 3410) and COT 4420 with minimum grades of "C"*

Programming language representation, translation and execution (compiled, interpreted); recursive-

descent parsing; type systems (static/dynamic, strong/weak), parameter passing; memory management (static/dynamic); programming paradigms: procedural, object-oriented, functional, concurrent.

### **Python Programming (COP 4045) 3 credits**

*Prerequisite: COP 3530 or COP 3410 with minimum grade of "C"*

This course covers advanced topics in the Python programming language with applications to practical problem-solving involving data manipulation and analysis. The course provides a quick introduction to Python. Topics covered are data structures (lists, arrays, dictionaries, sets, comprehensions), functions, files and object-oriented language elements. In the second part of the course, students learn to apply advanced language features and methodologies in combination with third-party libraries for scientific computation to develop real-world applications.

### **Advanced Java Programming (COP 4259) 3 credits**

*Prerequisite: COP 3530 or COP 3410 with minimum grade of "C"*

This Java course for problem solving and programming covers basic and advanced topics in Java, including, but not limited to, flow of control, classes, methods, arrays, strings, inheritance, polymorphism, interfaces, algorithms, data structures and applications.

### **Object-Oriented Design and Programming (COP 4331) 3 credits**

*Prerequisite: COP 3530 or COP 3410*

Introduces the Java programming language and the main phases of the object-oriented development process, including requirements analysis, design and implementation. Focuses on object-oriented design principles and covers topics such as UML, design patterns, reflection, serialization, generic types and multithreading. Students collaborate on a software term project that involves the entire development cycle.

### **Computer Operating Systems (COP 4610) 3 credits**

*Prerequisite: CDA 4102 and COP 3530 C with minimum grade of "C"*

This course provides the basic concepts and core principles used in modern operating systems. Topics covered include processes, concurrency, synchronization, scheduling, multiprogramming, memory management and file systems. The students learn the concepts by developing a series of simulations and small programs. A group project allows students to put together the concepts learned in the course.

### **Mobile App Project (COP 4655) 3 credits**

*Prerequisite: COP 3530 or COP 3410 with minimum grade of "C"*

This course is an introduction to mobile app development for common mobile platforms. Course uses frameworks and tools that are widely used in the industry. Students learn fundamentals of app

development and complete a course project.

### **Advanced Database Systems (COP 4703) 3 credits**

*Prerequisite: COP 3540 with minimum grade of "C"*

An introduction to contemporary database designs and applications, with a focus on non-relational databases common in the era of big data. Key core topics include an introduction to NoSQL, aggregate data and distribution models, as well as column-oriented, key-value, document-oriented and graph-oriented databases. Open-source NoSQL database programs are highlighted to solidify concepts and to equip students with skills transferable beyond the classroom.

### **Full-Stack Web Development (COP 4808) 3 credits**

*Prerequisite: COP 3813 or COP 3826 COP 3530 or COP 3410 with minimum grade of "C"*

This course teaches students how to design and develop websites and web-based applications using contemporary tools and standards. This course is project-oriented. Student develop hands-on knowledge of the latest web development tools, languages and frameworks, and use that knowledge to complete several web-based projects.

### **Foundations of Cloud Computing (COP 4814) 3 credits**

*Prerequisite: COP 3530 or COP 3410 with minimum grade of "C"*

Introduction to the concept of cloud computing as a new programming model for dynamic application interaction over the web. The course covers how to program web services and micro-services and how to implement, describe, register, discover, invoke and deploy web services using web services' standards, such as SOAP, WSDL, UDDI and RESTful.

### **Cutting-Edge Web Technologies (COP 4854) 3 credits**

*Prerequisites: COP 3530 and COP 3813*

Hands-on knowledge of the latest web development tools, languages, and models. Students develop projects consisting of innovative web-based solutions. Topics include characteristics and foundations of web-based applications; web development frameworks and best practices; server-side and client-side technologies, languages and libraries; usability and human factors; and content-sharing tools and technologies.

### **Foundations of Computing (COT 2000C) 3 credits**

Basic course that introduces foundational concepts in computing, including common tools for software development.

### **Topics in Computer Science and Engineering (COT 2930) 1-3 credits**

*Prerequisite: Permission of instructor*

Study relating to specialized topics.

### **Topics in Computer Science and Engineering (COT 3930) 1-3 credits**

*Prerequisite: Permission of instructor*

Study relating to specialized topics.

### **Cooperative Education - Computer Science/Engineering (COT 3949) 1-3 credits**

*Prerequisite: Permission of department*

*Grading: S/U*

### **Design and Analysis of Algorithms (COT 4400) 3 credits**

*Prerequisite: COP 3530 or COP 3410 with minimum grade of "C"*

Mathematical analysis of algorithm complexity; algorithm design techniques (such as divide and conquer, greedy and dynamic programming) in the context of problem domains such as sorting and optimization problems; graph algorithms; data structures (heaps, priority queues, hash tables and binary search trees); introduction to NP-completeness.

### **Theory of Computation (COT 4420) 3 credits**

*Prerequisite: COP 3530 or COP 3410 with minimum grade of "C"*

Formal models of computation, including finite state automata, pushdown automata and Turing machines; applications to deciding (parsing) formal languages, including regular, linear and context-free languages; non-determinism; the Church-Turing thesis.

### **Directed Independent Study (COT 4900) 1-3 credits**

*Prerequisite: Permission of instructor*

Study of topics relating to the special needs and interests of individual students.

### **Topics in Computer Science and Engineering (COT 4930) 1-3 credits**

*Prerequisite: Permission of instructor*

Study relating to specialized topics.

### **Senior Seminar (COT 4935) 1 credit**

*Prerequisite: Senior standing; open only to Computer Science or Computer Engineering majors*

Study and discussion regarding the social, legal, and ethical aspects of computing.

### **Electronics 1 (EEE 3300) 3 credits**

*Prerequisite: EEL 3111 with minimum grade of "C"*

Operational amplifiers and applications to analog signal processing and conditioning; introduction to electronic circuits simulation software (such as PSPICE and ADS); introduction to solid state

semiconductor devices (diodes, BJT, MOSFET) and their applications.

### **High Frequency Amplifier Design (EEE 4360C) 3 credits**

*Prerequisites: EEL 3470, EEE 3300*

Scattering parameters, matching networks and the Smith chart, amplifier stability considerations, amplifier design to meet various criteria, low noise, broadband, high power amplifier design, RF oscillator design, CAD design techniques.

### **Electronics 2 and Lab (EEE 4361 C ) 3 credits**

*Prerequisites: EEE 3300 and EEL 3118L with minimum grades of "C"*

Simulation and computer-aided analysis and design (with ADS) of multi-transistor BJT and MOSFET wideband amplifiers: Differential amplifiers, single-stage and multi-stage voltage amplifiers, amplifier bandwidth and feedback amplifiers. Hands-on lab experiments include design of BJT wideband amplifiers, mini-project competitions and familiarization with industry-grade equipment such as network, logic and spectrum analyzers.

### **Electronics 3 and Lab (EEE 4362C) 3 credits**

*Prerequisite: EEE 4361C with minimum grade of "C"*

This course provides the student with both the theory and applications of digital and analog electronics beyond Electronics 2. Topics include CMOS analog and digital analysis and design of integrated electronic circuits, computer-aided circuit simulation and design with ADS and electronics lab tools.

### **Nanobiotechnology (EEE 4424) 3 credits**

*Prerequisite: Permission of department*

The sensing and characterization of biological entities, processes and events with novel nanoscale devices and non-object mediated modalities has immediate and far-reaching impacts. This course covers the fundamentals of nanotechnology in biological and biomedical research. The coursework is approached from an engineering perspective offering insights on the details of nanoscale fabrication processes as well as cell biology.

### **Introduction to Digital Signal Processing (EEE 4510) 3 credits**

*Prerequisite: EEL 3502 with minimum grade of "C"*

Introduction to digital signal processing, review of Fourier, Laplace and Z-transforms, discrete Fourier transform, the FFT algorithm, digital filter design and implementation, basic theory of adaptive filter design and implementation, LMS algorithm, Wavelet transform and filtering.

### **Stochastic Processes and Random Signals (EEE 4541) 3 credits**

*Prerequisite: MAC 2312 with minimum grade of "C"*

Introduction to probability, statistics and random processes, conditional probability, random variables, distribution and density functions, stochastic processes, the central limit theorem, power spectral density, detection of signals in the presence of noise. Applications communication networks and system performance evaluation.

### **Special Topics (EEL 1935) 1-4 credits**

*Prerequisite: Permission of instructor*

Lower-division special topics in areas of electrical engineering not covered by other courses such as experimental advanced high school work.

### **C for Engineers (EEL 2161 ) 3 credits**

Introduces the fundamental capabilities of C++ and MATLAB. Illustrates the numerical problem-solving process, testing and interpretation of results through a variety of engineering examples and applications.

### **Circuits 1 (EEL 3111) 3 credits**

*Prerequisites: PHY 2049 and EGN 1002 with grades of "C" or better*

*Prerequisites or Corequisites: MAC 2313 and MAP 3305*

Introductory to electric circuit analysis: passive and active sign conventions; Ohm's and Kirchhoff's laws; network analysis, theorems as applied to d-c and a-c circuits; basic op-amp circuits; single time constant transient analysis; phaser representations and sinusoidal steady state; real and reactive single phase power.

### **Circuits 2 (EEL 3112) 2 credits**

*Prerequisite: EEL 3111 with minimum grade of "C"*

Continuation of Circuits 1: Second order transient response; 3-phase power; Fourier series; Laplace transforms; frequency response; 2-port networks; introduction to computer analysis with PSPICE and MATLAB.

### **Electronics Laboratory 1 (EEL 3118L) 3 credits**

*Prerequisite or Corequisite: EEE 3300 with minimum grade of "C"*

Introduction to basic electronic test equipment and measurement techniques; analysis and design of passive electrical RC circuits; analysis and design of op-amp, diode and BJT analog circuits, and introduction to MOSFET circuits.

### **Electromagnetic Fields and Waves (EEL 3470) 3 credits**

*Prerequisites: EEL 3111, MAC 2313*

Vector analysis, electrostatic fields, magnetostatic fields, transverse electromagnetic waves, reflection and refraction of plane waves, and transmission lines.

### **Signals and Digital Filter Design (EEL 3502) 3 credits**

*Prerequisite: MAC 2312 with minimum grade of "C"*

Sampling and data reconstruction, Z Transform, design of simple digital FIR and IIR filters, MATLAB programming and hardware implementation considerations, selected audio and image processing applications and basic spectrum analysis using FFT. Special emphasis is on the processing of realistic music, sound and image signals. Significant portion of the course lecture time is devoted to MATLAB DSP demonstrations.

### **Electronics Laboratory 2 (EEL 4119L) 3 credits**

*Prerequisites: EEE 4361C , EEL 3118L with minimum grades of "C"*

*Prerequisites or Corequisites: EEL 3470, EEL 4656*

Experiments and projects to supplement the theoretical work in core courses.

### **Network Synthesis (EEL 4140) 3 credits**

*Prerequisite: EEL 4656*

Introduction to filter design. Topics include physical realizability, passive and active 2-port network synthesis, sensitivity calculations, switched capacitor filters, OTAs, introduction to digital filters.

### **Electric Power Systems (EEL 4216) 3 credits**

*Prerequisite: EEL 3111*

Fundamentals of electromechanical devices; energy conversion, transformers and rotary machines. The operation and analysis of power systems is presented. Topics include energy supply and demand, structure of power systems, power system components, voltage and frequency control and load flows.

### **Electrical Machines (EEL 4220) 3 credits**

*Prerequisite: EEL 3111 with minimum grade of "C"*

Transformers, 3-phase distribution systems, 3-phase motors and generators, dc motors and generators, motor speed control, single phase ac motors.

### **Photovoltaic Power Systems (EEL 4281) 3 credits**

*Prerequisite: EEE 3300 with minimum grade of "C"*

This course provides students with both theory and applications of the fundamental principles of photovoltaic systems. This course also introduces the latest research and development on photovoltaic-integrated smart grid technology. Students gain real-world experience from design project(s).

### **RF Devices and Circuits (EEL 4421C) 3 credits**

*Prerequisite: EEL 3470 with minimum grade of "C"*

RF filter design, active RF components and component modeling, matching and biasing networks, RF oscillators, mixers and frequency synthesizers, use of RF CAD software for system simulation.

### **RF and Microwave Laboratory (EEL 4433C) 3 credits**

*Prerequisite: EEL 3470*

Develop a basic understanding of modern microwave measurement techniques, practical laboratory measurements and introduction to microwave CAD design software on UNIX based workstations.

### **Microwave Engineering (EEL 4436C) 3 credits**

*Prerequisites: EEL 3470, EEE 3300*

Review of electromagnetics, transmission lines, waveguides, microwave network analysis, impedance matching and tuning, microwave resonators, microwave power dividers, couplers and filters, microwave oscillators and mixers, CAD design techniques.

### **Introduction to Antennas (EEL 4461) 3 credits**

*Prerequisite: EEL 3470*

Antenna parameters, wire antennas, loop antennas, array matching techniques, broadband antennas, traveling wave antennas and antenna measurements.

### **Electromagnetic Compatibility (EEL 4478) 3 credits**

*Prerequisites: EEE 4361C and EEL 3470*

Introduction to electromagnetic compatibility (EMC), intersystem and intra-system interferences and their characteristics, coupling by conduction and radiation, shielding, and interference reduction techniques.

### **Principles of Communication Systems (EEL 4512 C ) 3 credits**

*Prerequisites: MAC 2313 and EEL 3502 with minimum grades of "C"*

*Prerequisite or Corequisite: EEE 4541 or STA 4821*

Linear time-invariant systems; impulse response and transfer function; AM/FM modulators and demodulators; random processes through linear systems; power spectral density; noise effects in continuous waveform modulation systems. Select homework requires use of Matlab for experimentation and simulations.

### **Communications Systems Lab (EEL 4512L) 1 credit**

*Prerequisite or Corequisite: EEL 4512*

Lab experiments include: AM and FM transmitters and receivers, time division and frequency

multiplexing, phase-locked loops.

### **Introduction to Digital Communication Systems (EEL 4522) 3 credits**

*Prerequisite: EEL 4512C with minimum grade of "C" or permission of instructor*

Sampling and quantization; pulse-code modulation; delta modulation; matched filters, inter-symbol interference and adaptive equalizers; coherent BPSK, BFSK; non-coherent BFSK and differential BPSK; M-ary modulation and bandwidth efficiency; spread-spectrum communications and CDMA systems; channel coding. Select homework assignments require use of MATLAB for experimentation and simulations.

### **Introduction to Wireless Communication Systems (EEL 4580) 3 credits**

*Prerequisite: EEL 4512C with minimum grade of "C" or permission of instructor*

This course introduces students to fundamental principles of wireless system design, focusing on modern techniques used in wireless cellular systems (5G/6G and beyond) and WiFi, various levels of system design, from information compression, modulation/detection to traffic analysis. Labs and a project are given on how to design and build a wireless system and how to test the system on software radios.

### **Control Systems 1 (EEL 4652 C ) 3 credits**

*Prerequisites: EEL 3502 and MAP 3305 with minimum grades of "C"*

Theory and hands-on practice of classical control: stability, transient and steady-state performance, controller design techniques, simulations and computer-aided system design; lab experiments of digital control using microcontrollers.

### **Control Systems Lab (EEL 4652L) 1 credit**

*Prerequisite or Corequisite: EEL 4652*

Lab experiments including analog computers, PID temperature control, DC servo, system identification from frequency response, computer-aided design, system simulation using MATLAB and introduction to digital control systems.

### **Analysis of Linear Systems (EEL 4656) 3 credits**

*Prerequisite: EEL 3111 with minimum grade of "C"*

State variables, delta function and Impulse response, convolution, Fourier Transform and applications, discrete time systems, Z-transform and applications, Fourier transform of discrete signals.

### **Directed Independent Study (EEL 4905) 1-4 credits**

*Prerequisite: Permission of instructor*

Study of topics relating to the special needs and interests of individual students. May be taken for

repeated credit.

### **Special Topics (EEL 4930) 1-4 credits**

*Prerequisite: Permission of instructor*

Topics in specialized areas, such as networks, electronics, and machines, not adequately covered in other courses. May be repeated for credit.

### **Cooperative Education - Electrical Engineering (EEL 4949) 1-4 credits**

Cooperative work study for electrical engineering students. *Grading: S/U*

### **3D Modeling and Design (ETD 3366) 3 credits**

*Prerequisite: CDA 3203 with minimum grade of "C"*

This course introduces students to the basic concepts of SOLIDWORKS and AutoCAD, including 3D modeling with emphasis on electrical and electronic applications.

### **Nature: Intersections of Science, Engineering, and the Humanities (ETG 2831) 3 credits**

Course focuses on the reciprocal influence of science in its endeavor to understand nature, engineering in it attempts to harness nature, and the humanities in their essential role as the shapers of values. This is accomplished through a combination of learned readings, penetrating discussions, computer models and software tools, and a final project and competition. This is a General Education course.

### **Artificial Intelligence Applications in Biology (IDS 4139) 3 credits**

[\(See Interdisciplinary Studies courses, College of Science section\)](#)

### **Data Science Capstone (ISC 4941) 1-3 credits**

*Prerequisites: CCJ 3071, CAP 2751, CAP 2753, MAP 2192, QMB 3302, and STA 2023*

Students in the B.S. program with Major in Data Science and Analytics apply theoretical knowledge, methods and tools to a real-world data science problem. Students can work individually or in teams under the supervision of the course instructor or another faculty member.

### **Introduction to Queueing Theory (MAP 4260) 3 credits**

*Prerequisite: STA 4821*

Queueing theory and its application to computer performance evaluation, operating systems analysis, telecommunications, and operations research.

### **Stochastic Models for Computer Science (STA 4821) 3 credits**

*Prerequisite: MAC 2312 or MAC 2282 with minimum grade of "C"*

Basic principles of probability and statistics for modeling and experimentation in computer science.

Topics include conditional probability, random variables, distribution and density functions, stochastic

processes, queueing theory, the central limit theorem and simulation.

## **Electrical Engineering and Computer Science Graduate Courses**

### **Introduction to Biomedical Engineering (BME 5000) 3 credits**

Course provides a broad perspective of biomedical engineering as applied to topics in contemporary biology, physiology, and medicine, including biotechnology and bioinformatics.

### **Bioimaging (BME 5537) 3 credits**

Course provides students of engineering and science with an introduction to the physical and signal processing bases of modern medical imaging systems.

### **Biosystems Modeling and Control (BME 5742) 3 credits**

Dynamic modeling and control of select biological and physiological processes.

### **Special Topics in Bioengineering (BME 5937) 3 credits**

*Prerequisite: Permission of instructor*

Selected topics in bioengineering.

### **Stem Cell Engineering (BME 6324) 3 credits**

Focuses on the stem cell's research and engineering to clarify the nature of these cells, their sources and categories, their engineering for different purposes, their role as cellular therapeutic approach, reprogramming of ordinary cells into stem cells through a combination of readings, penetrating discussions and animation of new techniques and tools (short movies).

### **Tissue Engineering (BME 6334) 3 credits**

Principles and newest concepts of tissue engineering. Learning and studying molecular, cellular and tissue culture aspects of TE and Laboratory work and high level of instrumentations that helps this Laboratory work to grow the tissues. Mechanical functions of the cells, extracellular matrix, types, quality, purposes of scaffolds as the supporters of 3-D tissue growth, discussed.

### **Neural Engineering (BME 6362) 3 credits**

Neural engineering concentrates on the development of technologies for rehabilitation, treatment or compensation of damages in the central and peripheral nervous systems. Modern techniques and signal processing algorithms used in brain machine interface applications, including different brain recording and stimulation methods and closed-loop brain control applications, are discussed.

### **Computational Modeling of Biological Neural Networks (BME 6425) 3 credits**

This course covers main concepts of neuroscience and uses tools from science and mathematics to

explain how information is processed in the brain. The course begins at modeling single brain cells and expands to computational models of neural coding and architecture of biological neural networks.

**Bioinformatics: Biomedical Perspectives (BME 6762) 3 credits**

*Prerequisite: Engineering/Science B.S. degree*

Introduction to bioinformatics - definition and applications. Concepts and definitions of molecular biological terms. Genomics and Proteomics. Biological sequence analysis and Next-generation sequencing. Translational and clinical bioinformatics. Viral bioinformatics and rational vaccine designs. Cytogenetic and phylogenetic informatics. Sequence search analysis tools and protocols. Information resources: databases and networks.

**Algorithms in Bioinformatics (BME 6765) 3 credits**

*Prerequisite: CAP 5548 or COP 3410 or COP 3530 with minimum grade of "C" or permission of instructor*

This course covers the data structures and algorithms commonly used in the field of bioinformatics. Emphasis on topics related to classical and modern techniques employed for biological sequence and peptide analysis.

**Directed Independent Study (BME 6905) 1-4 credits**

Directed independent study as defined by instructor.

**Special Topics in Bioengineering (BME 6935) 3 credits**

*Prerequisite: Permission of instructor*

Selected topics in bioengineering.

**Master's Thesis - Bioengineering (BME 6971) 1-9 credits**

Thesis work under supervision. *Grading: S/U*

**Data Analysis and Modeling for Cybersecurity (CAI 6803) 3 credits**

*Prerequisite: Permission of instructor*

This course introduces data science to the field of cyber security. Digital investigation approaches for cybersecurity are discussed. Further, data analytics and traffic analysis methodologies are presented. Data acquisition and sound analysis methods are also explained. Approaches for inferring and attributing various types of cyberattacks are presented.

**Digital Image Processing (CAP 5405) 3 credits**

*Prerequisite: Permission of instructor*

This course introduces students to image processing principles, tools, techniques, and algorithms. topics

include image representation, analysis, filtering and segmentation, and pattern recognition. students are trained to use image processing software tools for lab assignments and projects.

### **Data Structures and Algorithms for Bioinformatics (CAP 5548) 3 credits**

*Prerequisites: COP 3035 and PCB 3063 or permission of instructor*

This course introduces students to the data structures and analysis of algorithms using the Python programming language. It covers the various data structures and data types in the design and implementation of computer programs. Emphasis is on topics related to bioinformatics applications.

### **Introduction to Neural Networks (CAP 5615) 3 credits**

*Prerequisite: Graduate standing*

Brief introduction to biological neural systems. Models of neural mechanisms of learning and memory. Neural net applications to image processing, pattern recognition, machine learning, optimization problems, and robotics. Hardware implementation issues.

### **Computational Foundations of Artificial Intelligence (CAP 5625) 3 credits**

*Prerequisite: COP 2220 or COP 3035 or permission of instructor*

This course covers the mathematical and programming foundations of artificial intelligence (AI) and machine learning (ML) using contemporary programming languages and tools. As a result, students develop familiarity with mathematical methods (and associated notation, software packages and libraries) that are widely used in AI and ML projects and literature.

### **Introduction to Data Science (CAP 5768) 3 credits**

*Prerequisite: Programming competency at the level of an online short course (e.g., Code Academy)*

This course surveys foundational topics in data science and reinforces practical programming skills in the context of data analytics. Students learn fundamentals of computational data analysis using statistics and machine learning and gain experience working with data sets from a variety of domains. Students may not enroll in CAP 5768 if they have already taken CAP 4773.

### **Special Topics in Artificial Intelligence (CAP 5937) 3 credits**

*Prerequisite: Permission of instructor*

Selected topics in artificial intelligence.

### **Multimedia Systems (CAP 6010) 3 credits**

Components of multimedia systems. Fundamental techniques for multimedia compression and multimedia synchronization. Multimedia networks. Video retrieval and indexing techniques. Overview of multimedia tools and applications, such as on-demand services and video conferencing, and questions of suitability of problems for expert systems solution and of means of attack.

### **Multimedia Programming (CAP 6018) 3 credits**

This course provides background and experience in efficient multimedia development. Students develop multimedia applications, such as media players.

### **Social Networks and Big Data Analytics (CAP 6315) 3 credits**

This course teaches students basic concepts of Big Data Analytics with focus on social network analysis and modeling. The class covers three major topics: graphs and social network models, Big Data Analytics platform and MapReduce (Hadoop) programming, and social network analytics and mining algorithms.

### **Foundations of Vision (CAP 6411) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

Study of the interdisciplinary science of vision combining the psychological, neurophysiological, and computational aspects of vision research. Research paper and project topics will be chosen from a list of latest developments in the field.

### **Computer Vision (CAP 6415) 3 credits**

*Prerequisite: Graduate standing*

Course covers fundamentals of computer vision and their applications in various areas such as medicine, homeland security, entertainment, and manufacturing.

### **Evolutionary Computing (CAP 6512) 3 credits**

*Prerequisite: COP 3530*

Course provides understanding and exploration of biologically inspired computation. In-depth look at genetic algorithms (variables to be optimized and/or minimized), genetic programming (tree representation and parsing), classifier systems (GA variations and production rules), and evolutionary programming and strategies. Students will have a number of hands-on simulations and design assignments.

### **Computational Genomics (CAP 6517) 3 credits**

*Prerequisites: COP 3035 and PCB 3063 or permission of instructor*

This course focuses on the computational analysis of modern high-throughput genomic data. In particular, the course covers the application of R packages in performing exploratory data analysis, predictive modeling and addressing questions about different types of genomic data.

### **Data Mining for Bioinformatics (CAP 6546) 3 credits**

*Prerequisites: (COP 2220 or COP 3035) and (STA 2023 or STA 4821) or permission of instructor*

Course focuses on the principles of data mining as it relates to bioinformatics. Topics covered include gene selection, class imbalance, classification, biomarker discovery and prediction models. No prior knowledge of biology is required.

### **Databases for Bioinformatics (CAP 6547) 3 credits**

*Prerequisites: CAP 5548 and COP 3410 or COP 3530 or permission of instructor*

This course provides students with theory and tools for the design and implementation of relational database systems with an emphasis on bioinformatics applications.

### **Applied Machine Learning (CAP 6610) 3 credits**

*Prerequisite: STA 2023*

This course covers theoretical foundations and tools for machine learning and data analytics. The class introduces major machine learning topics, such as supervised learning, unsupervised learning and numeric predictive models. Case studies include application of machine learning to different domains. Credit will not be given for both CAP 4612 and CAP 6610.

### **Sparse Learning (CAP 6617) 3 credits**

This course introduces new concepts, theory, algorithms and applications of sparse representation and modeling, and their relationship with deep learning. Topics covered include mathematical preliminaries, L1 optimization, pursuit algorithms, sparse representation classifiers, sparse dictionary learning, sparse deep learning and applications.

### **Machine Learning for Computer Vision (CAP 6618) 3 credits**

*Prerequisite: Programming skills*

Introduction to machine learning techniques and their application in computer vision problems. Discusses image processing principles, techniques and algorithms. Use of MATLAB for lab assignments and projects.

### **Deep Learning (CAP 6619) 3 credits**

This courses teaches students basic concepts of deep learning with applications in computer science, engineering, business and other areas. The class covers major topics including math preliminaries, machine learning basics, deep forward networks, convolution networks, autoencoders, representation learning networks and their implementations and applications.

### **Reinforcement Learning (CAP 6629) 3 credits**

Students in this course study theoretical properties and practical applications of reinforcement learning. Course topics include Markov decision process, dynamic programming, temporal-difference learning, planning and learning with tabular methods, and deep reinforcement learning.

### **Artificial Intelligence (CAP 6635) 3 credits**

The basic concepts, techniques, and applications of artificial intelligence: representations, search strategies, control, communication, deduction, agents, evolutionary computation and machine learning.

### **Natural Language Processing (CAP 6640) 3 credits**

This course provides students with both theory and applications of natural language processing. It includes relevant background material in linguistics, mathematics, probability and computer science. Some of the topics covered in the class are text similarity, part-of-speech tagging, parsing, semantics, question answering, sentiment analysis and text summarization.

### **Data Mining and Machine Learning (CAP 6673) 3 credits**

Course deals with the principles of data mining and machine learning. Topics to be covered include machine learning methods, knowledge discovery and representation, classification and prediction models.

### **Artificial Intelligence in Medicine and Healthcare (CAP 6683) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

This course introduces the underlying concepts, methods and potential of intelligent systems in medicine. It explores the application of artificial intelligence (AI) and machine learning methods, techniques and tools to specific areas in medicine and healthcare. As a research-and-project-based course, student have opportunities to identify and specialize in particular AI methods, clinical/healthcare applications and relevant tools.

### **Information Retrieval (CAP 6776) 3 credits**

This course teaches concepts, techniques and popular tools and applications in information retrieval (IR), which aims to obtain relevant information from a collection of resources. The class covers efficient text indexing, text processing, web search and text mining. New applications are also introduced.

### **Web Mining (CAP 6777) 3 credits**

Course covers the techniques used to model, analyze, and understand the Internet and the web, especially the web graph and hypertext data.

### **Advanced Data Mining and Machine Learning (CAP 6778) 3 credits**

*Prerequisite: CAP 5615 or CAP 6635 or CAP 6673*

The study of advanced topics in data mining and machine learning. Current research issues in data mining and its application in bioinformatics, computer network security, computer science, and

software engineering.

### **Data-Driven Engineering (CAP 6805) 3 credits**

*Prerequisite: Permission of instructor*

The main objective of the course is to teach students the skills they need for system modeling, system behavior prediction or training adaptive systems all based on using relatively large datasets. Advanced methods of linear algebra, computer programming and optimization techniques are core elements of the course.

### **Computational Advertising and Real-Time Data Analytics (CAP 6807) 3 credits**

*Prerequisites: Graduate standing or permission of instructor; open to graduate students in Computer Engineering, Computer Science, Electrical Engineering*

This course teaches students basic concepts of computational advertising with a focus on real-time data analytics for displaying advertisement. The class introduces different key aspects of building platforms for online advertising, the computational requirement, tools and solutions.

### **Directed Independent Study in Artificial Intelligence (CAP 6901) 1-3 credits**

The study of topics relating to the special needs and interests of individual students.

### **Special Topics in Artificial Intelligence (CAP 6938) 3 credits**

*Prerequisite: Permission of instructor*

Selected topics in artificial intelligence.

### **Graduate Projects in Electrical Engineering and Computer Science (CAP 6951) 3 credits**

*Prerequisite: Graduate standing in the College of Electrical Engineering and Computer Science or permission of instructor*

Students apply theory, methods and analysis tools in a team-oriented environment to a real-world problem. These projects are supervised by the course instructor, faculty members within the EECS Department or local industry engineers, analysts and scientists.

### **Master's Thesis - Artificial Intelligence (CAP 6974) 1-9 credits**

*Prerequisite: Admission to candidacy*

Thesis work under supervision. *Grading: S/U*

### **Data Acquisition and Control (CDA 5175) 3 credits**

*Prerequisite: CDA 3331C*

A project-oriented course focusing on the design and implementation of data acquisition and control applications. Students learn the fundamental issues of sensing real life signals, analyzing data, and

controlling actuators. Students also learn how to select the right hardware/software combination to best fit any given application. Course is open for both graduate and senior undergraduate students in the science and engineering disciplines.

### **Cryptographic Engineering (CDA 5326) 3 credits**

This course provides an application perspective of cryptography and focuses on the computations, engineering and secure implementations. This is a course for students interested in hardware and software design in industry and real-world security and cryptographic applications.

### **Evaluation of Parallel and Distributed Systems (CDA 6122) 3 credits**

Analytical modeling techniques for evaluating performance, reliability, and performability of parallel and distributed systems. Case studies.

### **Multiprocessor Architecture (CDA 6132) 3 credits**

Multiprocessor interconnections and memory organizations. Performance evaluation, software issues, and case studies.

### **Advanced Computer Architecture (CDA 6155) 3 credits**

*Prerequisite: CDA 4102 or equivalent*

The course offers basic concepts and techniques needed to design and analyze high performance computer architecture.

### **Structured VLSI Design (CDA 6214) 3 credits**

*Prerequisite: CDA 4204 or permission of the instructor*

Use of commercial, state-of-the-art computer-aided design software for structured, testable design synthesis for CMOS VLSI. Design complexity: A 16-bit microcontroller.

### **Embedded System Design 1 (CDA 6316) 3 credits**

Develops the ability to define and design microcontroller-based systems using state-of-the-art system design tools and methodologies.

### **Networks on Chip (CDA 6565) 3 credits**

*Prerequisite: CDA 4102, CNT 4713 or permission of instructor*

Course focuses on a systematic approach to the design of the communication infrastructure as a feasible solution to design complex systems. Networks on chip (NoC) over the next decade could lead to a fundamental paradigm shift in system modeling, design and development.

### **Software Engineering (CEN 5035) 3 credits**

*Prerequisite: Graduate standing*

An introduction to basic principles and practices of software engineering. Emphasis is placed on programming language support for software engineering principles, especially techniques for data abstraction, code reusability, and programming-in-the-large. Other topics include software life cycle models, general design, implementation and testing issues, specification and design methodologies, and model-based approaches to software design.

### **Auto Code Generation (CEN 5042) 3 credits**

*Prerequisites: Graduates or seniors in Computer Science and Computer Engineering, others with permission of instructor; familiarity with Java, XML and UML desirable, but will be covered in an accelerated manner* Software tool and library development for modern applications using the MVC (model-view-control) paradigm; use of Java. XML and UML to facilitate rapid development of optimized applications. Use of Eclipse Modeling Framework (EMF) to generate code easily.

### **Cloud Computing (CEN 5086) 3 credits**

*Prerequisite: Graduate standing*

Study of cloud computing and the use and architecture of this model of computation. Exploration of the services provided by clouds, their internal structure and their possibilities and limitations.

### **Special Topics (CEN 5931) 1-4 credits**

### **Software Maintenance and Evolution (CEN 6027) 3 credits**

This course covers fundamental aspects of software maintenance and evolution, including concepts and techniques, process models for system evolution, and software maintenance case studies.

### **Software Requirements Engineering (CEN 6075) 3 credits**

*Prerequisite: CEN 4010, CEN 5035, or another introductory course in software engineering*

Principles of requirements elicitation, specification and analysis. A broad range of methods will be presented in the context of how they support these principles. Both functional and non-functional requirements will be addressed. Other topics include problem analysis, modeling, requirements documentation, and prototyping.

### **Software Engineering Measurements (CEN 6080) 3 credits**

*Prerequisite: Knowledge of SW engineering/permission of instructor*

Basic concepts, techniques, and applications of software complexity metrics. Topics covered include theory of measurement, applying measurements to software, token-based metrics, data collection, cost estimation models, productivity measures, quality, and reliability models.

### **Software Reliability Engineering (CEN 6081) 3 credits**

*Prerequisite: STA 4821*

Introduction to the basic principles of software reliability engineering. Topics covered include system definition, model selection, parameter determination, and project-specific techniques and applications.

### **Software Architecture and Patterns (CEN 6085) 3 credits**

*Prerequisite: COP 5339*

A study of high-level reusable abstractions that describe the integration of interacting components in a complex software system and the reusable patterns that describe solutions to recurring problems in software engineering.

### **Computer Performance Modeling (CEN 6405) 3 credits**

Use of statistical software packages such as SAS for data validation, description and analysis of statistical models used in computer science and software engineering.

### **Special Topics (CEN 6930) 3 credits**

### **Graduate Seminar (CGS 5937) 0 credit**

*Prerequisite: Graduate standing*

A seminar series with distinguished speakers. Students must attend at least five seminar presentations.

*Grading: S/U*

### **Practical Aspects of Modern Cryptography (CIS 5371) 3 credits**

*Prerequisite: Graduate standing*

Topics to be covered: (a) mathematical background, algorithmic number theory, classical crypto, implementation aspects of private- and public-key crypto, and (b) advanced topics on crypto such as crypto primitives, rational crypto, secure multiparty computation, hash functions, digital signatures and privacy-preserving protocols. Students may not enroll in CIS 5371 if they have already taken CIS 4634.

### **Computer Data Security (CIS 6370) 3 credits**

Overview of the technical aspects of data security with emphasis on the Internet and the design of secure systems.

### **Distributed Systems Security (CIS 6375) 3 credits**

*Prerequisite: CIS 6370*

Most practical information systems are distributed systems. They provide access to corporate information on employees and customers and must adapt to application needs. This course considers the security issues of such systems together with possible solutions.

### **Cryptocurrencies and Blockchain Technologies (CIS 6730) 3 credits**

*Prerequisites: (Graduate standing or permission of instructor) and programming skills*

This course introduces technical aspects of blockchains, public distributed ledgers and cryptocurrency systems. Students also learn the concepts and tools for developing distributed and secure applications with public distributed ledgers.

### **Computer Networks (CNT 5008) 3 credits**

*Prerequisite: Graduate standing*

Covers the internet architecture and its main communication protocols, including the physical layer and connection technologies (e.g., Ethernet and WiFi), routing, transport protocols, end-to-end application protocols (e.g., HTTP and DNS), performance aspects, technology advances and future directions.

### **Sensor Networks and Smart Systems (CNT 5109) 3 credits**

*Prerequisite: Permission of instructor*

This research-oriented course focuses on smart system applications and discusses sensor networks and their use in smart systems.

### **Computer Network Programming (CNT 5715) 3 credits**

*Prerequisites: CNT 4104 and COP 3530*

A network communication course with focus on the programming aspects of computer networking protocols. Students are required to develop a communication protocol system.

### **Embedded Networked Sensor Systems (CNT 6108 ) 3 credits**

*Corequisite: COP 3530*

This course introduces the technical foundations of embedded networked sensor systems, the building blocks of the Internet of Things. Both theory and implementation are emphasized, covering concepts, software foundations, basic embedded circuits, communication protocols and network algorithms.

### **Internet of Things (CNT 6167) 3 credits**

*Prerequisite: Permission of instructor*

This research-oriented course covers technical and operational aspects of the Internet of Things (IoT) and includes a discussion on the most recent advances and innovative applications.

### **Advanced Computer Networking (CNT 6516) 3 credits**

*Prerequisite: CNT 4104 or equivalent C/C ++ programming*

Covers advanced topics in computer networking, such as ad hoc wireless networks, cognitive networking, delay-tolerant networks and software defined networking. Students will understand the key mechanisms and networking protocols underlying these emerging networking architectures.

### **Vehicular Networks (CNT 6528) 3 credits**

Studies vehicular ad hoc networks routing and MAC protocols, broadcast protocols, applications and performance modeling.

### **Mobile Computing (CNT 6517) 3 credits**

A study of the main issues in mobile computing and the approaches that address them.

### **Ad Hoc Networks (CNT 6518) 3 credits**

*Prerequisites: CNT 4104 and MAD 2104*

A comprehensive approach to fundamentals of ad hoc networks, including media access protocols, routing protocols, implementation, and communication performance.

### **Video Communication (CNT 6885) 3 credits**

This course introduces video compression and issues in video transmission over wired and wireless networks. Course covers video technologies widely used in the industry, such as MPEG-2, MPEG-4, H.264, and transport protocols, such as RTP.

### **Object-Oriented Software Design (COP 5339) 3 credits**

*Prerequisite: Proficiency in C or C++ programming*

Classes and objects as the basis of software development. Object-oriented analysis and design using OMT, implementation using C++ and Java. Credit will not be given for both COP 4331 and 5339.

### **Functional Programming with Scala (COP 5377) 3 credits**

*Prerequisites: COP 3410 or COP 3530*

Introduces the foundations of functional programming using the Scala language. Covers theoretical concepts, starting from recursion, typeful programming, algebraic data types, monoids, monads and combinators. Introduces advanced programming techniques, such as lazy computation, higher order functions, streams and pure functional parallelism applicable for parallel applications on multi-core systems.

### **Compiler Writing 1 (COP 5625) 3 credits**

*Prerequisites: CDA 3331C and COP 3530*

A comprehensive study of the issues involved in compiler construction: lexical, syntactic, and semantic analysis, code generation, run-time support, and error handling. Each student will write complete compiler.

### **Mobile Application Development (COP 5675) 3 credits**

*Prerequisite: A college-level programming course*

This course provides study and practice of the life cycle of mobile application development. The class covers architecture, design and engineering issues, techniques and methodologies for mobile application development. Students learn a framework for mobile application development and work on a practical project where they can demonstrate their newly acquired skills.

### **Semantic Web Programming (COP 5859) 3 credits**

*Prerequisites: Graduates and seniors in Computer Science and Computer Engineering, others with permission of instructor; familiarity with Java*

Semantic web building blocks (standards, languages and frameworks). Open source tools. Integrated flow with our examples. Build an infrastructure to develop personal and practical Apps. Open to majors in computer science and engineering and others with consent of instructor.

### **Convex Optimization (COP 6511) 3 credits**

*Prerequisite: Permission of instructor*

This course introduces students to the basic theory of optimization, including least-squares, linear and quadratic programs, semidefinite programming, minimax, optimality conditions and the duality theorem. Methods include steepest descent, conjugate gradient and interior point methods, which are discussed in detail.

### **New Directions in Database Systems (COP 6726) 3 credits**

*Prerequisite: Ability to program in C or C++*

Study features of state-of-the-art object-relational, Java-enabled database systems using Oracle as a vehicle. Topics covered include SQL, Java, object-oriented features of SQL, and the implementation of stored subprograms and triggers using PL/SQL and JDBC. Also covered are server-side Web programming with PL/SQL, Java servlets, JavaServer Pages (JSP) as well as XML processing using Oracle. No prior knowledge of SQL, Java, or Web programming is assumed.

### **Visual Information Retrieval (COP 6728) 3 credits**

*Prerequisite: Graduate standing*

Studies the interdisciplinary research area of visual information retrieval. Research paper and project topics are chosen from a list of latest developments and open challenges and opportunities in the field.

### **Theory and Implementation of Database Systems (COP 6731) 3 credits**

*Prerequisite: Ability to program in C or C++*

The investigation of the fundamental principles and practices of relational database processing and design. Topics include SQL, embedded SQL, integrity constraints, transaction processing, normalization theory, query optimization, and relational algebras. Oracle is used as a vehicle in these

investigations.

### **Advanced Internet Systems (COP 6819) 3 credits**

*Prerequisite: A college-level programming course*

This course introduces web technologies that are used to build back-end systems that enable scalable web applications. The course covers technical issues surrounding back-end systems and provides the background to design and develop solutions with constantly evolving web technologies.

### **Topics in Computer Science (COT 5930) 1-3 credits**

*Prerequisite: Permission of instructor*

Study relating to specialized topics.

### **Theory and Philosophy of Computation (COT 6200) 3 credits**

This course covers major topics in the theory of computation and its philosophical meanings.

### **Analysis of Algorithms (COT 6405) 3 credits**

*Prerequisite: Graduate standing with major in Artificial Intelligence, Computer Engineering or Computer Science, or permission of instructor*

Design and analysis of algorithms from several areas in computer science. Topics include divide and conquer, maximum flow, dynamic programming, greedy algorithms, NP-completeness and approximation algorithms.

### **Information Theory (COT 6426) 3 credits**

*Prerequisite: EEE 4541 or permission of instructor*

In this course, information is defined as reduction in uncertainty. The problem of lossless digital data compression is then studied, including optimality, computability and algorithmic complexity considerations. The problem of data storage in imperfect hardware and data transmission over imperfect pathways is studied along with identifying error correction methods and their limits. Lossy compression is explored, and a brief treatment of modern quantum information theory concludes the course.

### **Secret Sharing Protocols (COT 6427) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

Course offers core secret sharing constructions along with their properties (symmetric/non-symmetric). Applications are discussed in three different models: 1) Standard: threshold, verifiable, generalized, weighted, geometric, dynamic, visual, multistage, proactive and quantum; 2) Interdisciplinary: rational, social and socio-rational; and 3) Hierarchical: disjunctive, conjunctive and sequential.

**Randomized Algorithms (COT 6446) 3 credits**

*Prerequisite: COP 3410 or COP 3530 or permission of instructor*

This course introduces several basic techniques in the design and analysis of randomized algorithms and their applications.

**Directed Independent Study-CS (COT 6900) 1-3 credits**

The study of topics relating to the special needs and interests of individual students.

**Directed Independent Study-CE (COT 6905) 1-3 credits**

The study of topics relating to the special needs and interests of individual students.

**Topics in Computer Science (COT 6930) 1-3 credits**

*Prerequisite: Permission of instructor*

**Master's Thesis-Computer Science (COT 6970) 1-9 credits**

*Prerequisite: Admission to candidacy*

*Grading: S/U*

**Dissertation-Computer Science (COT 7980) 1-15 credits**

*Prerequisite: Admission to candidacy*

*Grading: S/U*

**Video Processing (DIG 6645) 3 credits**

Fundamentals of digital video acquisition, processing, storage, indexing, retrieval, and transmission over communication networks. Principles of contemporary video compression standards. Latest developments in digital video products and services.

**Master's Thesis-Computer Engineering (ECM 6971) 1-9 credits**

*Prerequisite: Admission to candidacy*

*Grading: S/U*

**Dissertation-Computer Engineering (ECM 7980) 1-15 credits**

*Prerequisite: Admission to candidacy*

*Grading: S/U*

**Biosignal Processing (EEE 5286) 3 credits**

*Prerequisite: Graduate standing*

This course covers the generation of bioelectrical signals, their acquisition, modeling and analysis. Modeling and analysis tools cover adaptive filtering, time-frequency analysis, model-based spectral

analysis, stochastic signals and signal representation in orthogonal bases: wavelet transforms.

### **CMOS Amplifiers (EEE 5321) 3 credits**

*Prerequisite: Graduate standing*

Analysis, simulation, and computer-aided design of basic open-loop and feedback, single-stage and differential CMOS amplifiers, taking into account frequency response, noise, and parameters tolerance. Design software includes Excel, Pspice and ADS.

### **High Frequency Amplifiers (EEE 5371) 3 credits**

Electromagnetic fields and waves, analysis and design of transistor circuits; tow-port networks, matching networks, stability considerations, RF transistor amplifier design, broadband and high-power design methods; CAD techniques for RF amplifier design.

### **Nanobiotechnology (EEE 5425) 3 credits**

*Prerequisite: Graduate standing in engineering and/or physical/biological sciences*

This course covers the sensing and characterization of biological entities with novel nanoscale devices and nano-object mediated modalities. It also covers the fundamentals of nanotechnology in biological and biomedical research.

### **Digital Processing of Signals (EEE 5502) 3 credits**

*Prerequisite: Graduate standing*

An analysis of discrete signals and systems, difference calculus, sampling theory, Z-transform and the discrete Fourier transform, digital filter synthesis and implementation, and fast Fourier transform algorithms.

### **Introduction to Radar Systems (EEE 5557) 3 credits**

*Prerequisites: Graduate standing*

An introduction to radar systems. Topics include radar equations, pulse and tracking radars, and radar transmitters and receivers.

### **RF CMOS VLSI Devices for Wireless Communications (EEE 6323) 3 credits**

*Prerequisites: EEE 3300, 4361C*

RF VLSI aspects of monolithic RFIC's in wireless communication systems. Emergence of CMOS RF VLSI applications. Front and back end uses with practical examples.

### **RF Devices and Circuits (EEE 6374) 3 credits**

RF filter design, active RF components and component modeling, matching and biasing networks, RF oscillators, mixers and synthesizers, use of RF CAD software for system simulation.

### **Adaptive Signal Processing (EEE 6504) 3 credits**

*Prerequisite: EEE 5502*

This course covers the principles of linear adaptive filtering, various adaptive filtering techniques, and their relationships to optimal linear filter solutions. Also emphasized are such applications such as adaptive filtering as noise and echo cancellation, adaptive equalization, line enhancement, and beam forming.

### **Advanced Signal Processing (EEE 6508) 3 credits**

*Prerequisite: EEE 5502*

Course provides an in-depth study of a select set of topics in digital signal processing (DSP). Topics include advanced digital filter design techniques, reconstruction of signals from DSP samples, wavelets, and multirate signal processing and its applications to speech analysis. Course is designed for graduate students with a strong background in DSP fundamentals and MATLAB.

### **Digital Processing of Speech Signals (EEE 6585) 3 credits**

*Prerequisite: EEE 5502*

A course in digital modeling, processing, and representation of speech signals, short time Fourier analysis, speech spectrograms, linear predictive coding, person-machine communication by voice.

### **Queueing Theory (MAP 6264) 3 credits**

*Prerequisite: STA 4821*

Development of mathematical models for performance analysis of computer and telecommunications networks. Review of probability, introduction to stochastic processes, development of classical teletraffic and queueing models, application to modern computer and telecommunications networks.

### **Power System Analysis and Control (EEL 5256) 3 credits**

*Prerequisite: Graduate standing*

Study of the fundamentals of power grid, such as phasor, transformers, transmission line, power flow and symmetrical faults.

### **Microwave Engineering (EEL 5437) 3 credits**

*Prerequisite: Graduate standing*

Electromagnetic theory, harmonic transmission lines, waveguides, microwave network analysis, impedance matching and tuning, microwave resonators, power dividers, couplers and filters, microwave oscillators and mixers, CAD design techniques.

### **Digital Communications Systems (EEL 5500) 3 credits**

*Prerequisite: EEL 4512C*

Random signals and noise, random processes, physical noise sources, and digital data transmission and reception.

### **Modern Control (EEL 5613) 3 credits**

*Prerequisite: Engineering graduate standing or permission of instructor*

Fundamentals of linear systems theory and practice as applied to multi-input and multi-output feedback control systems: State variable models, stability, controllability, observability, state feedback and estimation, linear quadratic regulators, computer-aided analysis and design (using Matlab control systems toolbox).

### **Control Systems 2 (EEL 5654) 3 credits**

*Prerequisite: Graduate standing*

Internal stability, stabilization, minimum weighted sensitivity control design, controller design in the presence of unknown disturbances, and model uncertainty.

### **Robotic Applications (EEL 5661) 3 credits**

*Prerequisite: Senior or graduate standing*

Robot classification, robot systems, economic justification; product design for robot assembly; programming, part feeding, tooling.

### **Special Topics in Electrical Engineering (EEL 5934) 1-5 credits**

*Prerequisite: Permission of instructor*

An advanced course in specialized areas not adequately covered in other courses. It may be repeated for credit.

### **Advanced Photovoltaic Power Systems (EEL 6284) 3 credits**

*Prerequisites: EEE 3300 or permission of instructor*

This is an advanced course on solar electrical system analysis. Using basic electrical theories, the course provides an estimate of how much energy is delivered or recovered from several solar systems. Projects include designs of stand-alone solar systems and grid-tied systems. Students cannot take this course and EEL 4281 for credit.

### **Smart Grid (EEL 6297) 3 credits**

Exposes students to concepts, theories, methods and latest topics in smart grids. Topics covered include principles and practices in data analytics, optimization, control, renewable energy and electrical power systems.

### **Fourier Optics and Holography (EEL 6449) 3 credits**

Analysis of two-dimensional linear systems, scalar diffraction theory, Fresnel and Fraunhofer diffraction, transforming properties of lenses, optical imaging systems, theory and application of holography.

**Smart Antennas (EEL 6468) 3 credits**

This course covers the underlying principles and current state-of-the-art of smart antennas and array processing algorithms that can readily raise the signal-to-noise ratio of signals of interest, null-out or suppress interferers, identify active signals and their direction of arrival and track signal sources as they move in space. Topics covered include deterministic, mean-square optimal and adaptive beamforming; direction-of-arrival estimation; and joint space-time data processing.

**Electromagnetic Theory 1 (EEL 6482) 3 credits**

Review of fundamental concepts. Electromagnetic theorems and concepts, including duality, uniqueness, field equivalence, reciprocity, Green's functions; boundary value problems in rectangular, cylindrical, and spherical coordinates.

**Digital Satellite Communication (EEL 6509) 3 credits**

Satellite communication systems, satellite orbits, propagation effects, link budget calculating performance of digital modulation options.

**Telecommunications: Waves, Fibers and Antennas (EEL 6519) 3 credits**

*Prerequisite: Permission of instructor*

Course provides students of engineering/science with an introduction to basics of physics and engineering of telecommunication systems' components.

**Information Theory (EEL 6532) 3 credits**

*Prerequisite: EEE 4541 or permission of instructor*

Information theory, entropy, coding information sources, noisy channels, codes for error detection and correction.

**Detection Theory (EEL 6537) 3 credits**

*Prerequisite: EEE 4541*

Hypothesis testing; detection of signals and noise; detection of signals with unknown parameters; detection of weak signals; non-parametric detection; decentralized detection; robust detection; and applications.

**Signal Processing for Machine Learning (EEL 6556) 3 credits**

*Prerequisite: Permission of instructor*

This is a project-based course emphasizing signal processing methods that are used to prepare signals for machine learning that can be adapted into the machine learning architecture.

### **Fiber Optic Communication (EEL 6563) 3 credits**

*Prerequisite: EEL 4512C*

Optical fiber waveguides, optical sources and detectors, optical modulation and demodulation, fiber optic components and devices, noise in optical systems, system design.

### **Wireless Networks (EEL 6591) 3 credits**

*Prerequisite: CNT 5008*

Basic concepts and recent advances in field of wireless communication networks. Fundamentals of wireless communication technology and study of representative networks, such as cellular wireless network, WLAN, PAN, ad hoc wireless networks and wireless sensor networks.

### **Mobile Communication (EEL 6593) 3 credits**

Basics of mobile/cellular communication systems, propagation - fading models, diversity gain, link margins, modulation, performance analysis.

### **Wireless Personal Communication Systems (EEL 6597) 3 credits**

*Prerequisite: EEL 5500 or permission of instructor*

Course introduces seniors and graduate students in electrical engineering to the fundamentals of wireless personal communication services, systems, and networks. The course focuses on the principles, technologies, system architectures, and standards for wireless access networks for telephony, data communications, and portable computing.

### **Nonlinear Control Systems Engineering (EEL 6621) 3 credits**

*Prerequisite: EEL 4652C*

Explores the most common nonlinearities that occur in practical feedback control design and their effect on system's performance and control design. Course covers Phase Plane Methods, Describing Function, PID auto-tuning, Sliding Mode Control, Lyapunov Control Design and Feedback Linearization.

### **Intelligent Control (EEL 6682) 3 credits**

Recent trends related to learning and decision-making capabilities of intelligent control systems using neural networks and fuzzy logic. Emphasis on controller design for industrial applications.

### **Neural Complex and Artificial Neural Networks (EEL 6819) 3 credits**

Multifaceted representation of neural activity in terms of neurobiology, cognitive science, art of

computation, cybernetics and physics of statistical mechanics. Neural network modeling mimicking biological neural complex and development of artificial neural networks.

### **Directed Independent Study (EEL 6905) 1-4 credits**

*Prerequisite: Permission of instructor*

Courses in specialized areas not adequately covered in other courses may be taken for repeated credit.

### **Special Topics in Electrical Engineering (EEL 6935) 1-4 credits**

### **Master's Thesis-Electrical Engineering (EEL 6971) 1-9 credits**

*Grading: S/U*

### **Dissertation-Electrical Engineering (EEL 7980) 1-15 credits**

*Grading: S/U*

### **Graduate Internship (EGN 5940) 1-3 credits**

Summer industrial work experience in student's major field of study. *Grading: S/U*

### **Advanced Research (EGN 6918) 1-9 credits**

*Prerequisite: Permission of instructor*

Research relevant to the student's course of study in the Ph.D. program. This course requires oversight by the student's advisor who can assess the student's performance at the end of the semester. This course can only be taken prior to admission to candidacy for the doctoral degree and may be repeated in multiple semesters. *Grading: S/U*

## **INTERDISCIPLINARY**

**Undergraduate Courses** / [Link to Graduate Courses](#)

### **Discoveries in Engineering: Electronic Design and Operational Amplifiers (EEL 1007C) 3 credits**

*Prerequisite: For pre-approved dual-enrolled high school students only*

Basic and advanced electronic design principles in theory, computer lab PSPICE simulations and hands-on electronics lab experiments and design project. Topics include audio amplifiers, filters, AM wireless optical communication, and extensive technical report assignments.

### **Fundamentals of Engineering (EGN 1002) 3 credits**

Engineering survival skills: orientation, professionalism, planning, problem solving, creative thinking, software and calculator techniques, time and project management, teaming skills, engineering disciplines, report writing, and technical communications.

**University Honors Seminar in Engineering (EGN 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in engineering.

**University Honors Seminar in Engineering (EGN 1932) 3 credits**

*Gordon Rule, computational*

A seminar in the University Honors Program on topics in Engineering.

**Special Topics (EGN 1935) 1-4 credits**

*Prerequisite: Permission of instructor*

Lower-division special topics in areas of engineering not covered by other courses such as experimental advanced high school work.

**Special Topics (EGN 2935) 1-4 credits**

*Prerequisite: Permission of instructor*

Lower-division special topics in areas of engineering not covered by other courses such as experimental advanced high school work.

**Statics (EGN 3311) 3 credits**

*Prerequisite: PHY 2048 with minimum grade of "C"*

*Prerequisite or Corequisite: MAC 2312*

Analysis of force and moment systems for static equilibrium of trusses, beams, frames, and machines; elements of frictions; centroid, center of gravity, center of mass, and moment of inertia.

**Dynamics (EGN 3321) 3 credits**

*Prerequisite: EGN 3311 with minimum grade of "C"*

Dynamics of particles and rigid bodies, applications of free-body diagrams, Newton's second law, the impulse-momentum method and the work-energy principle to solve dynamic problems in mechanical systems.

**Strength of Materials (EGN 3331) 3 credits**

*Prerequisite: EGN 3311 with minimum grade of "C"*

Concepts of stress and strain; mechanical properties of materials, force, deformation and stress analysis of structural members; stress and strain transformations; principal stresses; failure theories; and concept of buckling.

**Engineering Thermodynamics (EGN 3343) 3 credits**

*Prerequisite: PHY 2048, MAC 2312, with minimum grade of "C"*

Topics include properties of a simple pure compressible substance, equations of state, the first law of thermodynamics, internal energy, specific heats, enthalpy and the application of the first law to a system or a control volume. The study of the second law of thermodynamics is also discussed leading to the discovery of entropy as a property and its ramifications.

### **Engineering Materials 1 (EGN 3365) 3 credits**

*Prerequisite or Corequisite: EGN 3331 with minimum grade of "C"*

Structure of material systems from the atomic, micro and macroscopic standpoints. Equilibrium and non-equilibrium structures. Relationship between structure and electrical, thermal, mechanical and failure properties of metals, ceramics and polymeric materials. Strengthening mechanisms in materials.

### **Special Topics (EGN 3935) 1-4 credits**

*Prerequisite: Permission of instructor*

Special topics in areas of engineering not covered by other courses.

### **Engineering Professional Internship (EGN 3941) 0-4 credits**

*Prerequisite: FAU student and permission of college*

Course offers students the opportunity to gain real world exposure and supervised experience related to engineering and computer science careers. Students integrate theory with practice in experiential learning acquired through direct involvement in on/off-campus internship opportunities. Students develop marketable skills in preparation for future employment or graduate school studies.

### **Cooperative Education in Engineering (EGN 3945) 0 credit**

*Prerequisite: Junior standing*

Supervised work experience under approved industrial supervision in the college's part-time cooperative education program. Course may be taken up to four times. *Grading: S/U*

### **Inventive Problem Solving in Engineering (EGN 4040) 3 credits**

Common problem-solving methods, followed by an introduction to TRIZ (Russian acronym for systematic inventive thinking); introduction to intellectual property, including patents, copyrights, trademarks, trade secrets and unfair competition.

### **Vibration Synthesis and Analysis (EGN 4323) 3 credits**

*Prerequisites: (MAP 3305 or MAP 2302) and EGN 3321 with minimum grades of "C"*

Free and forced vibration of mechanical systems, damping, periodic and transient excitations, two degree of freedom and continuous systems.

### **Dynamic Systems (EGN 4432) 3 credits**

*Prerequisites: (MAP 3305 or MAP 2302) and (EGN 2213 or EEL 2161) and EGN 3321, all with minimum grades of "C"*

Acquaints students with basic knowledge about dynamic systems, systems stability analysis and basic controller design.

### **Innovative Sensing and Actuation Technologies (EGN 4670C) 3 credits**

*Prerequisites: EGM 4045 or EOC 4612C and EOC 3130L or EML 4730L all with minimum grade of "C"*

Introduction to innovative technology in sensing and actuation through a series of modules each comprising lectures, seminar and laboratory.

### **Honors Directed Independent Study (EGN 4906) 3 credits**

Project-orientated study of engineering topics relating to the special needs and interests of individual Innovation Leadership Honors Program students.

### **Directed Independent Research in Engineering and Computer Science (EGN 4911) 0-3 credits**

*Prerequisite: Permission of instructor*

The student works closely with a research mentor to conduct research and inquiry in engineering and computer science. The requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

### **Directed Independent Research in Engineering and Computer Science (EGN 4915) 1-3 credits**

*Prerequisite: Permission of instructor*

The student works closely with a research mentor to conduct research and inquiry in engineering and computer science. The requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student.

### **Engineering Honors Seminar (EGN 4933) 0 credit**

*Prerequisite: For students in the Engineering Honors program*

A seminar in the Engineering Honors program on topics related to leadership, research, entrepreneurship and innovation. Students may enroll in this course up to five times. *Grading: S/U*

### **Special Topics (EGN 4935) 1-4 credits**

*Prerequisite: Permission of instructor*

Special topics in engineering not covered by other courses.

### **RI: Engineering Design 1 (EGN 4950C) 3 credits**

*Prerequisite: EEE 4541 or STA 4821 with minimum grade of "C"*

*Prerequisite or Corequisite: CEN 4010 or EEE 4361C with minimum grade of "C"*

Students develop and present proposals for capstone design projects to be completed in EGN 4952C. Work in interdisciplinary teams is required. Topics include system design theory and practice, local and global impacts of computing and engineering solutions, multiple constraints, lifelong learning and ethics. This is a research-intensive (RI) course and an Academic Service Learning (ASL) course.

### **RI: Engineering Design 2 (EGN 4952C) 3 credits**

*Prerequisite: EGN 4950C*

Continuation and completion of multidisciplinary team projects initiated in EGN 4950C. This is a research-intensive (RI) course and an Academic Service Learning (ASL) course.

### **Honors Undergraduate Thesis (EGN 4972) 3 credits**

Thesis preparation for research conducted by Innovation Leadership Honors Program students.

### **Innovation Leadership Internship (EGS 4942) 1 credit**

*Prerequisites: Participation in ILHP*

A collaborative effort between an individual student, the University through the Center for Innovation Leadership, and a University partner that provides the enrichment experience. The effort begins with an appropriate proposal, agreed to by all parties, that defines the scope of the work to be accomplished and a schedule for completion. *Grading: S/U*

### **Discoveries in Engineering:**

#### **Introduction to Ocean Engineering and Underwater Vehicles (EOC 1665C) 3 credits**

*Prerequisite: For pre-approved dual-enrolled high school students only*

This course introduces basic ocean engineering disciplines and principles of vehicle motion. Laboratory assignments provide hands-on experiences in designing, building, and testing remotely operated and autonomous marine vehicle models.

### **Interdisciplinary Graduate Courses**

#### **Honors Directed Independent Study (EGN 5908) 3 credits**

*Prerequisite: Permission of instructor*

Project-oriented study of engineering topics related to the special interests of individual Innovation Leadership Honors Program students in the combined B.S./M.S. programs.

#### **Special Topics (EGN 6930) 1-4 credits**

*Prerequisite: Permission of instructor*

Courses in specialized interdisciplinary areas of engineering. May be repeated for credit.

# OCEAN AND MECHANICAL ENGINEERING

[Undergraduate Courses](#) / [Link to Graduate Courses](#)

## **Biomaterials (BME 4100) 3 credits**

This course covers a comprehensive introduction of biomaterials science, the properties of biomaterials, the classes of biomaterials and the applications of biomaterials in medicine. The content of this course includes preparation, characterization and biological evaluations of biomaterials. Specific biomaterials such as bioceramics, polymers and hydrogels are discussed.

## **Neural Engineering (BME 4361) 3 credits**

This course introduces students to the nervous system and basic neuroscience principles that govern neural interface engineering. After an introduction to the nervous system and brain diseases, the course focuses on bioengineering technologies for neural interfaces toward imaging, sensing, interfacing and activating neural function in health and disease.

## **Introduction to Biosignal Processing (BME 4509) 3 credits**

*Prerequisite: EEL 3502 with minimum grade of "C" or permission of instructor*

This course covers the generation of bioelectrical signals, their acquisition, modeling, and analysis. Modeling and analysis tools cover adaptive filtering, time-frequency analysis, model-based spectral analysis, stochastic signals and signal representation in orthogonal bases, such as wavelet transforms. The physiology of electrical signal generation covers ionic transport in cellular membranes and propagation of electrical signals in cells and tissues. The range of biomedical signals covered includes such common signals as the electroencephalograms, evoked potentials, electromyograms and electrocardiograms. The students write MATLAB codes to perform common signal analysis such as filtering, autocorrelation and covariance, Fourier-based spectral analysis, the short-time Fourier transform and noise reduction.

## **Introduction to Bioimaging (BME 4536) 3 credits**

*Prerequisite: EEL 3502 with minimum grade of "C" or permission of instructor*

The course fits within the goals of the college to foster and facilitate interdisciplinary research, and it provides students with the necessary fundamental concepts to do research in biomedical imaging. Topics of the course cover image characteristics, Fourier transforms, image acquisition, image processing and analysis, convolution, sampling, resolution, contrast, filtering; principle of imaging tools such as radiography, CT, ultrasound, MRI and optical imaging.

### **Nanotechnology (BME 4571) 3 credits**

*Prerequisites: Some math, physics, and chemistry*

Fundamental science behind nanotechnology. Tools of nanosciences. Smart materials. Sensors. Biomedical applications. Energy capture, transformation, and storage. Optics and electronics. Fabrication and modeling. Nano business and nano industry.

### **Introduction to Nanobiotechnology (BME 4574) 3 credits**

*Prerequisite: Senior standing in engineering and/or physical/biological sciences*

The sensing and characterization of biological entities, processes and events, with novel nanoscale devices and nano-object mediated modalities, have immediate and far-reaching impacts. This course covers the fundamentals of nanotechnology in biological and biomedical research. The coursework is approached from an engineering perspective offering insights on the details of nanoscale fabrication processes as well as cell biology. The basics of biology and chemistry, with a focus on how to engineer the behavior of molecules at the nanoscale, are also introduced and analyzed. Concepts and processes related to BioMEMS and microfluidics are also explained.

### **Introduction to Microfluidics and BioMEMS (BME 4581) 3 credits**

*Prerequisites: EML 3701, MAP 3305 with minimum grades of "C"*

A comprehensive introduction to microfluidics, micro-electro-mechanical systems (MEMS) and applications in the life sciences. Topics include laminar flow, viscosity, surface tension, dimensionless numbers, Electrokinetics, photolithography, soft lithography, flow control, flow sensors of micrometer scale as well as applications of microfluidics and MEMS for molecular biology and cell biology.

### **Aerodynamics (EAS 4101) 3 credits**

*Prerequisite: EML 3701 with minimum grade of "C"*

This course introduces engineering concepts and analytical techniques used in aeronautical engineering. The course focuses on the aerodynamics of airfoils and wings in subsonic, transonic and supersonic flight.

### **Flight Dynamics (EAS 4105) 3 credits**

*Prerequisite: EAS 4101 with minimum grade of "C"*

This course provides an introduction to the flight dynamics, modeling and fundamental stability and control aspects of aircraft. The course covers aircraft roll, pitch and yaw static stability and control basics and develops the full nonlinear equations of motion. The concept of numerical simulation of these equations is also introduced. Finally, with the dynamic models in-hand, open-loop response to actuation of the control systems is analyzed and the concept of closed-loop aircraft control system design is presented.

### **Circuits 1 (EEL 3111) 3 credits**

### **Programming 1 (COP 2220) 3 credits**

(See [Electrical Engineering and Computer Science courses](#), this section)

### **Electro-Mechanical Devices (EGM 4045) 3 credits**

*Prerequisites: (MAP 3305 or MAP 2302) and PHY 2044 and (EGN 2213 or EEL 2161), all with minimum grades of "C"*

Introduction to basic DC and AC circuits; passive and active filtering; DC and AC motors; and Arduino micro-controller for hardware and software interfaces.

### **Finite Element Analysis for Engineering Design (EGM 4350) 3 credits**

*Prerequisite: EGN 3331 with minimum grade of "C"*

Fundamental concepts of finite element software to perform the stress, vibration, and heat transfer analyses of various engineering design problems.

### **Intermediate Strength of Materials (EGM 4523C) 3 credits**

*Prerequisite: EGN 3331 with minimum grade of "C"*

An extension of the theories and applications of the principles of mechanics of materials taught in EGN 3331, including determining the deflection of beams by different methods, solving statically indeterminate problems, studying the phenomenon of stress concentration in practical situations and applying static failure theories in design.

### **Engineering Graphics (EGN 1111C) 3 credits**

Sketching techniques. Multiview drawings, pictorials, section views, auxiliary views, and engineering problem layout. Descriptive geometry. Three-dimensional modeling and computer graphics.

### **Computer Applications in Engineering 1 (EGN 2213) 3 credits**

*Prerequisite or Corequisite: MAC 2312 with minimum grade of "C"*

An introduction to programming in MATLAB, this course includes some matrix concepts, input/output statements, for and while loops, if and else-if statements, built-in functions, self-written functions, some built-in solvers and projects illustrating applications to engineering topics.

### **Statics (EGN 3311) 3 credits**

### **Dynamics (EGN 3321) 3 credits**

### **Strength of Materials (EGN 3331) 3 credits**

### **Engineering Thermodynamics (EGN 3343) 3 credits**

### **Engineering Materials 1 (EGN 3365) 3 credits**

### **Dynamic Systems (EGN 4432) 3 credits**

(See [Interdisciplinary courses, this section](#))

### **Experimental Methodology (EML 3523C) 3 credits**

*Prerequisite: EGM 4045 with minimum grade of "C"*

*Prerequisites or Corequisites: EGN 3321, EML 3701, STA 4032, all with minimum grades of "C"*

Study of typical measuring systems and solutions of engineering problems by experimental means, to include analysis of experimental data.

### **Fluid Mechanics (EML 3701) 3 credits**

*Prerequisites: EGN 3311 and EGN 3343 with minimum grades of "C"*

*Prerequisite or Corequisite: MAP 3305 with minimum grade of "C"*

Characteristics of a fluid, fluid statics, flow fields, fundamental laws, control volume concept, some applications of the fundamental laws in integral form, dimensional analysis and similitude, flow in pipes, single-path pipe line problems, networks, and boundary layer concepts.

### **Applied Thermal-Fluid Engineering (EML 4127) 3 credits**

*Prerequisite: EML 4142 with minimum grade of "C"*

Applications of fluid mechanics and heat transfer, including: turbomachinery, heat exchangers, condensation and boiling heat transfer, special topics in fluid mechanics, heat transfer, and design projects.

### **Heat Transfer (EML 4142) 3 credits**

*Prerequisites: EML 3701 and MAP 3305 with minimum grades of "C"*

Modes of heat transfer, one- and two-dimensional steady state heat conduction, unsteady heat conduction, numerical methods, computer program projects, empirical relations for forced and free convection, radiation properties, shape factors, radiation heat exchange between gray bodies.

### **Plastics and Composites (EML 4236) 3 credits**

*Prerequisites: EGN 3331 or equivalent and EGN 3365 or equivalent with minimum grades of "C"*

Course covers the structure and properties of polymers and the design of plastic parts. It also provides an introduction to composite materials.

### **Machine Design 2 (EML 4262) 3 credits**

*Prerequisites: EGN 1111C, EGN 3321 and EGN 3331 or equivalents with minimum grades of "C"*

The study of kinematics, dynamics, and design of machinery and related components. Topics include analysis and synthesis of linkages, cams, bearings, gears, and gear trains.

### **Fabrication of Mechanical Engineering Systems (EML 4263C) 2 credits**

*Prerequisite: EGN 3365 with minimum grade of "C"*

*Corequisite: EML 4521C with minimum grade of "C"*

An Introductory course directed at acquainting mechanical engineering students with the basic machinery and machining processes used to fabricate parts of mechanical engineering systems.

### **Mechanical Control System (EML 4312) 3 credits**

*Prerequisite: EGN 4432 with minimum grades of "C"*

Course covers fundamental concepts in controls: block diagram, transfer function, stability, response in time and frequency domains, Root Locus, Bode and Nyquist Diagrams, PID controller design. Also the control of discrete systems is discussed.

### **Manufacturing Methods (EML 4321) 3 credits**

*Prerequisite: EGN 3365 or equivalent with minimum grade of "C"*

Structure and properties of materials, thermal treatments and material selection for particular applications. Casting, powder metallurgy, forming, machining and joining processes.

### **Principles of Turbomachinery (EML 4401) 3 credits**

*Prerequisite: EML 3701 with minimum grade of "C"*

This course covers basic principles related to gas turbines, applications to stationary power generators and aircraft propulsion systems, guiding principles in gas turbine cycles, design of basic components and their performance prediction.

### **Introduction to Solar Energy (EML 4416C) 3 credits**

*Prerequisite: EGN 3343 or equivalent with minimum grade of "C"*

*Pre- or Corequisite: EML 4142 with minimum grade of "C"*

Energy and the human condition. The sun and the earth. A review of first principles. Collection of solar energy. Applications of solar energy. Two hours lecture, six hours lab.

### **Introduction to Energy Conversion Processes and Systems (EML 4450) 3 credits**

*Prerequisite or Corequisite: CWR 3201C or EGN 3343 with minimum grade of "C" or permission of instructor*

Introduction to principles, theories and processes of devices and systems that convert thermal, chemical, solar, biological and electromagnetic energy into electrical, mechanical and alternative chemical forms. Energy conversion performance and characteristics and sources of inefficiencies are

explored for applications that include fossil energy combustion, solar, wind, hydro, biomass, thermoelectric and geothermal energy systems. Several interesting topics including carbon capture/storage and fuel cells are covered.

### **Introduction to Wind and Ocean Energy Turbines (EML 4457) 3 credits**

*Prerequisite: EGN 3331 with minimum grade of C*

An introduction to wind and ocean energy systems, turbine blade design, wind, wave and ocean current loading, advanced materials design, cyclic and cumulative fatigue, matrix stiffness and finite element methods.

### **Machine Design (EML 4500) 3 credits**

*Prerequisites: EGM 4523C, EGN 1111C, all with minimum grades of "C"*

*Prerequisite or Corequisite: EML 4730L with minimum grade of "C"*

Introduction to machine design; fundamental principles in strength of materials; static and fatigue failure theories; design of machine elements; and design projects.

### **RI: Engineering Design (EML 4521C) 3 credits**

*Prerequisites or Corequisites: Senior standing, permission of department, EML 4127, EML 4500, EGM 4350,*

*with minimum grades of "C"*

*Corequisite: EML 4263C*

The design process, including decision theory, creativity concepts, human factors, optimization techniques, reliability, statistics and professional ethics, engineering economy and incorporation of engineering standards, codes and multiple constraints. Material selection and testing. Fatigue and fracture design. This is a research-intensive (RI) course. This is an Academic Service Learning (ASL) course.

### **Computer Applications in Mechanical Engineering 2 (EML 4534) 3 credits**

*Prerequisites: (MAP 3305 or MAP 2302) and (EGN 2213 or COP 2220) all with minimum grades of "C"*

Review of MATLAB Language, numerical methods utilized in solving mechanical engineering problems, projects related to solid body mechanics, and thermal systems.

### **RI: Design Project (EML 4551) 3 credits**

*Prerequisite: EML 4521C with minimum grade of "C"*

Continuation and completion of individual and group projects initiated in prerequisite course EML 4521C, Engineering Design. This is an Academic Service Learning (ASL) course. This is a research-

intensive (RI) course.

### **Design Against Uncertainty (EML 4571) 3 credits**

*Prerequisite: EGN 3331 or equivalent with minimum grade of "C"*

The basic modern concepts for design of engineering structures against uncertainty will be elucidated in this course. The following topics will be studied: safety factors, probabilistic design through reliability, convex modeling of uncertainty, fuzzy subsets based design, Taguchi methods.

### **Mechanical Engineering Lab (EML 4730L) 3 credits**

*Prerequisites: EGN 2213 and EML 3523C with minimum grades of "C"*

Experimental work related to heat transfer, fluid mechanics, mechanical systems, materials and solid mechanics.

### **Introduction to Robotics (EML 4800) 3 credits**

*Prerequisite: Senior standing*

An introductory course for robotics that includes robotic arms configuration, trajectory planning, controls, sensors and sample applications.

### **Mechatronics (EML 4804C) 3 credits**

*Prerequisites: EGM 4045 and EGN 2213 with minimum grade of "C"*

This course includes electronics, microcontrollers programming, microcontrollers interfacing, implementation of control algorithms on microcontrollers, lab experiments and projects.

### **Directed Independent Study (EML 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

Study of topics relating to the special needs and interests of individual students. May be taken for repeated credit.

### **Special Topics (EML 4930) 1-3 credits**

*Prerequisite: Permission of instructor*

Topics in specialized areas, such as analytical methods in mechanical engineering, statistical analysis in engineering, and engineering design practice, not adequately covered in other courses. May be repeated for credit.

### **Special Projects in Mechanical Engineering (EML 4932) 1-3 credits**

*Prerequisite: Permission of instructor*

Experimental work in the laboratory and/or with the computer on topics not adequately covered in other courses. May be repeated for credit.

### **Cooperative Education - Mechanical Engineering (EML 4949) 1-3 credits**

Cooperative work study with mechanical-oriented organizations for mechanical engineering students who have completed at least one full semester of upper-level mechanical engineering courses. May be used for a total of 2 or 3 credits toward technical electives. *Grading: S/U*

### **University Honors Seminar in Ocean Sciences (EOC 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: Permission of instructor*

A seminar in the University Honors Program on topics in ocean sciences.

### **Fabrication of Ocean Engineering Systems (EOC 2801) 1 credit**

*Prerequisite: EGN 1111C with minimum grade of "C"*

A laboratory course directed to acquainting ocean engineering students with the basic machinery and machining processes used to fabricate parts of engineering systems for use in an ocean environment.

### **Ocean Engineering Fluid Mechanics (EOC 3123) 4 credits**

*Prerequisites: EGN 3321, EGN 3343, EOC 3130L and MAC 2313, all with minimum grades of "C"*

The first course of a two-semester study of incompressible-fluid flow and its application to ocean engineering with emphasis on fluid properties, hydrostatic forces, buoyancy and stability of floating bodies including metacentric height concepts, fluid dynamics, dimensional analysis, modeling, real flows in closed conduits and open channels, boundary-layers, lift and drag, turbo-machines, computational and experimental methods, resistance and propulsion of marine vehicles, and design problems. A grade of "C" or better is required for the major.

### **Ocean Engineering Laboratory (EOC 3130L) 3 credits**

*Prerequisites: CHM 2045, CHM 2045L, PHY 2044, PHY 2049L and EEL 2161, all with minimum grades of "C"*

Introduction to engineering laboratory methods and techniques with experiences in measurements, experiment planning, data recording, and laboratory report preparation. Five major lab experiences, including one or more at sea, are included.

### **Materials 1 - Marine Topics (EOC 3213) 1 credit**

*Prerequisite: EGN 3365 or equivalent with minimum grade of "C"*

Introduction to atmospheric and submerged marine corrosion. Corrosion prevention methods. An introduction to cathodic protection. Introduction to fracture and fracture control in marine environments. Materials and devices for energy storage, primary/secondary batteries, fuel cells. Composite materials for marine applications.

### **Acoustics for Ocean Engineers (EOC 3306) 3 credits**

*Prerequisites: EGM 4045 and EOC 3130L, with minimum grades of "C"*

Fundamentals of acoustics. Sound propagation in fluids; speech, hearing, noise, architectural acoustics, loudspeakers, microphones, transducers, underwater sound transmission.

### **Structural Analysis (EOC 3410C) 3 credits**

*Prerequisite: EGN 3331 or equivalent with minimum grade of "C"*

Classical methods of analysis of beams, trusses, frames, cables, and arches for ocean and other structural applications. Approximate methods, moment area, virtual work, consistent deformations.

### **Ship Hydrodynamics (EOC 4124) 3 credits**

*Prerequisite: EOC 3123 with minimum grade of "C"*

The second course of a two-semester study of incompressible-fluid flow and its application to ocean engineering with emphasis on: fluid properties, hydrostatic forces, buoyancy and stability of floating bodies including metacentric height concepts, fluid dynamics, dimensional analysis, modeling, real flows in closed conduits and open channels, boundary-layers, lift and drag, turbo-machines, computational and experimental methods, resistance and propulsion of marine vehicles, and design problems.

### **Ocean Thermal Systems (EOC 4193) 3 credits**

*Prerequisite: EGN 3343 with minimum grade of "C"*

*Prerequisite or Corequisite: EOC 3123 with minimum grade of "C"*

Basic concepts of heat and mass transfer concepts with application to the ocean and ocean systems. Applications will include power cycles and heat exchangers in ocean systems. The interactive environmental processes involving solar radiation, convective ocean circulation, evaporation and mixtures will be considered.

### **Marine Materials and Corrosion (EOC 4201C) 3 credits**

*Prerequisite: EGN 3365 or equivalent with minimum grade of "C"*

Materials selection for marine applications. Atmospheric and submerged marine corrosion. Corrosion prevention and fracture and failure analysis. Materials and devices for energy storage, primary/secondary batteries, fuel cells and electrochemical capacitors. Composite materials, strengthening mechanisms.

### **Underwater Acoustics (EOC 4307C) 3 credits**

*Prerequisite: EOC 3306 with minimum grade of "C" or permission of instructor*

Sonar equations, underwater sound propagation, sonar system performance and design.

### **Ocean Structures (EOC 4412) 3 credits**

*Prerequisite: EOC 3410C with a minimum grade of "C"*

Matrix and finite-element methods, environmental loading, stability, and dynamics of floating body applied to ocean structures.

### **Ocean Wave Mechanics (EOC 4422) 3 credits**

*Prerequisite: EOC 3123 with minimum grade of "C"*

*Prerequisite or Corequisite: EGN 4323 with minimum grade of "C"*

Small amplitude wave theory, finite amplitude waves, wave generation, wave forecasting, wave measurements. Wave force on fixed structures, floating bodies and moored bodies.

### **Introduction to Ship Structural Design (EOC 4510) 3 credits**

*Prerequisites: EGN 3331 and EOC 3410C with minimum grades of "C"*

Course introduces fundamental knowledge of ship theory needed to design and analyze ship structures under hydrostatic and wave-induced forces that result in primary hull stresses.

### **Introduction to Electronics and Programming (EOC 4612C) 3 credits**

*Prerequisites: COP 2220, EEL 3111, all with minimum grade of "C"*

*Corequisite: EOC 3130L with minimum grade of "C"*

Introduction to basic electronics and programming by means of lectures, laboratory assignments and a term project. Laboratory assignments include simple switching and filtering circuits using transistors and op-amp sensor and actuator interfaces, data communication and Arduino programming. The term project involves designing a marine vehicle that incorporates many components covered in class.

### **Introduction to Ocean Instrumentation (EOC 4620) 3 credits**

*Prerequisite: EOC 3130L with minimum grade or "C" or permission of instructor*

This course provides an overview of instrumentations and data analysis that are required for design, fabrication and calibration of ocean systems, such as offshore structures, underwater vehicles, surface vessels, underwater acoustic imagery, underwater optical imagery and pressure vessels.

### **Ocean and Environmental Data Analysis (EOC 4631C) 3 credits**

*Prerequisite: EOC 3130L with minimum grade of "C"*

*Prerequisite or Corequisite: EGN 4323 with minimum grade of "C"*

Fourier transform applications to the processing of ocean engineering related types of signals.

Introduction to probability and statistics. Digital processing techniques. Laboratory work involving analysis of ocean engineering-related signals using modern data acquisition systems.

**RI: Ocean Engineering Systems Control and Design (EOC 4804) 3 credits**

*Prerequisites: All 3000-level core engineering courses required by the department, excluding EOC 3213, and including EOC 4193 and EGN 4432, each with minimum grades of "C"*

*Corequisite: EOC 4631C with minimum grade of "C"*

Ocean engineering design, giving consideration to creativity, professionalism and incorporation of engineering standards, codes and multiple constraints. Ocean systems design, simulation and control. Dynamic modeling, system trade-offs and system evaluation. Feasibility, preliminary and final design for project to be completed in EOC 4804L. This is a research-intensive (RI) course.

**RI: Ocean Engineering Systems Control and Design Laboratory (E OC 4804L) 4 credits**

*Prerequisite: EOC 4804 with minimum grade of "C"*

Completion and execution of the system design project developed in previous EOC 4804 including detail design, final design, fabrication, testing, evaluation, and reporting of results in written and oral form. This is a research-intensive (RI) course.

**Directed Independent Study (EOC 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

**Special Topics (EOC 4930) 1-4 credits**

*Prerequisite: Permission of instructor*

New developments in Ocean Engineering and related areas.

**Cooperative Education - Ocean Engineering 1 & 2 (EOC 4949) 1-3 credits**

*Prerequisite: Successful completion of one semester of upper-level ocean engineering curriculum*

Cooperative work-study with ocean oriented organizations for ocean engineering students who have completed at least one full semester of upper-level Ocean Engineering. On-the-job training and instruction. May be repeated once for credit. These credits do not count toward the bachelor's degree.

*Grading: S/U*

**Introduction to Oceanography (OCE 2001) 3 credits**

(Note: Ocean Engineering majors may not take this course for credit.)

Using the scientific method, critical thinking skills, data analysis, this course examines the fundamental processes of the ocean system, composed of an atmosphere, hydrosphere, lithosphere and biosphere, through time. The course also explores interactions among these spheres, including critical analysis of scientific theories and emphasizes oceanic connections with humanity. This is a General Education course.

### **Oceanography (OCE 3008) 3 credits**

*Prerequisite: CHM 2045 with minimum grade of "C"*

Nature of sea water; trace and major constituents; the ocean carbon, phosphorous, and nitrogen cycles; basins, continental shelf, deep ocean floor; thermal vents, manganese nodules, marine sediments; marine life; plate tectonics; estuaries and mixing processes; pollution; corrosion and biofouling; winds, waves, tides, currents and ocean circulation processes; energy (heat, light, sound); depth, temperature, salinity, and other physical effects.

### **Ocean and Mechanical Engineering Graduate Courses**

#### **Topics in Biomechanical Engineering (BME 5930) 3 credits**

*Prerequisites: Mechanical Engineering students, permission of instructor*

Study relating to specialized topics associated with biomechanical engineering including, but not limited to, biomechanics, bio-fluid mechanics, biosensors and MEMS, and nanotechnology.

#### **Biomaterials (BME 6105) 3 credits**

*Prerequisite: EGN 3365*

This course covers the knowledge of biomaterials in science and engineering. All types of biomaterials as well as their applications in biomedical fields are introduced and discussed extensively.

#### **Nanotechnology (BME 6572) 3 credits**

An introduction to nanotechnology through lectures, demonstrations, and projects covering fundamental science behind nanotechnology; tools for nanosciences; smart materials; sensors; biomedical applications; energy capture, transformation, and storage; optics and electronics; fabrication and modeling; and the nano business, nano industry.

#### **Advanced Topics in Microfluidics and BioMEMS (BME 6585) 3 credits**

*Prerequisites: EML 3701 and MAP 3305, or permission of instructor*

A comprehensive introduction to microfluidics, micro-electro-mechanical systems (MEMS) and microfabrication techniques. Advanced topics on the applications of microfluidics and MEMS for bioengineering problems (bioMEMS). Topics include fluid properties, flow behavior, electrokinetics, photolithography, soft lithography, flow control, manipulation and characterization of biological cells using engineered microdevices.

#### **Optimal Control Systems (EEL 6672) 3 credits**

*Prerequisite: Permission of instructor*

The optimization theory is applied to continuous and discrete dynamic systems.

### **Introduction to Finite Element Methods (EGM 5351) 3 credits**

*Prerequisites: Senior or graduate standing, MAD 3400 or equivalent*

Application of finite element programs to problems in heat transfer, fluid mechanics, vibration, stress analysis and machine design.

### **Advanced Strength of Materials (EGM 6533) 3 credits**

*Prerequisite: Graduate standing*

Elements of plane elasticity, failure theories, and advanced topics in bending and torsion of structural elements. It serves as an introduction to finite element methods and applications in machine design.

### **Mechanics of Composite Materials (EGM 6562) 3 credits**

*Prerequisite: Graduate standing*

An introduction to composites, basic principles of elasticity, unidirectional composites, short-fiber composites, laminated composites, strength analysis, composite designs, joint criteria, and test methods.

### **Special Topics (EGN 5930) 1-4 credits**

*Prerequisite: Permission of instructor*

Courses in specialized interdisciplinary areas of engineering. May be repeated for credit.

### **Industrial Automation (EIN 5603C) 3 credits**

*Prerequisite: EML 4312 or its equivalent*

Design of pneumatic and hydraulic systems for automation, use of programmable logic controller for combinational and sequential systems implementation, computerized numerical control machine tools and robotics, integration of manufacturing stations into a system.

### **Topics in Mechanical Engineering (EML 5931) 3 credits**

*Prerequisites: Mechanical Engineering students; permission of instructor*

Study relating to specialized topics associated with mechanical engineering including, but not limited to, energy, machines, solid mechanics, fluid mechanics, thermodynamics, heat transfer, robotics, experimental methodology, vibrations, material and control.

### **Graduate Seminar (EML 5937) 0 credit**

*Prerequisite: Graduate standing*

A seminar series with distinguished speakers. Students must attend at least five seminar presentations.

*Grading: S/U*

### **Mechanical Vibrations (EML 6223) 3 credits**

*Prerequisite: Graduate standing*

Step and impulse loads, multiple degrees of freedom, influence coefficients, matrix methods, vibration of continuous systems, Lagrange's equations. This course serves as an introduction to non-linear and random vibrations.

**Failure Prevention (EML 6233) 3 credits**

*Prerequisite: Graduate standing*

Modes of mechanical failure, strength and deformation of metals, theories of failure, fatigue and fracture, life prediction, statistics, fretting, wear, and corrosion.

**Fracture Mechanics (EML 6239) 3 credits**

*Prerequisite: Graduate standing*

An introduction to linear elastic fracture mechanics. It studies deformation response of materials, toughness, fatigue and fracture, environmentally assisted cracking, experimental methods, and data reduction.

**Advanced Engineering Dynamics (EML 6271) 3 credits**

A course in three-dimensional kinematics and kinetics of particles and rigid bodies, Lagrangian mechanics, Hamilton's principle, and engineering application to discrete and continuous systems.

**Advanced Control Systems (EML 6317) 3 credits**

*Prerequisite: EGN 4432*

Control design applications via root locus and frequency-based approaches are explored theoretically and applied to laboratory systems. Nonlinear sliding mode control theory is introduced and applied to a lab system. Each student also explores an individual project based on control of a system.<BR>

**Turbomachinery (EML 6402) 3 credits**

*Prerequisite: Graduate standing*

Performance characteristics of turbomachines, basic laws, the cascade theory, the thin airfoil theory, inviscid flow in three dimensions, boundary layers, axial flow turbines.

**Solar Energy Engineering (EML 6417C) 3 credits**

*Prerequisite: Graduate standing*

The fundamentals of solar radiation, transmission, and absorption; flat plate and focussing collectors, thermal storage, heating and cooling of structures, distillation, process heat generation, and power generation. Two hours lecture and six hours lab are required.

**Advanced Energy Conversion Processes and Systems (EML 6451) 3 credits**

*Prerequisite: EML 3701 or permission of instructor*

This course provides fundamentals of thermodynamics, fluid mechanics, heat transfer, chemistry and transport phenomena applied to various energy conversion systems. System analysis of energy conversion in thermal, mechanical, chemical, electrical and biological processes is introduced. Current status and future outlook of each energy source and its associated conversion processes is also discussed. Energy conversion performance characteristics and sources of inefficiencies are explored for a variety of applications.

### **Wind and Ocean Energy Turbines (EML 6455) 3 credits**

*Prerequisite: EGN 3331*

A comprehensive introduction to wind and ocean energy systems, turbine blade design, wind and ocean current loading, advanced materials in design, cyclic and cumulative fatigue, matrix stiffness and finite element method. The application of advanced topics in wind and ocean energy systems addresses contemporary issues.

### **Advanced Fluid Dynamics (EML 6716) 3 credits**

*Prerequisites: Graduate standing, EML 3701 or permission of instructor*

A survey of fluid dynamics, this course addresses the fundamental principles and their applications in a variety of engineering and science problems. Topics covered include dimensional analysis, kinematics, dynamics, inviscid flow, viscous flow, vorticity, boundary layer, turbulence, compressible flow, flow with gravity and flow of industrial and natural processes.

### **Directed Independent Study (EML 6905) 1-3 credits**

*Prerequisite: Permission of instructor*

Study of advanced topics related to special needs and interests of the individual student. May be taken for repeated credit.

### **Advanced Research (EML 6918) 1-9 credits**

*Prerequisite: Permission of instructor*

This course encourages research that is relevant to the student's course of study in the Ph.D. program. This course requires oversight by the student's advisor who can assess the student's performance at the end of the semester. This course can only be taken prior to admission to candidacy for the doctoral degree and may be repeated in multiple semesters.

### **Special Topics (EML 6930) 1-3 credits**

*Prerequisite: Graduate standing*

A course in specialized area not adequately covered in other courses. It may be repeated for credit.

**Master's Thesis - Mechanical Engineering (EML 6971) 1-9 credits**

*Grading: S/U*

**Dissertation-Mechanical Engineering (EML 7980) 1-15 credits**

*Grading: S/U*

**Mathematical Methods in Ocean Engineering 1 (EOC 5172) 3 credits**

*Prerequisite: Permission of instructor*

First of a two-course sequence of mathematical methods in solving ocean engineering problems in hydrodynamics, vehicle dynamics, acoustics and vibrations, ocean structures, and electrical and mechanical systems.

**Topics in Ocean Engineering (EOC 5931) 1-4 credits**

*Prerequisites: Ocean Engineering students; permission of instructor*

Study relating to specialized topics associated with ocean engineering including, but not limited to, hydrodynamics, acoustics, corrosion, marine environment, structures and ship design, autonomous systems and control.

**Special Topics in Ocean Engineering (EOC 5934) 1-5 credits**

*Prerequisite: Permission of instructor*

Advanced topics in specialized areas of ocean engineering not adequately covered in other courses. This course may be repeated for credit.

**Marine Renewable Energy (EOC 6145) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

Fundamentals of marine renewable energy including a review of the state-of-the-industry related to producing electrical power from tides, ocean currents, waves, offshore wind and thermal gradients. The fundamental design and operating principles of each type of energy extraction system are discussed as well as the associated available energy densities and total available resources for each.

**Advanced Fracture and Failure Processes 1 (EOC 6157) 3 credits**

*Prerequisites: EOC 6216C, EOC 6230, or permission of instructor*

Advanced treatment of microscopic and macroscopic theories of plastic deformation, strengthening mechanisms, and fracture; fracture mechanics, fatigue and environmental cracking, stress corrosion cracking, corrosion fatigue and hydrogen embrittlement. Emphasis is on materials employed in structural marine applications.

**Mathematical Methods in Ocean Engineering 2 (EOC 6174) 3 credits**

*Prerequisite: EOC 5172*

Second of a two-course sequence of mathematical methods in solving ocean engineering problems in hydrodynamics, vehicle dynamics, acoustics and vibrations, ocean structures, and electrical and mechanical systems.

**Advanced Hydrodynamics 1 (EOC 6185) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

A two-semester sequence providing a comprehensive and rigorous background in hydrodynamics for ocean engineering graduate students. The course will cover development of basic equations and fundamental approximations, potential flow, low and high Reynold's number flows, turbulence, and boundary layers. It employs basic analytic and numerical methods of problem solving.

**Advanced Hydrodynamics 2 (EOC 6186) 3 credits**

*Prerequisites: PHZ 4113, EOC 6185*

The second course in a two-semester sequence providing a comprehensive and rigorous background in hydrodynamics for ocean engineering graduate students. The course will cover development of basic equations and fundamental approximations, potential flow, low and high Reynold's number flows, turbulence, and boundary layers. Basic analytic and numerical methods of problem solving are used.

**Computational Fluid Dynamics (EOC 6189) 3 credits**

*Prerequisites: PHZ 4113, EOC 6185 and EOC 6186*

A systematic instruction of computing techniques for fluid flow including fundamentals of computational fluid dynamics, finite difference methods for incompressible flow, finite element simulation, and numerical methods in free-surface flow.

**Turbulent Flow (EOC 6190) 3 credits**

*Prerequisites: PHZ 4113, EOC 6185 and EOC 6186*

An introduction to turbulent transport of momentum and heat, the dynamics of turbulence, wall-bounded shear flows, boundary-free shear flows, turbulent diffusion, shear flow dispersion.

**Corrosion 1 (EOC 6216C) 3 credits**

*Prerequisite: Graduate standing*

Theory of corrosion with regard to electrode potential, polarization and passivity, and corrosion prevention; techniques in corrosion research; corrosion and corrosion prevention in the marine environment.

**Corrosion 2 (EOC 6218C) 3 credits**

*Prerequisite: EOC 6216C*

The theory of corrosion with regard to electrode potentials, polarization, and passivity as well as corrosion prevention. It covers techniques in corrosion research; corrosion and corrosion prevention in the marine environment.

### **Physical Metallurgy (EOC 6230) 3 credits**

*Prerequisite: Permission of instructor*

The theoretical aspects of physical metallurgy: the structure of atoms and crystals, laboratory techniques, thermodynamics of metals, structure of alloys, dislocation theory.

### **Ocean and Seabed Acoustics (EOC 6312) 3 credits**

*Prerequisite: EOC 3306 or permission of instructor*

Course provides an overview of ocean and seabed acoustics including the theory of underwater sound generation, propagation, and reception that is required for the design of sonar systems and acoustic experiments.

### **Engineering Principles of Acoustics (EOC 6317C) 3 credits**

*Prerequisite: Permission of instructor*

The physical principle of acoustics, governing equations and their solutions, bounded and unbounded media, sources, sound generation propagation and measurement.

### **Offshore Structures (EOC 6431) 3 credits**

Basic structural systems, environmental loading, fixed and gravity type platforms, semi-submersibles, floating and compliant platforms, external pressure shell structures including oil storage tanks, pipelines, wet and dry subsea completion systems, buoy engineering, concepts for frontier areas, dynamic response.

### **Hydrodynamic Aspects of Ship Design (EOC 6515) 3 credits**

*Prerequisite: EOC 6185 or equivalent*

Course covers the hydrodynamics of naval architecture with topics including resistance, propulsion, sea-keeping, and maneuvering with emphasis on geometric effects on vehicle performance.

### **Ocean Instrumentation (EOC 6625) 3 credits**

*Prerequisite: Graduate standing in Ocean, Mechanical or Electrical Engineering discipline*

Provides an overview of instrumentations and data analysis that are required for design, fabrication and calibration of ocean systems, such as platforms and offshore structures, autonomous underwater vehicles, surface vessels, underwater imagery, pressure vessels and pipelines.

### **Signal Processing (EOC 6630) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

Theory of information processing with particular applications in the fields of communication and sonar.

### **Engineering Data Analysis (EOC 6635) 3 credits**

Fourier transform applications to the processing of ocean engineering related types of signals, time and frequency domain analysis of signals, signal processing techniques, laboratory work involving actual ocean time series data using modern data acquisition systems.

### **Intelligent Underwater Vehicles 1 (EOC 6663) 3 credits**

*Prerequisites: STA 4032*

Engineering principles for intelligent, unmanned, untethered, underwater vehicles (IU3 vehicles). Topics include vehicle kinematics; and tasks, behavior, locomotion, power sources and sensors.

### **Directed Independent Study (EOC 6908) 1-3 credits**

Reading and research on selected appropriate topics.

### **Special Topics (EOC 6934) 1-3 credits**

*Prerequisite: Permission of instructor*

New developments and advanced work in specialized areas of ocean engineering designed for individual student interest.

### **Dissertation (EOC 7980) 1-15 credits**

*Grading: S/U*

### **Master's Thesis (OCE 6971) 1-10 credits**

*Grading: S/U*

### **Physical Aspects of Oceanography (OCP 6050) 3 credits**

*Prerequisite: Admission to graduate program in Ocean Engineering*

A critical review of physical, chemical, and geological oceanography. Extensive assigned reading, seminars, etc. are required.

[Link to College of Engineering and Computer Science Programs](#)



# UNIVERSITY CATALOG

## SUB MENU



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### GENERAL INFORMATION

### ACADEMIC PROGRAMS

# HARRIET L. WILKES HONORS COLLEGE

## COURSE DESCRIPTIONS

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### **Division of Natural Science and Mathematics**

- [Biology](#)
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### **Division of Social Sciences**

- [American Studies](#)
- [Anthropology](#)
- [Asian Studies](#)
- [Business](#)
- [Economics](#)
- [Environmental Studies](#)
- [Geosciences](#)
- [History](#)
- [Interdisciplinary Social Sciences](#)
- [International Studies](#)
- [Latin American Studies](#)
- [Law and Society](#)
- [Political Science](#)
- [Psychology](#)
- [Women's Studies/Sociology](#)

### [Link to Harriet L. Wilkes Honors College Programs](#)

Honors College courses are open to Honors College students as well as other Florida Atlantic University students with at least a 3.5 cumulative GPA who obtain permission of the instructor and the Honors College Dean's Office. Courses unique to the Honors College are found in the specific Department listings below and are accompanied by descriptions and pre/corequisites if applicable.

To read the descriptions and pre/corequisites of other courses offered by the Honors College but not unique to the College (non-honors versions of these courses are offered in other FAU colleges), look for the italic note under each course below for referral to the appropriate section in the catalog where the course's complete listing appears.

## DIVISION OF HUMANITIES

Components of this Division: Arabic, Art, Classics, Composition/Rhetoric, French, Humanities, Interdisciplinary Studies, Literature, Music, Philosophy, and Spanish.

### ARABIC

#### **Honors Beginning Arabic Language and Culture 1 (ARA 1120) 4 credits**

This course is an introduction to Modern Standard Arabic, also known as International Arabic or Classical Arabic. The student learns the Arabic alphabet (writing system and phonetics) as well as basic vocabulary and grammar (syntax and morphology) of Standard Arabic.

#### **Honors Beginning Arabic Language and Culture 2 (ARA 1121) 4 credits**

This course is a part two of an introduction to Modern Standard Arabic, also known as International Arabic or Classical Arabic. The students learn different tenses (the imperfect, the subjunctive, the jussive and the imperative) and some complex grammatical structures in Arabic.

### ART

#### **Honors Art Appreciation (ARH 2000) 3 credits**

(See [Visual Arts and Art History courses, College of Arts and Letters section](#))

#### **Honors History of Art 1 (ARH 2050) 3 credits**

This illustrated class is a general introduction to the history of art across time and space: from Prehistoric to the Gothic; from Egypt, Greece, the Near East, Europe, Asia to Mesoamerica. By taking this class, students are expected to develop an understanding of art in various forms in its historical context. This is a General Education course.

#### **Honors History of Art 2 (ARH 2051) 3 credits**

This illustrated class is a general introduction to the history of art across time and space: from

Renaissance to the contemporary world; from Europe to Africa, Asia, America, and the Pacific. By taking this class, students are expected to develop a critical understanding of art in various forms in its historical context. This is a General Education course.

**Honors Still Image/Moving Image (ARH 2701) 3 credits**

This course develops the student's understanding and appreciation of the visual arts through critical study of contemporary issues in the visual arts and rigorous examination of the ideas of "Painting" and the "Fine Arts" in our image-saturated era. The course will develop students' understanding of the connections between contemporary images and art history and help students become more sophisticated viewers and articulate critics of the visual arts and other visual media. This is a General Education course.

**Honors Beginning Study Abroad in Art History (ARH 2957) 1-6 credits**

Credit for enrollment in approved beginning art history courses in approved study abroad programs.

**Honors Intermediate Study Abroad in Art History (ARH 3957) 1-6 credits**

Credit for enrollment in approved intermediate art history courses in approved study abroad programs.

**Honors Directed Independent Research in Art History (ARH 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Art History. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

**Honors Directed Independent Research in Art History (ARH 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Art History. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

**Honors Special Topics in Art History (ARH 4930) 3 credits**

Art of various cultural periods and/or thematic frameworks. May be repeated for credit.

**Honors Advanced Study Abroad in Art History (ARH 4959) 1-6 credits**

Credit for enrollment in approved advanced art history courses in approved study abroad programs.

**Honors Elements of Visual Thinking (ART 1014) 3 credits**

This course develops the student's understanding of the visual arts through critical study of the fundamentals of perception and visual composition, and through very active participation in the art-making process. Diverse materials and processes will be explored, including two-dimensional and

three-dimensional forms. Ideas of content are also addressed. This is a General Education course.

### **Honors Design and Color Phenomena (ART 1202C) 4 credits**

In this studio course, the fundamentals of color and design and their effects on 2D and 3D space are explored. This is a General Education course.

### **Honors Drawing 1 (ART 1300C) 3 credits**

Beginning drawing. Required for art majors. This is a General Education course.

### **Honors Photoshop (ART 1602C) 3 credit**

Course serves as a fundamental introduction to Photoshop basics. Students are introduced to digital manipulation, layers and other digital-editing tools that are part of this graphic software. This is a General Education course.

### **Honors Digital Art Photography (ART 1661C) 3 credits**

An introductory course designed to explore the multiple ways in which digital enhancement and other special effects can be used to create fine art photographic images. Students learn photographic basics such as depth of field, lighting and composition. This is a General Education course.

### **Honors Painting 1 (ART 2500C) 3 credits**

*Prerequisites: ART 1300C and ART 2540C*

Students develop their understanding of the visual arts through critical study of the fundamentals of perception and visual composition and through active practice making paintings. The course is an introduction to the process of oil painting. Problems of format, composition and content are also addressed. Students become articulate makers of paintings and articulate critics of those objects. This is a General Education course.

### **Honors Painting 2 (ART 2501C) 3 credits**

*Prerequisite: ART 2500C*

Students continue to develop their understanding of the visual arts through critical study of the fundamentals of perception and visual composition and through active practice making paintings. The course is a continuation of the process of oil painting. Problems of format, composition and content are also addressed. Students become articulate makers of paintings and articulate critics of those objects.

### **Honors Watercolor (ART 2540C) 4 credits**

Course stresses material and conceptual concerns relative to watercolor and other water-based media, including wash, mark, transparency, luminosity, and issues in composition and content. Students will develop their perceptual skills by working in the studio and on site. Students will develop their critical

skills during in-class critique and discussion, as well as through readings and research. This is a General Education course.

### **Honors Installation Art (ART 2804C) 4 credits**

From the animated and digitized installations of Tambino and Shahzia Sikander to the installation and performative video installations of Adrian Piper, new media digital technology is greatly influencing the ways in which contemporary artists comment on issues concerning privacy/surveillance, ethnicity/race, gender/biology. As a seminar/studio-based course, Honors Installation Art is designed to provide students with the opportunity to combine traditional materials with digital technology in order to observe how innovative practices can be introduced to their artistic expression. This is a General Education course.

### **Honors Beginning Study Abroad in Art (ART 2957C) 1-6 credits**

Credit for enrollment in approved beginning studio art courses in approved study abroad programs.

### **Honors Material Transformations (ART 3213C) 3 credits**

An introduction to the formal study of three-dimensional form, elements of patterns, textures and design. Through experimentation with both traditional and non-traditional materials, the structure, spatial design and portioned dimension of 3-D objects are explored. This background is considered essential to the education of students who are concerned with art's practice.

### **Honors Introduction to Illustration (ART 3255C) 3 credits**

Central to the art of storytelling is a well-designed image. Nonverbal, compelling illustrations grab all of our creative imaginations. As a beginning-level class, this course introduces students to basic techniques that promote visual communication.

### **Honors Scientific Illustration 1 (ART 3275C) 4 credits**

Supports the accurate and detailed visual recording of plant life found in the environment. Emphasis is placed on realistically duplicating the subject rather than solely exploring artistic creativity.

### **Honors Introduction to Botanical Art Illustration (ART 3277C) 3 credits**

*Prerequisite: ART 1300C or ART 1602C or ART 2540C or permission of instructor*

This course focuses on the accurate portrayal of various plant species both native and non-native to Florida.

### **Honors Advanced Experimental Drawing (ART 3382C) 4 credits**

*Prerequisites: ART 1300C or permission of instructor*

Course emphasizes active practice making drawings. Focus will be on the presentation of more sophisticated problems in drawing (format and composition), further exploring its material and conceptual possibilities, its history as an art form, and its future as an art medium. Students will choose subject matter. Instructor will set parameters of format and materials.

### **Honors Animating the Graphic Novel (ART 3646C) 4 credits**

Focuses on the creative elements behind animating the visual novel. Using traditional media, digital video, photography and other technologies, students create images for their graphic novels that push the formal structure of how these visual stories are created.

### **Honors Introduction to Programming for Visual Art (ART 3657C) 4 credits**

*Prerequisite: For Honors College students only*

This course introduces software as an art medium. This means that the course combines the "making" of art projects involving computer programming with thinking about algorithmic art and digital culture. Students learn basic programming concepts that are common to most modern programming languages. Students also discuss readings on topics in digital culture. Toward the end of the semester, students create a final project based on an original idea of their own.

### **Honors Environmental Art (ART 3840C) 4 credits**

Provides an introduction to the expansive field of environmental art. This background is considered essential to the education of students who are concerned with art's practice in concert with the environment.

### **Honors Artists and Community (ART 3841C) 4 credits**

Students research and observe community outreach programs developed by artists and organizations. As a result of their observations, students then develop their own community art projects.

### **Honors Intermediate Study Abroad in Art (ART 3957C) 1-6 credits**

Credit for enrollment in approved intermediate studio art courses in approved study abroad programs.

### **Honors Game Studies (ART 4640) 4 credits**

The class provides an introduction to game studies primarily through readings and discussions but also through practical exercises of playing games and game-making.

### **Honors Electronics and Electronic Objects for Art (ART 4645C) 4 credits**

This course introduces electrical and some mechanical engineering techniques for the purpose of making art. Students receive a systematic introduction to building circuits with electronic components and ultimately make their own sensing and actuation devices. Readings and discussions on cultural

issues surrounding electronic objects and environments accompany the technical instruction. Students create a final project based on an original idea of their own.

### **Honors 3D Computer Game Development (ART 4653C) 4 credits**

This course focuses on developing 3D games or other interactive 3D experiences within the context of art. The focus is on creatively re-imagining 3D computer games, not on re-creating existing game experiences.

### **Honors 2D Computer Game Development (ART 4658C)**

This course focuses on developing 2D games or other interactive 2D experiences within the context of art. The emphasis is on creatively re-imagining 2D computer games, not on re-creating existing game experiences.

### **Honors The Body in Art: The Figure in Context (ART 4854C) 4 credits**

This seminar/studio-based course is designed to examine the representation of bodies in art.

### **Honors Directed Independent Study in Art (ART 4905C) 1-4 credits**

*Prerequisite: ART 1300C, ART 2540C, or permission of instructor*

This course exists specifically for the independently driven and curious student. The student will develop a semester-long course of study in collaboration with the instructor. Experimental approaches that address current discussion and practice in the visual arts will be emphasized. The student will work independently, meeting with the instructor on an arranged basis.

### **Honors Thesis Research in Art (ART 4912C) 3-4 credits**

*Prerequisite: Permission of advisor*

In conjunction with the advisor, the student selects and evaluates materials related to his/her area of interest in art. This work prepares the student to undertake the completion of the Honors Thesis in Art. Students are required to submit a proposal, as well as a substantial annotated bibliography and sketchbook.

### **Honors Directed Independent Research in Art (ART 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Art. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Art (ART 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Art. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed

independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Special Topics in Art (ART 4934C) 3-4 credits**

This course develops the student's understanding of the visual arts through focused critical study of topics in perception and visual composition. Diverse materials and processes are explored. Ideas of format, composition, subject matter, and content are also addressed. Experimental approaches that address current discussion and practice in the visual arts are emphasized.

### **Honors Internship in Art (ART 4947) 1-4 credits**

*Prerequisite: Permission of instructor*

Students participate in projects in the visual arts on the international, national, regional, or local level to develop practical experience in the relevant disciplines, e.g., work in the National Endowment for the Arts, in local museums or galleries, with arts councils, or in schools.

### **Honors Advanced Study Abroad in Art (ART 4957C) 1-6 credits**

Credit for enrollment in approved advanced studio art courses in approved study abroad programs.

## **CLASSICS**

### **Honors Classical Mythology (CLT 3370) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

An examination of classical Greek mythology from a cross-cultural perspective. Comparison and contrast of ancient myths (primarily Greek mythology, but with some attention to Near Eastern, Egyptian, Hindu, and Roman tales) and modern "urban legends" in terms of story patterns, cultural values, and reception theory.

### **Honors Latin 1 (LAT 1120) 4 credits**

*Prerequisite: Permission of instructor*

Intensive introductory study of Latin language with emphasis on reading, translation, grammatical analysis, and vocabulary; study of Latin literature, philosophy, and history in translation.

### **Honors Latin 2 (LAT 1121) 4 credits**

*Prerequisites: Permission of instructor and LAT 1120 or equivalent*

Intensive introductory study of Latin language with emphasis on reading, translation, grammatical analysis, and vocabulary; builds on knowledge and skills acquired in Latin 1 to complete the first-year language sequence; study of Latin literature, philosophy, and history in translation.

## COMPOSITION/RHETORIC

### **Honors Creative Writing (CRW 3010) 3 credits**

*Prerequisite: ENC 1101 or equivalent*

Guidance and criticism for beginners in writing prose fiction and poetry.

### **Honors Creative Writing Retellings (CRW 3126) 3 credits**

Course is devoted to mastering the art of fiction. The special theme for this course is Retellings: Myths and Fairy Tales. Students are expected to read and discuss representative works from established authors as well as write their own original pieces.

### **Honors Creative Nonfiction (CRW 3224) 3 credits**

Course is devoted to mastering the art of creative nonfiction writing, including personal essays, profiles, travel writing and multimedia writing. Students are expected to read and discuss representative nonfiction from established authors as well as write their own original works.

### **Honors Writing the Novel (CRW 4122) 3 credits**

This course focuses on the process for planning out, writing, a collaborative workshop and revision for a novel. The goal of this class is to have a draft completed by the end of the semester, with detailed character information and a thought-out plan for the novel-in-progress. The subject of the novel is up to the student, and the format of the chapters may vary, as long as the student considers the pages as a whole. The challenge here is to push oneself to focus on one project in particular rather than a number of small assignments and foresee one project to completion (or near it).

### **Honors Science Fiction and Fantasy Writing (CRW 4123) 3 credits**

This class explores the limits and possibilities of the science fiction/fantasy/horror (scifi/f/h) genres. Students read and analyze works of scifi/f/h, with particular attention to the authors' use of craft. Students create their own works in these genres through brainstorming, in-class writing, journaling, drafting and revising.

### **Honors Directed Independent Research in Writing (CRW 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Writing. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Writing (CRW 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Writing. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed

independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Advanced Creative Writing Workshop (CRW 4924) 3 credits**

This course is a writing workshop. Twice a semester, students submit a five- to ten-page work-in-progress that receives feedback from their peers and the professor. Students use this feedback to develop and revise their work for submission in a final fifteen- to twenty-page work (for stories, essays or scripts) or an eight- to ten-poem portfolio.

### **Honors Special Topics in Creative Writing (CRW 4930) 3 credits**

[\(See English courses, College of Arts and Letters section\)](#)

### **Honors College Writing (ENC 1101) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: Permission of instructor*

[\(See English courses, College of Arts and Letters section\)](#)

### **Honors College Writing 2 (ENC 1102) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: ENC 1101 with a grade of "C" or better*

This course is designed to help students think about and improve their own writing. Students will write and revise three thesis-driven essays on the topics of their choice, in addition to weekly short writing assignments that will include rhetorical analysis, topic proposals, annotated bibliographies and other prompts. Students will develop their research skills and work toward polished, elegant writing.

### **Honors Research and the Writing Process (ENC 2135) 3 credits**

Course enables students to develop independent research skills through access to FAU's library system as well as through access to a variety of Internet resources including daily use of an on-campus computer laboratory. Emphasis is on the student's development of the first draft of a research paper of at least 4000 words.

### **Honors Advanced Exposition (ENC 3310) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

[\(See English courses, College of Arts and Letters section\)](#)

### **Honors Special Topics in Rhetoric and Composition (ENC 4931) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

This course addresses special topics and selected genres of rhetoric and composition. Since the content will vary, this course may be repeated for credit.

**Honors Introduction to Linguistics (LIN 3010) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

**Honors Directed Independent Study in Linguistics (LIN 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

**Honors Directed Independent Research in Linguistics (LIN 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Linguistics. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

**Honors Directed Independent Research in Linguistics (LIN 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Linguistics. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

**Honors Special Topics in Linguistics (LIN 4930) 1-3 credits**

*Prerequisite: None*

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

## FRENCH

**Honors Beginning French**

**Language and Culture 1 (FRE 1120) 4 credits**

**Honors Beginning French**

**Language and Culture 2 (FRE 1121) 4 credits**

**Honors Intermediate French**

**Language and Culture 1 (FRE 2220) 4 credits**

**Honors Intermediate French Language and Culture 2 (FRE 2221) 4 credits**

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

**Honors French Language and Culture Study Abroad (FRE 2957) 1-6 credits**

*Prerequisite: Permission of instructor*

Credit for enrollment in approved French language and culture in approved study abroad programs.

**Honors Advanced French Language and Culture 1 (FRE 3400) 4 credits**

*Prerequisite: FRE 2221, placement, or permission of instructor*

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

### **Honors French or Francophone Culture Study Abroad (FRE 3957) 1-6 credits**

*Prerequisite: Permission of instructor*

Credit for enrollment in approved French or Francophone culture course in approved study abroad programs.

### **Honors Francophone Language and Culture (FRE 4502) 2-4 credits**

*Prerequisite: Permission of instructor*

Intensive study of aspects of French language.

### **Honors Directed Independent Research in French Language and Culture (FRE 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in French Language and Culture. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in French Language and Culture (FRE 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in French Language and Culture. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Special Topics in French Language Studies (FRE 4930) 2-4 credits**

*Prerequisite: Permission of instructor*

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

### **Honors Francophone Cultures and Civilizations (FRT 2510) 3 credits**

Examines the evolution of the French state and cultural identity, the creation and dissolution of the Francophone colonial empire, and the aspects of anti- and post-colonial thought and letters in French culture and Francophone cultures of Africa, the Caribbean, and Vietnam. This is a General Education course.

### **Honors Introduction to Francophone Literatures (FRW 3112) 3 credits**

*Prerequisite: FRE 3400 or permission of instructor*

Introduction to the study of literatures in French from France and other Francophone countries. Detailed analysis of poetry, plays, and prose from a variety of approaches. Class conducted in French.

### **Honors Directed Independent Study in French (FRW 4905) 1-3 credits**

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

### **Honors Thesis Research in French (FRW 4912) 3 credits**

*Prerequisites: Junior or senior standing and permission of instructor*

In conjunction with the advisor, the student selects and evaluates materials related to an area of interest in French and/or Francophone literature and/or culture. This work prepares the student to write the honors thesis in French. Students are required to submit a proposal as well as a substantial annotated bibliography.

**Honors Directed Independent Research in French Literature (FRW 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in French Literature. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

**Honors Directed Independent Research in French Literature (FRW 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in French Literature. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

**Honors French or Francophone Literature Study Abroad (FRW 4957) 1-6 credits**

*Prerequisite: Sophomore standing or permission of instructor*

Credit for enrollment in approved study abroad programs. Since the content will vary, this course may be repeated for credit.

**RI: Honors Thesis in French (FRW 4970) 1-6 credits**

*Prerequisites: Senior standing, permission of instructor, and FRW 4912*

Intense reading and writing leading to an honors thesis on a topic related to a theoretical or critical aspect of French and/or Francophone literature and/or culture. This course is research intensive (RI).

## HUMANITIES

**Honors Beginning Foreign Language and Culture 1 (FOL 1120) 4 credits**

**Honors Beginning Foreign Language and Culture 2 (FOL 1121) 4 credits**

*Grading: Regular*

*Prerequisites: None*

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

**Honors Directed Independent Study in Foreign Language (FOL 4905) 1-4 credits**

*Prerequisite: Permission of instructor*

This course offers students the option of learning any given aspect (linguistic, cultural, grammatical) of

a foreign language not regularly taught at the Honors College. May be repeated for credit.

**Honors Directed Independent Research in a Foreign Language (FOL 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in a Foreign Language. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

**Honors Directed Independent Research in a Foreign Language (FOL 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in a Foreign Language. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

**Honors Introduction to Humanities (HUM 2020) 3 credits**

In this course, students learn about the creative ideas and accomplishments of various cultures in various fields of humanities that may include art, architecture, drama, history, music, literature, philosophy and religion. The course includes cultural expressions from the Western canon and may also include expressions from around the globe. This is a General Education course.

**Honors Writing in the Humanities 1 (HUM 2932) 1 credit**

This course studies essay formats, documentation styles, organization of material, point of view, consideration of audience, argumentative forms, diction, and grammar and mechanics, as well as the process of writing as learning in the humanities. May be repeated for credit.

**Honors Humanities Study Abroad (HUM 2952) 1-4 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs. May be repeated for credit.

**Honors Directed Independent Study in the Humanities (HUM 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

Directed independent research in interdisciplinary aspects of the humanities.

May be repeated for credit.

**Honors Directed Independent Research in Humanities (HUM 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Humanities. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

**Honors Directed Independent Research in Humanities (HUM 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Humanities. Requirements for

the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Writing in the Humanities 2 (HUM 4932) 1 credit**

*Prerequisite: Junior/senior standing or permission of instructor*

This course studies essay formats, documentation styles, organization of material, point of view, consideration of audience, argumentative and organizational forms necessary to advanced work in the humanities. May be repeated for credit.

### **Honors Internship in the Humanities (HUM 4947) 1-12 credits**

*Prerequisite: Permission of instructor*

Students will participate in projects in the humanities, international, national, or local, in order to develop practical experience in the relevant disciplines: e.g., work in National Endowment for the Humanities, local museums, art councils, schools. *Grading: S/U*

### **Honors Humanities Study Abroad (HUM 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

## **INTERDISCIPLINARY STUDIES**

### **Honors College Forum (IDH 1022) 1 credit**

*Required for all Honors College students.* Consists of lectures and presentations by noted University faculty and invited guests. The Honors Forum provides students with exposure to a wide range of disciplines and faculty scholarship. May be repeated for credit once. *Grading: S/U*

### **Honors Flagler Scholar Seminar 1 (IDH 2021) 1 credit**

*Prerequisite: Flagler Scholar standing*

Interdisciplinary studies in education, designed to integrate the lower-level curricula of Flagler scholars into a meaningful synthesis; may be taken twice for credit, with different contents, as organizing seminar for students in the first two years of their program.

### **Honors Law, Culture and Human Rights (IDH 3610) 1 credit**

Readings and discussion to give students a better understanding of the arguments for and against cultural relativism, claims that there are universal human rights and the issue of to what extent the law should recognize cultural and human rights claims.

### **Honors Law in the Real World (IDH 3720) 1 credit**

*Prerequisite: For Honors College students only or permission of instructor*

Introduction to how the law impacts individuals' personal and professional lives, and how it applies to a wide range of disciplines.

### **Honors Flagler Scholar Seminar 2 (IDH 4038) 1 credit**

*Prerequisite: Flagler Scholar standing*

Interdisciplinary studies in education designed to integrate the upper-level curricula of Flagler scholars into a meaningful synthesis. May be taken twice for credit, with different contents, as organizing seminar for students in the second two years of their program.

### **Honors Directed Independent Research in Interdisciplinary Studies (IDH 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Interdisciplinary Studies. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Interdisciplinary Studies (IDH 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Interdisciplinary Studies. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Interdisciplinary Critical Inquiry Seminar (IDS 1930, 2931, 3932, 3935, 4933) 1-3 credits**

A team-taught course that engages in interdisciplinary critical inquiry connecting courses from different disciplines to explore problems from a variety of perspectives and establish connections among distinct disciplines. May be repeated for credit. IDS 3935 is a Writing Across Curriculum (Gordon Rule) course.

### **Honors Interdisciplinary Studies Freshman Seminar (IDS 1933) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Topics vary. Seminar for freshmen that takes an interdisciplinary approach to a given topic. The aim is to show how multiple disciplines and genres contribute to our understanding of the topic. May be repeated for credit.

### **Honors Special Topics (IDS 2930) 1-3 credits**

Honors Special Topics course approaching a topic from multiple perspectives. As content may vary, course may be repeated.

**Honors Interdisciplinary Study Abroad (IDS 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Honors Audubon's Nature: Scientific Illustration (IDS 3131C) 4 credits**

Offers students the opportunity to observe, study, analyze, research and later visually illustrate species in their natural environment.

**Honors Special Topics in Interdisciplinary Studies (IDS 3930) 1-3 credits**

An open enrollment course used to cover special subject matters not presently offered by other Honors College courses. Because content varies, course may be repeated for credit.

**Honors Interdisciplinary Critical Inquiry Lab Seminar (IDS 3932L) 1-3 credits**

A team-taught course that engages in interdisciplinary critical inquiry and includes a lab connecting courses from different disciplines to explore problems from a variety of perspectives and establish relationships among distinct disciplines. May be repeated for credit.

**Honors Directed Independent Study in Interdisciplinary Studies (IDS 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

Directed independent research in interdisciplinary studies of the arts and sciences.

**Honors Special Topics in Interdisciplinary Studies (IDS 4930) 1-3 credits**

*Prerequisite: Junior standing*

An open enrollment course used to cover special subject matters not presently offered by other Honors College courses. Because content varies, course may be repeated for credit.

**Honors Internship in Interdisciplinary Studies (IDS 4947) 1-12 credits**

*Prerequisite: Permission of instructor*

An internship experience in interdisciplinary fields such as Women's Studies, Environmental Studies or Rhetoric/Communication. This course provides students with an opportunity to apply academic concepts beyond the university, for example, in a nonprofit, corporate or government setting. *Grading: S/U*

**Honors Interdisciplinary Study Abroad (IDS 4957) 1-4 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs. May be repeated for credit.

**RI: Honors Thesis (IDS 4970) 1-6 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: Senior standing and sufficient course work in the area of study*

Intensive research and writing leading to completion of an honors thesis. May be repeated for credit.

This course is a research intensive (RI) course.

**Honors Introduction to Academic Life (SLS 1501) 2 credits**

Required for first-year Honors College students. This course is designed to increase the students' success in college by assisting them in obtaining the knowledge and skills necessary to reach their educational objectives. Topics include the nature of postsecondary education, time management, test-taking, communication skills, study techniques, question-asking skills, and library use. This is an Academic Service Learning (ASL) course.

## LITERATURE

**Honors American Literature to 1865 (AML 2010) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

An overview of American literature, including representative writers of the Colonial, Enlightenment and Romantic periods. This is a General Education course.

**Honors American Literature: 1865-1945 (AML 2022) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

An overview of American literature from 1865 to 1945, including representative writers of the Colonial, Enlightenment, and Romantic periods. This is a General Education course.

**Honors American Literature: 1945 to Present (AML 2053) 3 credits**

An overview of American literature since 1945, this course is writing intensive. This is a General Education course.

**Honors American Novel to 1900 (AML 3111) 3 credits**

**Honors American Novel since 1900 (AML 3121) 3 credits**

[\(See English courses, College of Arts and Letters section\)](#)

**Honors Major American Writers: 19th Century (AML 4310) 3 credits**

Course examines the works of poetry, fiction, and non-fiction prose from 1800 to 1900 by major American writers. One of the course's goals is to prepare upper-level students to achieve a level of critical thinking and writing sufficient to author a senior thesis in English.

**Honors African-American Literature (AML 4603) 3 credits**

In this course, students explore the development of African-American literature from the 19th-century slave narratives to contemporary poetry and fiction, looking closely at themes of identity, family, and society as well as issues of language and narrative style.

**Honors Native-American Literature (AML 4640) 3 credits**

**Honors Special Topics in American Literature (AML 4930) 3 credits**

**Honors Literature and Film (ENG 4114) 3 credits**

(See [English courses, College of Arts and Letters section](#))

**Honors Directed Independent Study in English (ENG 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

Reading and research in advanced subjects in English. May be repeated for credit.

**Honors Directed Independent Research in English (ENG 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in English. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

**Honors Directed Independent Research in English (ENG 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in English. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

**RI: Honors Shakespeare (ENL 4333) 3 credits**

Representative plays. This is a research-intensive (RI) course.

**Honors British Literature to 1798 (ENL 2012) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Major works, writers and movements of early British literature. This is a General Education course.

**Honors British Literature since 1798 (ENL 2022) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Major works, writers and movements of modern British literature. This is a General Education course.

**Honors Special Topics in British Literature (ENL 4930) 3 credits**

(See [English courses, College of Arts and Letters section](#))

**Honors Comedy and the Devil (LIT 1051) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Course covers theological and cultural problems developed in the western literary tradition around comedy and laughter; and draws on social, economic, religious, and political discourses for its content. This is a General Education course.

**Honors Freshman Seminar in Literature (LIT 1933) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A philosophical or historical approach to basic questions of enduring importance, emphasizing improvement of critical thinking and writing skills. May be repeated for credit. This is a General Education course.

**Honors Introduction to Literature (LIT 2000) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

In this course, students are assigned readings representative of a broad range of literary genres and cultures. These readings cover a variety of literary movements and historical eras. The readings include, but are not limited to, selections from the Western canon. Written analysis of literary works may be required. Students will be provided with opportunities to practice critical interpretation. This is a General Education course.

**Honors Interpretation of Fiction (LIT 2010) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: None*

**Honors Interpretation of Poetry (LIT 2030) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: None*

**Honors Interpretation of Drama (LIT 2040) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: None*

[\(See English courses, College of Arts and Letters section\)](#)

**Honors Medieval Cultures (LIT 3133) 3 credits**

A survey of the literary and cultural history of the European Middle Ages, this course considers the social, economic, religious, and political worlds that produced the literature.

**Honors Literary Theory (LIT 3213) 3 credits**

Introduces various schools of critical and literary theory to bear upon the interpretation of literary texts, such as new criticism, psychoanalysis, myth studies, poststructuralism, phenomenology, feminism,

postcolonialism, Marxism and more.

### **Honors Travel Literature (LIT 3306) 3 credits**

Course considers travel writing and the relation of travel to literary production from the Middle Ages to the present. Course materials will include novels, poems, guide books, and newspaper travel supplements.

### **Honors Science, Alchemy, and Magic in Early Modern England (LIT 3432) 3 credits**

A survey of the literary history of the early modern scientific revolution as it relates to literary production and print culture. Considers the co-involvement of literature and scientific thought and thus contributes to the interdisciplinary commitment to the Honors College curriculum.

### **Honors Workshop in Dramatic Literature (LIT 3925) 1 credit**

Analysis and reading aloud of literature. Emphasis on character development, articulation, rhyme and meter, and translation from written to spoken word. May be repeated for up to 4 credits.

### **RI: Honors Milton and the English Revolution (LIT 4243) 3 credits**

Major prose and poetry of John Milton, with special emphasis on the religious and political controversies of the middle and late 17th century. This is a research-intensive (RI) course.

### **Honors Women in Literature (LIT 4383) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

This course introduces students to the "Women's Movement" in literature, focusing on the generation of women's poetry throughout the 20th and 21st centuries in America.

### **Honors Literature and the Environment (LIT 4434) 3 credits**

### **Honors Special Topics in Comparative Literature (LIT 4930) 3 credits**

[\(See English courses, College of Arts and Letters section\)](#)

## MUSIC

### **Honors Appreciation of Music (MUL 2010) 3 credits**

In this course, students survey the history of classical music from antiquity to the modern period, focusing on Western music. The curriculum may also integrate a variety of popular and global styles where appropriate. This is a General Education course.

### **Honors Freshman Seminar in Music (MUS 1933) 3 credits**

Variable content course in music that may be repeated for credit. The course develops students'

appreciation and understanding of music and enhances sensitivity to musical expression. It also develops an understanding of the social or historical contexts in which music is created.

## PHILOSOPHY

### **Honors Ancient Greek Philosophy (PHH 3100) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: Permission of instructor*

A study of the Greek philosophers from the pre-Socratics through Plato and Aristotle. Special attention will be given to the cultural contexts in which philosophical speculation took place.

### **Honors Greek and Roman Philosophy (PHH 3150) 3 credits**

An historic, thematic, and analytical study of primary sources in Greek and Roman philosophy from Aristotle through Boethius.

### **Honors Modern Philosophy 1: The Renaissance through Enlightenment (PHH 3400) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A survey of philosophers from 1500 to 1800, with detailed study of selected primary sources.

### **Honors Special Topics in the History of Philosophy (PHH 3930) 1-4 credits**

*Writing Across Curriculum (Gordon Rule)*

Honors study of key figures or movements in the history of philosophy, seminar format. Figures or movements studied include Aristotle, Kant, Wollstonecraft, Beauvoir, Fanon, Existentialism, Marxism. Topics will vary from term to term. May be repeated for credit.

### **Honors Freshman Seminar in Philosophy (PHI 1933) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Introductory consideration of selected problems in ethics, aesthetics, and theory of knowledge in light of the history and methods of philosophy, with emphasis on interdisciplinary applications of philosophical argumentation.

### **Honors Introduction to Philosophy (PHI 2010) 3 credits**

In this course, students will be introduced to the nature of philosophy, philosophical thinking, major intellectual movements in the history of philosophy, including topics from the western philosophical tradition, and various problems in philosophy. Students will strengthen their intellectual skills, become more effective learners, and develop broad foundational knowledge. This is a General Education course.

### **Honors Introduction to Logic (PHI 2101) 3 credits**

An introduction to logic, methods of proof, and symbolic logic. Includes the use of language in logical arguments, deductive and inductive reasoning, and the predicate calculus. This is a General Education course.

### **Honors Ways of Knowing (PHI 2361) 3 credits**

Examines ways of knowing in the natural sciences, social sciences, and moral philosophy. This is a General Education course.

### **Honors Ethics of Social Diversity (PHI 2642) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Considers the ethical implications of differences in race, gender, religion, lifestyles, and ethnicity. Examines both philosophical discussions of liberty, equality, and community. Political debates on topics such as affirmative action, English-only initiatives, and hate speech codes. This is a General Education course.

### **Honors Theory of Knowledge (PHI 3300) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

This course acquaints students with some problems, views and arguments in the study of epistemology. Special attention is given to the value of knowledge, the analysis of knowledge, skepticism and various (potential) ways of obtaining knowledge.

### **Honors Philosophy of Mind (PHI 3320) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

This course engages in a careful and in-depth study of some of the major issues and problems in the philosophy of mind, through the reading of original texts and/or secondary sources. The topics examined include, but are not limited to, the mind/body problem, the nature of consciousness and the problem of personal identity.

### **Honors Philosophy of Medicine (PHI 3456) 3 credits**

The focus of this course will be an evaluation of the relationship between science and ethics within the practice of medicine. It studies evidence-based medicine, models of the physician-patient relationship, and clinical methodology and reasoning. The course concludes with a mock conference in which students present their medical/philosophical work to peers.

### **Honors Biomedical Ethics (PHI 3633) 3 credits**

This course considers the basic ethics of technological and biomedical advancements in our age,

including end-of-life and right-to-life issues, and examines the impact of biomedicine upon human beings in society and as individuals.

### **Honors Ethics in Business, Government and Society (PHI 3653) 3 credits**

Addresses ethical issues that arise in business, government and society from an interdisciplinary perspective, drawing on literature, film and classic texts in philosophy and political theory. Also includes what it means to be ethical, why one should be moral and what kind of conduct leads to a happy life.

### **Honors Ethical Theory (PHI 3670) 3 credits**

Covers key concepts and arguments in moral deliberation based on an analysis of historical and contemporary readings in ethical theory. Focuses on the problems of defining the "good" and determining what "ought" to be done.

### **Honors Environmental Philosophy (PHI 3682) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisite: Permission of instructor*

Examines philosophical issues raised by environmental studies. Discusses ideas of nature from the perspectives of multicultural intellectual history. Explores the ethical and practical as well as the ontological, epistemic, and cosmological dimensions of ecological thinking.

### **Honors Artificial Intelligence Ethics (PHI 3692) 3 credits**

This course offers an interdisciplinary approach to ethical issues raised by artificial intelligence (AI) including liability issues of self-driving cars/drones, economic impacts of AI, ethical concerns with predictive analytics using big data and the ethical status of robots.

### **Honors Philosophy of Religion (PHI 3704) 3 credits**

An historical, cross-cultural, thematic, and analytical study of primary sources in philosophy of religion.

### **Honors Philosophy of Science (PHI 4400) 3 credits**

An examination of the central concepts of the theory of knowledge within the context of scientific investigation; the nature and structure of scientific knowledge, the nature of formal reasoning, the role of observation, the function of models, the nature of perception, scientific explanation, scientific truth, probabilistic and inductive inference and the nature of causal laws.

### **Honors Directed Independent Study (PHI 4906) 1-4 credits**

Directed independent research in philosophy.

### **Honors Directed Independent Research in Philosophy (PHI 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Philosophy. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Philosophy (PHI 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Philosophy. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Special Topics in Philosophy (PHI 4930) 1-4 credits**

(See [Philosophy courses, College of Arts and Letters section](#))

### **Honors Study Abroad in Philosophy (PHI 4959) 1-6 credits**

Study of philosophy either in approved study abroad programs or as research directed by an Honors College faculty member.

### **Honors Religion: Theory, Culture and Society (REL 3102) 3 credits**

This course is an introduction to characteristic forms of human religious expression and practice. Typical features of religion are identified, specific rituals are analyzed and particular issues of religion and late modernity are explored.

## **SPANISH**

### **Honors Beginning Spanish Language and Culture 1 (SPN 1120) 4 credits**

### **Honors Beginning Spanish Language and Culture 2 (SPN 1121) 4 credits**

### **Honors Spanish for Healthcare Professions (SPN 2162) 3 credits**

*Prerequisite: SPN 2220*

This course has been specifically designed to meet the needs of students pursuing a career in the medical field. The course interweaves culture, language instruction and healthcare material. As such, students perform a variety of exercises and activities designed to strengthen each of these areas.

### **Honors Intermediate Spanish Language and Culture 1 (SPN 2220) 4 credits**

*Grading: Regular*

### **Honors Intermediate Spanish Language and Culture 2 (SPN 2221) 4 credits**

(See [Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section](#))

**Honors Spanish Language and Culture Study Abroad (SPN 2957) 1-6 credits**

*Prerequisite: Permission of instructor*

Credit for enrollment in approved Spanish language and culture in approved study abroad programs.

**Honors Advanced Spanish: Conversation (SPN 3400) 4 credits**

**Honors Advanced Spanish: Composition (SPN 3401) 4 credits**

*Prerequisite: SPN 3400 or equivalent*

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

**Honors Directed Independent Study in Spanish Language and Culture**

**(SPN 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

May be repeated for credit.

**Honors Directed Independent Research in Spanish Language and Culture (SPN 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Spanish Language and Culture.

Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student.

A directed independent research form is completed for each DIR student.

**Honors Directed Independent Research in Spanish Language and Culture (SPN 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Spanish Language and Culture.

Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student.

A directed independent research form is completed for each DIR student. *Grading: S/U*

**Honors Special Topics in Spanish Language and Culture (SPN 4930) 1-3 credits**

*Prerequisite: SPN 3400 or equivalent*

**Honors Advanced Spanish Language and Culture Study Abroad (SPN 4957) 1-6 credits**

*Prerequisite: Appropriate lower-division Spanish and/or permission of instructor*

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

**Honors Hispanic Culture and Civilization (SPT 2530) 3 credits**

The culture and heritage of Spain, and the cultural development of Latin America from pre-Columbian civilization to the present, through the study of literary texts in contexts of history, geography, art, attitudes and customs (taught in English). This is a General Education course.

**Honors The 1959 Cuban Revolution: Race, Gender and Sexuality (SPT 4550 ) 3 credits**

*Prerequisite: Permission of department*

*Corequisite: IDS 3932*

This interdisciplinary course provides a historic and sociocultural background of 1959 revolutionary Cuba and the impact this political turnover had on U.S./Cuban relations.

**Honors Introduction to Hispanic Literature (SPW 3030) 3 credits**

(See [Languages, Linguistics, and Comparative Literature courses](#), College of Arts and Letters section)

**Honors Spanish Literature: From the Jarchas to Calderón (SPW 3104) 3 credits**

*Prerequisites: SPN 3400 and SPW 3030, or permission of instructor*

Spanish literature survey course from the Medieval period (Jarchas) to the Baroque period (Calderón).

**RI: Honors Latin American Literature: Modernism to Post Boom (SPW 3134) 3 credits**

*Prerequisites: SPN 3400 and SPW 3030 or permission of instructor*

Survey course offering an overview of Latin American literature from the "modernista" works to the present. This is a research-intensive (RI) course.

**Honors Latin American Literature: Pre-Columbian and Colonial (SPW 3136) 3 credits**

*Prerequisites: SPN 3400 and SPW 3030 or permission of instructor*

An overview of the pre-Columbian and Colonial literary production of Spanish-speaking Latin American countries.

**Honors Spanish Literature: Enlightenment to the 20th Century (SPW 3584) 3 credits**

*Prerequisite: SPW 3030 or permission of instructor*

This course familiarizes the student with the Spanish literature produced from the 18th century to the 20th century. The student will become familiar with the most significant authors of this period, its themes, its recurrent literary forms, and the critical problems associated with them.

**Honors New Literature of the Spanish Caribbean (SPW 4492) 3 credits**

*Prerequisite: SPW 3030 or permission of instructor*

Course examines the most recent fiction of the Spanish-speaking Caribbean to explore issues of race, gender, and sexual orientation, classes, religions, ecology, and politics.

**Honors Don Quixote (SPW 4604) 3 credits**

*Prerequisite: SPN 3400 or SPW 3030 or permission of instructor*

In this course, students read "El ingenioso hidalgo Don Quijote de la Mancha (The Ingenious Gentleman Don Quixote of La Mancha)" in its entirety. Through class discussions, papers and critical articles, students will understand its place in the history of Spanish literature, its significance to world literature and its presence in popular imagery.

### **Honors Directed Independent Study in Spanish or Latin American Literature**

**(SPW 4905) 1-3 credits**

*Prerequisite: SPW 3030 or permission of instructor*

Reading and research in advanced subjects in Spanish or Latin American literature. May be repeated for credit.

### **Honors Directed Independent Research in Spanish Literature (SPW 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Spanish Literature.

Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student.

A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Spanish Literature (SPW 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Spanish Literature.

Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student.

A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Special Topics in Spanish or Latin American Literature (SPW 4930) 1-3 credits**

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

### **Honors Spanish or Latin American Literature Study Abroad (SPW 4957) 1-6 credits**

*Prerequisite: Sophomore standing or permission of instructor*

Credit for enrollment in Peninsular or Latin American literature courses in approved study abroad programs.

## **DIVISION OF NATURAL SCIENCES AND MATHEMATICS**

Components of this Division: Biology, Chemistry, Interdisciplinary Science and Mathematics, Mathematics, and Physics.

### **BIOLOGY**

**Honors Life Science (BSC 1005) 2 credits**

**Honors Life Science Lab (BSC 1005L) 1 credit**

**Honors Biological Principles (BSC 1010) 3 credits**

**Honors Biological Principles Lab (BSC 1010L) 1 credit**

**Honors Biodiversity (BSC 1011) 3 credits**

### **Honors Biodiversity Lab (BSC 1011L) 1 credit**

[\(See Biological Sciences courses, College of Science section\)](#)

### **Honors Freshman Seminar in Biology (BSC 1933) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Special topics course for freshmen in which the approach is generally philosophical and/or historical, focusing on basic questions and issues of enduring importance related to the topic. The course emphasizes improvement of students' critical thinking and writing skills. This is a General Education course.

### **Honors Anatomy and Physiology 1 (BSC 2085) 3 credits**

*Prerequisite or Corequisite: BSC 2085L with minimum grade of "C-"*

A study of structure and physiology from the cellular to the system levels in the human body, including integumentary, skeletal, muscular, nervous and endocrine systems.

### **Honors Anatomy and Physiology 1 Lab (BSC 2085L) 1 credit**

*Prerequisite or Corequisite: BSC 2085 with minimum grade of "C-"*

Laboratory investigations to augment the content of BSC 2085.

### **Honors Anatomy and Physiology 2 (BSC 2086) 3 credits**

*Prerequisites: BSC 2085 and BSC 2085L with minimum grades of "C-"*

*Corequisite: BSC 2086L*

### **Honors Anatomy and Physiology 2 Lab (BSC 2086L) 1 credit**

*Corequisite: BSC 2086*

[\(See Biological Sciences courses, College of Science section\)](#)

### **Honors Experimental Design and Data Analysis (BSC 3452C) 3 credits**

This course focuses on the basic concepts of hypothesis testing, experimental design and data analysis. Students learn how to design research projects from the inception of an idea, collect data, formulate a hypothesis, develop sampling/experimental designs and analyze data in the R software environment. The course's objective is to give students tools to design and develop their honors theses and research projects.

### **Honors Biotechnology 1 Lab (BSC 4403L) 2 credits**

*Prerequisite: Permission of instructor*

### **Honors Directed Independent Study in Biology (BSC 4905) 1-3 credits**

*Grading: S/U*

[\(See Biological Sciences courses, College of Science section\)](#)

### **Honors Molecular Ecology (BSC 4442C) 3 credits**

*Prerequisites: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L, CHM 2046, CHM 2046L*

This is an introductory course that focuses on characterizing individuals, populations and species through molecular variation (deoxyribonucleic acid - DNA). It includes theory and laboratory sections and provides the basis for DNA analyses in any living organism. Molecular markers are used to quantify genetic diversity, track movement of individuals, measure inbreeding and characterize new species. Students learn how to use these methods in the laboratory and through computer analyses.

### **Honors Directed Independent Research in Biology (BSC 4915) 1-3 credits**

*Prerequisite: Permission of instructor*

Students work with research mentors to conduct research and inquiry in Biology. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Biology (BSC 4916) 1-3 credits**

*Prerequisite: Permission of instructor*

Students work with research mentors to conduct research and inquiry in Biology. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading S/U*

### **Honors Special Topics in Biology (BSC 4930) 1-3 credits**

[\(See Biological Sciences courses, College of Science section\)](#)

### **Honors Evolution of Life on Earth (GLY 4105) 3 credits**

*Prerequisite: BSC 1011 with a minimum grade of C-*

This is an interdisciplinary course combining topics from geology and biology. As such, it applies basic biological and geological principles such as evolution, ecology, plate tectonics and stratigraphy to understanding the complexity of life through time and the evolutionary and ecological processes that brought about those changes. The course reviews the evolutionary history of major groups of organisms as seen in the fossil record and major events such as the origins of life, the invasion of land, mass extinctions and climate changes.

### **Honors General Microbiology (MCB 3020) 3 credits**

*Prerequisites: 8 credits of general biology; 4 credits of general chemistry*

*Corequisites: CHM 2046 and 2046L; MCB 3020L*

This course surveys the fundamentals of microbiology, including classification of microbial types, microbe-host interactions, microbes in disease, and applied and environmental microbiology.

### **Honors General Microbiology Lab (MCB 3020L) 1 credit**

*Corequisite: MCB 3020*

The application of fundamental techniques in the isolation, cultivation, and identification of microorganisms.

### **Honors Survey of Marine Biology (OCB 2000) 3 credits**

A survey of life in the sea and the relationships between marine organisms and their environment.

### **Honors Marine Biology and Oceanography (OCB 3012) 3 credits**

*Prerequisites: BSC 1010 and 1011 or permission of instructor; Corequisite: OCB 3012L*

Discussions of major concepts of modern marine biology with emphasis on life in subtropical and tropical seas.

### **Honors Marine Biology and Oceanography Lab (OCB 3012L) 1 credit**

*Corequisite: OCB 3012*

Laboratories, including field studies and field trips of the varied marine habitats of southern Florida.

### **Honors Introduction to Oceanography (OCE 2001) 3 credits**

(See [Ocean and Mechanical Engineering courses, College of Engineering and Computer Science section](#))

### **Honors Genetics (PCB 3063) 4 credits**

*Prerequisites: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L*

(See [Biological Sciences courses, College of Science section](#))

### **Honors Issues in Human Ecology (PCB 3352) 3 credits**

(See [Biological Sciences courses, College of Science section](#))

### **Honors Animal Behavior (PCB 3411) 3 credits**

*Prerequisites: 8 credits of introductory biology and 3 credits of ecology*

A one-semester, advanced-level course that surveys modern approaches to the study of animal behavior, emphasizing the integration of ecological, evolutionary, ethological, and physiological approaches.

### **Honors Human Morphology and Function 1 (PCB 3703) 3 credits**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L, CHM 2210, 2211 with a minimum grades of "C"*

*Corequisite: PCB 3703L*

Normal structure and physiology of the human skeletal, muscle and nervous systems. Lecture format.

Designed for the pre-professional student planning admission to a graduate clinical program.

### **Honors Human Morphology and Function 1 Lab (PCB 3703L) 1 credit**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L, CHM 2210, 2211 with minimum grades of "C"*

*Corequisite: PCB 3703*

The normal structure and physiology of the human skeletal, muscle and nervous systems are discussed in a laboratory format. Designed for the pre-professional student planning admission into a clinical graduate program.

### **Honors Human Morphology and Function 2 (PCB 3704) 3 credits**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L, CHM 2210, 2211 with a minimum grades of "C"*

*Corequisite: PCB 3704L*

Normal structure and physiology of the human skeletal, muscle and nervous systems. Lecture format. Designed for the pre-professional student planning admission to a graduate clinical program.

### **Honors Human Morphology and Function 2 Lab (PCB 3704L) 1 credit**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L, CHM 2210, 2211 with minimum grades of "C"*

*Corequisite: PCB 3704*

The normal structure and physiology of the human cardiovascular, renal, respiratory, gastrointestinal, endocrine and reproductive systems are discussed in a laboratory format. Designed for the pre-professional student planning admission into a clinical graduate program.

### **Honors Principles of Ecology (PCB 4043) 3 credits**

*Prerequisite: 8 credits of general biology*

[\(See Biological Sciences courses, College of Science section\)](#)

### **RI: Honors Drosophila Genes and Behavior (PCB 4054C) 3 credits**

*Prerequisites: BSC 1010 and BSC 1010L and permission of instructor*

This course brings students closer to an understanding of how genetic variations can manifest in behavioral phenotypes using the widely utilized model organism, *Drosophila melanogaster*. Conceptual knowledge is gained in *Drosophila* husbandry, use as a model system, disease models and how genes affect behavior using behavioral assays. Students learn how to collect, analyze and derive significance from scientific data. This is a research-intensive (RI) course.

### **Honors Cell Biology (PCB 4102) 4 credits**

*Prerequisites: BSC 1010, PCB 3063*

An examination of the structure and function of major classes of molecules found within a cell. Examining the cytoskeleton, endomembrane system and cell signaling pathways permits students to

learn how these diverse systems interact to form a functional cell.

### **Honors Immunology (PCB 4233) 3 credits**

*Prerequisites: MCB 3020 or PCB 3063 with minimum grades of "C" or permission of instructor*

This honors course focuses on the scientific study of the immune system as it pertains to the human body's defense system to prevent disease. Topics include immune system development, humoral- and cell-mediated immunity, disease and treatments involving immunization, immunodeficiency, autoimmunity and biotherapeutics. Topics cover both systemic, molecular and cellular interactions of the immune system as it works to distinguish self from non-self.

### **Honors Biology of Cancer (PCB 4234) 3 credits**

*Prerequisites: BSC 1010, PCB 3063, PCB 4102*

Course explores the biology of cancer using molecular information-genetics and cell biology-to understand the fundamental ways in which cancer can occur, spread, and be treated.

### **Honors Developmental Biology (PCB 4253) 3 credits**

*Prerequisites: BSC 1010, PCB 3063*

Developmental biology is the branch of biology that examines the development of an organism from a single cell to an adult organism. Emphasis on the molecular pathways that drive development and the model organisms used to research these pathways.

### **Honors Behavioral Ecology (PCB 4414) 4 credits**

*Prerequisite: PCB 3063 or permission of instructor*

Behavioral adaptations of organisms to their ecological settings and their significance as evolutionary responses to processes guided by natural selection.

### **Honors Evolution (PCB 4673) 3 credits**

*Prerequisites: PCB 3063 and BCH 3033 or permission of instructor*

An in-depth examination of the mechanisms that operate in the evolutionary process.

### **RI: Honors Neurophysiology (PCB 4832C) 3 credits**

*Prerequisites: BSC 1010 and BSC 1010L and permission of instructor*

Neurophysiology brings the students closer to understanding neurophysiological signaling at the cellular level and the whole animal by using actual wet laboratory experiences supplemented with lectures. Students look at signaling from the perspective of the electrical properties of neurons, the basis for all neuronal function. The students learn through both theory and practical laboratory experiences, and then translate their findings into modular reports. This is a research-intensive (RI) course.

### **Honors Cellular Neuroscience (PCB 4841) 3 credits**

*Prerequisite: PCB 3063 with minimum grade of "C" or permission of instructor*

This course is designed for upper-level undergraduates looking to expand their understanding of the cellular mechanisms that make up the nervous system. Students explore the cells that make up the nervous system, the unique properties neurons possess and how neurons communicate and integrate signaling.

### **Honors Vertebrate Zoology (ZOO 2303) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

*Prerequisites: BSC 1010, 1010L, 1011, 1011L*

*Corequisite: ZOO 2303L*

A study of the structure, relationships and natural history of the vertebrates with special emphasis on the ecology of subtropical and neotropical species.

### **Honors Vertebrate Zoology Lab (ZOO 2303L) 1 credit**

*Corequisite: ZOO 2303*

A laboratory examination of selected topics in the biology of vertebrates, including formal surveys of the taxa and occasional weekend field trips.

### **Honors Coral Reef Ecology (ZOO 4556) 3 credits**

*Prerequisites: BSC 1010, BSC 1011*

Explores both the physical and biological aspects of coral reef ecosystems, including associated seagrass and mangrove habitats. Lectures and field trips are used to cover the ecologically relevant aspects of coral reef systems.

### **Honors Principles of Human Neuroanatomy (ZOO 4742) 3 credits**

*Prerequisites: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L, all with minimum grades of "C"*

This course focuses on the basic structural components and interconnections of the human brain, spinal cord and peripheral nervous system at the level of functional circuits. A discussion of diseases and injuries that disrupt the morphological integrity of the human nervous system is included.

## **CHEMISTRY**

### **Honors Biochemistry (BCH 3033) 3 credits**

*Prerequisites: CHM 2210 and 2211; Corequisite: BCH 3033L*

An introduction to biochemistry taught for honors students. Course examines the structure of proteins

and enzymes, nucleic acids, carbohydrates, and lipids.

***Honors Biochemistry Lab (BCH 3033L) 1 credit***

*Prerequisite: CHM 2211; Corequisite: BCH 3033*

Focuses on standard biochemical laboratory techniques of isolation of proteins, purification, and separation of proteins.

**Honors Contemporary Chemical Issues (CHM 1020C) 3 credits**

**Honors Introductory Chemistry (CHM 1025) 3 credits**

**Honors General Chemistry 1 (CHM 2045) 3 credits**

**Honors General Chemistry 1 Lab (CHM 2045L) 1 credit**

**Honors General Chemistry 2 (CHM 2046) 3 credits**

**Honors General Chemistry 2 Lab (CHM 2046L) 1 credit**

[\(See Chemistry and Biochemistry courses, College of Science section\)](#)

**Honors Organic Chemistry 1 Lab (CHM 2204L) 1 credit**

*Prerequisites: CHM 2046, 2046L; Corequisite: CHM 2210*

An introduction to organic chemistry lab. Course covers basic organic chemistry techniques such as thin layer chromatography, extraction, recrystallization, melting point and distillation as well as an introduction to molecular modeling. Concepts covered in CHM 2210 will be further covered in this laboratory.

**Honors Organic Chemistry 2 Lab (CHM 2205L) 1 credit**

*Prerequisite: CHM 2204L; Corequisite: CHM 2211*

This course covers application of basic organic chemistry techniques learned in CHM 2204L, chemistry of functional groups, and additional topics such as spectroscopy.

**Honors Organic Chemistry 1 (CHM 2210) 3 credits**

*Corequisite: CHM 2204L*

**Honors Organic Chemistry 2 (CHM 2211) 3 credits**

*Corequisite: CHM 2205L*

[\(See Chemistry and Biochemistry courses, College of Science section\)](#)

**Honors Environmental Chemistry (CHM 3085) 3 credits**

*Prerequisites: CHM 2045, CHM 2046*

The chemistry of the environment. Includes processes in the atmosphere, hydrosphere, and geosphere, and their interactions. Selected emphasis on the physical processes that distribute materials through the environment. Topics include ozone, smog, greenhouse gases, global warming, energy, pE/pH, gas laws,

redox cycling of elements, organic matter, chemistry of drinking and waste waters, biocides, and green chemistry.

### **Quantitative Analysis (CHM 3121) 3 credits**

*Prerequisite: CHM 2045, 2045L, 2046, 2046L; Corequisite: CHM 3121L*

Principles of analysis; gravimetric, volumetric and instrumental methods.

### **Honors Quantitative Analysis Lab (CHM 3121L) 1 credit**

*Prerequisite: CHM 2045, 2045L, 2046, 2046L; Corequisite: CHM 3121*

Experiments in volumetric, gravimetric, and instrumental methods of analysis.

### **Honors Chemistry of Natural Products (CHM 3290) 3 credits**

*Prerequisite: CHM 2211 or permission of instructor*

Study of natural products whose molecules are synthesized by living organisms and that consequently are of interest as possible pharmaceuticals themselves or lead to compounds for the development of new pharmaceuticals. Uses and abuses of natural products and their derivatives will be explored.

### **Honors Introduction to Physical Chemistry (CHM 3400) 3 credits**

*Prerequisites: 8 credits of general chemistry and 4 credits each of physics and calculus*

### **Honors Inorganic Chemistry (CHM 3609) 3 credits**

*Prerequisites: CHM 2045, CHM 2046; Corequisite: CHM 3609L*

### **Honors Inorganic Chemistry Lab (CHM 3609L) 1 credit**

*Prerequisites: CHM 2045, CHM 2046; Corequisite: CHM 3609*

[\(See Chemistry and Biochemistry courses, College of Science section\)](#)

### **Honors Instrumental Methods of Analysis (CHM 4135) 3 credits**

*Prerequisites: CHM 2045, 2045L, 2046, 2046L; Corequisite: CHM 4135L*

Introduction to the principles of instrumental chemical analysis. Topics covered will include a variety of atomic and molecular spectroscopic methods, electroanalytical methods, and chemical separation methods.

### **Honors Instrumental Methods of Analysis Lab (CHM 4135L) 1 credit**

*Prerequisites: CHM 2045, 2045L, 2046, 2046L; Corequisite: CHM 4135*

Introduction of several instrumental methods for chemical analysis.

### **Honors Directed Independent Study in Chemistry (CHM 4905) 1-4 credits**

[\(See Chemistry and Biochemistry courses, College of Science section\)](#)

### **Honors Directed Independent Research in Chemistry (CHM 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Chemistry. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Chemistry (CHM 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Chemistry. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading S/U*

### **Honors Special Topics in Chemistry (CHM 4933) 1-4 credits**

(See [Chemistry and Biochemistry courses, College of Science section](#))

## **INTERDISCIPLINARY SCIENCE AND MATHEMATICS**

### **Honors Scientific Writing 1 (ISC 2932) 1 credit**

This class covers the essentials of scientific writing in theory and in practice.

### **Honors Sciences and Mathematics Study Abroad (ISC 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Honors Interdisciplinary Science and Mathematics Seminar (ISC 3933) 1 credit**

*Prerequisite: Junior standing*

An interdisciplinary seminar designed primarily for students concentrating in science and math, this course is open to both juniors and seniors. It provides preparation for developing a senior thesis proposal. Students should enroll for this course in the year prior to the academic year that they will begin their thesis.

### **Honors Special Topics in Science and Mathematics (ISC 4930) 1-4 credits**

*Prerequisite: Junior standing*

Juniors and seniors in science and mathematics will present seminars based upon literature and laboratory research.

### **Honors Scientific Writing 2 (ISC 4932) 1 credit**

*Prerequisite: ISC 2932 or permission of instructor*

This class covers advanced issues in scientific writing in theory and practice.

### **Honors Interdisciplinary Science and Mathematics Seminar (ISC 4933) 1 credit**

*Prerequisite: Junior standing*

Juniors and seniors in science and mathematics present seminars based upon literature and laboratory research.

### **Honors Internship in Science and Mathematics (ISC 4947) 1-12 credits**

*Prerequisite: Permission of instructor*

Provides students with an opportunity to gain first-hand experience in science and mathematics beyond the university, for example, in a government or corporate setting. It contributes to the mission of the Honors College by encouraging students to explore interdisciplinary connections in their work and to discuss these in a detailed essay. *Grading: S/U*

### **Honors Sciences and Mathematics Study Abroad (ISC 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

## **MATHEMATICS**

### **Honors Foundations of Programming (COP 2000) 3 credits**

An introduction to the fundamentals of modern computer programming with emphasis on visual design, problem solving, coding style, and structured programming. Topics include decision and repetition statements, data types and arrays, procedures, event-driven programming, and testing and debugging. Optional topics: graphics, Web page programming, objects and classes, and files and databases.

### **Honors Introduction to Programming in C (COP 2220) 3 credits**

Introduction to programming in C. Variable types, arithmetic statements, input/output statements, loops, conditional statements, functions, arrays and structures. Programming projects in C.

### **Honors Topics in Computer Programming (COP 2930) 3 credits**

*Prerequisite: Permission of instructor*

Special current topics in introductory-level computer programming, such as (but not restricted to) Web programming, script programming, database programming, modeling, and specialized software tools. Since the content will vary, the course may be repeated for credit.

### **Honors Advanced Programming (COP 3012) 3 credits**

*Prerequisite: COP 2220 or COP 2000 ("C" or better)*

The second-semester course advances students' basic programming skills with emphasis on user

interface design, problem solving, and coding style in an object-oriented language, such as C++ or Java. Topics include abstract data types and structures, recursion, special algorithms, objects, classes and events, and testing and debugging. Optional topics: graphics, web page programming, and databases.

**Honors Introduction to Data Science (COP 3076) 3 credits**

*Prerequisite: STA 2023 or permission of instructor*

An introductory seminar in data science with training in R.

**Honors Topics in Computer Science (COT 4930) 3 credits**

(See [Electrical Engineering and Computer Science courses](#), College of Engineering and Computer Science section)

**Honors Modern Analysis (MAA 4200) 3 credits**

*Prerequisite: MAC 2313*

(See [Mathematics courses](#), College of Science section)

**Honors Introductory Complex Analysis (MAA 4402) 3 credits**

**Honors Precalculus Algebra and Trigonometry (MAC 1147) 4-5 credits**

*Gordon Rule, computational*

**Honors Calculus with Analytic Geometry 1 (MAC 2311) 4 credits**

*Gordon Rule, computational*

*Prerequisite: MAC 1147 or placement*

**Honors Calculus with Analytic Geometry 2 (MAC 2312) 4 credits**

*Gordon Rule, computational*

**Honors Calculus with Analytic Geometry 3 (MAC 2313) 4 credits**

*Gordon Rule, computational*

(See [Mathematics courses](#), College of Science section)

**Honors Discrete Mathematics (MAD 2104) 3 credits**

*Gordon Rule, computational*

*Prerequisite: MAC 1105 or permission of instructor*

A proof-oriented approach to and applications of propositional logic, sets, functions, relations, combinatorics, graphs and trees. This is a General Education course.

**Honors Graph Theory (MAD 4301) 3 credits**

*Prerequisite: MAD 2104*

**Honors Differential Equations (MAP 2302) 3 credits**

*Gordon Rule, computational*

*Prerequisites: MAC 2311 and MAC 2312*

[\(See Mathematics courses, College of Science section\)](#)

### **Honors Matrix Theory (MAS 2103) 3 credits**

*Gordon Rule, computational*

*Prerequisite: MAC 2311 or placement*

Vectors and vector spaces. Linear transformation and matrices. Rank and determinants. Systems of linear equations. Diagonalization. Characteristic values. This is a General Education course.

### **Honors Introduction to Number Theory (MAS 3203) 3 credits**

*Prerequisite: MAC 2312*

### **Honors Differential Equations 2 (MAP 4303) 3 credits**

### **Honors Modern Algebra (MAS 4301) 3 credits**

*Prerequisite: MAS 2103*

[\(See Mathematics courses, College of Science section\)](#)

### **Honors Modern Algebra 2 (MAS 4302) 3 credits**

*Prerequisite: MAS 4301 with minimum grade of "C"*

A continuation of Honors Modern Algebra, MAS 4301. Covers basic structures of abstract algebra, such as groups, rings and ideals, fields, polynomials and factorization and the classical Galois theory of fields and equations.

### **Honors Topics in Mathematics (MAT 1932) 3 credits**

*Gordon Rule, computational*

*Prerequisite: Intermediate algebra or equivalent*

Topics of interest to lower-division students. This is a General Education course.

### **Honors Freshman Seminar in Mathematics (MAT 1933) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Special topics course for freshmen in which the approach is generally philosophical and/or historical, focusing on basic questions and issues of enduring importance to the topic.

### **Honors Directed Independent Research in Mathematics (MAT 4915) 1-3 credits**

Students work closely with research mentors to conduct research and inquiry in Mathematics.

Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Mathematics (MAT 4916) 1-3 credits**

Students work closely with research mentors to conduct research and inquiry in Mathematics.

Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Directed Independent Study in Mathematics (MAT 4906) 1-4 credits**

### **Honors Special Topics in Mathematics (MAT 4930) 1-4 credits**

(See [Mathematics courses, College of Science section](#))

### **Honors Mathematical Thinking in Context 1 (MGF 1130) 3 credits**

*Gordon Rule, computational*

In this course, students will utilize multiple means of problem solving through student-centered mathematical exploration. The course is designed to teach students to think more effectively and increase their problem-solving ability through practical application and divergent thinking. The course is appropriate for students in a wide range of discipline/programs. This is a General Education course.

### **Honors General Topology (MTG 4302) 3 credits**

*Prerequisite: MAS 4301 (may be taken concurrently)*

Introduces the fundamentals of point-set topology and topological spaces, essential material for any student who wishes to study topology or analysis at the graduate level.

### **Honors Introductory Statistics (STA 2023) 3 credits**

*Gordon Rule, computational*

(See [Mathematics courses, College of Science section](#))

### **Honors Intermediate Statistics (STA 3164) 3 credits**

*Gordon Rule, computational*

*Prerequisite: STA 2023*

Large-sample estimation and tests of hypotheses, t-tests, chi-square tests, one-way ANOVA, linear and multiple regression, correlation, and experimental designs. Laboratory includes use of statistical software to organize, describe, present, and analyze data.

## **PHYSICS**

### **Honors Introduction to Astronomy (AST 2002) 3 credits**

(See [Physics courses, College of Science section](#))

### **Honors Topics in Physics (PHY 1931) 3 credits**

(See [Physics courses, College of Science section](#))

### **Honors General Physics 1 (PHY 2048) 4 credits**

#### **Honors General Physics 1 Lab (PHY 2048L) 1 credit**

*Pre- or corequisite: PHY 2048 or PHY 2053 with minimum grade of "C"*

### **Honors General Physics 2 (PHY 2049) 4 credits**

*Pre- or Corequisite: PHY 2049 or PHY 2054 with minimum grade of "C"*

#### **Honors General Physics 2 Lab (PHY 2049L) 1 credit**

*Corequisite: PHY 2049*

(See [Physics courses, College of Science section](#))

### **Honors College Physics 1 (PHY 2053) 4 credits**

*Prerequisites: MAC 1114 or MAC 1147 or MAC 2233 or MAC 2281 or MAC 2311 with minimum grade of "C"*

*Corequisite: PHY 2048L*

This course is the first in a two-part series intended for non-physics majors, offering an algebra and trigonometry approach to topics such as kinematics, dynamics, energy, momentum, rotational motion, fluid dynamics, oscillatory motion and waves. The course fosters analytical and critical thinking skills to promote a scientific understanding of the real world. No credit for physics majors. This is a General Education course.

### **Honors College Physics 2 (PHY 2054) 4 credits**

*Prerequisite: PHY 2053*

*Corequisite: PHY 2049L*

This algebra- and trigonometry-based course surveys fundamental laws and phenomena of electricity and magnetism, optics, special relativity, atomic and nuclear physics. Emphasis is on the understanding of physical concepts through examples drawn from the physical and life sciences.

### **Honors Introduction to Modern Physics (PHY 3101) 3 credits**

*Prerequisite: PHY 2049*

Experimental foundations of quantum physics; optical and X-ray spectra, interaction and duality of particles and radiation; vector model of the atom, exclusion principle, periodic table of elements; molecular structure, electrical properties of metals and semiconductors; elementary nuclear and particle physics.

### **Honors Intermediate Mechanics (PHY 3221) 4 credits**

*Prerequisite: PHY 2049*

Vector algebra; particle dynamics, Newton's law of gravitation, Kepler's laws; systems of particles, conservation laws; introduction to generalized mechanics, Lagrangian mechanics; tensor algebra; rigid body motion.

### **Honors Thermal Physics (PHY 3513) 3 credits**

*Prerequisite: PHY 2049 or equivalent; Corequisite: MAC 2313 or permission*

Treatment of classical thermodynamics, including fundamental postulates, entropy, equations of state, thermodynamic equilibrium and potentials, Maxwell relations, and phase transitions.

### **Honors Electricity and Magnetism (PHY 4320) 4 credits**

*Prerequisites: PHY 2049 and MAC 2313*

Introduction to classical electrodynamics, including vector calculus, electrostatics, magnetostatics, Maxwell's equations, and electromagnetic radiation.

### **Honors Statistical Physics (PHY 4523) 3 credits**

*Prerequisite: PHY 2049 or equivalent*

Review of classical thermodynamics; ideal gas kinetic theory; Maxwell-Boltzmann distribution; the partition function; Bose-Einstein and Fermi-Dirac distributions; ensembles, fluctuations and irreversible processes.

### **Honors Introductory Quantum Physics (PHY 4602) 3 credits**

*Prerequisite: PHY 2049 or equivalent*

An introduction to quantum physics with emphasis on one-dimensional problems, wave-particle duality, the Schrodinger equation, measurement, and the formalism and interpretation of quantum theory.

### **Honors Directed Independent Study in Physics (PHY 4905) 1-3 credits**

### **Honors Directed Independent Research in Physics (PHY 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Physics. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Physics (PHY 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Physics. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Special Topics in Physics (PHY 4936) 1-4 credits**

*Prerequisite: Permission of instructor*

[\(See Physics courses, College of Science section\)](#)

### **Honors Introduction to Relativity (PHZ 3601) 3 credits**

*Prerequisite: PHY 2049 or equivalent*

An introduction to special and general relativity.

### **Honors Physical Science (PSC 2121) 3 credits**

A self-contained course for non-science majors that emphasizes analytical thinking and problem solving. It covers essential concepts in astronomy, physics, chemistry, geology and meteorology. No credit for both PSC 2121 and PHY 2048 or 2053.

## **DIVISION OF SOCIAL SCIENCES**

Components of this Division: American Studies, Anthropology, Asian Studies, Business, Economics, Environmental Studies, Geography, History, Interdisciplinary Social Sciences, International Studies, Latin American Studies, Law and Society, Political Science, Psychology, and Women's Studies/Sociology.

## **AMERICAN STUDIES**

### **Honors U.S. History to 1877 (AMH 2010) 3 credits**

### **Honors U.S. History since 1877 (AMH 2020) 3 credits**

### **Honors American Environmental History (AMH 3630) 3 credits**

[\(See History courses, College of Arts and Letters section\)](#)

### **Honors Directed Independent Research in American History (AMH 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in American History.

Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student.

A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in American History (AMH 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in American History.

Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student.

A directed independent research form is completed for each DIR student. *Grading: S/U*

**Honors Special Topics in American History AMH 4932) 3 credits**

This course is a research intensive (RI) course.

(See [History courses, this Division, Honors College](#))

**Honors American Literature to 1865 (AML 2010) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

An overview of American literature, including representative writers of the Colonial, Enlightenment and Romantic periods. This is a General Education course.

**Honors American Literature: 1865-1945 (AML 2022) 3 credits**

**Honors American Literature: 1945 to Present (AML 2053) 3 credits**

(See [Literature courses, Division of Humanities, Honors College](#))

**Honors American Novel to 1900 (AML 3111) 3 credits**

**Honors American Novel since 1900 (AML 3121) 3 credits**

(See [English courses, College of Arts and Letters section](#))

**Honors Major American Writers: 19th Century (AML 4310) 3 credits**

**Honors African-American Literature (AML 4603) 3 credits**

(See [Literature courses, Division of Humanities, Honors College](#))

**Honors Afrofuturism (AML 4600) 3 credits**

*Prerequisite: 2000-level literature course with minimum grade of "C"*

Students read and critically analyze literature, academic scholarship and other resources in exploring the multi-genre creative movement of Afrofuturism, which reevaluates the past and imagines alternate realities and futures for African American and African peoples.

**Honors Native-American Literature (AML 4640) 3 credits**

**Honors Special Topics (AML 4930) 3 credits**

(See [English courses, College of Arts and Letters section](#))

**Honors Colloquium in American Studies (AMS 3003) 3 credits**

**Honors Violence in the United States (AMS 4332) 3 credits**

**Honors Special Topics in American Studies (AMS 4930) 3 credits**

This course is a research intensive (RI) course.

(See [History courses, this Division, Honors College](#))

**Honors Literature and Film (ENG 4114) 3 credits**

[\(See English courses, College of Arts and Letters section\)](#)

**Honors Special Topics in Interdisciplinary Studies (IDS 3930) 1-3 credits**

**Honors Special Topics in Interdisciplinary Studies (IDS 4930) 3 credits**

**RI: Honors Thesis (IDS 4970) 3 credits**

This course is a research intensive (RI) course.

[\(See Interdisciplinary Studies courses, Division of Humanities, Honors College\)](#)

**Honors Ethics of Social Diversity (PHI 2642) 3 credits**

[\(See Philosophy courses, Division of Humanities, Honors College\)](#)

**Honors Government of the United States (POS 2041) 3 credits**

[\(See Political Science courses, this Division, Honors College\)](#)

**Honors Law and American Society (POS 3691) 3 credits**

[\(See Political Science courses, College of Arts and Letters section\)](#)

**Honors the U.S. Presidency (POS 4414) 3 credits**

[\(See Political Science courses, this Division, Honors College\)](#)

**Honors Constitutional Law 1: Government Powers and Limits (POS 4603) 3 credits**

*Prerequisite: None*

**Honors Constitutional Law 2: Civil Rights and Liberties (POS 4604) 3 credits**

*Prerequisite: None*

[\(See Political Science courses, College of Arts and Letters section\)](#)

## ANTHROPOLOGY

**Honors Freshman Seminar in Anthropology (ANT 1933) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Special topics will focus on the basic philosophical and/or historical questions and issues regarding culture and humankind. Critical thinking and writing skills are emphasized. This is a General Education course.

**Honors Introduction to Anthropology (ANT 2000) 3 credits**

This version of the course is not Writing Across Curriculum (Gordon Rule)

[\(See Anthropology courses, College of Arts and Letters section\)](#)

### **Honors Magic, Witchcraft, and Religion (ANT 2240) 3 credits**

Students learn anthropological approaches to religion, specifically to topics such as religious specialists, healing, new religions, millenarian movements, and religious change. The goal of the course is to give students an understanding of anthropological perspectives on the role of religion in human life. This is a General Education course.

### **Honors Culture and Society (ANT 2410) 3 credits**

Perspective on the human condition by examining some of the principal cultural differences between traditional and modern societies. Using ethnographic materials, examination of how people formulate their world views (cosmology) and live by the social logics of reciprocity and kinship. These are compared with world views and social logics of markets and bureaucracy in industrial societies. This is a General Education course.

### **Honors Introduction to Biological Anthropology (ANT 2511) 3 credits**

*Corequisite: ANT 2511L*

The course covers all aspects of the origin and evolution of humankind. Subject matter includes concepts of evolutionary thought, mammalian osteology, genetics concerning evolution, statistics and geometrics used in physical anthropology, what makes a hominin, modern and ancient non-human primates, the progression through hominin evolution and modern human variation. This is a General Education course.

### **Honors Introduction to Biological Anthropology Lab (ANT 2511) 1 credit**

*Corequisite: ANT 2511*

Hands-on projects to accompany lessons from ANT 2511, including methods for measuring hominin crania, other bones and DNA analysis. This is a General Education course.

### **Honors Peoples Around the World (ANT 3212) 3 credits**

[\(See Anthropology courses, College of Arts and Letters section\)](#)

### **Honors Peoples of Latin America (ANT 3332) 3 credits**

Course examines the anthropology of modern-day cultures of Latin America.

### **RI: Honors Ritual and Symbolism (ANT 4244) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Students learn the process of research and writing in the anthropology of ritual and symbolism and meet all six Student Learning Outcomes of research intensive (RI) courses.

### **Honors Anthropology of the Andes (ANT 4331) 3 credits**

Anthropological approaches to the study of Andean cultures, including ecological, structuralist, symbolic, Marxist, feminist, critical, and post-modern anthropological and ethnohistorical analyses.

### **Honors Himalayan Cultures (ANT 4368) 3 credits**

This course helps students develop an understanding of the Himalayan cultures of South Asia. The course lectures, discussions, and assignments convey a thorough understanding of the geo-ecology, history, cultural diversity, and contemporary issues of the region.

### **Honors Theory in Cultural Anthropology (ANT 4417) 3 credits**

Course reviews the history of anthropological theory and situate it within the social sciences. The course covers structural-functionalist, symbolic-interpretive, feminist, Marxist, and post-modern approaches to anthropology.

### **Honors Development Debate in South Asia (ANT 4474) 3 credits**

This course addresses development from an anthropological perspective, as an international issue with culturally specific locales. Topics covered include development strategies in the fields of education, economics, technology, and environmental studies. These are discussed in relation to case studies gathered from development projects throughout South Asia.

### **Honors Research Methods in Cultural Anthropology (ANT 4495) 3 credits**

(See [Anthropology courses, College of Arts and Letters section](#))

### **Honors Directed Independent Research in Anthropology (ANT 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Anthropology. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Anthropology (ANT 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Anthropology. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Special Topics in Anthropology (ANT 4930) 3 credits**

Examines ways by which historical events become cultural practice and the means of transmitting, reproducing, and recreating historical knowledge. Examines myths, oral narratives, ritual, symbolism, and written texts. May be repeated for credit.

### **Honors Internship in Anthropology (ANT 4947) 3 credits**

*Prerequisite: ANT 2410*

Credit for work performed in approved internship opportunities related to anthropology. May be repeated for credit. *Grading: S/U*

### **Honors Study Abroad in Anthropology (ANT 4959) 3-16 credits**

*Prerequisite: ANT 2410*

Credit for enrollment in approved study abroad programs related to anthropology.

## **ASIAN STUDIES**

### **Honors Freshman Seminar in Asian Studies (ASN 1933) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Variable topic course designed to introduce freshmen to Asian studies through exploration of specific topics. Emphasis on writing, critical thinking, and interdisciplinary approaches to Asian studies.

### **Honors Introduction to Asian Studies (ASN 3006) 3 credits**

The purpose of this course is to introduce students to some of the major issues and themes in Asian regional studies. The course combines humanities and social science approaches to the study of Asia to enable students to explore the variety of Asian culture/societies. The course begins by critically looking at the concept of "Asia" and how it has been constructed/destroyed through different academic endeavors. The course then moves on to examine the heterogeneity of the so-called "Asian experience" through the study of foods, films, popular culture, art, religion and social relations in Asian communities.

### **Honors Directed Asian Studies (ASN 4905) 3 credits**

Interdisciplinary, individualized area studies in East, Southeast, Central or South Asia; course materials are selected to create specific areas of focus commensurate with student's needs, instructor's interest, and curriculum design. May be repeated for credit.

### **Honors Directed Independent Research in Asian Studies (ASN 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Asian Studies. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Asian Studies (ASN 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Asian Studies. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Special Topics in Asian Studies (ASN 4930) 3 credits**

*Prerequisite: ASN 3006 or permission of instructor*

Interdisciplinary area studies in East, Southeast, Central or South Asia; course materials are selected to create specific areas of focus commensurate with instructor's interest. Since the content may vary, this course may be repeated for credit.

## **BUSINESS**

### **Honors Principles of Accounting 1 (ACG 2021) 3 credits**

Accounting serves as the language of business. It is how investors, regulators, owners and even employees and the general public can understand what and how a business is doing. In this class, the focus is on financial accounting, how businesses keep track of all their transactions and operations, and how this information is used to build reports and statements that fall within general professional and legal guidelines. In addition, there is discussion on why organizations and management may be incentivized to lie about the accounting information they report and the effects of such misrepresentation.

### **Honors Principles of Accounting 2 (ACG 2071) 3 credits**

*Prerequisite: ACG 2021 with minimum grade of "C"*

Accounting serves as the language of business. It is how investors, regulators, owners, and even employees and the general public can understand what and how a business is doing. In this class, the focus is on managerial accounting, how organizations use internal information and data to assess their own operations, and if they are achieving their stated goals. Students also assess the different needs of internal and external users of accounting information and how this influences the principles underlying their preparation and presentation. In addition, there is a discussion of issues of information asymmetry, data security and investor expectations.

### **Honors Fundamentals of Real Estate (REE 3005) 3 credits**

This is an interdisciplinary business course designed to immerse students in the fundamental concepts and practical aspects of real estate - one of the U.S. economy's largest industries. In this course, students explore the dynamic relationship between real estate and the broader economy, linking foundational concepts, such as property rights and ownership, to broader economic patterns and trends. This understanding allow students to critically analyze the housing market and understand the influence of government policies and regulations on real estate practices.

## ECONOMICS

### **Honors Freshman Seminar in Economics (ECO 1933) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A philosophical or historical approach to basic questions of enduring importance, emphasizing improvement of critical thinking and writing skills. This is a General Education course.

### **Honors Macroeconomic Principles (ECO 2013) 3 credits**

*Prerequisite: None*

### **Honors Microeconomic Principles (ECO 2023) 3 credits**

*Prerequisite: None*

### **Honors Intermediate Microeconomics (ECO 3101) 3 credits**

*Prerequisites: ECO 2023*

### **Honors Intermediate Macroeconomics (ECO 3203) 3 credits**

*Prerequisites: ECO 2013 or equivalent*

[\(See Economics courses, College of Business section\)](#)

### **Honors Advanced Research and Writing Methods in Business and Economics 1 (ECO 3951) 2 credits**

This course is intended to give Honors College students with concentrations in business and economics the practical skills they need to develop an original research project in business or economics. Students learn both the structure of research reports and the process of conducting professional-level research. Writing is also emphasized in this course.

### **Honors Market Process Economics: An Analysis of Time and Ignorance (ECO 4053) 3 credits**

*Prerequisite: ECO 2023*

This course aims to provide honors students in business and economics with the foundations of market process economics. This includes an understanding of how the market process approach works; ideas to generate a market process approach to a variety of research problems; and an opportunity to improve written and oral communication skills.

### **Honors Industrial Organization and Game Theory (ECO 4400) 3 credits**

*Prerequisite: ECO 2023 or permission of instructor*

This course introduces students to the analysis of the behavior of firms under different market structures-competitive, monopolistic, and oligopolistic. The coverage also includes such topics as introduction to game theory, strategic behavior of firms, price discrimination, information, and patents and technological change.

### **Honors Econometrics: Applied Regression Analysis (ECO 4412) 3 credits**

*Prerequisite: STA 2023 or permission of instructor*

This course considers a set of statistical tools and their application to a wide range of empirical problems in various fields, including economics, political science, finance, sociology, environmental studies, medicine, and more.

### **Honors Public Finance and Public Policy (ECO 4531) 3 credits**

*Prerequisite: ECO 2023*

Class uses microeconomic tools to model the government's resource decisions. Topics includes models of government expenditures and revenue (taxation), standards for market efficiency and failure, welfare economics, and federalism. The course also includes analysis of topical issues, such as programs for the poor and social security.

### **Honors Modern Political Economy (ECO 4532) 3 credits**

*Prerequisite: ECO 2023*

This course gives students an introduction to the issues and analysis of modern political economy. Unlike most other courses in economics or public policy, however, this course is less about the policies themselves and more about developing models to explain how and why a given policy is adopted. In other words, the course explores economic models of politics.

### **Honors Directed Independent Study in Economics (ECO 4906) 1-3 credits**

*Prerequisite: Permission of instructor*

Independent directed readings in economics.

### **Honors Directed Independent Research in Economics (ECO 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Economics. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Economics (ECO 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Economics. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Special Topics in Economics (ECO 4932) 3 credits**

Content will vary. Course may be repeated for credit.

### **Honors Advanced Research and Writing Methods in Business and Economics 2 (ECO 4953) 2 credits**

*Prerequisite: ECO 3951*

This course is intended to give Honors College students with concentrations in business and economics the practical skills they need to develop an original research project in business or economics. Students learn both the structure of research reports and the process of conducting professional-level research. While writing technique is emphasized in this course, critiquing and reviewing skills are more finely honed in this second research course.

### **Honors Law and Economics (ECP 3451) 3 credits**

*Prerequisite: ECO 2023 with a minimum grade of "C"*

Exploration of economic approaches to the law. Application of economic theories to issues arising in areas of law, such as contracts, tort, criminal law, and property law.

### **Honors Environmental Economics (ECP 4302) 3 credits**

*Prerequisites: ECO 2013 and ECO 2023, or permission of instructor*

### **Honors International Economic Development (ECS 3013) 3 credits**

*Prerequisites: ECO 2013 and ECO 2023, or permission of instructor*

[\(See Economics courses, College of Business section\)](#)

## **ENVIRONMENTAL STUDIES**

### **Honors Environmental Science and Sustainability (EVR 1001) 3 credits**

This course is a survey of basic chemical, biological and physical principles of environmental science and their applications to environmental issues. This course is appropriate for students in a wide range of disciplines or programs. This is a General Education course.

### **Honors Freshman Seminar in Environmental Studies (EVR 1933) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Special topics interdisciplinary environmental studies seminar for first-year students. The course focuses on basic questions of enduring importance related to the topic and emphasizes critical thinking and writing skills. This is a General Education course.

### **Honors Environment and Society (EVR 2017) 3 credits**

[\(See Geosciences courses, College of Science section\)](#)

### **Honors Energy Resources: Trends, Policy, and Environment (EVR 3314) 3 credits**

This course provides an assessment of conventional and alternative energy sources in the U.S. and global contexts. It emphasizes energy issues in relation to environmental concerns, particularly global warming, and explores elements of a comprehensive energy policy needed for future sustainability.

### **Honors Parks and Preservation (EVR 3421) 3 credits**

This course addresses a range of social issues related to parks and other protected spaces, including their historical emergence, cultural meanings, use and design.

### **Honors Marine Conservation (EVR 4420) 3 credits**

A one-semester, upper-level course in the scientific principles, ethics, legal issues, and management concerns of conservation biology in coastal and marine waters. Readings from scientific and policy literature will be discussed at length in class.

### **Honors Directed Independent Study in Environmental Studies (EVR 4905) 1-3 credits**

*Prerequisite: EVR 2017*

Designed for students who wish to investigate topics that are not addressed in other environmental studies courses. Students will work independently, meeting with the instructor on an arranged basis. May be repeated for credit.

### **Honors Directed Independent Research in Environmental Studies (EVR 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Environmental Studies. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Environmental Studies (EVR 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Environmental Studies. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Special Topics in Environmental Studies (EVR 4930) 3 credits**

Advanced special topics interdisciplinary environmental studies seminar for upper-division students. The course focuses on advanced questions related to the topic and emphasizes critical thinking and writing skills.

### **Honors Internship in Environmental Studies (EVR 4947) 1-6 credits**

*Prerequisite: Permission of instructor*

Credit for work performed in approved internship opportunities related to environmental studies. May be repeated for credit. *Grading: S/U*

### **Honors Study Abroad in Environmental Studies (EVR 4957) 1-6 credits**

Credit for enrollment in approved study abroad programs related to environmental studies. May be repeated for credit.

### **Honors Global Environmental Issues (EVS 3403) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

In addition to learning about global environmental problems, such as global warming, ozone depletion, and biodiversity loss, students explore political, social, and economic factors that impact international cooperation regarding these issues. They also learn about the debates surrounding key concepts, such as sustainable development and free trade.

### **Honors Conservation Biology (EVS 4414) 3 credits**

Course covers the principles, ethics, legal issues, and management concerns of conservation biology.

## **GEOSCIENCES**

### **Honors World Geography (GEA 2000) 3 credits**

### **Honors Geography of the Developing World (GEA 3003) 3 credits**

[\(See Geosciences courses, College of Science section\)](#)

### **Honors Special Topics in Geography (GEO 4930) 3 credits**

[\(See Geosciences courses, College of Science section\)](#)

### **Honors Geographic Information Systems (GIS 3044C) 3 credits**

This course introduces students to principles and applications of geographic information systems, emphasizing key concepts related to data capture and management, map design, production, and analysis. Students will pay a nominal lab fee that will cover costs of printer paper and ink.

## **HISTORY**

### **Honors U.S. History to 1877 (AMH 2010) 3 credits**

*Grading: Regular*

### **Honors U.S. History since 1877 (AMH 2020) 3 credits**

*Grading: Regular*

### **Honors American Environmental History (AMH 3630) 3 credits**

[\(See History courses, College of Arts and Letters section\)](#)

### **Honors Special Topics in American History (AMH 4932) 3 credits**

The study of a special area of American history. Topics will vary. Course may be repeated for credit.

### **Honors Colloquium in American Studies (AMS 3003) 3 credits**

This course is an upper-level introduction to the methods and sources of American studies as an academic discipline. Students are presumed to have some prior knowledge of American history, American literature, American politics, and American society.

### **Honors Violence in the United States (AMS 4332) 3 credits**

Examines violence in the United States, including violent entertainment, violent crime, sexual violence, media violence, and guns in American life, as well as censorship and regulation.

### **Honors Directed Independent Research in American Studies (AMS 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in American Studies. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in American Studies (AMS 4916) 13 credits**

Students work with research mentors to conduct research and inquiry in American Studies. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Special Topics in American Studies (AMS 4930) 3 credits**

Examines the nature of violence in the United States from an historical perspective. The course will meet requirements for the Honors College Concentration in American Studies.

### **Honors 20th Century Europe (EUH 2341) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Europe's 20th century was one of the bloodiest and most tragic as well as the most optimistic and progressive eras in world history. This Writing Across Curriculum (WAC) introductory course explores how such contradictory impulses played out over the space of ten decades. This is a General Education course.

### **Honors Russia Under the Tsars (EUH 3575) 3 credits**

This course explores Russia's history from its origins in the state of Kievan Rus' over 1000 years ago to the traumas of modernization in the late 19th century. The focus is on the culture and ideas of the 19th century as Russia struggled with what it called the "cursed questions," i.e., the difficulty of moving

from a traditional past to a modern future. The course ends in 1881 when Tsar Alexander II was assassinated, and the socialist revolutionary movements that would lead to the Soviet Union were just getting underway.

**Honors The Soviet Union and Since (EUH 3576) 3 credits**

*Prerequisite: WOH 2012 and WOH 2022*

History of the Soviet Union. Topics include the Bolshevik Revolution, Stalinism, Soviet politics, culture, and society.

**Honors European Intellectual History 1 (EUH 3604) 3 credits**

Explores important ideas and values that helped shape modern European history. Topics include the impact of science on social thought, concepts of political liberty, romantic individualism, and historical determinism.

**Honors Revolution in Europe (EUH 3662) 3 credits**

Study of both the French and Russian revolutions in the context of general theories of revolution as well as specific debates about the meaning and impact of each event.

**Honors Special Topics in European History (EUH 4930) 3 credits**

[\(See History courses, College of Arts and Letters section\)](#)

**Honors Freshman Seminar in History (HIS 1933) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Special topics course emphasizing critical thinking and writing skills. May be repeated for credit.

**Honors Research and Writing in History (HIS 4054) 1 credit**

This course is intended to give students with an Honors College concentration in history the practical skills they need in research and written communication to succeed in writing an honors thesis in history.

**RI: Honors The City and its Underground: Metropolis and Counterculture in Modern Europe (HIS 4405) 3 credits**

*Prerequisite: Prior history course or permission of instructor*

This research-intensive (RI) and interdisciplinary history course uses methods of geography and urban studies to explore the ways in which cities create alternative spaces, associations and cultural possibilities.

**Honors Directed Independent Study in History (HIS 4906) 2-3 credits**

**Honors Special Topics in History (HIS 4930) 3 credits**

[\(See History courses, College of Arts and Letters section\)](#)

**Honors Directed Independent Research in History (HIS 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in History. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

**Honors Directed Independent Research in History (HIS 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in History. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

**Honors Special Topics in Latin American History (LAH 4930) 3 credits**

**Honors History of Civilization 1 (WOH 2012) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

**Honors History of Civilization 2 (WOH 2022) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

[\(See History courses, College of Arts and Letters section\)](#)

**Honors The History of Food and Eating (WOH 2420) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

This course examines the global history of human food consumption from the ancient world through to the modern era. It explores questions of diet and nutrition, economics, world trade, pleasure and ritual. This is a General Education course.

**RI: Honors History of Terrorism (WOH 4209) 3 credits**

*Prerequisite: One prior history course or permission of instructor*

What is terrorism? How much does the definition depend on the definer? The course examines how political violence arose and grew to become a widespread and, unfortunately, common practice in the modern world. This is a research-intensive (RI) course.

## INTERDISCIPLINARY SOCIAL SCIENCES

**Honors Writing in the Social Sciences 1 (ISS 2932) 1 credit**

*Corequisite: Enrollment in a social science course*

Addresses the components of effective writing and communication in the social sciences, with use of peer review and revisions. May be repeated for credit.

### **Honors Social Sciences Study Abroad (ISS 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Honors Computational Social Science (ISS 4304) 3 credits**

*Prerequisites: COP 3076 and STA 2023 or permission of instructor*

An introduction to the application of computational methods to the study of social behavior including, but not limited to, investigations of natural language and social networks.

### **Honors Directed Independent Study in the Social Sciences (ISS 4906) 1-3 credits**

*Prerequisite: Permission of instructor*

Independent directed readings in the social sciences.

### **Honors Directed Independent Research in Social Sciences (ISS 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Social Sciences. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Social Sciences (ISS 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Social Sciences. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Advanced Research and Writing in the Social Sciences (ISS 4932) 1 credit**

Advanced course on preparing for thesis research in the social sciences. Students develop a thesis introduction and at least one additional chapter. Reading and critiquing of others' writing is a crucial component of the class. May be repeated for credit.

### **Honors Internship in the Social Sciences (ISS 4947) 1-12 credits**

Provides students with first-hand experience in the use of the social sciences in a non-classroom setting, such as in government, nonprofit organizations, or the corporate world. It contributes to the Honors College curriculum by encouraging students to explore interdisciplinary connections in their work and to discuss these in a detailed essay. *Grading: S/U*

### **Honors Social Sciences Study Abroad (ISS 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs. May be repeated for credit.

## INTERNATIONAL STUDIES

### **Honors Culture and Society (ANT 2410) 3 credits**

(See Anthropology courses, this Division, Honors College)

### **Honors Peoples Around the World (ANT 3212) 3 credits**

(See Anthropology courses, College of Arts and Letters section)

### **Honors Peoples of Latin America (ANT 3332) 3 credits**

### **Honors Ritual and Symbolism (ANT 4244) 3 credits**

### **Honors Anthropology of the Andes (ANT 4331) 3 credits**

### **Honors Special Topics in Anthropology (ANT 4930) 3 credits**

(See Anthropology courses, this Division, Honors College)

### **Honors Comparative Politics (CPO 3003) 3 credits**

(See Political Science courses, College of Arts and Letters section)

### **Honors Latin American Politics (CPO 4303) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

(See Political Science courses, College of Arts and Letters section)

### **Honors Religion and Politics in Latin America (CPO 4305) 3 credits**

(See Political Science courses, this Division, Honors College)

### **Honors Macroeconomic Principles (ECO 2013) 3 credits**

*Prerequisite: None*

### **Honors Microeconomic Principles (ECO 2023) 3 credits**

*Prerequisite: None*

(See Economics courses, College of Business section)

### **Honors Environmental Economics (ECP 4302) 3 credits**

*Prerequisites: ECO 2013 and 2023 or permission of instructor*

### **Honors International Economic Development (ECS 3013) 3 credits**

*Prerequisites: ECO 2013 and 2023 or permission of instructor*

(see Economics courses, College of Business section)

### **Honors Russia Under the Tsars (EUH 3575) 3 credits**

### **Honors The Soviet Union and Since (EUH 3576) 3 credits**

**Honors European Intellectual History (EUH 3604) 3 credits**

**Honors Revolution in Europe (EUH 3662) 3 credits**

(See [History courses](#), [this Division](#), [Honors College](#))

**Honors Environment and Society (EVR 2017) 3 credits**

(See [Geosciences courses](#), [College of Science section](#))

**Honors Beginning French Language and Culture 1 (FRE 1120) 4 credits**

**Honors Beginning French Language and Culture 2 (FRE 1121) 4 credits**

**Honors Intermediate French Language and Culture 1 (FRE 2220) 4 credits**

**Honors Intermediate French Language and Culture 2 (FRE 2221) 4 credits**

(See [Languages, Linguistics, and Comparative Literature courses](#), [College of Arts and Letters section](#))

**Honors French Language and Culture Study Abroad (FRE 2957) 1-6 credits**

**Honors Advanced French Language and Culture 1 (FRE 3400) 4 credits**

**Honors French or Francophone Culture Study Abroad (FRE 3957) 1-6 credits**

**Honors Francophone Language and Culture (FRE 4502) 2-4 credits**

(See [French courses](#), [Division of Humanities](#), [Honors College](#))

**Honors Special Topics in French Language Studies (FRE 4930) 2-4 credits**

*Prerequisite: Permission of instructor*

(See [Languages, Linguistics, and Comparative Literature courses](#), [College of Arts and Letters section](#))

**Honors Francophone Cultures and Civilizations (FRT 2510) 3 credits**

**Honors Introduction to Francophone Literatures (FRW 3112) 3 credits**

(See [French courses](#), [Division of Humanities](#), [Honors College](#))

**Honors Directed Independent Study in French (FRW 4905) 1-3 credits**

(See [Languages, Linguistics, and Comparative Literature courses](#), [College of Arts and Letters section](#))

**Honors Thesis Research in French (FRW 4912) 3 credits**

**Honors French or Francophone Literature Study Abroad (FRW 4957) 1-6 credits**

**RI: Honors Thesis in French (FRW 4970) 1-6 credits**

This course is research intensive (RI).

(See [French courses](#), [Division of Humanities](#), [Honors College](#))

**Honors World Geography (GEA 2000) 3 credits**

(See [Geosciences courses](#), [College of Science section](#))

**Honors Conservation and Use of Natural Resources (GEO 2372) 3 credits**

(See [Geography courses, this Division, Honors College](#))

**Honors Humanities Study Abroad (HUM 2952) 1-6 credits**

**Honors Humanities Study Abroad (HUM 4957) 1-6 credits**

(See [Humanities courses, Division of Humanities, Honors College](#))

**Honors Interdisciplinary Critical Inquiry Seminar**

(IDS 1930, 2931, 3932, 4933) 1-3 credits

**Honors Interdisciplinary Study Abroad (IDS 2952) 1-6 credits**

**Honors Special Topics in Interdisciplinary Studies (IDS 3930) 1-3 credits**

**Honors Interdisciplinary Critical Inquiry Lab Seminar (IDS 3932L) 1-3 credits**

**Honors Special Topics in Interdisciplinary Studies (IDS 4930) 3 credits**

**Honors Interdisciplinary Study Abroad (IDS 4957) 1-6 credits**

**RI: Honors Thesis (IDS 4970) 3 credits**

This course is research intensive (RI).

(See [Interdisciplinary Studies courses, Division of Humanities, Honors College](#))

**Honors Introduction to World Politics (INR 2002) 3 credits**

**Honors American Foreign Policy (INR 3102) 3 credits**

(See [Political Science courses, College of Arts and Letters section](#))

**Honors Exporting Democracy: U.S. Policy Toward Latin America in the 20th Century**

(INR 3248) 3 credits

(See [Political Science courses, this Division, Honors College](#))

**Honors Social Sciences Study Abroad (ISS 2952) 1-6 credits**

**Honors Social Sciences Study Abroad (ISS 4957) 1-6 credits**

(See [Interdisciplinary Social Sciences courses, this Division, Honors College](#))

**Honors Beginning Spanish Language and Culture 1 (SPN 1120) 4 credits**

**Honors Beginning Spanish Language and Culture 2 (SPN 1121) 4 credits**

**Honors Intermediate Spanish Language and Culture 1 (SPN 2220) 4 credits**

*Grading: Regular*

**Honors Intermediate Spanish Language and Culture 2 (SPN 2221) 4 credits**

(See [Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section](#))

**Honors Spanish Language and Culture Study Abroad (SPN 2957) 1-6 credits**

[\(See Spanish courses, Division of Humanities, Honors College\)](#)

**Honors Advanced Spanish: Conversation (SPN 3400) 4 credits**

**Honors Advanced Spanish: Composition (SPN 3401) 4 credits**

*Prerequisite: SPN 3400 or equivalent*

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

**Honors Directed Independent Study in Spanish Language and Culture SPN 4905) 1-3 credits**

[\(See Spanish courses, Division of Humanities, Honors College\)](#)

**Honors Special Topics in Spanish Language and Culture (SPN 4930) 1-3 credits**

*Prerequisite: SPN 3400 or equivalent*

**Honors Advanced Spanish Language and Culture Study Abroad (SPN 4957) 1-6 credits**

*Prerequisite: Appropriate lower-division Spanish and/or permission of instructor*

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

**Honors Hispanic Culture and Civilization (SPT 2530) 3 credits**

[\(See Spanish courses, Division of Humanities, Honors College\)](#)

**Honors Introduction to Hispanic Literature (SPW 3030) 3 credits**

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

**Honors Spanish Literature: From the Jarchas to Calderón (SPW 3104) 3 credits**

**Honors Latin American Literature: Modernism to Post Boom (SPW 3134) 3 credits**

**Honors Latin American Literature: Pre-Columbian and Colonial (SPW 3136) 3 credits**

**Honors New Literature of the Spanish Caribbean (SPW 4492) 3 credits**

**Honors Directed Independent Study in Spanish or Latin American Literature (SPW 4905) 1-3 credits**

**Honors Thesis Research in Spanish (SPW 4912) 3 credits**

[\(See Spanish courses, Division of Humanities, Honors College\)](#)

**Honors Special Topics in Spanish or Latin American Literature (SPW 4930) 1-3 credits**

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

**Honors Spanish or Latin American Literature Study Abroad (SPW 4957) 1-6 credits**

[\(See Spanish courses, Division of Humanities, Honors College\)](#)

**Honors History of Civilization 1 (WOH 2012) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

**Honors History of Civilization 2 (WOH 2022) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

(See [History courses](#), College of Arts and Letters section)

## LATIN AMERICAN STUDIES

**Honors Peoples of Latin America (ANT 3332) 3 credits**

**Honors Anthropology of the Andes (ANT 4331) 3 credits**

**Honors Special Topics in Anthropology (ANT 4930) 3 credits**

(See [Anthropology courses](#), this Division, Honors College)

**Honors Latin American Politics (CPO 4303) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

(See [Political Science courses](#), College of Arts and Letters section)

**Honors Religion and Politics in Latin America (CPO 4305) 3 credits**

(See [Political Science courses](#), this Division, Honors College)

**Honors International Economic Development (ECS 3013) 3 credits**

*Prerequisites: ECO 2013 and 2023 or permission of instructor*

(See [Economics courses](#), College of Business section)

**Honors Humanities Study Abroad (HUM 2952) 1-6 credits**

**Honors Humanities Study Abroad (HUM 4957) 1-6 credits**

(See [Humanities courses](#), Division of Humanities, Honors College)

**Honors Interdisciplinary Critical Inquiry Seminar (IDS 1930, 2931, 3932, 4933) 1-3 credits**

**Honors Interdisciplinary Study Abroad (IDS 2952) 1-4 credits**

**Honors Special Topics in Interdisciplinary Studies (IDS 3930) 1-3 credits**

**Honors Interdisciplinary Critical Inquiry Lab Seminar (IDS 3932L) 1-3 credits**

**Honors Special Topics in Interdisciplinary Studies (IDS 4930) 3 credits**

**Honors Interdisciplinary Study Abroad (IDS 4957) 1-6 credits**

**RI: Honors Thesis (IDS 4970) 3 credits**

This course is research intensive (RI).

(See [Interdisciplinary Studies courses](#), Division of Humanities, Honors College)

**Honors Exporting Democracy: U.S. Policy Toward Latin America  
in the 20th Century (INR 3248) 3 credits**

[\(See Political Science courses, this Division, Honors College\)](#)

**Honors Social Sciences Study Abroad (ISS 4957) 1-6 credits**

[\(See Interdisciplinary Social Sciences courses, this Division, Honors College\)](#)

**Honors Special Topics in Latin American Studies (LAS 4932) 3 credits**

Content will vary. Course may be repeated for credit.

**Honors Beginning Spanish Language and Culture 1 (SPN 1120) 4 credits**

**Honors Beginning Spanish Language and Culture 2 (SPN 1121) 4 credits**

**Honors Intermediate Spanish Language and Culture 1 (SPN 2220) 4 credits**

*Grading: Regular*

**Honors Intermediate Spanish Language and Culture 2 (SPN 2221) 4 credits**

**Honors Intermediate Spanish Conversation (SPN 2240) 3 credits**

*Prerequisite: SPN 1121 with minimum grade of "C"*

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

**Honors Spanish Language and Culture Study Abroad (SPN 2957) 1-6 credits**

[\(See Spanish courses, Division of Humanities, Honors College\)](#)

**Honors Advanced Spanish: Conversation (SPN 3400) 4 credits**

**Honors Advanced Spanish: Composition (SPN 3401) 4 credits**

*Prerequisite: SPN 3400 or equivalent*

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

**Honors Directed Independent Study in Spanish Language and Culture**

**(SPN 4905) 1-3 credits**

[\(See Spanish courses, Division of Humanities, Honors College\)](#)

**Honors Special Topics in Spanish Language and Culture (SPN 4930) 1-3 credits**

*Prerequisite: SPN 3400 or equivalent*

**Honors Advanced Spanish Language and Culture Study Abroad (SPN 4957) 1-6 credits**

*Prerequisite: Appropriate lower-division Spanish and/or permission of instructor*

[\(See Languages, Linguistics, and Comparative Literature courses, College of Arts and Letters section\)](#)

**Honors Hispanic Culture and Civilization (SPT 2530) 3 credits**

[\(See Spanish courses, Division of Humanities, Honors College\)](#)

**Honors Introduction to Hispanic Literature (SPW 3030) 3 credits**

(See [Languages, Linguistics, and Comparative Literature courses](#), College of Arts and Letters section)

**Honors Latin American Literature: Modernism to Post Boom (SPW 3134) 3 credits**

**Honors Latin American Literature: Pre-Columbian and Colonial (SPW 3136) 3 credits**

**Honors New Literature of the Spanish Caribbean (SPW 4492) 3 credits**

**Honors Directed Independent Study in Spanish or Latin American Literature (SPW 4905) 1-3 credits**

**Honors Thesis Research in Spanish (SPW 4912) 3 credits**

(See [Spanish courses](#), Division of Humanities, Honors College)

**Honors Special Topics in Spanish or Latin American Literature (SPW 4930) 1-3 credits**

(See [Languages, Linguistics, and Comparative Literature courses](#), College of Arts and Letters section)

**Honors Spanish or Latin American Literature Study Abroad (SPW 4957) 1-6 credits**

This course is research intensive (RI).

(See [Spanish courses](#), Division of Humanities, Honors College)

## LAW AND SOCIETY

**Honors U.S. History to 1877 (AMH 2010) 3 credits**

**Honors U.S. History since 1877 (AMH 2020) 3 credits**

**Honors American Environmental History (AMH 3630) 3 credits**

(See [History courses](#), College of Arts and Letters section)

**Honors Special Topics in American Studies (AMS 4930) 3 credits**

(See [History courses](#), this Division, Honors College)

**Honors Law and Economics (ECP 3451) 3 credits**

(See [Economics courses](#), this Division, Honors College)

**Honors Special Topics in Interdisciplinary Studies (IDS 3930) 1-3 credits**

**Honors Special Topics in Interdisciplinary Studies (IDS 4930) 3 credits**

**RI: Honors Thesis (IDS 4970) 3 credits**

This course is research intensive (RI).

(See [Interdisciplinary Studies courses](#), Division of Humanities, Honors College)

**Honors Ancient Greek Philosophy (PHH 3100) 3 credits**

[\(See Political Science courses, College of Arts and Letters section\)](#)

**Honors Ethics of Social Diversity (PHI 2642) 3 credits**

[\(See Philosophy courses, Humanities Division, Honors College\)](#)

**Honors Government of the U.S. (POS 2041 ) 3 credits**

**Honors Punishment (POS 2692) 3 credits**

**Honors Privacy (POS 3626) 3 credits**

[\(See Political Science courses, this Division, Honors College\)](#)

**Honors Law and American Society (POS 3691) 3 credits**

**Honors Constitutional Law 1: Government Powers and Limits (POS 4603) 3 credits**

*Prerequisite: None*

**Honors Constitutional Law 2: Civil Rights and Liberties (POS 4604) 3 credits**

*Prerequisite: None*

[\(See Political Science courses, College of Arts and Letters section\)](#)

**Honors Special Topics in Political Science (POS 4932) 1-3 credits**

**Honors History of Political Theory (POT 3021) 3 credits**

[\(See Political Science courses, this Division, Honors College\)](#)

**Honors Principles of Social Psychology (SOP 3004) 3 credits**

[\(See Psychology courses, this Division, Honors College\)](#)

**Honors Sociological Perspectives (SYG 1000) 3 credits**

[\(See Sociology courses, College of Arts and Letters section\)](#)

**Honors Introduction to Women's Studies (WST 3015) 3 credits**

**Honors Feminist Theory (WST 4504) 3 credits**

[\(See Women's Studies/Sociology courses, this Division, Honors College\)](#)

## POLITICAL SCIENCE

**Honors Comparative Politics (CPO 3003) 3 credits**

[\(See Political Science courses, College of Arts and Letters section\)](#)

**Honors Latin American Politics (CPO 4303) 3 credits**

[\(See Political Science courses, College of Arts and Letters section\)](#)

### **Honors Religion and Politics in Latin America (CPO 4305) 3 credits**

This course examines the relationship between religion and politics in Latin America. Topics include religion and conquest, modernization and the church, liberation theology and revolution, and the growth of evangelical protestantism and Afro-Brazilian religions, such as Umbanda and Candomble.

### **Honors Introduction to World Politics (INR 2002) 3 credits**

#### **Honors American Foreign Policy (INR 3102) 3 credits**

[\(See Political Science courses, College of Arts and Letters section\)](#)

### **Honors Exporting Democracy: U.S. Policy Toward Latin America in the 20th Century (INR 3248) 3 credits**

Explores U.S./Latin American relations, including efforts to export democracy, current challenges, and contemporary policy issues, including human rights, drugs, immigration, and international political economy.

### **Honors Advanced Diplomacy (INR 4503) 3 credits**

In this course, students learn diplomatic skills through simulated exercises and through the student of diplomacy theories and concepts. At the conclusion of the course, students represent the university in a National Model United Nations competition. Extensive country and committee research is undertaken throughout the semester. Course may be repeated up to three times.

### **Honors Government of the United States (POS 2041) 3 credits**

In this course, students will investigate how the national government is structured and how the American constitutional republic operates. It covers the philosophical and historical foundations of American government, including but not limited to the Declaration of Independence, the United States constitution and all its amendments, and The Federalist Papers. The course examines the branches of government and the government's laws, policies, and programs. It also examines the ways in which citizens participate in their government and ways their government responds to citizens. This is a General Education course.

### **Honors Freshman Seminar in Political Science (POS 1933) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Variable topic course to introduce freshmen to political science.

### **Honors Punishment (POS 2692) 3 credits**

Interdisciplinary consideration of punishment that draws on texts in moral and political philosophy, the social sciences, court decisions, films, and other sources. Examines philosophical justifications and

criticisms of punishment as well as legal and public policy controversies on topics such as insanity defense, capital punishment, and plea-bargaining. This is a General Education course.

### **Honors Privacy (POS 3626) 3 credits**

Seminar examines government and private invasions of privacy, weighing the value of privacy against the need to make information public and enforce the law. Draws on philosophy, law, anthropology, and social history in exploring the factors shaping societal expectations of privacy.

### **Honors Moot Court (POS 3675) 1-3 credits**

Analysis of court cases concerning selected moot court topics. Prepares students for competition in moot court, with attention to legal analysis and persuasive delivery. May be repeated for credit.

### **Honors Law and American Society (POS 3691) 3 credits**

(See [Political Science courses, College of Arts and Letters section](#))

### **Honors Political Psychology (POS 4206) 3 credits**

*Prerequisite: POS 2041 or PSY 1012*

An examination of the reciprocal influence of psychology and politics, including the psychological origins, correlates and consequences of political behavior (e.g., voting, seeking office); psychology and political campaigns; personality and political effectiveness; and government and human needs.

### **Honors The U.S. Presidency (POS 4414) 3 credits**

*Prerequisite: POS 2041 or permission of instructor*

Examination of the historical and contemporary role of the presidency, including the presidential selection process and the office's evolution in status, powers, administrative responsibilities, leadership, and decision-making.

### **Honors Constitutional Law 1: Government Powers and Limits (POS 4603) 3 credits**

*Prerequisite: None*

### **Honors Constitutional Law 2: Civil Rights and Liberties (POS 4604) 3 credits**

*Prerequisite: None*

### **Honors The Judicial Process (POS 4609) 3 credits**

*Prerequisite: POS 2041*

(See [Political Science courses, College of Arts and Letters section](#))

### **Honors Directed Independent Study in Political Science (POS 4905) 1-3 credits**

(See [Political Science courses, College of Arts and Letters section](#))

### **Honors Directed Independent Research in Political Science (POS 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Political Science.

Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student.

A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Political Science (POS 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Political Science.

Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student.

A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Special Topics in Political Science (POS 4932) 1-3 credits**

Selected topics in political science. Since content will vary, this course may be repeated for credit.

### **Honors Political Science Study Abroad (POS 4957) 1-6 credits**

Credit for enrollment in approved study abroad programs.

### **Honors History of Political Theory (POT 3021) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Introduction to important works of political theory spanning over 2,000 years that address issues such as What is justice?, What makes a government legitimate?, Under what conditions is revolution justified?, How does human nature constrain the possibilities available to us in politics?

## **PSYCHOLOGY**

### **Honors Psychopathology (CLP 4143) 3 credits**

*Prerequisite: PSY 1012*

Introduces students to psychopathology, including issues surrounding definitions of abnormality, classifications, assessment, diagnosis, what we think causes psychopathology, and what we can do to prevent and treat it.

### **Honors Health Psychology (CLP 4314) 3 credits**

*Prerequisites: PSY 1012*

Course introduces students to the field of health psychology, a branch of psychology concerned with the effects of individual behaviors and lifestyles on physical health. Topics will include prevention and treatment of disease, health behaviors, such as nutrition and physical activity, psychological impact of illness, and improvement of the health care system.

### **Honors Psychology of Human Development (DEP 3053) 3 credits**

*Prerequisite: PSY 1012*

Course examines changes in behavior over the course of development and the processes underlying these changes. All major areas of child development are reviewed, including cognitive, social/personality, language and biological, with attention to development in adolescence and adulthood. This is a General Education course.

**Honors Personality and Social Development (DEP 4095) 3 credits**

*Prerequisite: At least one of the following: PPE 3003, SOP 3004, and DEP 3053*

An advanced course that surveys theory and research in three broad areas (moral development, longitudinal studies of personality, and nature and nurture) and introduces students to specific techniques used in current research projects in personality and social development.

**Honors Psychology of Aging (DEP 4464) 3 credits**

*Prerequisite: PSY 1012*

Examines changes in cognition and behavior that occur in adulthood and the processes underlying these changes.

**Honors Sensation and Perception (EXP 3202) 3 credits**

*Prerequisite: PSY 1012 or permission of instructor*

Course introduces students to how humans sense and how their bodies interpret these senses. Explores the physiological mechanisms that allow for sensation and the means by which the brain encodes and interprets this information, leading to the final perceptual experience.

**Honors Cognition (EXP 3604) 3 credits**

*Prerequisite: PSY 3213*

Experimental and theoretical aspects of human learning and cognition. Topics include attention, human learning and memory, organization of knowledge, concept formation and problem solving.

**Honors Thinking and Decision Making (EXP 4631) 3 credits**

The study of thinking and decision making lies at the nexus of the two major approaches to understanding the world, reason, and empiricism. This course considers both the normative models of how we should reason and empirical studies of how we in fact think and decide.

**Honors Personality (PPE 3003) 3 credits**

*Prerequisite: PSY 1012 or equivalent*

A survey of contemporary theory and research in the study of personality.

**Honors Biological Bases of Behavior (PSB 3002) 3 credits**

[\(See Psychology courses, College of Science section\)](#)

**Honors Behavioral Neuroscience (PSB 3340) 3 credits**

*Prerequisite: PSY 1012 or permission of instructor*

Course introduces students to what is known currently about nervous system mechanisms that underlie behavior and provides a better understanding of the scientific methods used to generate this knowledge.

**Honors Drugs and Behavior (PSB 3441) 3 credits**

*Prerequisite: PSY 1012 or permission of instructor*

Introduction to the chemical bases of behavior and how various drugs influence the biological and psychological aspects of a behaving organism. The introduction will be enhanced by the basics of neuropsychopharmacology and neurochemical signaling, followed by an evaluation of major drug classifications.

**Honors Neuroscience of Addiction (PSB 4243) 3 credits**

*Prerequisite: 8 credits in Biology or Neuroscience*

This is an advanced course designed for students who already have a background in neuroscience and/or biology. The course directive is to first provide a brief review by didactic lectures of the central nervous system with emphasis at the areas of the brain involved in addiction. The course is divided in three modules. The first module provides a basic understanding of the biochemistry, pharmacology, physiology and behavior underlying addiction. Module two focuses on the genetics and epigenetic aspects of addiction, whereas module three covers the mechanism of action of drugs, such as cocaine, amphetamines, opioids, nicotine and alcohol.

**Honors General Psychology (PSY 1012) 3 credits**

[\(See Psychology courses, College of Science section\)](#)

**Honors Freshman Seminar in Psychology (PSY 1933) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Special topics course for freshmen in which the approach is generally philosophical and/or historical and focuses on basic questions and issues of enduring importance to the topic.

**Honors Writing in Psychology and the Behavioral Sciences (PSY 2932) 1 credit**

*Writing Across Curriculum (Gordon Rule)*

Essentials of writing in psychology and the behavioral sciences. Includes an introduction to APA style.

**RI: Honors Research Methods in Psychology (PSY 3213) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Examines the different ways in which psychologists design and conduct research. Students will learn how to formulate good, testable questions; how to design experiments to test these questions; and techniques for collecting, interpreting, and presenting data. The course is writing instructive. When "RI" is in the title, it means this course has a research intensive component.

**Honors Research Methods in Psychology Lab (PSY 3213L) 1 credit**

*Prerequisite: PSY 1012; Corequisite: PSY 3213*

Students design and conduct a psychological experiment. They also learn how to use SPSS to analyze data.

**Honors Experimental Design and Statistical Inference (PSY 3234) 3 credits**

*Gordon Rule, computational*

**Honors Psychometrics and Psychological Testing (PSY 4302) 3 credits**

*Prerequisite: PSY 1012 or permission of instructor*

[\(See Psychology courses, College of Science section\)](#)

**Honors History and Systems of Psychology (PSY 4604) 3 credits**

*Prerequisites: 12 credits (four courses) in psychology*

[\(See Psychology courses, College of Science section\)](#)

**Honors Directed Independent Study in Psychology (PSY 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

*Grading: Regular*

**Honors Directed Independent Study in Psychology (PSY 4906) 1-3 credits**

*Grading: S/U*

**Honors Directed Independent Research in Psychology (PSY 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Psychology. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

**Honors Directed Independent Research in Psychology (PSY 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Psychology. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

**Honors Special Topics in Psychology (PSY 4930) 1-3 credits**

[\(See Psychology courses, College of Science section\)](#)

### **Honors Advanced Writing in Psychology and the Behavioral Sciences (PSY 4933) 1 credit**

*Prerequisites: Permission of instructor*

Writing in psychology and the behavioral sciences, with an introduction to thesis writing.

### **Honors Advanced Seminar in Psychology (PSY 4936) 3 credits**

*Prerequisite: Junior or senior standing or permission of instructor*

Advanced seminar for students with a concentration in psychology or neuroscience, behavior and cognition. Students read, review and discuss contemporary research on an important topic in psychology. Topics may differ each semester. If space permits, the course may be taken multiple times for credit.

### **Honors Principles of Social Psychology (SOP 3004) 3 credits**

*Prerequisite: PSY 1012 or permission of instructor*

An introduction to and an overview of social psychology. This is a General Education course.

## **WOMEN'S STUDIES/SOCIOLOGY**

### **Honors Race, Gender, Class, Sexuality and Science (SYD 4792) 3 credits**

Examines various ways in which scientific discourses have participated in constructing categories of "difference." Over the years, these discourses have been employed by various dominant groups to justify the marginalization of certain populations. This course looks at attempts made by marginalized groups, and by science itself, to disrupt such categories.

### **Honors Gender and Society (SYD 4800) 3 credits**

[\(See Sociology courses, College of Arts and Letters section\)](#)

### **Honors Queer Studies in Global Perspectives (SYD 4802) 3 credits**

*Prerequisites: SYG 1000 or WST 3015 or ANT 2410*

This interdisciplinary course introduces students to social, historical, and theoretical perspectives regarding the construction and representation of homosexuality/heterosexuality and transgenderism as well as gay, lesbian, and bisexual histories.

### **Honors Sociological Perspectives (SYG 1000) 3 credits**

[\(See Sociology courses, College of Arts and Letters section\)](#)

### **Honors Freshman Seminar in Sociology (SYG 1933) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Special topics interdisciplinary seminar for freshmen. The course focuses on basic questions of enduring importance related to the topic and emphasizes critical thinking and writing skills. This is a General Education course.

### **Honors Directed Independent Study in Sociology (SYG 4905) 1-3 credits**

*Prerequisite: SYG 1000*

Designed for students who desire to investigate topics that are not addressed in other sociology courses. Students will work independently, meeting with the instructor on an arranged basis. May be repeated for credit.

### **Honors Directed Independent Research in Sociology (SYG 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Sociology. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student.

### **Honors Directed Independent Research in Sociology (SYG 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Sociology. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

### **Honors Internship in Sociology (SYG 4947) 1-6 credits**

*Prerequisite: SYG 1000*

Credit for work performed in approved internship opportunities related to sociology. May be repeated for credit. *Grading: S/U*

### **Honors Study Abroad in Sociology (SYG 4957) 1-6 credits**

*Prerequisite: SYG 1000*

[\(See Sociology courses, College of Arts and Letters section\)](#)

### **RI: Honors Thesis in Sociology (SYG 4970) 1-6 credits**

*Writing Across Curriculum (Gordon Rule)*

Prerequisites: Senior standing and permission of instructor

The thesis in sociology is a rigorous research paper on a topic approved by the thesis supervisor and a second member of the Honors College faculty. The thesis aspires to be an original, significant, research-based contribution to knowledge about social issues. An oral defense of the thesis will be presented in public forum. This course is research intensive (RI).

### **Honors Family and Society (SYO 4100) 3 credits**

[\(See Sociology courses, College of Arts and Letters section\)](#)

### **Honors Sex Panics in History and Society (SYP 4303) 3 credits**

*Prerequisite: SYG 1000 or equivalent*

This interdisciplinary course looks at some of the ways in which sexuality has been conceptualized in history, culture, literature, law, media, medicine, and science, while also paying close attention to the panics and fears that are embodied within such conceptualizations.

### **Honors Gender and Technology (SYP 4803) 3 credits**

This course is a social study of the relationships between gender and technology. In addition to examining both gender and technology as cultural and political categories that have no distinct definitions, the course explores how technology helps to form and distinguish the realm of the masculine and feminine, as well as how ideas about gender help form our view of technology.

### **Honors Introduction to Women's Studies (WST 3015) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Multidisciplinary study of the heritage of women and the nature of gender-related problems in contemporary societies, stressing cultural images of women, socialization by gender, women's history, and feminist methods of analysis. May be considered either an Arts and Humanities or Social Science course.

### **Honors Feminist Theory (WST 4504) 3 credits**

*Prerequisite: WST 3015*

In addition to surveying a wide range of contemporary feminist theories, this course examines the intellectual roots of modern feminist theory as well as feminist attempts to overhaul its intellectual roots. Although the focus of this course is on the contemporary feminist theoretical terrain, it also examines how feminist theory itself is intertwined with other academic debates.

### **Honors Directed Independent Study in Women's Studies (WST 4905) 1-3 credits**

*Prerequisite: WST 3015*

[\(See Women, Gender and Sexuality Studies courses, College of Arts and Letters section\)](#)

### **Honors Directed Independent Research in Women's Studies (WST 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Women's Studies. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student.

### **Honors Directed Independent Research in Women's Studies (WST 4916) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Women's Studies.

Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. A directed independent research form is completed for each DIR student. *Grading: S/U*

**Honors Special Topics in Women's Studies (WST 4930) 3 credits**

(See [Women, Gender and Sexuality Studies courses, College of Arts and Letters section](#))

**Honors Internship in Women's Studies (WST 4947) 1-6 credits**

*Prerequisite: WST 3015*

Credit for work performed in approved internship opportunities related to women's studies. May be repeated for credit. *Grading: S/U*

**Honors Study Abroad in Women's Studies (WST 4957) 1-6 credits**

*Prerequisite: WST 3015*

Credit for enrollment in approved study abroad programs related to women's studies. May be repeated for credit.

[Link to Harriet L. Wilkes Honors College Programs](#)





# UNIVERSITY CATALOG

## SUB MENU



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### GENERAL INFORMATION

### ACADEMIC PROGRAMS

# CHARLES E. SCHMIDT COLLEGE OF MEDICINE

## Course Descriptions

[Link to Charles E. Schmidt College of Medicine Programs](#)

## UNDERGRADUATE COURSES

[Link to graduate courses](#)

### **Professionalism, Ethics and Topics in Medicine (PCB 4084) 0 credit**

*Prerequisite: For students in the Medical Pipeline/Med Direct program*

In this course, students are introduced to the topics of professionalism in medical practice, as well as to bioethics as an interdisciplinary subject. Students are provided with the opportunity to study, evaluate and discuss defining issues in the field of bioethics and begin to develop an understanding of the professional practice of medicine. These competencies support the students in their academic careers as well as in the field of medicine beyond. *Grading: S/U*

### **Directed Independent Study (PCB 4905) 1-3 credits**

*Prerequisite: Permission of instructor and Department*  
Independent research.

### **Directed Independent Research (PCB 4915) 1-3 credits**

This course is designed for students conducting undergraduate research with faculty and allows documentation of these projects on their transcripts.

### **Directed Independent Research (PCB 4916) 0-3 credits**

This course is designed for students conducting undergraduate research with faculty and allows documentation of these projects on their transcripts. *Grading: S/U*

### **Special Topics (PCB 4930) 1-8 credits**

Special topics of interest to biomedical students.

## GRADUATE COURSES

### **Foundations of Medicine 1 (BMS 6015) 10 credits**

*Prerequisite: Medical students only*

Provides students with an understanding of the fundamental principles necessary to become a competent, compassionate, informed, professional and conscientious physician with unique opportunities for direct patient care. Assists students in developing the knowledge, skills, attitudes and behaviors needed to interview and examine the patient, to answer clinical questions, to understand the importance of patient advocacy and disease prevention, to explore the barriers to healthcare and to instill the foundation for the ethical and legal framework of patient care.

### **Foundations of Medicine 2 (BMS 6016) 13 credits**

*Prerequisites: Medical students only; BMS 6015*

A continuation in the Foundations of Medicine series. Provides students with an understanding of the fundamental principles necessary to become a competent, compassionate, informed, professional and conscientious physician with unique opportunities for direct patient care. Assists students in developing

the knowledge, skills, attitudes and behaviors needed to interview and examine the patient, to answer clinical questions, to understand the importance of patient advocacy and disease prevention, to explore the barriers to healthcare and to instill the foundation for the ethical and legal framework of patient care.

### **Foundations of Medicine 3 (BMS 6017) 13 credits**

*Prerequisites: Successful completion of the first year of the medical program; BMS 6015, BMS 6016*

The Foundations of Medicine (FOM) courses provide students with an understanding of the fundamental principles necessary to become a competent, compassionate and professional physician with opportunities for direct patient care. This is an Academic Service Learning (ASL) course.

### **Neuroscience and Behavior (BMS 6020) 9 credits**

*Prerequisite: Medical students only*

Provides the basic concepts and vocabulary in the areas of neuroanatomy, neurophysiology, sensory systems, neurochemistry, neuropharmacology, neuropathology, neurology and psychiatry. Uses an integrated approach combining lectures, problem-based learning (PBL) and anatomy laboratory instruction. The PBL sessions in small groups provide the fundamental knowledge of common neurological and psychiatric disorders, complemented by lectures for specific diseases. The presentation of the neuroanatomy component emphasizes correlations with clinical cases and leads to the localization of brain lesions. The instruction in gross anatomy of the head and neck are integrated with clinical correlates.

### **Foundations of Medicine 4 (BMS 6022) 4 credits**

*Prerequisites: BMS 6015, BMS 6016, BMS 6017*

The Foundations of Medicine (FOM) courses provide students with an understanding of the fundamental principles necessary to become a competent, compassionate and professional physician. This is the final FOM course in a four-course group offered in the first two years of medical school.

### **Fundamentals of Biomedical Science (BMS 6031) 21 credits**

*Prerequisite: Medical students only*

Provides students with a broad function in critical biomedical science subject areas, including biochemistry, molecular biology, cell biology, genetics, pharmacology, pathology, physiology, histology, anatomy and embryology.

### **Integrated Morphology 1 (BMS 6102C) 4 credits**

*Prerequisite: Permission of instructor*

This course involves the developmental, microscopic and gross anatomical features of the organs

located in the thorax and abdomen of the human. A laboratory includes a cadaveric dissection experience and examination of tissue samples using virtual microscopy.

### **Integrated Morphology 2 (BMS 6104C) 4 credits**

*Prerequisite: Permission of instructor*

This course involves the gross anatomical features of the structures of the back, limbs, head and neck of the human. A laboratory includes a cadaveric dissection experience.

### **Clinical Microbiology (BMS 6303) 3 credits**

*Prerequisite: MCB 3020*

Students learn the relevant facts and principles underlying bacteria, parasites, pathogenicity and host resistance. Armed with this fundamental information, students will then be capable of understanding and utilizing contemporary modes of treatment and prevention.

### **Synthesis and Transition (BMS 6405) 4 credits**

*Prerequisite: Successful completion of all previous courses in the M.D. program*

A three-week course at the beginning of Year 3 designed to help students synthesize knowledge and prepare for a smooth transition to the Year 3 clerkships. The course includes (1) a Case Seminar, a complex multidisciplinary PBL/IQ case that focuses on differential diagnosis and treatment decisions; (2) Sim center and interactive work on clinical reasoning and clinical skills building; and (3) orientation to the Year 3 clerkships.

### **Autonomic Function and Diseases (BMS 6523) 3 credits**

*Prerequisite: Permission of instructor*

Course covers both the physiological and clinical study of the autonomic nervous system (ANS) emphasizing the neural circuitry aspects of systemic regulation. Topics are introduced in lectures and followed up by recent journal articles.

### **Pathophysiology and Therapeutics 1 (BMS 6541) 8 credits**

*Prerequisite: BMS 6020*

Provides the basic concepts and vocabulary in the areas of the anatomy, chemistry, histology, microbiology, pathology, pharmacology and physiology of the gastrointestinal and hepatic systems and human nutrition, including normal nutrition and diagnosis and management of common nutritional disorders. Uses an integrated approach by combining lectures, problem-based learning and simulated laboratory instruction.

### **Pathophysiology and Therapeutics 2 (BMS 6542) 11 credits**

*Prerequisite: BMS 6541*

An 11-week course in the fall semester of year two. Provides the basic concepts and vocabulary in the areas of the anatomy, chemistry, histology, microbiology, pathology, pharmacology and physiology of the cardiovascular system, the respiratory system and related components of the hematologic system. Uses an integrated approach by combining lectures, problem-based learning and simulated laboratory instruction.

### **Pathophysiology and Therapeutics 3 (BMS 6543) 9 credits**

*Prerequisites: BMS 6541 and 6542*

A nine-week course in the fall semester of year two. Provides the basic concepts and vocabulary in the areas of the anatomy, chemistry, histology, microbiology, pathology, pharmacology and physiology of the renal system, the endocrine system, the reproductive system and related components of the hematologic system. Uses an integrated approach by combining lectures, problem-based learning and simulated laboratory instruction.

### **Pathophysiology and Therapeutics 4 (BMS 6544) 6 credits**

*Prerequisites: BMS 6541, 6542, 6543*

A six-week course in the spring semester of year two. Provides the basic concepts and vocabulary in the areas of the anatomy, chemistry, histology, microbiology, pathology, pharmacology and physiology of the immunologic system, mechanisms of host-defense, infectious disease, including public health aspects, and common hematologic malignancies. Revisits and expands on concepts of immunity and infection and includes diseases of the dermatologic system and the eye. Uses an integrated approach by combining lectures, problem-based learning and simulated laboratory instruction.

### **Fundamentals of General Pathology (BMS 6601) 3 credits**

Covers the basic pathophysiology of mechanisms of disease in medicine and incorporates gross pathologic, microscopic and radiologic material to assist in understanding fundamental disease.

### **Brain Diseases: Mechanism and Therapy (BMS 6736) 3 credits**

*Prerequisite: Permission of instructor*

Discussion of the molecular and cellular basis of brain diseases and of the current status of therapeutic intervention for those diseases.

### **Directed Study Medicine (BMS 6900) 1-12 credits**

*Prerequisite: Medical students only*

A College of Medicine course in which medical students pursue directed independent work under the guidance of a faculty member.

### **USMLE Step 1 Review (BMS 6960) 6 credits**

*Prerequisites: Successful completion of all previous courses in the M.D. program*

A College of Medicine course in which medical students pursue directed independent study with faculty support and resources in preparation for the USMLE Step 1 Examination.

### **Biomedical Data and Informatics (BSC 6459) 3 credits**

*Prerequisite: Permission of instructor*

This course teaches essential concepts and methodology for biomedical data acquisition and analysis with an emphasis on the analysis of massive data. The course sets up the foundation for students' careers in biomedical informatics in a wide range of fields including biomedical academia, pharmaceutical and biotechnology industries.

### **Introduction to Radiation Biology (BSC 6834) 3 credits**

*Prerequisites: BSC 1010, 1010L, PHY 2048, 2048L, 2049, 2049L and permission of instructor*

An overview of the effects of ionizing radiations on human and other biological systems. The course involves consideration of cell survival after exposure to ionizing radiations, repair of radiation damage, radiosensitizers and radioprotectors, doses and risks in diagnostic radiology, cardiology, nuclear medicine, and basic safety rules. A student seminar is required at the end of the course.

### **Neural Plasticity (GMS 6021) 3 credits**

*Prerequisite: Permission of instructor*

This course is designed to provide students with a functional understanding of the field of basic neuroscience with application to brain plasticity throughout the lifespan. Emphasis is on the integrated understanding of learning and memory, structural and synaptic plasticity in animal models with relevance to human brain function in health and disease.

### **Biomedical Science Core Technologies Laboratory (GMS 6091C) 3 credits**

*Prerequisite: Permission of instructor*

The aim of this course is to provide students with the introductory skills required for research success in the biomedical sciences. The course combines traditional classroom-based learning with hands-on practical laboratory experience and instruction. This course provides students with the fundamentals required for biomedical science research, including responsible conduct in biomedical research, understanding and applying the scientific method, hypothesis construction and experimental application, experimental design and data collection, and data analysis and presentation.

### **Macromolecular Therapy for Human Diseases (GMS 6301) 3 credits**

*Prerequisite: BCH 3033 or PCB 4023 or equivalent*

Discussion of the molecular and cellular basis of human diseases and of the current status of therapeutic intervention for the specified diseases with focus on macromolecular therapy.

### **Molecular Basis of Disease and Therapy (GMS 6302) 3 credits**

*Prerequisites: BCH 4035 and (PCB 4023 or PCB 4522)*

Explores the molecular basis of selected viral pathogens, genetic diseases and cancer through lectures and presentations by faculty in the College of Science and College of Medicine, Scripps Florida and private industry representatives. Discusses novel technologies aimed at developing therapeutics together with the activity of modern biotechnology in drug development.

### **Pharmacology (GMS 6513) 3 credits**

*Prerequisite: Permission of instructor*

This course introduces the study of the properties, effects and therapeutic value of the primary agents in major drug categories. Topics include cholinergic drugs, adrenergic drugs, hormones, diuretics, cardiovascular agents, respiratory drugs and gastrointestinal agents.

### **Advanced Pharmacology (GMS 6551) 3 credits**

*Prerequisite: Permission of instructor*

The pharmacology course is divided into two parts. The first part is usually delivered in the spring semester focusing on pharmacokinetics and neuropharmacology. In the second part, students explore chemotherapeutics and anti-inflammatory drugs. To inspire students to learn high-level pharmacology, the course emphasizes mechanisms of action of each therapeutic drug.

### **Principles of Neuroimmunology (GMS 6708) 3 credits**

*Prerequisite: Permission of instructor*

This course is designed to provide the fundamental knowledge and essential concepts in the emerging field of psychoneuroimmunology (PNI). PNI is an interdisciplinary science that studies the connection and influence between the central nervous system, the immune system, and behavior. Understanding the interplay between these systems leads to discoveries of novel mechanisms of physiology and pathology, developments of novel therapies for the treatments of inflammatory diseases, neurodegenerative and affective disorders. The course seeks to provide a basic understanding of the neuroscience, immunology, physiology and behavioral science underlying PNI interactions and to use PNI research as a platform to present students with modern strategies for understanding molecular mechanisms involved in the immunomodulation of neural functions and neuromodulation of immune activities.

### **Biomedical Concepts and Translational Applications (GMS 6841) 3 credits**

*Prerequisite: Permission of instructor*

This course is a comprehensive fundamental course intended for biomedical majors. It provides cutting-edge, high-interest topics in the field of human health to doctoral and master's students in biomedical science. In this course, students explore the concepts of biology in different fields and how they are related to human health. The course also provides students with translational applications to clinical health problems and allows considerable flexibility in tailoring their course of study to suit their educational goals.

**Data Interpretation and Analysis in the Age of Precision Medicine (GMS 6860) 3 credits**

*Prerequisite: Permission of instructor*

Biomedical Science is a broad field comprising many applied sciences geared toward the development of new approaches in healthcare or public health. This unique College of Medicine course is designed for graduate students headed toward a broad array of postgraduate vocational opportunities in areas ranging from professional education, health care and scientific fields through business. Students are introduced to data interpretation, analysis and presentation approaches. Further, students are exposed to novel precision medicine concepts and database research.

**Host Defense and Inflammation (MCB 6208) 3 credits**

*Prerequisite: PCB 4233 or equivalent with a minimum grade of "B-"*

Course covers the immunology emphasizing mechanisms of host defense and inflammation in chronic inflammatory diseases. Mechanisms emphasized are roles of macrophages that are heterogeneous and diverse populations regulating host defense and inflammation. Mycobacterial infections and allergic asthma are presented as disease models of chronic inflammatory diseases.

**Family and Community Health Sciences Longitudinal Integrated Clerkship (MDC 7011) 10 credits**

*Prerequisite: Enrolled in the third year of the medical program*

FCHS is organized as a Longitudinal Integrated Clerkship (LIC). It has 24 instructional weeks and is made up of 21 weeks of clinical experiences and didactic instruction in three graded integrated clerkships and six disciplines that are not graded, plus two weeks for assessments and one week of orienting activities. FCHS includes experiences in obstetrics and gynecology, pediatrics and psychiatry. Students receive separate clerkship grades in these three disciplines. It also includes experiences in anesthesia, critical care, emergency medicine, neurology, pathology and radiology.

**Medical and Surgical Sciences Longitudinal Integrated Clerkship (MDC 7012) 10 credits**

*Prerequisite: Enrolled in the third year of the medical program*

Medical and Surgical Sciences, organized as a Longitudinal Integrated Clerkship (LIC), has 24

instructional weeks and is made up of 22 weeks of clinical experiences and didactic instruction in three graded integrated clerkships and six disciplines that are not graded, plus one week for assessments and one week of orienting activities. Includes experiences in medicine, surgery and geriatrics/palliative care, as well as experiences in anesthesia, critical care, emergency medicine, neurology, pathology and radiology.

### **Community and Preventative Medicine Clerkship (MDC 7120) 14 credits**

*Prerequisite: Enrolled in the third year of the medical program*

Throughout the third year of medical school, within the Community and Preventive Medicine Clerkship, students are assigned one-on-one to a primary care provider, either an internist or a family physician in the community. The goal of this longitudinal preceptor experience is for students to build their own panel of patients, developing a relationship over time and following patients to different clinical experiences that are part of their medical care.

### **Obstetrics and Gynecology Clerkship (MDC 7180) 20 credits**

*Prerequisite: Enrolled in the third year of the medical program*

Consists of an inpatient labor and delivery experience, an inpatient gynecologic surgery experience, an outpatient preceptor-based experience (including sessions in an outpatient ob/gyn office), and a subspecialty experience (reproductive endocrinologist, maternal-fetal specialist, uro-gynecologist, gynecologic oncologist). Provides opportunity for students to observe and gain basic knowledge in the care of both obstetrics and gynecology patients in inpatient and outpatient settings. Under supervision by attendings, students are involved in every aspect of the patient's care.

### **Internal Medicine Clerkship (MDC 7200) 25 credits**

*Prerequisite: Enrolled in the third year of the medical program*

Students develop a comprehensive approach to the evaluation and care of the adult medical patient, continuing to improve their ability to obtain, record, analyze and communicate clinical information. Each student gains an awareness of the knowledge, skills, values and attitudes that internists strive to acquire and maintain throughout their professional lives. Students have supervised responsibility for patient care, learning to integrate clinical knowledge with practical experience.

### **Pediatrics Clerkship ( MDC 7400) 20 credits**

*Prerequisite: Enrolled in the third year of the medical program*

Provides medical students with the knowledge and clinical experience necessary to develop basic skills in the evaluation and management of health and disease in infants, children and adolescents. An introduction to the care of children emphasizing those aspects of pediatrics that should be understood and mastered by all physicians, regardless of ultimate career goals.

### **Surgery Clerkship (MDC 7600) 25 credits**

*Prerequisite: Enrolled in the third year of the medical program*

An intense clinical experience that introduces students to the basic principles of surgery. Equips students with the knowledge and skills relevant to surgical management that all physicians should possess. Aims to emphasize patient responsibility and professional behavior as essential qualities for young physicians to develop.

### **Psychiatry Clerkship (MDC 7830) 20 credits**

*Prerequisite: Enrolled in the third year of the medical program*

Part of the six-month longitudinal integrated clerkship experience (FCHS). Divided into two sections: A four-week inpatient experience and an integrated outpatient/subspecialty experience. Designed to help students develop clinical skills and a knowledge base in psychiatry. In addition to the inpatient, outpatient, C-L Substance Abuse and off-campus experiences, students attend regular didactic lectures.

### **Elective Rotation (MDE 8011) 6-12 credits**

*Prerequisite: Enrolled in the third or fourth year of medical program*

Fourth year electives accommodate the diverse educational needs of medical students. They offer students the opportunity to explore diverse options in the field of medicine and provide them the opportunity to further their medical knowledge, skills and attitudes.

### **Transition to Residency (MDE 8067) 18 credits**

*Prerequisite: Completion of all other fourth year courses and requirements*

This capstone course spans the entire fourth year of medical school. The goal of this course is to prepare students for the United States Medical Licensing Exam (USMLE) Step 2, Electronic Residency Application Services (ERAS) process and National Resident Matching Process (NRMP), and to develop the knowledge, attitudes and skills necessary to work effectively as interns, residents and practicing physicians. In addition, the educational activities allow students to meet specific Entrustable Professional Activities (EPAs) required for residency.

### **Acting Internship Rotation (MDI 8010) 12 credits**

*Prerequisite: Enrolled in the fourth year of the M.D. program*

The overall goal of this course is for the student to provide care for a group of patients, applying knowledge and clinical reasoning to medical practice. These rotations provide the opportunity for the student to assume a high level of responsibility for patient care.

### **Selective Rotation (MDS 8011) 12 credits**

*Prerequisite: Enrolled in the fourth year of medical program*

Selective rotations explore the diversity of medical fields and increase the educational experience, providing hands-on patient care through the scope of multiple specialties. Students evaluate patients under supervision and have meaningful patient care experiences in the specialties they choose.

### **Advanced Molecular and Cellular Biology (PCB 5532) 3 credits**

*Prerequisites: CHM 2210, PCB 4023, BCH 3033 and permission of instructor*

Course is designed to provide students with a basic background and advanced topics in cell and molecular biology. Emphasis is placed on human physiology and disease.

### **Neurobiology of Addiction (PCB 5844) 3 credits**

*Prerequisite: Permission of instructor*

This course provides graduate students with fundamental information on molecular, cellular and neurocircuitry systems in the brain that are responsible for drug addiction. Common neurobiological elements are emphasized that provide novel insights into how the brain mediates the acute rewarding effects of drugs of abuse and how it changes during the transition from initial drug use to compulsive drug use and addiction.

### **Immunology Seminar (PCB 5930) 1 credit**

Graduate students in the College of Medicine and the College of Science interested in immunology introduce topics, discuss the data and summarize conclusions from one or a few related cutting-edge articles published in immunology journals. The article(s) deal with research in cellular or molecular immunology. The seminar is also intended to encourage graduate students to present their research-in-progress and acquire feedback from their colleagues and faculty.

### **Advanced Cell Physiology (PCB 6207) 3 credits**

*Prerequisite: Permission of instructor*

Course describes in-depth membrane physiology, intracellular signaling pathways and cellular function, with an emphasis on neurons and human muscle cells (skeletal, smooth and cardiac muscle cells).

### **Emerging Applications in Oncology and Pharmacogenomics (PCB 6230) 3 credits**

*Prerequisite: PCB 6667 or permission of instructor*

The course covers the rapidly evolving applications of genomics to cancer diagnosis and treatment and pharmacogenomics, exploring how natural genetic variation impacts human health, susceptibility to disease and the development of targeted treatments.

### **Molecular Basis of Human Cancer (PCB 6235) 3 credits**

*Prerequisites: Graduate standing and PCB 4023 or BCH 3033 or PCB 6207 with minimum grade of*

"B-"

Course covers current concepts and knowledge of cancer, exploring the molecular and cellular mechanisms underlying cancer progression with an aim to understand the processes of tumorigenesis.

### **Problem-Based Immunology (PCB 6238) 3 credits**

*Prerequisites: Graduate standing and PCB 4233 or equivalent with a minimum grade of "B-"*

Course provides an up-to-date understanding of the basic science of immunology and how that science applies to the realities of patient care. The fundamental mechanisms of immunity are illustrated by cases of genetic defects in the immune system, immune complex diseases, immune mediated hypersensitivity reactions and autoimmune and alloimmune diseases.

### **Tumor Immunology (PCB 6239) 3 credits**

*Prerequisites: Graduate standing and PCB 4233 or equivalent with a minimum grade of "B-"*

Explores the role of the immune system in cancer and the implications for the host. The effect of the tumor-host interactions on the developing neoplasm are studied by considering related topics such as angiogenesis, MMPs, chemokines and metastasis. Additionally, the course explores the role of the immune system in defense against the tumors and the mechanism by which cancer cells escape the surveillance system.

### **Human Genetics (PCB 6665) 3 credits**

*Prerequisite: Permission of instructor*

Designed to provide students with a functional understanding of the field of human genetics as it applies to progressive research and medicine. Emphasizes the integrated understanding and application of Genetic Analysis, Diagnosis and Mechanisms in human disease.

### **Integrating Genomics into Predictive Health (PCB 6667) 3 credits**

*Prerequisite: Permission of instructor*

This graduate level course is taught by faculty leaders in genomics, precision medicine and predictive health. The content covers all aspects of this rapidly evolving field from understanding the structure of the human genome, to exploring how natural genetic variation impacts human disease and health to applying new technologies and tools across a wide range of clinical conditions including pre-conception screening, diagnostic testing, drug tailoring, and health forecasting.

### **Molecular Biology of the Cardiovascular System and Cardiac Disease (PCB 6705) 3 credits**

*Prerequisites: BCH 3034, PCB 4023, or permission of instructor*

Examination of the molecular biology of cellular function focused on tissue adaptation in cardiovascular disease. Investigation of survival responses to cellular stress in atherosclerosis, cardiac

hypertrophy, myocardial ischemia and hypertension.

### **Molecular Mechanism of Aging and Age-Related Diseases (PCB 6817) 3 credits**

*Prerequisite: Permission of instructor*

This course is designed to provide students with contemporary knowledge of current concepts in aging and age-related diseases. The course explores the molecular and cellular mechanisms underlying the aging process with an emphasis on aging mechanisms. Hallmarks of aging in multiple organisms are emphasized with special emphasis on human aging.

### **Adult Neurogenesis (PCB 6848) 3 credits**

*Prerequisites: Graduate standing and PSB 6037 or PSB 6345 or equivalent*

The background of stem cells and neuroscience is covered followed by several aspects of neurogenesis, including where neurogenesis happens in the brain, how it happens, why it happens and, more importantly, how it might help the brain heal itself.

### **Physiology of the Heart (PCB 6885) 3 credits**

*Prerequisites: BCH 3034, PCB 4023, or permission of instructor*

Course emphasizes the relationship between the biochemical properties of the individual constituents of the heart cell (myocardium), the biophysics of cardiac muscle function and the performance of the intact heart. The course format will involve lectures, journal club presentations, round table discussions, invited speakers as well as special projects.

### **Directed Independent Study (PCB 6905) 1-3 credits**

*Prerequisite: Permission of instructor and Department*  
Independent research.

### **Directed Independent Research (PCB 6915) 1-3 credits**

*Prerequisite: Permission of instructor*

Directed independent research courses are designed for students conducting research with faculty in the College of Medicine, which allows documentation of these projects on their transcripts.

### **Directed Independent Research (PCB 6916) 0-3 credits**

*Prerequisite: Permission of instructor*

Directed independent research courses are designed for students conducting research with faculty in the College of Medicine, which allows documentation of these projects on their transcripts. *Grading: S/U*

### **Special Topics (PCB 6933) 1-8 credits**

*Prerequisite: Permission of instructor*

Topics of interest to students in Biomedical Science, such as clinical microbiology and protein misfolding and disease.

**Graduate Seminars (PCB 6934) 1-2 credits**

Graduate students will give one to two presentations on research papers or specific topics (1-2 credits).

*Grading: S/U*

**Master's Thesis (PCB 6971) 1-12 credits**

*Grading: S/U*

**Thesis-Related Research (PCB 6974) 2-3 credits**

*Prerequisite: Biomedical Science master's thesis students only*

This course is a vehicle allowing students to conduct research for their master's thesis prior to writing and defending their proposal.

**Developmental Neurobiology (PSB 6515) 3 credits**

*Prerequisites: PSY 1012 and PSB 3002*

In-depth coverage of the principles and recent advances in the development of the brain and nervous system, including nerve cell migration, axon outgrowth, specificity, plasticity, neurotrophism, nerve cell death and the influence of experience on the nervous system.

[Link to Charles E. Schmidt College of Medicine Programs](#)





# UNIVERSITY CATALOG

## SUB MENU



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### GENERAL INFORMATION

### ACADEMIC PROGRAMS

# CHRISTINE E. LYNN COLLEGE OF NURSING

## COURSE DESCRIPTIONS

[Link to Christine E. Lynn College of Nursing Programs](#)

**Undergraduate Courses/** [link to graduate courses](#)

### Fundamentals of Nursing Practice 1 (NUR 3026C) 2 credits

*Prerequisites: Admission to B.S.N. program, BSC 2085, BSC 2085L, or equivalent, BSC 2086, BSC*

*2086L, or equivalent, MCB 2004. MCB 2004L, or equivalent*

*Corequisites: NUR 3065, NUR 3065L*

Course focuses on practical application of basic nursing skills using a scientific basis. This first course on fundamentals of nursing practice emphasizes beginning nursing skills through evidence-based, compassionate, culturally sensitive, ethical and safe practice principles.

### **Fundamentals of Nursing Practice 2 (NUR 3029C) 2 credits**

*Prerequisite: NUR 3026C*

*Corequisites: NUR 3262, NUR 3262L*

Focuses on practical application of complex nursing skills using a scientific basis. This second course on fundamentals of nursing practice emphasizes the expansion of nursing skills through evidence-based, culturally sensitive, ethical and safe practice principles.

### **Health Assessment in Nursing Situations (NUR 3065) 2 credits**

*Prerequisite: Admission to B.S.N. program, BSC 2085, BSC 2085L, or equivalent, BSC 2086, BSC 2086L, or equivalent*

*Corequisite: NUR 3065L*

Focus is on the process of conducting a holistic health assessment across the lifespan. Emphasis is on the attributes of compassionate care, relation centered care, and distinguishing between normal and abnormal clinical findings.

### **Health Assessment in Nursing Situations Lab (NUR 3065L) 1 credit**

*Prerequisite: Admission to B.S.N. program, BSC 2085, BSC 2085L, or equivalent, BSC 2086, BSC 2086L, or equivalent*

*Corequisite: NUR 3065*

Focuses on the systematic obtainment of a complete and accurate history, performing clinically relevant holistic health assessment of adults including modifications for infants, children, older adults and persons with special needs. Emphasizes the application of professional caring and ethical principles in conducting the health assessment. *Grading: S/U*

### **Foundations of Caring Science in Nursing Situations (NUR 3115) 3 credits**

Introduces nursing as a distinct discipline of knowledge and unique professional practice grounded in caring science. The evolution of the science and art of professional nursing as a discipline is examined. Emphasis is placed on introducing the student to caring science, as well as concepts of civility and inclusivity, as foundations for practice. Nursing's role in local, global, sociopolitical issues are also discussed.

### **Foundations of Nursing Practice (NUR 3119C ) 2 credits**

*Prerequisite: Admission to B.S.N. program, BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, MCB 2004, MCB 2004L*

*Corequisites: NUR 3065, NUR 3065L*

Focuses on the study of the concepts and principles necessary to competently perform the technological skills and therapeutic interventions needed for professional nursing practice. Topics include knowledge, judgment, skills and professional values within a legal/ethical framework for nursing. Emphasis is on using multiple ways of knowing as an organizing framework and application of concepts and principles that are basic to an environment of safety. Developmental, genetic and environmental risk factors that affect healthcare are explored. Nursing situations and simulations are used to apply the concept of safe, quality care.

### **Pharmacotherapeutics (NUR 3145) 3 credits**

*Prerequisite: Admission to the B.S.N. program*

*Corequisite: NUR 4125*

Emphasizes the principles of pharmacotherapeutics in the treatment of illness and promotion of wellness across the lifespan. Identifies nursing implications in the safe administration and monitoring of the effects of pharmacotherapeutic agents. Focuses on the development of clinical reasoning skills in the application of drug therapy.

### **Creating Healing Environments (NUR 3171) 3 credits**

*Prerequisite: NUR 3115*

Focuses on the creation of healing environments from multiple perspectives. Emphasis is on self-care management and the design of environments that promote caring, health, wellness and healing and the development of self as a healing environment. The impact of architecture and technology on health and healing is explored. Environments and organizational structures that promote health equity and a culture of caring are included.

### **Food, Nutrition, and Health (NUR 3183) 3 credits**

Course examines the principles of human nutrition, including nutrient characteristics, digestion, absorption, metabolism, food sources, functions, requirements and interrelationships with other nutrients, health and diseases.

### **Chronic Care in Nursing Situations for Adults and Aging Populations (NUR 3262) 3 credits**

*Prerequisites: NUR 3026C, NUR 3029C, NUR 3065, NUR 3065L, NUR 3145 and NUR 4125*

*Corequisite: NUR 3262L, NUR 3029C*

Focuses on theoretical foundations of chronic health conditions among adults and aging populations.

Emphasis is placed on the concepts of health promotion, disease prevention, and maintenance of function throughout the life course. Uses best evidence to create caring environments that ensure quality and safety across settings. The nurse's role as a member of the interprofessional team in providing culturally appropriate health teaching, screening, and care transitions is explored.

### **Chronic Care in Nursing Situations for Adults and Aging Populations in Practice (NUR 3262L) 2 credits**

*Prerequisites: NUR 3026C, NUR 3065, NUR 3065L, NUR 3145, NUR 4125*

*Corequisites: NUR 3262, NUR 3029C*

Provides opportunities to use nursing knowledge and apply principles of wellness, health promotion, disease prevention and maintenance of function for adults, focusing on persons with chronic health conditions. Use of best evidence to promote and preserve wellness for persons and families living with chronic health conditions is core. Integrates principles of communication and information management. Emphasizes cultural differences in health teaching, screening and community referrals. *Grading: S/U*

### **Nursing Care of Children: Nursing Situations (NUR 3358) 3 credits**

*Prerequisites: NUR 3029C, NUR 3065, NUR 3065L, NUR 3115, NUR 3145 and NUR 4125*

*Corequisite: NUR 3358L*

Focuses on holistic and developmentally appropriate nursing care of children and their family members. Emphasizes understanding normal childhood development, common health challenges, and appropriate nursing care to promote well-being in children and families through compassionate caring. Explores how collaboration with persons, families and interprofessional teams creates quality outcomes and a culture of safety.

### **Nursing Care of Children: Nursing Situations in Practice (NUR 3358L) 1 credit**

*Prerequisites: NUR 3029C, NUR 3065, NUR 3065L, NUR 3115, NUR 3145 and NUR 4125*

*Corequisite: NUR 3358*

Integrates the study of caring science with concepts and theories of family, human growth and development, health promotion, risk reduction, and disease management for nursing situations with children and families. Examines developmental and cultural differences in health assessments, screenings, health teaching, and community referrals. Emphasizes collaboration with persons, families, and interprofessional teams to create quality outcomes and a safety culture.

### **Maternal Newborn: Nursing Situations (NUR 3455) 3 credits**

*Prerequisites: NUR 3029C, NUR 3065, NUR 3065L, NUR 3115, NUR 3145, NUR 4125*

*Corequisite: NUR 3455L*

Focuses on the study of caring science and the use of multiple ways of knowing in nursing situations

with childbearing women and newborns. Addresses health promotion, risk reduction, and disease management for nursing situations in childbearing women and newborns. Examines health assessments, screenings, health teaching using a holistic nursing approach. Describes collaboration with persons, families, and interprofessional teams to create quality outcomes and a safety culture.

**Maternal Newborn: Nursing Situations in Practice (NUR 3455L) 1 credit**

*Prerequisites: NUR 3029C, NUR 3065, NUR 3065L, NUR 3115, NUR 3145, NUR 4125*

*Corequisite: NUR 3455*

Integrates the study of caring science and the use of multiple ways of knowing in practicum situations with childbearing women and newborns. Implements health promotion, risk reduction and disease management in childbearing women and newborns. Conducts health assessments, screenings and health teaching using a holistic nursing approach. Collaborates with persons, families and interprofessional teams to create quality outcomes and a culture of safety.

**The Developing Family: Nursing Situations (NUR 3465) 4 credits**

*Prerequisites: NUR 3065, NUR 3065L, NUR 3115, NUR 3119C, NUR 4125 and NUR 3145*

*Corequisite: NUR 3465L*

Integrates the study of caring science with concepts and theories of family, human growth and development, health promotion, risk reduction and disease management for nursing situations with childbearing women, children and families. Examines evidence-based, age-appropriate communication strategies and nursing responses. Also examines developmental and cultural differences in health assessments, screenings, health teaching and community referrals. Emphasizes collaboration with persons, families and interprofessional teams to create quality outcomes and a culture of safety. Explores the nurse's role in advocacy for women, children and families on issues of equity in health policy and access to healthcare.

**The Developing Family: Nursing Situations in Practice (NUR 3465L) 2 credits**

*Prerequisites: NUR 3065, NUR 3065L, NUR 3115, NUR 3119C, NUR 4125 and NUR 3145*

*Corequisite: NUR 3465*

Integrates the study of caring science with concepts and theories of family, human growth and development, health promotion, risk reduction and disease management for nursing situations with childbearing women, children and families. Examines evidence-based, age-appropriate communication strategies and nursing responses. Also examines developmental and cultural differences in health assessments, screenings, health teaching and community referrals. Emphasizes collaboration with persons, families and interprofessional teams to create quality outcomes and a culture of safety. Explores the nurse's role in advocacy for women, children and families on issues of equity in health policy and access to healthcare. *Grading: S/U*

### **Professional Nursing Practice (NUR 3821) 2 credits**

Examines the professional identity of the nurse including accountability, perspective, collaborative disposition, and comportment, that reflects nursing's characteristics and values. Examines ethical principles related to nursing practice. Describes the development of the nurse as an individual who is resilient and capable of adapting to ambiguity and change.

### **Systems, Quality and Information Technology (NUR 4079) 3 credits**

*Prerequisite: NUR 3821*

Examines the role of the nurse in responding to complex systems of healthcare while employing established and emerging principles of safety and improvement science. Describes the use of informatic processes and technologies in the delivery of safe, highquality, and efficient healthcare services in accordance with best practices and professional and regulatory standards.

### **General Pathophysiology (NUR 4125) 3 credits**

*Prerequisites: BSC 2085 and BSC 2085L or equivalent, BSC 2086 and BSC 2086L or equivalent*

*Prerequisites or Corequisites: MCB 2004, CHM 2032 and CHM 2032L*

Focuses on the pathophysiology of human illness within a systems framework. Emphasis is on understanding pathophysiology as an alteration of normal subsystem physiological function altering health of the individual. Course concepts provide the basis for interpretation and analysis of signs and symptoms within a framework of health and disease. Presents selected pathophysiological nursing situation exemplars and the concepts to related conditions in diverse clients across the lifespan.

### **Nursing Research (NUR 4165) 3 credits**

*Prerequisites: STA 2023 or equivalent and admission to the B.S.N. program*

Explores the relationship between theory, research and practice. Examines fundamental principles of the research process, including ethical and cultural considerations. Students search and critically appraise nursing research studies.

### **Psychiatric and Mental Health: Nursing Situations Across the Lifespan (NUR 4525) 3 credits**

*Prerequisites: NUR 3029C, NUR 3065, NUR 3065L, NUR 3115, NUR 4125 and NUR 3145*

*Corequisite: NUR 4525L*

Integrates behavioral concepts and standards of practice to design person-centered care in psychiatric mental health nursing situations. Presents principles of communication as a foundation for developing caring relationships. Uses clinical reasoning and evidence-based practice to provide effective psychiatric-mental health nursing care.

### **Psychiatric and Mental Health: Nursing Situations in Practice (NUR 4525L) 1 credit**

*Prerequisites: NUR 3029C, NUR 3065, NUR 3065L, NUR 3115, NUR 3145 and NUR 4125*

*Corequisite: NUR 4525*

Presents principles of communication in developing caring, therapeutic relationships with persons in psychiatric settings, using mental health concepts and theoretical frameworks to examine coping behaviors in response to alterations in psychological functioning. Acute care and community-based experiences provide opportunities for students to participate in interprofessional team planning, interventions and therapeutic group meetings. *Grading: S/U*

### **Population Health: Nursing Situations (NUR 4638) 3 credits**

*Prerequisite: NUR 4125*

*Corequisite: NUR 4638L*

Emphasizes promoting the health and well-being of populations across the lifespan and continuum of care. Explores core public health functions, principles of epidemiology, cultural competency, social determinants of health, health promotion and disease and injury prevention through the nursing process. Focuses on disaster and emergency preparedness to protect population health.

### **Population Health Practicum: Nursing Situations (NUR 4638L) 1 credit**

*Prerequisite: NUR 4125*

*Corequisite: NUR 4638*

Provides clinical experience for nursing students in community and/or public health settings with an emphasis on population-focused nursing care across the lifespan and continuum of care. Emphasis is on using the nursing process to provide safe, effective, equitable, sociocultural and linguistically appropriate care to promote the health and well-being of families, communities, and populations.

### **Acute Care in Nursing Situations with Adults and Aging Populations (NUR 4716) 3 credits**

*Prerequisites: NUR 3262, NUR 3262L*

*Corequisite: NUR 4716L*

Focus is on the integration, translation, and application of nursing knowledge using multiple ways of knowing for adults and aging populations with acute alterations in health. Emphasis is on developing clinical judgment utilizing person-centered care and interprofessional teams to promote quality and safety across the four spheres of care.

### **Acute Care in Nursing Situations with Adults and Aging Populations in Practice (NUR 4716L) 2 credits**

*Prerequisites: NUR 3262, NUR 3262L*

*Corequisites: NUR 4716*

Focus is on the application, integration, and translation of nursing knowledge using multiple ways of

knowing for adults and aging populations experiencing acute alterations in health in this clinical practicum course. Emphasis is on the application of clinical reasoning and judgment in providing person-centered care with interprofessional teams to promote quality and safety. *Grading: S/U*

### **Management of Complex Care in Nursing Situations with Adults and Aging Populations (NUR 4764) 3 credits**

*Prerequisites: NUR 4716 and NUR 4716L*

*Corequisite: NUR 4764L*

Emphasis is placed on integrating advanced concepts, caring science, and evidence-based standards in complex nursing situations. Highlights the importance of nursing as a part of a multidisciplinary approach to adult patients with complex health problems.

### **Management of Complex Care in Nursing Situations with Adults and Aging Populations in Practice (NUR 4764L) 1 credit**

*Prerequisites: NUR 4716 and NUR 4716L*

*Corequisite: NUR 4764*

Emphasis is placed on advancing clinical reasoning by integrating complex concepts and foundational nursing knowledge, caring science, and evidence-based standards to design person-centered care in complex nursing situations. This clinical practicum enhances the role development of the student in forming collaborative relationships with patients, their families and the interprofessional team. Focuses on application of clinical reasoning and judgment in nursing responses that nurture the wholeness of persons to maximize outcomes and improve quality of life. *Grading: S/U*

### **Professional Development in Nursing 1: Ethical and Legal Perspectives of Caring (NUR 4824) 1 credit**

*Prerequisite: Admission to B.S.N. program*

Provides an introduction to the profession of nursing with emphasis on professional and personal accountability and theory-guided practice. Legal and ethical principles are examined and applied in nursing situations. Provides opportunities to establish personal and professional boundaries, examine individual beliefs and values and develop a personal philosophy of nursing emerging from the College of Nursing philosophy of caring.

### **Nursing Practice Immersion (NUR 4829L) 3 credits**

*Prerequisites: NUR 3358, NUR 3358L, NUR 3455, NUR 3455L, NUR 4716, NUR 4716L, NUR 4638, NUR 4525, NUR 4525L*

*Corequisites: NUR 4764 and NUR 4764L*

Provides a precepted integrative clinical practicum to synthesize competencies and skills required of

the entry level professional nurse. Focuses on integration of one's professional nursing identity within the organizational environment in which healthcare is delivered. Emphasizes principles of team dynamics, prioritization of patient care, gaining confidence in clinical reasoning and clinical judgment. This is an Academic Service Learning (ASL) course. *Grading: S/U*

### **Professional Development in Nursing 2: Designer of Caring Environments (NUR 4833) 1 credit**

*Prerequisite or Corequisite: NUR 4824*

Examines the professional identity of the nurse as an advocate and a member of the interdisciplinary team using concepts and theories of nursing, chaos and complexity, organizational design, QSEN and IPE competencies as foundations to quality care and patient safety. Explores caring models of leadership, teamwork, decision making and priority setting in nursing situations.

### **Professional Development in Nursing 3: Leader/Coordinator of Caring Environments (NUR 4860) 1 credit**

*Prerequisite: NUR 4833*

Examines the role of the nurse as leader and manager in creating a caring, healing environment in a unique sociopolitical, cultural, economic and technological atmosphere. Analyzes professional, organizational, historical and social factors influencing healthcare delivery within an evolving healthcare system. Emphasizes building cultures of quality and safety in complex healthcare delivery systems based on organizational strengths, using multiple strategies within environmental turbulence and change and managing fiscal resources for cost effectiveness. Provides interprofessional collaborative practice opportunities.

### **Professional Development in Nursing 4: Member of a Caring Profession (NUR 4861) 1 credit**

*Prerequisite or Corequisite: NUR 4860*

Discusses contemporary issues confronting the nursing profession. Investigates methods to advocate for patients and the profession. Explores the profession's impact on the dynamic evolution of healthcare. Emphasizes professional skills, such as portfolio development, interviewing, peer evaluation and the advancement of nursing's role. Also considers professional issues related to self-care of the nurse, such as work-life balance, healthy work environments and resource assistance in building a nursing career.

### **Directed Independent Study (NUR 4905) 1-3 credits**

*Prerequisite: Permission of department*

### **Directed Independent Research (NUR 4916) 0-3 credits**

This course is designed for students conducting undergraduate research with faculty. *Grading: S/U*

### **Special Topics (NUR 4930) 1-3 credits**

*Prerequisite: Permission of department*

This is an Academic Service Learning (ASL) course.

### **Honors Seminar in Nursing 1 (NUR 4934) 3 credits**

*Prerequisite: NUR 4165 with minimum grade of "C;" College of Nursing junior standing*

The first of three courses in the Honors in Nursing Program. The course focuses on building research skills required for scholarship, understanding how evidence and knowledge are developed, identifying gaps in the literature, formulating research questions and conducting ethical research.

### **Honors Seminar in Nursing 2 (NUR 4935) 3 credits**

*Prerequisite: NUR 4934 with minimum grade of "C;" College of Nursing junior standing*

The second of three courses in the Honors in Nursing program, this course builds upon the previous seminar and helps students design a research proposal.

### **RI: Honors Seminar in Nursing 3 (NUR 4936) 1-3 credits**

*Prerequisite: NUR 4935 with minimum grade of "C;" College of Nursing senior standing*

This third and final course in the honors in nursing program helps students conduct an approved independent research project under the direction of a faculty member. At the completion of the project, students submit a written paper and present the work in an oral or poster format. This is a research-intensive (RI) course.

### **RI: Scholarship for Evidence-Based Nursing Practice (NUR 4937) 3 credits**

*Prerequisites: For College of Nursing undergraduate students only*

This course prepares the B.S.N. student to identify issues, appraise and integrate evidence, and evaluate outcomes. The emphasis is on translation of current evidence into nursing practice. This is a research-intensive (RI) course.

## **Nursing Graduate Courses**

### **Advanced Health Assessment (NGR 6002) 2 credits**

*Prerequisites: NGR 6110, 6141; matriculated students only or permission of department*

Focuses on advanced assessment; history-taking; risk appraisal; health promotion; psychosocial, developmental, functional assessment and physical examination techniques. Emphasis is on diagnostic reasoning skills in assessing deviations from normal.

### **Advanced Health Assessment Lab (NGR 6002L) 1 credit**

*Prerequisites: NGR 6110, 6141*

*Corequisites: NGR 6002; matriculated students only*

Provides a lab experience for the study of advanced health assessment. It includes supervised experiences of advanced clinical assessment and physical diagnosis.

### **Advanced Concepts for Direct Care Nursing Situations (NGR 6006) 3 credits**

*Prerequisites: NGR 6141, NGR 6002, NGR 6002L, NGR 6172*

Explores how the advanced level of physiological concepts, assessment and pharmacology build a substantive knowledge base within their area of practice. Students apply advanced conceptual knowledge to their individual direct care focus in the nursing situations, i.e. adults, pediatrics, maternal/child, mental health or another specific care area.

### **Direct Care Focus Practicum (NGR 6006L) 3 credits**

*Prerequisites: NGR 6141, NGR 6002, NGR 6002L, NGR 6172*

*Prerequisite or c orequisite: NGR 6006*

Students apply conceptual knowledge within their individual direct care focus practice areas.

### **Advanced Nursing Practice Grounded in Caring (NGR 6110) 3 credits**

*Prerequisites: B.S.N. or permission of department*

Examines the philosophical and theoretical foundations of caring as the essential concept for nursing practice, research, administration and education. Major contributions to an understanding of caring from nursing as well as from humanities and science are surveyed. Emphasis on conceptualizations in nursing and philosophical literature. Students examine the implications of caring in relation to the use of multiple ways/patterns of knowing.

### **Advanced Pathophysiology (NGR 6141) 3 credits**

*Prerequisite: Undergraduate pathophysiology recommended*

Offers advanced study of human pathophysiology as it relates to the detection of disease and nurturing wholeness of individuals and families throughout the lifespan using nursing situations grounded in caring.

### **Foundations of Holistic Nursing 1: Advanced Nursing Situations (NGR 6168) 3 credits**

*Prerequisite: Permission of department*

The course advances the knowledge of historical, philosophical, and theoretical foundations of holistic nursing for practice and research. The focus is on the development of a foundation of a reflective nursing practice and incorporates caring for self as an essential component of advanced holistic nursing.

### **Foundations of Holistic Nursing 2: Advanced Nursing Situations (NGR 6169) 3 credits**

This course advances knowledge of contemporary views of healing and holistic nursing practice grounded in caring. An emphasis on holistic communication, therapeutic environments, nurse coaching and the body-mind-spirit connection supports a synthesis of knowledge of the foundations of practice. The focus is on refinement of reflective nursing practice and caring for self as foundational components of advanced holistic nursing.

### **Advanced Pharmacotherapeutics (NGR 6172) 3 credits**

*Prerequisite: Undergraduate pharmacology recommended, NGR 6141; matriculated students only or permission of department*

Builds on foundational knowledge of the use of pharmacotherapeutic agents including complementary and alternative therapies. Focuses on the major drug categories for physiological systems with indications, therapeutic and adverse effects and drug interactions in individuals across the lifespan in the promotion, maintenance and restoration of health. Personal, genetic and environmental practice considerations are addressed.

### **Advanced Pharmacotherapeutics 2 (NGR 6176) 3 credits**

*Prerequisite: NGR 6172*

This course builds on the principles of advanced pharmacotherapeutics and is designed to prepare advanced nursing practice students for their prescribing role as primary care providers. The focus is on the application of contemporary advanced drug knowledge and evidence-based decision making in the clinical setting for safe and effective prescribing across the life span.

### **Primary Care 1: Foundations of Advanced Nursing Practice (NGR 6200) 3 credits**

*Prerequisites: NGR 6002L, 6141, 6172, 6110, 6811*

*Corequisite: NGR 6200L*

Focuses on the foundational study of primary care across the lifespan using nursing situations in advanced practice grounding in caring science, including health promotion, disease prevention, assessment, diagnosis and management of common conditions in the primary care setting.

### **Primary Care 1 Practicum: Foundations of Advanced Nursing Practice (NGR 6200L) 2-3 credits**

*Prerequisites: NGR 6002L, 6141, 6172, 6110, 6811*

*Corequisite: NGR 6200*

Allows students to integrate the foundational concepts of primary care in the practice settings to diagnose and manage common conditions across the lifespan. Development of the advanced practice nursing role utilizes nursing situations grounded in caring science and includes health promotion, disease prevention, ethical- and evidenced-based practice.

### **Perspectives of Aging (NGR 6251) 3 credits**

*Prerequisite: Permission of department*

Emphasizes knowledge of the aging experience as a foundation to the advanced nursing practice of adult/gerontological nursing with culturally, ethnically and economically diverse groups of older adults, grounded in caring science. Includes history of gerontological nursing and an appreciation of the uniqueness and beauty of aging and social gerontology theories.

### **Developing Expertise in Holistic Healing: Advanced Nursing Situations (NGR 6296L) 3 credits**

*Prerequisites: NGR 6002 and NGR 6002L or permission of department*

*Corequisite: NGR 6168*

Course focuses on advanced holistic nursing with development of expertise in healing modalities grounded in caring. Emphasis is placed on reflective integration of mind-body practices, nurse coaching and other modalities to promote health and well-being.

### **Integrating Expertise in Holistic Practice: Advanced Nursing Situations (NGR 6297L) 3 credits**

*Prerequisite: NGR 6296L or permission of department*

Provides an opportunity to reflect and apply the student's knowledge and expertise in holistic nursing in preparation for professional practice. Emphasis is placed on developing a confident practice that answers uniquely to individual and group health and wellness needs. An evidence-based project is required.

### **Care of Children: Nursing Situations in Advance Practice (NGR 6301) 3 credits**

*Prerequisites: NGR 6141, NGR 6002, NGR 6200 and NGR 6200L*

Focuses on the care of children from infancy through adolescence using nursing situations in advanced practice including health promotion, disease prevention, health protection, assessment, diagnosis and management of health in the primary care setting. Emphasizes an appreciation of the wholeness and uniqueness of the individual and family in relation to psychosocial, cultural, spiritual, developmental and political issues affecting the health and well-being of children.

### **Women's Health: Nursing Situations in Advanced Practice (NGR 6342) 3 credits**

*Prerequisites: NGR 6141, NGR 6002, NGR 6200 and NGR 6200L*

Focuses on the care of women using nursing situations in advanced practice including health promotion, disease prevention, assessment, diagnosis and management of common female and reproductive conditions across the lifespan. An appreciation of the wholeness and uniqueness of the individual and family in relation to psychosocial, cultural, spiritual, developmental and political issues is incorporated into strategies to enhance the health and well-being of women.

**Psychopathological Disorders Across the Lifespan: Advanced Nursing Situations (NGR 6503) 3 credits**

*Prerequisites: NGR 6141, 6172*

*Prerequisites or Corequisites: NGR 6002, 6002L*

This course focuses on the advanced knowledge of psychopathology, assessment, diagnosis, differential diagnosis, prevalence and impact on the individual and family well-being across the lifespan.

**Psychiatric Mental Health Nursing Across the Lifespan: Role Synthesis in Advanced Nursing Practice (NGR 6505L) 4 credits**

*Prerequisites: NGR 6508, 6508L*

Role functions of psychiatric mental health nurse practitioners are synthesized to prepare students for certification, professional engagement and practice management of persons with common or complex mental disorders across the lifespan.

**Psychiatric Mental Health Nursing Across the Lifespan: Diagnosis and Medication Management in Advanced Nursing Practice (NGR 6507L) 2 credits**

*Prerequisites: NGR 6141, 6172*

*Corequisites: NGR 6002, NGR 6002L*

This course focuses on advanced knowledge of psychopathology, assessment, diagnosis, differential diagnosis, the introduction of psychiatric and mental health diagnoses in clinical practice, and management of psychiatric and mental health pharmacologic medications and non-pharmacological care in the practice setting.

**Psychiatric Mental Health Nursing Across the Lifespan: Group Therapy in Advanced Nursing Situations (NGR 6508) 3 credits**

*Prerequisites: NGR 6509, 6509L*

*Corequisite: NGR 6508L*

Emphasis is placed on the theoretical and conceptual models of group therapy management and treatment of adults children and families with mental health disorders across the lifespan.

**Psychiatric Mental Health Nursing Across the Lifespan Practicum 2: Group Therapy in Advanced Nursing Practice (NGR 6508L) 3 credits**

*Prerequisites: NGR 6509, 6509L*

*Corequisite: NGR 6508*

Theoretical and conceptual models of group therapy, pharmacological therapeutics and non-pharmacological care are applied in the treatment of adults, children and families.

**Psychiatric Mental Health Nursing Across the Lifespan: Individual and Family Therapy in Advanced Nursing Situations (NGR 6509) 3 credits**

*Prerequisites:* NGR 6538, 6503

*Corequisite:* NGR 6509L

Emphasis is on the theoretical and conceptual models of individual and family psychotherapy, pharmacological therapeutics and non-pharmacological care in treatment of adults, children and families across the lifespan.

**Psychiatric Mental Health Nursing Across the Lifespan Practicum 1: Individual and Family Therapy in Advanced Nursing Practice (NGR 6509L) 4 credits**

*Prerequisites:* NGR 6538, 6503

*Corequisite:* NGR 6509

In this course, mental health concepts are applied in the diagnosis of mental disorders. Individual and family psychotherapies, pharmacologic therapeutics and non-pharmacological care are used in the treatment of adults, children and families.

**Psychopharmacology Across the Lifespan for Advanced Nursing Practice (NGR 6538) 3 credits**

*Prerequisites:* NGR 6141, 6172

*Prerequisites or Corequisites:* NGR 6002, 6002L

This course addresses advanced concepts in neurobiology, pharmacokinetics, pharmacodynamics and psychopharmacologic treatment of individuals with psychiatric and mental disorders across the lifespan.

**Primary Care 2: Foundations of Advanced Nursing Practice (NGR 6605) 3 credits**

*Prerequisite:* NGR 6200

*Corequisite:* NGR 6605L

Focuses on the expanding study of primary care across the lifespan using nursing situations in advanced practice grounded in caring science, including health promotion, disease prevention, assessment, diagnosis and management of more complex conditions in the primary care setting.

**Primary Care 2 Practicum: Foundations of Advanced Nursing Practice (NGR 6605L) 4 credits**

*Prerequisite:* NGR 6200 and 6200L

*Corequisite:* NGR 6605

Allows students to integrate the foundational concepts of primary care in the practice setting to diagnose and manage common and complex conditions across the lifespan. Development of the advanced practice nursing role utilizes nursing situations grounded in caring science and includes health promotion, disease prevention, ethical- and evidenced-based practice.

### **Comprehensive Care of Adolescents through Older Adults (NGR 6607) 3 credits**

*Prerequisites: NGR 6605, permission of department*

*Corequisite: NGR 6607L*

Focuses on preparing AGNP students in the management of adolescents, adults and older adults and their families/caregivers in primary care settings across the continuum of care. Nursing situations grounded in caring are used to diagnose and manage complex health conditions. Prepares students for certification, practice management and professional engagement.

### **Comprehensive Care of Adolescents through Older Adults Practicum (NGR 6607L) 4 credits**

*Prerequisites: NGR 6605L, permission of department*

*Corequisite: NGR 6607*

Students prepare for comprehensive management of adolescents, adults and older adults and their families with specialized, complex health care in primary care settings across the continuum of care. Development of the advanced practice nursing role utilizes nursing situations grounded in caring science and includes health promotion, disease prevention and ethical- and evidence-based practice.

### **Primary Care of Families: Comprehensive Advanced Nursing Practice (NGR 6619) 3 credits**

*Prerequisites: NGR 6605, NGR 6605L*

*Corequisite: NGR 6619L*

Family nurse practitioner students prepare for comprehensive management of primary care patients across the lifespan. Nursing situations grounded in caring are used to diagnose and manage common and complex health conditions in a variety of health care settings. Prepares students for certification, practice management and professional engagement.

### **Primary Care of Families Practicum (NGR 6619L) 4 credits**

*Prerequisites: NGR 6605; NGR 6605L*

*Corequisite: NGR 6619*

Prepares family nurse practitioner students for comprehensive management of primary care patients across the lifespan. Nursing situations grounded in caring are used to diagnose and manage common and complex health conditions in a variety of health care settings. Prepares students for certification, practice management and professional engagement.

### **Integrated Holistic Health, Wellness and Nurse Coaching Practicum (NGR 6630L) 3 credits**

*Prerequisite: NGR 6168*

*Corequisite: NGR 6169*

Course focuses on integrating expertise in advanced holistic nursing, grounded in caring. Emphasis is placed on developing a reflective advanced holistic practice that integrates nurse coaching and an

awareness of other modalities in the development of a confident practice to promote the health and well-being of persons within a global, diverse society. An evidence-informed project is required.

### **Epidemiology for Advanced Nursing Practice (NGR 6673) 3 credits**

Examines the distribution and determinants of health and disease in human populations.

Epidemiological tools used in advanced nursing practice to improve health by altering personal, social and environmental risk factors are introduced. This is an Academic Service Learning (ASL) course.

### **Creative Teaching - Learning Methods in Nursing Education (NGR 6711) 3 credits**

*Prerequisite: NGR 6718*

Course focuses on creative teaching/learning strategies to foster knowledge development and critical reasoning within a caring student/faculty community. The creative design of teaching/learning modalities used in classroom-based, online and nursing practice environments are explored, critiqued, and practiced. Teaching/learning theories, design concepts, and evaluation criteria are studied and applied using an interactive approach to promote teaching excellence.

### **Curriculum Evolution and Models in Nursing Education (NGR 6713) 3 credits**

Examines the concept of caring-based nursing education as the central value and dominant construct of the discipline. Also projects the evolution of nursing education in higher education, the development and structure of the discipline in curriculum design, and the role of the nursing educator in academia historically and for the future.

### **Evaluation in Nursing Education (NGR 6718) 3 credits**

*Prerequisite: NGR 6713*

Course provides an examination of various assessment and evaluation strategies within the context of caring in nursing for use in program evaluation, admission, placement, progression, and graduation decisions in nursing education.

### **Financial Administration of Nursing Systems (NGR 6722) 3 credits**

*Prerequisite: Permission of department*

Introduces healthcare financial management, providing a foundation for application in a caring-based nursing leadership practice. Financial management principles are presented, including financial management framework, financial accounting, cost analysis, planning and control, financial resource decision-making, managing financial resources and future directions of nursing and financial management.

### **Advanced Nursing Administration Practicum 1 (NGR 6723L) 1-2 credits**

*Prerequisite: Permission of department*

Provides an opportunity to reflect upon and apply knowledge acquired in the core, cognate or concentration courses to administrative nursing practice within the health care delivery system. Students synthesize and apply knowledge grounded in caring and humanizing the health care system in a practice setting under supervision of a mentor.

### **Advanced Nursing Administration Practicum 2 (NGR 6724L) 1-4 credits**

*Prerequisites: Permission of department*

Provides an opportunity to reflect upon and apply knowledge acquired in the core, cognate or concentration courses to administrative nursing practice within the health care delivery system, with specific focus on varied practice settings. Students synthesize and apply knowledge grounded in caring and humanizing the health care system in a practice setting under supervision of a mentor. Students engage in systematic inquiry as a foundation for their nursing practice as an administrator.

### **Leadership in Nursing Administration: Advanced Nursing Situations (NGR 6725) 3 credits**

Explores and focuses on the components of nursing leadership situations within the health care delivery system. Students are given the opportunity to examine the concepts of leadership, behavior and culture of organizations and the impact of nursing leadership on the creation of caring environments in health care delivery systems.

### **Philosophical and Theoretical Foundations of Advanced Nursing Practice Roles (NGR 6811) 3 credits**

*Prerequisite: NGR 6110 or permission of department*

Focuses on the evolution of philosophical and theoretical foundations of nursing in nursing research and theory guided practice. Theory development and evaluation include an emphasis on middle range theories and their use in advanced nursing roles across multiple settings.

### **Nursing Research and Evidence-Based Practice (NGR 6812) 3 credits**

*Prerequisite: Undergraduate statistics and NGR 6811 or permission of department*

Emphasizes nursing research and the integration of theories, evidence, clinical judgment and interprofessional perspectives using translational processes to evaluate and enhance nursing practice and health care policy.

### **Quantitative Methods for Advancement of Health Sciences and Nursing Practice (NGR 6814) 3 credits**

*Prerequisite: Permission of department*

Builds on the basic statistical concepts and fundamental research strategies that apply to nursing research and practice. Students design clinical questions that investigate problems in nursing and health

systems evaluation.

### **Nursing Informatics (NGR 6871) 3 credits**

*Prerequisite: Permission of department*

Focuses on nursing informatics and the promotion, generation, management and processing of relevant data in order to use information and develop knowledge that supports nurses and the care of patients in all practice domains and nursing situations. Information technology and human caring factors that influence nursing informatics are addressed.

### **Leadership, Policy and Finance in Advanced Nursing Practice (NGR 6891) 3 credits**

Focuses on organizational and systems leadership. Financial structure quality and safety, informatics, healthcare technology and reform are examined. An emphasis is placed on the effects of nursing leadership grounded in caring on clinical outcomes and population health.

### **Influencing Health Care Policy Through Nursing: Advanced Nursing Situations (NGR 6892) 3 credits**

Examines issues and trends in the development and impact of policy on the health care delivery system. An emphasis is placed upon the process of legislative health policy and the role of professional nursing in influencing the policy-making process.

### **Directed Independent Study (NGR 6905) 1-4 credits**

*Prerequisites: Permission of department and faculty; requires proposal and contract*

Guided independent reading and research in advanced topics in nursing based on individual interests.

### **Special Topics (NGR 6930) 1-6 credits**

*Prerequisite: Permission of faculty/department*

The study of a special area of nursing. Topics will vary. Course may be repeated for credit. See end of course listing for possible topics. This is an Academic Service Learning (ASL) course.

### **Advanced Nursing Education Practicum (NGR 6944L) 1-3 credits**

*Corequisites: NGR 6711 or NGR 6713 or NGR 6718*

Integrates the pedagogy of teaching with theories of nursing through guided practice in classroom, online and practice settings. Activities focus on curriculum development, teaching/learning strategies and evaluation methods.

### **Nursing Project (NGR 6970) 1-6 credits**

*Prerequisites: NGR 6812; permission of department; contract with faculty committee; candidacy form required*

This course offers the opportunity for a scholarly endeavor to identify, develop, implement, and evaluate a nursing project that has evolved from nursing practice and is clearly grounded in nursing knowledge. More than three credits may be required to complete the project.

### **Thesis Research (NGR 6971) 1-6 credits**

*Prerequisites: NGR 6812; permission of department; contract with faculty committee; candidacy form required*

This course provides the opportunity for the student to design, implement, and complete a formal research investigation. Research proposals must involve authorization by the University Committee on Human Subjects and possibly other outside entities.

### **Evolution of Nursing as a Discipline and Practice (NGR 7111) 3 credits**

*Prerequisite: Admission to Ph.D. program or permission of department*

Analyzes the historical development of nursing as a discipline of knowledge and professional practice. Privileges and responsibilities of the nurse as scholar, practitioner, healer, and educator are examined.

### **Philosophies of Science Grounding Nursing (NGR 7115) 3 credits**

*Prerequisite: Admission to Ph.D. program*

Presents a critical analysis of different philosophical views of science that have shaped the history and development of the discipline and practice of nursing. Examines major philosophical paradigms as they relate to the art and science of nursing. The plurality of philosophies is necessary to reflect the many facets of nursing in relation to human science, critical science and feminist critique, complexity sciences, applied science, and practice science, which all will be discussed and debated.

### **Caring Science 1: An Essential Domain of Nursing Knowledge (NGR 7116) 3 credits**

*Prerequisite: Admission to Ph.D. program*

Advanced study of caring from ontological, epistemological, ontical and anthropological and praxis perspectives. Focus is on the theoretical grounding of phenomena in caring science.

### **Caring Science 2: Developing Phenomena of Interest within Research Focus Areas (NGR 7118) 3 credits**

*Prerequisites: NGR 7116, for Ph.D. students*

Course focuses on knowledge gaps in caring science related to phenomena of interest within the context of the four research areas: healthy aging across the lifespan, holistic health, health equity and transforming healthcare environments

### **Caring Science 3: Innovative Methodologies to Study Caring Science (NGR 7119) 3 credits**

*Prerequisites: NGR 7118, NGR 7815, NGR 7818, for Ph.D. students*

Evaluates and designs caring science-based approaches in nursing and team science. Develops expertise in applying innovative methodologies to study phenomena of interest within caring science.

### **Theory Development and Application in Nursing (NGR 7121) 3 credits**

*Prerequisite: Admission to Ph.D. program*

Explores patterns of knowing, theory development, and evaluation in the context of nursing knowledge guided by caring philosophy. Nursing theories are studied with emphasis on middle range theory as applied to practice and research. Concept analysis methods are introduced as a foundation for theory building and evaluation.

### **Theoretical Grounding for Caring-Based Practice ( NGR 7124) 3 credits**

*Prerequisite: Admission to D.N.P. program*

This course examines the philosophical and theoretical foundations of caring as essential for the Doctor of Nursing Practice (D.N.P.). Students explore insight into the human health experience as explicitly presented in grand, mid-range and practice theories. Students apply theory to guide D.N.P. practice and create innovative models of healthcare that are grounded in caring.

### **Population-Based Caring in Aging Societies (NGR 7661) 3 credits**

*Prerequisite: Epidemiology*

Course offers an in-depth study of population-based healthcare in an increasingly diverse aging society. Includes consideration and distribution determinants of health and illness as well as policy changes.

### **Population-Based Healthcare and Health Equity (NGR 7662C) 3 credits**

*Prerequisites: NGR 6673, NGR 7855*

This course offers an in-depth study of population-based health in an increasingly diverse society. Focus includes analyzing data to identify gaps in inequities in care and monitoring trends in outcomes for populations across the lifespan. Students develop plans to promote and protect the health of the most vulnerable populations, using culturally tailored organizational strategies to promote diversity, equity and inclusion and build equitable processes to promote health equity.

### **Crafting the Life of Scholarship (NGR 7709) 3 credits**

*Prerequisite: Admission to Ph.D. program or permission of department*

Prepares the doctoral student to integrate behaviors and attributes of "being scholarly" into a variety of career choices. Course explores the application of scholarly practices and outcomes to positions in academia, practice, organizations, government, and other settings.

### **Ethics and Public Policy for Promoting Health (NGR 7738) 3 credits**

*Prerequisites: Permission of department*

This course examines the intersectionality of nursing, individual, community and public policy with the goal of creating collaborative partnerships to influence policy related to contemporary health issues. Students apply knowledge of the processes to advocate for healthcare that honors human dignity and supports inclusivity and health equity in services at local, state, national and global levels. Students explore caring philosophies and theories to inform advanced nursing practice and impact public policy initiatives.

**Introduction to Practice Management: Advanced Nursing Practice (NGR 7767) 3 credits**

*Prerequisite: Permission of department*

This course provides a comprehensive overview of practice, business, finance and management principles necessary to establish and maintain a successful, compassionate clinical nursing practice.

**The Role of the Doctor of Nursing Practice as Scholar (NGR 7768) 3 credits**

*Prerequisites: NGR 7124, NGR 7855; admission to D.N.P. program*

This course examines the distinct practice scholarship role of the D.N.P. in improving health outcomes from the lens of caring. Emphasis on the history of nursing and healing, professional communication, optimal health environments, and the need for changes within a complex health care system.

**Healthcare Systems Leadership and Finance (NGR 7793) 3 credits**

*Prerequisite: Admission to D.N.P. program*

Course explores the structure and functions of healthcare delivery systems and healthcare financing with special consideration to the impact of an aging population. The role of the D.N.P. in creating caring environments through both organizational and systems policy changes are addressed throughout the course.

**Interprofessional Leadership in Healthcare (NGR 7795) 3 credits**

*Prerequisite: Admission to D.N.P. program*

This course explores the structure and functions of the U.S. healthcare delivery system. Particular emphasis is on the role of the Doctor of Nursing Practice (D.N.P.) in humanizing healthcare delivery systems, using theories and principles of leadership and impacting both organizational and systems policy changes. Historical and current policies are examined focusing on interprofessional collaboration, conflict management and leading teams.

**Qualitative Research Methods 1 (NGR 7815) 3 credits**

*Prerequisite: Admission to Ph.D. program or permission of department*

Overview of qualitative research methods used in the development of nursing knowledge. Research design, sampling, data collection, data analysis, criteria for rigor, and ethical issues are explored. The

philosophical, epistemological, ethical, and aesthetic foundations of qualitative research methods are examined.

### **Mixed Methods in Practice-Based Research (NGR 7816) 3 credits**

*Prerequisites: NGR 7815 and NGR 7818 or permission of instructor*

Focuses on examination of mixed methods approach for practice-based research encompassing the evolution of mixed methods, designs, rigor, data collection, analysis, interpretation and presentation of the results.

### **Qualitative Research Methods 2 (NGR 7817) 3 credits**

*Prerequisite: NGR 7815 or equivalent or permission of department*

Designed for nursing students and students in other disciplines to achieve an advanced level of expertise in selected qualitative approaches. Expected course outcome is a completed qualitative project.

### **Advanced Nursing Research: Applied Quantitative Design and Method (NGR 7818) 3 credits**

*Prerequisites: NGR 7846, NGR 7115, NGR 7116, NGR 7121, NGR 7932, NGR 7934*

Examines advanced experimental and non-experimental research methods including sampling, instrumentation, data collection and data analysis. Integrates interpretation of findings and application to nursing practice. Analyzes ethical issues related to research and research-based nursing practice.

### **Measurement in Practice-Based Research (NGR 7822) 3 credits**

*Prerequisite: NGR 7818 or permission of department*

Analysis of measurement strategies for practice-based research, encompassing selection, evaluation, and development of measures and instruments.

### **Evaluating Systems and Models of Care in Advanced Practice Nursing (NGR 7826) 3 credits**

*Prerequisite: Permission of department*

An examination of various program evaluation strategies for nursing models and systems of care. Phases of evaluation are included.

### **Applied Advanced Statistics (NGR 7845) 3 credits**

*Prerequisites: NGR 7815, NGR 7818*

Focuses on advanced statistical concepts and research strategies for knowledge development in the discipline of nursing and the health sciences with an emphasis on longitudinal analyses.

### **Essential Statistical Methods for Nursing Science (NGR 7846) 3 credits**

*Prerequisites: 6000-level statistics class and permission of department*

An interdisciplinary course focusing on advanced statistical concepts and research strategies for knowledge development in the discipline of nursing and health sciences. Advanced biostatistical analyses such as hierarchical linear modeling, logistic regression, survival analysis, repeated measures, ANOVA, MANOVA, MANCOVA and structural equation modeling will be included.

### **Research for Advanced Practice Nursing (NGR 7850) 3 credits**

*Prerequisite: Permission of department*

Application of research to support advanced nursing practice with aging and diverse populations and to support new models of care delivery using evidence-based practice.

### **Innovations in Inquiry (NGR 7853) 3 credits**

*Prerequisites: NGR 7815, NGR 7818, NGR 7822, NGR 7817*

This course explores innovative approaches to inquiry, including implementation science, community-based participatory research, mixed methods, and meta-analysis/synthesis. Additional information includes challenges of designing and conducting studies with innovative inquiry approaches and translation of research findings to enable adoption of evidence-based change.

### **Translation of Evidence for Advanced Practice Nursing (NGR 7855) 3 credits**

*Prerequisite: Admission to D.N.P. program*

This course prepares the D.N.P. student for scholarship and knowledge needed for translation into practice. Major outcomes of the course are the development of knowledge and skills needed to develop a clinical question, review, and synthesize the literature and statistical understanding for evidence-based practice. Caring science guides a selected practice improvement model toward development of the future D.N.P. project.

### **Caring, Informatics and Technology in Advanced Nursing Practice (NGR 7876) 3 credits**

*Prerequisite: Admission to D.N.P. program*

This course offers an in-depth study of nursing informatics and technology from a human caring perspective. Students use health information/technology to identify gaps and inform decision making to improve outcomes across all health systems.

### **Healthcare System Analysis and Quality Improvement (NGR 7895) 3 credits**

*Prerequisite: Admission to D.N.P. program*

This course provides an in-depth exploration into the science of improvement as a guide for quality initiatives in healthcare. Content areas include assessing organizations for gaps and deficiencies, methods for collecting and analyzing relevant data, and creating evidence-based strategies for positive change.

### **Directed Independent Study (NGR 7905) 1-3 credits**

*Prerequisite: Permission of advisor or dissertation chair*

Course provides opportunity for directed, independent, scholarly study with expert faculty in an area related to the student's focus of study.

### **Doctoral Seminar in Knowledge Development 1 (NGR 7932) 1 credit**

*Prerequisites: Admission to Ph.D. program or permission of department*

Introduces students to the role of doctoral scholar. Focuses on approaches to knowledge development through search, critique, and management of literature sources. *Grading: S/U*

### **Doctoral Seminar in Knowledge Development 2 (NGR 7934) 1 credit**

*Prerequisites: NGR 7932*

Critique and synthesize literature to identify gaps in disciplinary nursing knowledge and formulate a research question.

### **Doctoral Seminar in Knowledge Development 3 (NGR 7936) 1 credit**

*Prerequisites: NGR 7934*

Describe ethical research methods consistent with research questions and potential sources of funding. Plan for comprehensive examination.

### **Role Development: D.N.P. Seminar 1 (NGR 7941) 1 credit**

*Prerequisite: Admission to D.N.P. program*

Introduction to the Doctor of Nursing Practice (D.N.P.) role, including the history of nursing and healing, optimal health environments, the need for change in healthcare delivery, interprofessional collaboration and teamwork.

### **Integration of Cultural Concepts: D.N.P. Seminar 2 (NGR 7942C) 2-4 credits**

*Prerequisite: NGR 6110*

Explores cultural diversity issues and concepts and addresses health disparities to promote health equity for vulnerable populations, with special emphasis on aging across the lifespan.

### **Project Development: D.N.P. Seminar 3 (NGR 7943C) 1-3 credits**

*Prerequisites: NGR 7826 and NGR 7850*

Guides the student in the process of developing a D.N.P. project integrating the role of the D.N.P. in practice.

### **D.N.P. Project and Residency (NGR 7945C) 1-6 credits**

*Prerequisites: NGR 7943C and approval of the D.N.P. project proposal*

Course encompasses clinical practice components and completion of a final practice-based project. Projects will reflect the D.N.P. designing systems of care across the lifespan within a caring framework. In a designated practice setting, the program requires a minimum of 250 clinical hours across two semesters. Course will be repeated at least once to meet overall program requirements. This is an Academic Service Learning (ASL) course. *Grading: S/U*

### **Residency in Advanced Practice Nursing (NGR 7945L) 3 credits**

*Prerequisites: NGR 7943C and approval of D.N.P. project proposal*

This residency course provides a comprehensive practice experience to allow the learner to further synthesize and expand upon nursing knowledge, competency and caring science for advanced nursing practice at a high level of expertise. Learners begin implementation of the D.N.P. project in their area of specialization. This is an Academic Service Learning (ASL) course. *Grading: S/U*

### **Scholarship Practicum (NGR 7946) 3 credits**

*Prerequisites: NGR, 7815, NGR 7818*

Course emphasizes scholarship processes of discovery, application, teaching and integration that create the context for coursework, discussion and practicum.

### **Practicum for the Doctor of Nursing Practice (NGR 7947L) 1-3 credits**

*Prerequisites: NGR 7895; admission to D.N.P. program*

This practicum course provides a comprehensive experience for the student to further synthesize and expand upon caring science for advanced practice nursing. Students translate research into practice, link policy making with clinical systems and serve as change agents for health care. The student chooses an area of advanced practice nursing for clinical immersion. *Grading: S/U*

### **Doctor of Nursing Practice Proposal Development (NGR 7974) 3 credits**

*Prerequisites: NGR 7855, NGR 7895; admission to D.N.P. program*

This course guides the student in developing a D.N.P. project proposal to improve clinical practice and patient outcomes. The student collaborates with practice partners to create a project proposal addressing a particular situation/concern in the practice setting.

### **Project Implementation, Evaluation and Dissemination (NGR 7975C) 1-3 credits**

*Prerequisites: NGR 7974; admission to D.N.P. program*

This course encompasses the implementation, evaluation and dissemination of the student's final scholarly D.N.P. project. Projects reflect the D.N.P. student's designing systems of care within a caring framework in a designated practice setting. This course may be repeated until the project is completed.

*Grading: S/U*

### **Doctoral Synthesis (NGR 7978) 1-3 credits**

*Prerequisite: Successful completion of all required course work*

Offers the doctoral student the opportunity, with faculty support and supervision, to synthesize learning from prior courses in preparation for Doctoral Comprehensive Examinations. May be repeated once.

*Grading: S/U*

### **Advanced Research (NGR 7979) 1-3 credits**

*Prerequisite: Permission of dissertation chair*

Offers the doctoral student the opportunity, with faculty support and supervision, to prepare and defend the dissertation proposal. Course may be taken for more than one semester. May be repeated once.

Credits can count toward dissertation hours. Total credits will not exceed 6. *Grading: S/U*

### **Dissertation (NGR 7980) 1-15 credits**

*Prerequisites: NGR 7978, 7979*

Offers the doctoral student the opportunity, with faculty support and supervision, to complete and defend the dissertation. Minimum 15 credits for graduation, which may include up to 6 credits for NGR 7979. May be taken for more than one semester. *Grading: S/U*

[Link to Christine E. Lynn College of Nursing Programs](#)







# UNIVERSITY CATALOG

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### GENERAL INFORMATION

### ACADEMIC PROGRAMS

## CHARLES E. SCHMIDT COLLEGE OF SCIENCE

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## BIOLOGICAL SCIENCES

**Undergraduate Courses** /[link to graduate courses](#)

**\* Prerequisite courses must be completed with grades of "C-" or better.**

**\* Vascular Plant Anatomy (BOT 3223) 2 credits**

*Prerequisite: One year of general biology, including general botany; Corequisite: BOT 3223L*

A study of the origin, structure and function of the principal cells, tissues and organs of the vascular plants with emphasis on the angiosperms. Lecture and laboratory.

**Vascular Plants Lab (BOT 3223L) 2 credits**

*Corequisite: BOT 3223*

A laboratory examination of the major taxa of vascular plants.

**\* Principles of Plant Physiology (BOT 4503) 2 credits**

*Prerequisites: BSC 1010, BSC 1010L*

This course covers aspects of plant life involving growth, development, reproduction and interaction with the environment, with underlying principles in cell biology, biochemistry, biophysics, genetics, physiology, evolution and ecology.

**\* Plant Physiology Lab (BOT 4503L) 2 credits**

*Prerequisites: BSC 1010, BSC 1010L*

This course uses a series of lab exercises to study the principles of plant physiology, focusing on hands-on lab experience and learning of experimental design, research tools and methodology and scientific writing skills.

**\* Plant Cell Biology (BOT 4542) 3 credits**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L*

This course covers the cell biological aspects established in plant anatomy, plant physiology, plant growth and development, plant taxonomy, plant biochemistry and plant molecular biology. Emphasis is on experimental approaches used to understand these processes at the molecular level. A discussion of model organisms and cell types is included.

**\* Plant Biotechnology (BOT 4734C) 3 credits**

*Prerequisite: BSC 1010 or BSC 1010L or permission of instructor*

Course provides materials to help students gain current knowledge of structure and function of plant genomes, genes, and gene products; to learn hands-on techniques of DNA-transfer-based plant biotechnology; and to train for a professional career in plant/agriculture biotechnology research.

**\* Prerequisite courses must be completed with grades of "C-" or better.**

**Life Science (BSC 1005) 2 credits**

This course applies the scientific method to critically examine and explain the natural world including but not limited to cells, organisms, genetics, evolution, ecology and behavior. This is a General Education course.

**\* Life Science Lab (BSC 1005L) 1 credit**

*Prerequisite or Corequisite: BSC 1005*

Laboratory investigation of biological knowledge relevant to social, economic, environmental and philosophical problems. This is a General Education course.

**\* RI: Life Science Lab (BSC 1005L) 1 credit**

*Prerequisite or Corequisite: BSC 1005*

Laboratory investigation of biological knowledge relevant to social, economic, environmental and philosophical problems. This is a General Education course. This course is research intensive (RI).

**Biological Principles (BSC 1010) 3 credits**

*Corequisite: BSC 1010L*

In this course students apply the scientific method to critically examine and explain the natural world.

This course covers molecular biology, cellular biology, genetics, metabolism and replication. This is a General Education course.

### **Biological Principles Lab (BSC 1010L) 1 credit**

*Corequisite: BSC 1010*

An introduction to general laboratory procedures to demonstrate the basic principle of biology. This is a General Education course.

### **Biodiversity (BSC 1011) 3 credits**

*Corequisite: BSC 1011L*

An introduction and survey of organismal diversity, including fungi, protists, plants and animals. Phylogenetic relationships, evolutionary mechanisms, and ecological processes are emphasized. Origins of life and human evolution. This is a General Education course.

### **Biodiversity Lab (BSC 1011L) 1 credit**

*Corequisite: BSC 1011*

A survey of the diversity of eukaryotic organisms. This is a General Education course.

### **Introduction to Biology at Florida Atlantic University (BSC 1019) 0 credits**

*Prerequisite: For Biology majors*

This course provides students with an introduction to the Biology major at Florida Atlantic University (FAU) and tools for success in the FAU Biology degree program. The course is for and about the student. It was developed to support students in identifying, accessing and navigating the numerous programs and opportunities that the FAU Biology Department offers its students as well as other FAU resources specific to student success in the discipline of biology.

### **University Honors Seminar in Biological Sciences (BSC 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in biological sciences.

\* Prerequisite courses must be completed with grades of "C-" or better.

### **Anatomy and Physiology 1 (BSC 2085) 3 credits**

This course is the first part of a two-semester sequence in which students examine human anatomy and physiology through a systems approach based on the interaction between form and function, from the microscopic components of cells and tissues to the organismal level. Emphasis is placed on histology and the integumentary, skeletal, muscular and nervous systems. This is a General Education course.

### **Anatomy and Physiology 1 Lab (BSC 2085L) 1 credit**

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Laboratory investigations to augment the content of BSC 2085. This is a General Education course.

**Anatomy and Physiology 2 (BSC 2086) 3 credits**

A study of the structure and functions of the following systems in the human body: cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive.

**Anatomy and Physiology 2 Lab (BSC 2086L) 1 credit**

Laboratory investigations to augment the content of BSC 2086.

**Biology Study Abroad (BSC 2952) 1-6 credits**

*Prerequisites: Minimum 2.5 GPA or higher and permission from the Office of International Programs*

Biology credit for enrollment in an approved study abroad undergraduate program.

**\* Conservation Biology (BSC 3052) 3 credits**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L*

A survey of the major concepts and current issues in conservation. Lectures address the value of biodiversity, the current state of biodiversity, threats to biodiversity and what has and can be done to stem the loss of biodiversity.

**\* Prerequisite courses must be completed with grades of "C-" or better.**

**Introduction to Biological Research (BSC 3453) 1 credit**

*Prerequisites: By application only and permission of instructor*

This course is the first course in the program called Biological Research. Students apply and are accepted to this program before being permitted to register for the course. The course introduces students to research in biological fields. It also facilitates the matching of students to research faculty by promoting seminars and trains the students in ethics and intellectual property of ideas.

**\* Biological Research Writing (BSC 3481) 2 credits**

*Prerequisite: BSC 3453*

This course is intended for undergraduates to experience lab research while working on their own independent project and presenting it in the form of a graded proposal and public presentation. This is NOT an honors-level course.

**Cooperative Education - Biology (BSC 3949) 1-3 credits**

*Grading: S/U*

**\* Molecular Genetics of Aging (BSC 4022) 3 credits**

*Prerequisite: BSC 1010 or BSC 1011*

An in-depth examination of current theories of aging, molecular pathways modulating aging and major discoveries about aging in mammals and in different model organisms, including yeast, *C. elegans*, *Drosophila* and mouse.

**Climate Change Biology: Ecosystems to Human Health (BSC 4307) 3 credits**

This course focuses on biological aspects of rapid climate change on biomes and human health (e.g., loss of biodiversity in tropical rainforests limit drug discovery opportunities). Loss of ecosystems is threatening important ecosystem services to people around the world and has behavioral and physiological impacts on humans, affecting their health and well-being. Adaptations/solutions to the climate change crisis are also discussed. The format is lecture, in-class discussions and student-led presentations.

**\* Laboratory Methods in Biotechnology (BSC 4403L) 3 credits**

*Prerequisites: MCB 3020, MCB 3020L, BCH 3033 and PCB 3063*

Course offers hands-on experience in some of the basic and essential lab skills required in molecular biology and biotechnology that are directly transferable to the workplace. Concepts behind designing and implementing controlled experiments involving manipulation of DNA, RNA and protein are discussed.

**\* Concepts in Bioinformatics (BSC 4434C) 3 credits**

*Prerequisites: PCB 3063; open to students in Biology, Bioengineering, Science/Engineering and Computer Science*

The course outlines concepts underlying the mining of the human genome, blending biology, medicine and engineering.

**\* Biology of Cancer (BSC 4806) 3 credits**

*Prerequisites: MCB 3020*

A consideration of chemical, viral and physical oncogenic agents; genetics and host factors; immunological response to neoplasia; chemotherapy.

**\* Prerequisite courses must be completed with grades of "C-" or better.**

**Directed Independent Study (BSC 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

*Grading: S/U*

**Directed Independent Research in Biological Sciences (BSC 4910) 0-3 credits**

*Prerequisite: Permission of instructor*

The student works closely with a research mentor to conduct research and inquiry in biological sciences. The requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

**Honors Research (BSC 4917) 3 credits**

*Prerequisites: BSC 4905 with minimum grade of "B," admission to Biology Honors Program and permission of instructor*

Supervised independent research for students in the Biology Honors program. Must earn an "A" to receive Biology Honors Distinction.

**Honors Thesis (BSC 4918) 3 credits**

*Prerequisite: BSC 4917 with minimum grade of "B"*

A continuation of research initiated in BSC 4917. Requires preparation of a written paper and presentation of results at a departmental seminar. Must earn an "A" to receive Biology Honors Distinction.

**Special Topics (BSC 4930) 1-3 credits**

Special topics of interest to biological sciences students.

**Seminar (BSC 4932) 1 credit**

A variable title seminar series in which students experience information exchange among professional scientists. This course offers a more informal, less intimidating environment to talk with faculty, graduate students and other researchers. Invited speakers are from various institutions allowing students to network regarding further schooling/jobs. *Grading: S/U*

**Honors Scientific Communication (BSC 4934) 1 credit**

*Prerequisite: Permission of instructor*

This is a course for students interested in scientific research. The students are introduced to various techniques and software important for data processing and presentation of their research data. The students learn to effectively present their research to the general public and to the scientific community in written form such as research proposals, conference presentations, seminars and publications.

**Biology Study Abroad (BSC 4957) 1-6 credits**

*Prerequisite: Minimum 2.5 GPA or higher*

Biology credit for enrollment in an approved study abroad undergraduate program.

**\* Prerequisite courses must be completed with grades of "C-" or better.**

**\* Critical Thinking in Environmental Science (EVS 4021) 3 credits**

*Prerequisites: EVR 2017 or PCB 3352 or permission of instructor*

An exploration of contemporary and emerging societal issues in environmental science, with an emphasis on seeking practical solutions to complex problems through reading, discussion, written critical analysis and practical research.

**Directed Independent Research in Environmental Science (EVS 4916) 0-3 credits**

*Prerequisite: For bachelor's degree students in Arts and Letters and Science*

The student works closely with a research mentor to conduct research and inquiry in environmental science. The requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

**Culture of Aquatic Organisms (FAS 4403) 3 credits**

This course exposes students to the field of aquaculture (i.e., controlled cultivation of aquatic organisms) through lecture, discussion and assignments on topics such as culture requirements of aquatic species (mollusks, crustaceans, fish, seaweed), production systems and operation, disease diagnosis and biosecurity, nutrition, business feasibility and environmental issues.

**Artificial Intelligence Applications in Biology (IDS 4139) 3 credits**

[\(See Interdisciplinary Studies courses, this section\)](#)

**\* Microbiology for Health Services (MCB 2004) 3 credits**

*Prerequisites: BSC 1010 and BSC 1010L, or BSC 2085 and BSC 2085L, or BSC 2086 and BSC 2086L*

*Corequisite: MCB 2004*

Introduction to microbiology with emphasis on the role of microbiology in health services. Covers the progressions and control of bacterial infections. Not acceptable as a substitute for MCB 3020 or as biology elective credit for Biology majors.

**\* Microbiology for Health Services Lab (MCB 2004L) 1 credit**

*Prerequisites: BSC 1010 and BSC 1010L, or BSC 2085 and BSC 2085L, or BSC 2086 and BSC 2086L*

Introduction and demonstration of basic techniques in immunology, virology and bacteriology. Not acceptable as biology elective for Biology majors or as a substitute for MCB 3020L.

**\* General Microbiology (MCB 3020) 3 credits**

*Prerequisites: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L, CHM 2045, CHM 2045L, CHM 2046, CHM 2046L*

A survey of microbiological concepts, microbial types and the use of microorganisms in medicine, agriculture and industry. Lecture.

**\* General Microbiology Lab (MCB 3020L) 1 credit**

*Prerequisites: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L, CHM 2045, CHM 2045L, CHM 2046, CHM 2046L*

The application of fundamental techniques in the isolation, cultivation and identification of microorganisms. Laboratory.

**\* Medical Bacteriology (MCB 4203) 3 credits**

*Prerequisite: MCB 3020*

The classification and epidemiology of bacteria infecting humans. The role of host defenses in prevention and/or limitation of infection by these organisms and careful examination of the progression of the infections to the disease state. Lecture.

**Epidemiology of Infectious Diseases (MCB 4276) 3 credits**

This course examines the basic principles of epidemiology in the context of infectious diseases. Topics include the distribution and determinants of disease. Case studies from current literature supplement textbook material. The course places a strong emphasis on quantitative aspects of the field, including experimental design and basic statistics.

**\* Prerequisite courses must be completed with grades of "C-" or better.**

**\* Virology (MCB 4503) 3 credits**

*Prerequisites: MCB 3020, 3020L*

An in-depth examination of the physical and structural characteristics, and the methods of replication of mammalian viruses. Viral pathogenesis, immunology, antiviral therapy, transformation, prions, and a detailed examination of human pathogenic viruses.

**\* Microbial Ecology (MCB 4603) 3 credits**

*Prerequisites: 8 credits of general biology; 8 credits of general chemistry*

A study of factors influencing microorganisms in the environment and the influence of microorganism on the environment.

**\* Topics in Microbiology (MCB 4930) 1-4 credits**

*Prerequisites: 8 credits in microbiology; permission of instructor*

A detailed consideration of specialized areas in microbiology, including bacterial genetics, bacterial physiology and mycology. Lecture.

**\* Marine Biodiversity (OCB 4032) 3 credits**

*Prerequisites: CHM 2045, CHM 2045L, CHM 2046, CHM 2046L*

*Corequisite: OCB 4032L*

An overview of the diversity of marine algae, plants and animals, emphasizing the marine biota of Florida, with discussions of marine biodiversity issues.

**\* Marine Biodiversity Laboratory (OCB 4032L) 1 credit**

*Prerequisites: CHM 2045, CHM 2045L, CHM 2046, CHM 2046L*

*Corequisite: OCB 4032*

An overview of the diversity of marine algae, plants and animals, emphasizing the marine biota of Florida, with field trips to local habitats.

**\* Marine Biology (OCB 4043) 2 credits**

*Prerequisites: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L and (ZOO 3205 and ZOO 3205L or PCB 4043)*

*Corequisite: OCB 4043L*

Discussions of the major concepts of modern marine biology with emphasis on life in subtropical and tropical seas.

**\* Marine Biology Field Studies and Laboratory (OCB 4043L) 2 credits**

*Prerequisites: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L and (ZOO 3205 and ZOO 3205L or PCB 4043)*

*Corequisite: OCB 4043*

Field studies of the varied marine habitats of southern Florida: laboratories corresponding to field studies, field trips.

**\* Marine Microbiology and Molecular Biology (OCB 4525) 3 credits**

*Prerequisites: CHM 2045, CHM 2045L, CHM 2046, CHM 2046L*

*Corequisite: OCB 4525L*

An overview of microbiology and molecular biology in the context of marine ecosystems. The course covers diverse aspects of marine microbiology and molecular biology, including both fundamental concepts and specialized topics, such as symbiosis, extreme environments, and biotechnological applications.

**\* Marine Microbiology and Molecular Biology Laboratory (OCB 4525L) 3 credits**

*Prerequisites: CHM 2045, CHM 2045L, CHM 2046, CHM 2046L-*

*Corequisite: OCB 4525*

An overview of microbiology and molecular biology techniques in the context of marine ecosystems.

Three hours of lab every week.

**\* Prerequisite courses must be completed with grades of "C-" or better.**

**\* Marine Ecology (OCB 4633) 3 credits**

*Prerequisites: CHM 2045, CHM 2045L, CHM 2046, CHM 2046L*

*Corequisite: OCB 4633L*

Basic and advanced concepts of marine ecology, including the history of the field, population dynamics in marine systems and the internal and external mechanisms that control marine populations. The final third of the class is an overview of the major marine ecosystems of the world.

**\* Marine Ecology Laboratory (OCB 4633L) 1 credit**

*Prerequisites: CHM 2045, CHM 2045L, CHM 2046, CHM 2046L*

*Corequisite: OCB 4633*

A hands-on laboratory course focusing on the ecology of marine organisms. Field sampling trips to local habitats complement laboratory-based activities. Six hours of lab every two weeks.

**\* Marine Science (OCE 4006) 3 credits**

*Prerequisites: CHM 2045, CHM 2045L, CHM 2046, CHM 2046L*

An introduction to geological, chemical and physical oceanography.

**\* Genetics (PCB 3063) 4 credits**

*Prerequisites: BSC 1010 and CHM 2045*

An in-depth analysis of the mechanisms that operate in transmission genetics and an introduction to eucaryotic molecular genetics.

**\* Cell Biology (PCB 3023) 3 credits**

*Prerequisites: BSC 1010, CHM 2045*

Genetics at the molecular level as related to gene structure, function, variation and control with a comprehensive treatment of plant and animal cell structure and function. Basic concepts of cell physiology are treated.

**Issues in Human Ecology (PCB 3352) 3 credits**

A discussion and analysis of the major environmental issues confronting modern humans, with emphasis on southern Florida.

**\* Evolution (PCB 3674) 3 credits**

*Prerequisite: BSC 1010*

An in-depth examination of the mechanisms that operate in the evolutionary process.

**\* Human Morphology and Function 1 (PCB 3703) 3 credits**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L, CHM 2210, 2211; Corequisite: PCB 3703L*

Normal structure and physiology of the human skeletal, muscle, and nervous systems. Lecture format. Designed for the preprofessional student planning admission into a graduate clinical program.

**\* Human Morphology and Function 1 Laboratory (PCB 3703L) 1 credit**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L, CHM 2210, 2211; Corequisite: PCB 3703*

Laboratory exercises illustrating principles presented in PCB 3703, considering the anatomy and physiology of the human skeletal, muscle, and nervous systems. Designed for the preprofessional student planning admission into graduate clinical programs.

**\* Prerequisite courses must be completed with grades of "C-" or better.**

**\* Human Morphology and Function 2 (PCB 3704) 3 credits**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L, CHM 2210, 2211; Corequisite: PCB 3704L*

Normal structure and physiology of the human cardiovascular, renal, respiratory, gastrointestinal, endocrine, and reproductive systems. Lecture format. Designed for the preprofessional student planning admission into graduate clinical programs.

**\* Human Morphology and Function 2 Laboratory (PCB 3704L) 1 credit**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L, CHM 2210, 2211; Corequisite: PCB 3704*

Laboratory exercises illustrating principles presented in PCB 3704, considering anatomy and physiology of the human cardiovascular, renal, respiratory, gastrointestinal, endocrine, and reproductive systems. Designed for the preprofessional student planning admission into graduate clinical programs.

**\* Principles of Ecology (PCB 4043) 3 credits**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L, CHM 2045*

A functional approach to the basic principles and concepts of modern ecology. Lecture and field trips.

**\* Genetics Lab (PCB 4067L) 3 credits**

*Prerequisites: Students must have already taken BSC 1010 and 1011. While it is preferable to have also completed PCB 3063, qualified students currently enrolled in Genetics will be considered (please contact instructors)*

This laboratory course is open to advanced undergraduates and graduate students. Students gain significant experience in classical and molecular genetics using two powerful model systems, the

roundworm *Caenorhabditis elegans* and fruit fly *Drosophila melanogaster*. Experiments are performed to identify morphological and behavioral mutant phenotypes, investigate gene linkage and crossing over, establish dominant versus recessive and sex-linked versus autosomal inheritance, and generate genetic maps.

**\* Immunology (PCB 4233) 3 credits**

*Prerequisites: MCB 3020, 3020L*

The tissues, cells and biochemical components of the immune system, and the role of immune responses in the diagnosis and prevention of disease. Lecture.

**\* Freshwater Ecology (PCB 4301) 3 credits**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L, CHM 2045, 2045L, 2046, 2046L*

*Corequisite: PCB 4301L*

A survey of the diversity, functions, environmental stressors and restoration of freshwater ecosystems, including groundwater, wetlands, lakes and rivers. Extra emphasis is placed on Florida freshwater ecosystems.

**\* Freshwater Ecology Lab (PCB 4301L) 1 credit**

*Prerequisites: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L, CHM 2045, CHM 2045L, CHM 2046, CHM 2046L*

*Corequisite: PCB 4301*

A hands-on field course focused on the ecology and biodiversity of various freshwater ecosystems. Field trips emphasize functions of ecosystems, species identification and quantitative differences between environments.

**\* Prerequisite courses must be completed with grades of "C-" or better.**

**\* Molecular Genetics (PCB 4522) 3 credits**

*Prerequisite: PCB 3063 with minimum grade of "C"*

The genetic control and molecular basis of gene expression.

**\* Genes and Development (PCB 4594) 3 credits**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L*

Introduction to cellular and molecular mechanisms that underlie organismal development including differential gene regulation, pattern formation, animal stem cells and cloning, sex determination and developmental disorders.

**\* Comparative Animal Physiology (PCB 4723) 3 credits**

*Prerequisites: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L, CHM 2045, CHM 2045L, CHM 2046, CHM 2046L, CHM 2210, CHM 2211*

A comparison among vertebrates of major physiological systems; nerve, muscle, respiration, circulation, osmoregulation, excretion, temperature regulation and energy metabolism.

**\* Comparative Animal Physiology Lab (PCB 4723L) 1 credit**

*Prerequisites: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L, CHM 2045, CHM 2045L, CHM 2046, CHM 2046L, CHM 2210, CHM 2211*

*Corequisite: PCB 4723*

Laboratory experiments designed to explore fundamental physiological processes.

**\* RI: Neurophysiology (PCB 4832C) 3 credits**

*Prerequisites: BSC 1010, BSC 1010L and permission of instructor*

Students learn neurophysiological signaling at the cellular level and whole animal by using wet laboratory experiences supplemented with lectures. The course examines signaling from the perspective of the electrical properties of neurons and their signaling, the basis for all neuronal function. Students learn through both theory and practical laboratory experiences and then translate their findings into modular reports. This is a research-intensive (RI) course.

**Cellular Neuroscience and Disease (PCB 4842) 3 credits**

*Prerequisite: PCB 3023 or PCB 3063 with minimum grade of "B-"*

The course focuses on the cellular aspects of human neurological diseases and disorders. Lectures provide the basic knowledge about common cellular and molecular mechanisms, principles and pathways relevant to neuronal processes and neurological diseases.

**Practical Cell Neuroscience (PCB 4843C) 3 credits**

*Prerequisites: PCB 3063 with minimum grade of "B-"*

This course focuses on understanding neurophysiological signaling at the cellular level. It looks at signaling from the perspective of single ion channels to cellular synaptic transmission. Students learn through both theory and practical laboratory experiments and apply these principles in an experimental proposal that they present and execute, resulting in a final report.

**Genes, Neurons and Behavior (PCB 4852) 3 credits**

This course is designed for students to understand the neural basis of behavior at the single neuron level. Students read original research papers that use the most up-to-date methods in genetics, electrophysiology and behavior in a field now called "optogenetics." The objective of the course is to integrate students' work in related courses (such as Comparative Animal Behavior, Biological Basis of

Behavior, Genetics or Neuroscience) to gain an in-depth understanding of the field of neuroscience and behavior. The course includes neural simulations (run on Biology computers) designed to enhance an understanding of neuron function. This course also introduces students to the laboratories doing modern research in this field on the various FAU campuses. In some instances, it will lead students toward graduate programs at FAU and elsewhere in the United States.

**\* Prerequisite courses must be completed with grades of "C-" or better.**

### **Honors Advanced Cell Imaging for Neuroscientists (PCB 4933C) 1 credit**

*Prerequisite: Permission of instructor*

This is an intensive, four-day minimester in light microscopy for students participating in the FAU Max Planck Honors Program (MPHP). The course provides an introduction to practical imaging applications in cellular neuroscience that employ fluorescence and laser scanning. *Grading: S/U*

### **Honors Advanced Genetics (PCB 4935) 1 credit**

*Prerequisite: Permission of instructor*

Detailed study of molecular control of genetic processes including gene expression, development and optogenetics, and a review of historical and current genetic research methods.

### **Honors Advanced Physiology (PCB 4937C) 1 credit**

*Prerequisite: Permission of instructor*

This course is designed for the preprofessional student planning admission into graduate clinical programs. The course consists of laboratory investigations illustrating the structure and physiology of the human body, including cardiovascular, renal, respiratory, gastrointestinal, endocrine and reproductive systems.

### **Honors Advanced Scientific Grant Writing (PCB 4956) 1 credit**

*Prerequisite: Permission of instructor*

Students are introduced to content, techniques and software important in the preparation and submission of neuroscience grant proposals to the National Science Foundation and the National Institutes for Health.

### **Honors Introduction to Neuroscience Research (PSB 4003) 1 credit**

*Prerequisite: Permission of instructor*

This course is designed to introduce incoming FAU Max Planck Honors Program (MPHP) participants to the Program. Students are introduced to neuroscience faculty and build an intellectual community with peer MPHP participants. Specific programmatic responsibilities that undergraduates typically do not encounter are emphasized as are analysis, synthesis and evaluation of information-components

fundamental to eventual successful fulfillment of the research requirements associated with MPHP completion.

### **Honors Advanced Life Science Technologies (PSB 4110) 1 credit**

*Prerequisite: Permission of Instructor*

Students are exposed to current and historic research technologies using specialized instrumentation, including advanced light microscopy, electron microscopy, CRISPR-Cas9 and more. Students learn how data are collected and analyzed using the various techniques.

### **Honors Advanced Techniques in Neuroscience (PSB 4112C) 1 credit**

*Prerequisite: Permission of instructor*

Students receive hands-on training in the application of current neuroscience research techniques using specialized instrumentation. Students learn to both generate and analyze data. *Grading: S/U*

### **FAU Max Planck Honors Capstone (PSB 4902) 1-3 credits**

*Prerequisite: Permission of instructor*

Directed research in which the student develops a significant deliverable that enhances public education in neuroscience (such as computational models or simulations or the development and hosting of an event). The deliverable should demonstrate a synthesis of the whole of the neuroscience content to which the student has been exposed via the FAU Max Planck Honors Program with an emphasis on community outreach. *Grading S/U*

### **Honors Mentored Research (PSB 4910) 1-3 credits**

*Prerequisite: Permission of instructor*

Directed research in which the student works closely with a faculty mentor to conduct research and inquiry in neuroscience toward completion of a scientific grant proposal, a scientific seminar presentation or poster and a scientific journal article. *Grading: S/U*

**\* Prerequisite courses must be completed with grades of "C-" or better.**

### **Honors Directed Independent Research (PSB 4916) 0-3 credits**

*Prerequisite: Permission of instructor*

The student works closely with a research mentor to conduct research and inquiry in neuroscience. The requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student in alignment with the requirements of the FAU Max Planck Honors Program. *Grading: S/U*

### **Honors Symposium Presentation (PSB 4922) 1 credit**

*Prerequisite: Permission of instructor*

This is a guided independent study course individualized for each student. Students receive supervised study of research opportunities in neuroscience and attend the Max Planck Florida Institute for Neuroscience's Symposium Research Conference. *Grading: S/U*

### **Honors Special Topics in Neuroscience (PSB 4931) 1-3 credits**

*Prerequisite: Permission of instructor*

Special topics in neuroscience of interest to FAU Max Planck Honors program participants.

### **Max Planck Honors Seminar (PSB 4932) 1 credit**

*Prerequisite: Permission of instructor*

The FAU Max Planck Honors Program (MPHP) seminar is a seminar series with distinguished speakers from outside and inside the Max Planck Florida Institute (MPFI) for Neuroscience. *Grading: S/U*

### **Honors Journal Club in Neuroscience (PSB 4951) 1 credit**

*Prerequisite: Permission of instructor*

Students learn to read, select, present and discuss recently published articles on relevant topics in neuroscience in a journal club format. *Grading: S/U*

### **FAU Max Planck Honors Thesis (PSB 4970) 1-3 credits**

*Prerequisite: Permission of instructor*

Directed research in which the student works closely with a faculty mentor to conduct research and inquiry in neuroscience toward completion of a written honors thesis. The requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student in alignment with requirements of the FAU Max Planck Honors Program. *Grading: S/U*

### **\* Invertebrate Zoology (ZOO 3205) 3 credits**

*Prerequisites: 8 credits in general biology*

*Corequisite: ZOO 3205L*

A survey of the invertebrate phyla from the Protozoa through the lower Chordate stressing comparative aspects of morphology and development as well as phylogenetic aspects and ecology.

### **Invertebrate Zoology Lab (ZOO 3205L) 2 credits**

*Prerequisites: 8 credits in general biology*

*Corequisite: ZOO 3205*

Laboratory studies of the structure and diversity of invertebrate organisms.

### **Introduction to Animal Locomotion (ZOO 4373) 3 credits**

*Prerequisites: BSC 1010, BSC 1011 with minimum grades of "C"*

This course explores animal movement over a range of species and environments. It explores modes of locomotion taking into account anatomy and mechanics of both skeletal and muscular systems and the media through which an animal moves. Topics are presented through lecture material and readings from the primary literature and text.

**\* Ornithology (ZOO 4472) 2 credits**

*Prerequisite: 8 credits of biology*

*Corequisite: ZOO 4472L*

The study of the anatomy, physiology, taxonomy, evolution, ecology and special adaptations of birds. Lecture.

**Ornithology Laboratory (ZOO 4472L) 2 credits**

*Corequisite: ZOO 4472*

Laboratory and field study of birds. Also includes field identification of major groups of birds. Laboratory and field study.

**\* Prerequisite courses must be completed with grades of "C-" or better.**

**Vertebrate Structure Development and Evolution (ZOO 4690) 3 credits**

*Prerequisite: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L with minimum grades of "C"*

*Corequisite: ZOO 4690L*

Course covers phylogeny and diversity of vertebrate structures, along with their development through organogenesis, differentiation and growth lead to an understanding of the relationships and functioning of living organisms. Key events in vertebrate evolution are discussed.

**Vertebrate Structure and Development Laboratory (ZOO 4690L) 2 credits**

*Prerequisites: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L with minimum grades of "C"*

*Corequisite: ZOO 4690*

Laboratory emphasis is on the diversity, development, form and function of vertebrate structures. Study of vertebrates includes major developmental stages, skeletal preparations, dissection of preserved specimens and demonstrations to integrate understanding of vertebrate form.

**\* Principles of Human Neuroanatomy (ZOO 4742) 3 credits**

*Prerequisites: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L*

This course focuses on the basic structural components and interconnections of the human brain, spinal cord and peripheral nervous system at the level of functional circuits. A discussion of diseases and injuries that disrupt the morphological integrity of the human nervous system is included.

## **Biological Sciences Graduate Courses**

### **Flora of South Florida (BOT 5155) 2 credits**

*Prerequisites: BOT 3223, 3223L, or the equivalent, or permission of instructor*

*Corequisite: BOT 5155L*

A study of the major plant associations existing in southern Florida, their positions in the ecology of the region, and the history of their relationships to the temperate and tropical floras.

### **Flora of South Florida Laboratory (BOT 5155L) 2 credits**

*Corequisite: BOT 5155*

An examination of the plants and plant associations in southern Florida, including laboratory and field trips.

### **Advanced Plant Cell Biology (BOT 5582) 3 credits**

This course covers cell and molecular biology using experimental approaches, including discussion of model organisms.

### **Plant Ecology (BOT 6159C) 4 credits**

An introduction to the fundamentals of plant ecology, the major ecosystems of South Florida and the ecology of their characteristic vegetation. The ecology of plants is examined at four basic levels of organization: the individual plant, plant populations, plant communities and ecosystems.

### **Advanced Plant Physiology (BOT 6506) 2 credits**

*Prerequisite: Graduate standing or permission of instructor*

A study of plant life involving growth, development, reproduction (flowering), and interaction with the environment. A detailed discussion of the related principles in cellular biology, biochemistry, molecular biology, evolution biology and ecology and of research tools/methodology.

### **Advanced Plant Physiology Lab (BOT 6506L) 2 credits**

*Prerequisite: Graduate standing or permission of instructor*

This course uses a series of lab exercises to help students better understand the principles of plant physiology. It emphasizes hands-on training in experimental skills and learning of experiment design, research tools and methodology.

### **Advanced Plant Biotechnology (BOT 6735C) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

This course combines lectures and labs. Each student has his/her own research project. This course

provides materials and training to help students gain current knowledge of structure and function of plant genomes, genes and gene products, to learn hands-on techniques of DNA-transfer-based plant biotechnology and to prepare for a professional career in plant/agriculture biotechnology research

### **Special Topics (BSC 5931) 1-4 credits**

#### **Marine Conservation Biology (BSC 6316) 3 credits**

*Prerequisites: For graduate Biological Sciences, Environmental Sciences or Integrative Biology majors or permission of instructor*

Marine conservation biology is an emerging discipline that draws together the fundamentals of biology, marine science, conservation and management, ethics and policy. Students gather and integrate information from diverse areas to understand threats to marine biodiversity and use contemporary techniques to address marine conservation problems.

#### **Advances in Finfish Aquaculture (BSC 6342) 3 credits**

*Prerequisite: Culture of Marine Organisms or permission of instructor*

Explores issues affecting finfish aquaculture for food production and fisheries stock enhancement worldwide. Topics include sustainability, new and historic methods for fish culture and issues and controversies faced by finfish aquaculturists.

#### **Integrative Biology 1 (BSC 6390) 3 credits**

*Prerequisite: Admission to Integrative Biology Ph.D. program or permission of instructor*

Through lectures, readings, journal club, classroom discussions, and student papers, course explores the idea of integrative biology and connectivity in biological systems.

#### **Laboratory Methods in Biotechnology (BSC 6408L) 3 credits**

*Prerequisite: Permission of instructor*

This lab course provides students with hands-on experience in some of the basic, but essential lab skills required in molecular biology and biotechnology that are directly transferable to the workplace. Emphasis is on understanding the concepts behind designing and implementing controlled experiments. These techniques involve manipulation of DNA, RNA and protein.

#### **Practical Cell Neuroscience (BSC 6417C ) 3 credits**

*Prerequisite: Graduate standing*

This course brings the students closer to understanding neurophysiological signaling at the cellular level, where only a few cells communicate in close proximity. The course looks at signaling from the perspective of single ion channels to cellular synaptic transmission. The electrical properties of neurons and their signaling are the basis for all neuronal function. The students learn these principles through

both theory and practical laboratory and apply them in an experimental proposal, which they present and then execute resulting in a final report.

### **Computer Graphics for Biologists (BSC 6455) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

This hands-on course introduces students to how computer graphics are used in biological sciences for illustration, data extraction and presentation. Each class will integrate formal lecture sessions with hands-on application at a computer.

### **Bioinformatics (BSC 6458C) 4 credits**

*Prerequisite: Permission of instructor*

A practical approach to accessing nucleic/protein databases, management of databases, identification of genes, and electronic expression profiling.

### **Scientific Communication (BSC 6846) 3 credits**

*Prerequisite: Permission of instructor*

Introduces students interested in scientific research to various techniques and software important for data processing and presentation of research data. Students learn to effectively present research to the general public and to the scientific community in written form, such as research proposals, conference presentations, seminars and publications.

### **Directed Independent Study (BSC 6905) 1-3 credits**

*Grading: S/U*

### **Integrative Biology Ph.D. Lab Rotation (BSC 6913) 1-9 credits**

*Prerequisite: Permission of instructor*

A lab rotation aids the student in making a well-informed choice of lab and supervisor for their dissertation research without a long-term commitment. It allows the student to be exposed to a range of science and networking opportunities within the program. The student participates in all lab activities, like any other lab member. The student may be assigned to work with another student/postdoctoral fellow in the lab or take on a simple project achievable within the rotation period. *Grading: S/U*

### **Directed Independent Research in Biological Sciences (BSC 6917) 0-3 credits**

*Prerequisite: Permission of instructor*

The student works closely with a research mentor to conduct research and inquiry in Biological Sciences. The requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

### **Seminar (BSC 6935) 1 credit**

*Grading: S/U*

### **Special Topics (BSC 6936) 1-4 credits**

#### **Ecology Research Seminar (BSC 6937) 1 credit**

A seminar course in which students select papers from ecological literature and facilitate discussions with other students and professors. Course grading is dependent on participation in class discussions. All students will lead at least one paper discussion. *Grading: S/U*

#### **Seminar (BSC 6938) 1 credit**

A variable title seminar series for students to experience information exchange among professional scientists. This course offers a more informal, less intimidating environment in which to talk with faculty, graduate students and other researchers. Invited speakers are from various institutions allowing students to network regarding further schooling/jobs. *Grading: S/U*

#### **Professional Science Master's (P.S.M.) in Business Biotechnology - Scientific Internship (BSC 6946) 2 credits**

*Prerequisite: Permission of instructor*

Course provides students with experience and exposure to a research environment in a for-profit biotechnology/biopharmaceutical company. *Grading: S/U*

#### **Professional Science Master's (P.S.M.) in Business Biotechnology - Business Internship (MAN 6946) 2 credits**

*Prerequisite: Permission of instructor*

Students gain experience and exposure to the business side of a research environment in a for-profit biotechnology/biopharmaceutical company, including raising capital, intellectual property, finance and marketing. *Grading: S/U*

#### **Journal Club - Molecular Biology (BSC 6956) 1 credit**

*Prerequisite: Molecular biology*

A practical approach to learning how to discuss scientific literature in molecular biology in a journal club format

#### **Journal Club (BSC 6958) 1 credit**

A variable title journal club series for students to experience scientific information exchange. This course offers a more informal, less intimidating environment in which to talk with faculty, graduate

students and other researchers. *Grading: S/U*

### **Master's Comprehensive Exam (BSC 6962) 1 credit**

*Prerequisite: Permission of instructor*

Students in the M.S. non-thesis and M.S.T. programs take three written comprehensive examinations on designated areas within the microbiology and organismal specialties (as stated in the FAU Regulations for Master's Degrees). The written exams are administered on the dates agreed to by the student and their committee members. Question types require written responses, primarily in essay and definition formats. *Grading: S/U*

### **Master's Proposal Seminar (BSC 6963) 1 credit**

*Prerequisite: Permission of instructor*

This seminar is presented by the student usually in the first year (no later than the student's third semester). The student is guided by the advisor and Graduate Supervisory Committee on the proposal's format that is best suited to the student's discipline, following the Graduate College's formatting requirements. The student adheres to all thesis proposal procedures and the timeline. The student presents the seminar to an open audience and the Graduate Supervisory Committee asks questions on the proposal and decides if it warrants approval. *Grading: S/U*

### **Master's Thesis (BSC 6971) 1-6 credits**

*Prerequisite: Permission of instructor*

This course is intended for Biology master's students conducting original research on their master's thesis topic. *Grading: S/U*

### **Master's Defense Seminar (BSC 6975) 1 credit**

*Prerequisite: Permission of instructor*

A thesis results and defense seminar is presented by the student in the fall or spring of the second year. The student is guided by the advisor and Graduate Supervisory Committee on the proposal's format that is best suited to the student's discipline, following the Graduate College's formatting requirements. The student adheres to all thesis defense procedures and the timeline. The student presents the seminar to an open audience, and the Graduate Supervisory Committee asks questions on the results and defense and decides if it warrants approval. *Grading: S/U*

### **Advanced Research in Integrative Biology (BSC 7978) 1-9 credits**

*Prerequisite: Admission to Ph.D. program in Integrative Biology*

Research that is focused and relevant to the student's course of study in the Ph.D. program in Integrative Biology. This course requires oversight by the student's dissertation advisor, who can grade the student's performance at the end of the semester. *Grading: S/U*

### **Dissertation (BSC 7980) 1-9 credits**

*Prerequisite: Admission to doctoral candidacy*

Dissertation research in Ph.D. program in Integrative Biology. *Grading: S/U*

### **Ocean Optics and Remote Sensing (EOC 6267) 3 credits**

This course explores the field of bio-optics and associated applications toward ocean color remote sensing of the environment, including open ocean, coastal ocean and inland lake systems.

### **Environmental Science Directed Independent Study (EVS 6905) 1-3 credits**

*Prerequisite: Permission of instructor*

This course provides graduate students with concrete research experience in a particular area of environmental science not normally covered in a course. *Grading: S/U*

### **Directed Independent Research in Environmental Science (EVS 6916) 0-3 credits**

*Prerequisite: For students in Environmental Science master's program*

The student works closely with a research mentor to become competent in at least one aspect of graduate-level research and inquiry in environmental science. This course is typically lab- or field-based. The requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

### **Fundamentals of Environmental Research (EVS 6917) 1 credit**

*Prerequisite: For students in the Environmental Science master's program*

This weekly seminar develops students' skills in scientific presentations through lectures and student presentations and provides basic introduction to common practices or requirements for the developing, conducting and reporting of environmental science research programs. *Grading: S/U*

### **Environmental Science Colloquium Series (EVS 6920) 1 credit**

Environmental Science students attend colloquia presented by faculty, professional environmental scientists and advanced graduate students. Students gain experience in written and oral communication through class discussions, writing assignments and presentations. *Grading: S/U*

### **Environmental Science Internship (EVS 6949) 0-3 credits**

*Prerequisite: Permission of instructor*

This is an internship course that offers students "real-world" experience in a structured format within environmental science disciplines (such as biology, chemistry, geosciences, environmental engineering or urban and regional planning), which are related to each student's graduate degree program. *Grading: S/U*

### **Writing Science for Ecologists (EVS 6956) 3 credits**

Communicating science through writing is a key aspect of any career in ecology, environmental science or natural resources. In this course, students use a combination of instruction and practice to learn key techniques to hone their writing skills. Topics range from grammatical structure to tailoring the written message for the audience. This writing-intensive course uses the iterative approach of writing, reviewing, editing and revising with peer support groups to allow students to improve their written products. Students also gain familiarity with the process of developing scientific documents (e.g., manuscripts, grant proposals, technical reports) in an increasingly collaborative field focusing on the peer-review process used by primary literature journals.

### **Environmental Science Master's Thesis (EVS 6971) 1-6 credits**

*Prerequisite: Permission of instructor*

This course is intended for graduate students conducting original research on their master's thesis topic.

*Grading: S/U*

### **Plant Microbiomes and Applications (MCB 6672) 2 credits**

This course explores microbial associations with plants and roles they play in plant health, invasion, disease and yield. Emphasis is on the microbiomes of the phyllosphere, caulosphere and rhizosphere of plants with applications in conservation ecology, horticulture and agriculture.

### **Advances in Human Microbiomes (MCB 6674) 3 credits**

A presentation of the community structure and ecology of the human microbiomes including oral, skin and gut. The roles and functional diversity of the gut bacteria as well as the factors that shape the microbiome niches are discussed. Concepts in dysbiosis and trends in engineering the human microbiomes are presented.

### **Advanced Topics in Microbiology (MCB 6930) 1-4 credits**

*Prerequisites: 16 credits in microbiology and permission of instructor*

A critical review of specialized topics in bacteriology, virology, mycology, immunology, or other areas of microbiology. This is a lecture course.

### **Biological Oceanography (OCB 6066) 3 credits**

*Prerequisites: BSC 1010 and BSC 1011*

This course explores major biological processes within the world's oceans, including estuaries, continental margins and the open ocean.

### **Coral Reef Ecosystems (OCB 6266) 3 credits**

*Prerequisite: Permission of instructor*

Explores the structure, biology, ecology, significance and current status of coral reef ecosystems through a combination of lectures and discussions.

### **Coral Reef Ecosystems Lab (OCB 6266L) 1 credit**

*Prerequisite: Permission of instructor*

*Corequisite: OCB 6266; ability to swim/snorkel 400 yards; preferred AAUS scientific diver certification*

Field-and-laboratory-based exploration of coral reef ecosystems focused on coral identification and underwater scientific methods for coral research.

### **Marine Trophic Ecology (OCB 6638C) 3 credits**

*Prerequisite: OCB 6066 or equivalent or permission of instructor*

This course involves the advanced study of theory and techniques in marine trophic ecology. The course begins with an overview of marine communities and habitats over which trophic interactions occur, followed by discussion of the various associated processes (e.g., predation, energy transfer) involved at the individual, population, community and ecosystem level. Throughout the process, students are exposed to various techniques used to study trophic interactions in marine environments, from traditional dissections of predators to chemical/genetic tracers and emerging technologies such as biologging.

### **Marine Fisheries Ecology and Management (OCB 6715C) 4 credits**

*Prerequisites: For graduate Biology, Environmental Science and Marine Science majors or permission of instructor*

This course involves the advanced study of theory and techniques in fisheries science, including behavior and ecology of exploited fisheries populations (shellfish, finfish, etc.), and protected resources, such as applications to resource management.

### **Natural History of the Indian River Lagoon (OCB 6810) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

An overview of the marine plants and animals, habitats, and environmental conditions in the Indian River Lagoon, including human impacts. Field trips to local habitats complement lecture and labs.

### **Chemical Oceanography (OCC 6050) 3 credits**

*Prerequisite: CHM 2045; recommended: CHM 2046 and CHM 2210*

This course explores major chemical processes within the world's oceans, including estuaries, continental margins and the open ocean.

### **Image and Video Processing and Vision in Marine Environment (OCE 5266) 3 credits**

*Prerequisite: EEE 4510 or permission of instructor*

Course studies the fundamentals of electro-optical image and video processing in the underwater environment. Covers topics such as underwater image and video enhancement techniques, underwater stereo vision and emerging underwater imaging system concepts.

### **Marine Global Change (OCE 6019) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

Introduction to long-term and global scale changes in terrestrial and marine environments and the impact those changes have in marine settings, especially the coastal ocean. Natural and anthropogenic changes are described and compared. Topics include invasions, extinctions, climate change, food web modifications, and freshwater issues in the coastal zone.

### **Biological and Chemical Oceanography (OCE 6057) 3 credits**

*Prerequisites: Graduate standing, CHM 2045, BSC 1010 and BSC 1011*

Explores major biological and chemical processes within the world's ocean, including estuaries, continental margins and the open ocean.

### **Ecology of Infectious Marine Diseases (OCE 6059) 3 credits**

*Prerequisites: Graduate standing and PCB 6772; PCB 4043 is recommended*

Marine wildlife disease ecology takes a holistic approach to examining multi-parasite and multi-host systems across diverse habitats and geographic regions. This course covers a wide range of marine phyla and examines the multi-faceted role of the environment in the ecology and epidemiology of infectious marine disease.

### **Marine Science and Oceanography Directed Independent Research (OCE 6908) 1-3 credits**

*Prerequisite: Permission of instructor*

This course provides graduate students with research experience not covered in other courses.

*Grading: S/U*

### **Marine Science and Oceanography Colloquium (OCE 6922) 1 credit**

This course is intended to bring together faculty and students in the field of marine science at FAU to showcase research ongoing at the Boca Raton, Davie and Harbor Branch Oceanographic Institute (HBOI) campuses. Occasional visiting speakers are welcome as well. The course is broadcast among the Boca Raton, Davie and HBOI campuses, with participation by students and faculty at all three locations. Topics are varied and depend on the current research interests of students and faculty.

*Grading: S/U*

### **Marine Science and Oceanography Comprehensive Exam (OCE 6964) 1 credit**

*Prerequisite: Permission of instructor*

Students in the M.S. non-thesis and M.S.T. programs take three written comprehensive examinations on designated areas within the marine science and oceanography specialties (as stated in the FAU Regulations for Master's Degrees). The written exams are administered on the dates agreed to by the student and their committee members. Question types require written responses, primarily in essay and definition formats. *Grading: S/U*

### **Marine Science and Oceanography Thesis Proposal (OCE 6970) 1 credit**

*Prerequisite: Permission of instructor*

This seminar is presented by the student, usually in the first year (no later than the student's third semester). The student is guided by the advisor and Graduate Supervisory Committee on the proposal's format that is best suited to the student's discipline, following the Graduate College's formatting requirements. The student adheres to all thesis proposal procedures and the timeline. The student presents the seminar to an open audience and the Graduate Supervisory Committee asks questions on the proposal and decides if it warrants approval. *Grading: S/U*

### **Marine Science and Oceanography Master's Research (OCE 6972) 1-9 credits**

*Prerequisite: Permission of instructor*

This course provides graduate students with research experience not covered in other courses, including master's research. *Grading: S/U*

### **Marine Science and Oceanography Thesis Defense (OCE 6975) 1 credit**

*Prerequisite: Permission of instructor*

A thesis results and defense seminar is presented by the student in the fall or spring of their second year. The student is guided by the advisor and Graduate Supervisory Committee on the proposal's format that is best suited to the student's discipline, following the Graduate College's formatting requirements. The student adheres to all thesis defense procedures and the timeline. The student presents the seminar to an open audience, and the Graduate Supervisory Committee asks questions on the results and defense and decides if it warrants approval. *Grading: S/U*

### **Advanced Genetics Lab (PCB 5064L) 3 credits**

*Prerequisites: Graduate standing and BSC 1010, BSC 1011 and PCB 3063 with minimum grades of "C-" or better*

This laboratory course is open to advanced undergraduates and graduate students. Students gain significant experience in classical and molecular genetics using two powerful model systems, the

roundworm *Caenorhabditis elegans* and fruit fly *Drosophila melanogaster*. Experiments are performed to identify morphological and behavioral mutant phenotypes, investigate gene linkage and crossing over, establish dominant versus recessive and sex-linked versus autosomal inheritance and generate genetic maps.

### **Advanced Molecular Genetics of Aging (PCB 5245) 3 credits**

*Prerequisite: BSC 1010 or BSC 1011 with a minimum grade of "C-"*

An in-depth examination of current theories of aging, molecular pathways modulating aging and major discoveries about aging in mammals and in different model organism, including yeast, *C. Elegans*, *drosophila* and mouse.

### **Conservation Biology (PCB 6045) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

A study of the principles and practice of conservation biology. Emphasis on the primary threats to biodiversity and the application of contemporary tools to solve conservation problems.

### **Advanced Ecology (PCB 6046) 3 credits**

*Prerequisites: PCB 4043 or ecology equivalent*

Provides graduate students with a background in development of ecology as a science and current ecological theory and application of ecology for ecosystem management.

### **Advanced Immunology (PCB 6236) 3 credits**

*Prerequisite: PCB 4233*

A study of the chemical and biological natures of antigens and antibodies: their preparation and reactions in vivo and in vitro, their applications in basic science and therapy, and the immunochemical and experimental methods involved with tagged or free immunologic products. It is a lecture course.

### **Freshwater Ecology (PCB 6307)3 credits**

*Prerequisites: ZOO 3205, ZOO 3205L*

*Corequisite: PCB 6307L*

A study of limnological processes, with an emphasis on subtropical freshwater habitats, their physicochemical characteristics, and associated fauna and flora.

### **Freshwater Ecology Laboratory and Field Studies (PCB 6307L) 2 credits**

*Corequisite: PCB 6307*

A field oriented study of the freshwater plants and animals of southern Florida and the techniques employed on the analysis of freshwater habitats.

### **Marine Ecology (PCB 6317) 3 credits**

*Prerequisites: ZOO 3205 and OCB 4043*

*Corequisite: PCB 6317L*

A study of the principles, concepts, and techniques of marine and estuarine ecology. Environmental factors, adaptations, habitats, communities, and applications of current ecological theory are studied. Lecture, laboratory, and field work are included.

### **Marine Ecology Laboratory and Field Studies (PCB 6317L) 2 credits**

*Corequisite: PCB 6317*

A study of the Methods and Techniques of marine ecological research and their application in the field. Data collections, analysis and presentation.

### **Ecological Theory (PCB 6406) 3 credits**

*Prerequisites: PCB 4043 or equivalent and senior or graduate level proficiency in Biology or permission of instructor*

A functional approach to and a critical examination of the principles and concepts in ecosystem theory.

### **Climate Change: Ecosystems to Human Health (PCB 6409) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

This course covers the physical science of climate change and how these changes modify the hydrological cycle and thermal regions on a global scale. It also covers current adaptation plans on the global, national and regional scale.

### **Experimental Design and Biometry (PCB 6456) 3 credits**

*Prerequisite: Permission of instructor*

Course covers basic statistical concepts and procedures that are necessary to conduct statistical analysis in biological research. The topics covered are probabilistic foundations, experimental designs and their analyses, summarizing and visualizing data, and inferential statistics.

### **Genes and Development (PCB 6595) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

Students become familiar with the cellular and molecular mechanisms underlying organismal development, including differential gene regulation, intercellular communication, fertilization, pattern formation, organogenesis, animal stem cells and cloning, evolution and development, sex determination and developmental disorders.

### **Environmental Physiology (PCB 6749) 3 credits**

This course examines how animals function in and respond to their natural environments, that is the study of animals in their natural habitat, with reflections on behavioral strategies, ecology and evolution. The initial part of the course looks at specific physiological challenges faced by animals in different environments (e.g., salt and water balance). The second part of the course looks at how animals adapt to specific environments. Both textbooks and recent journal articles are utilized as source materials.

### **Aquatic Animal Health (PCB 6772) 3 credits**

*Prerequisite: Graduate standing*

A comprehensive study of basic processes in aquatic organisms, with an emphasis on marine fish and invertebrates.

### **Physiology of Marine Animals (PCB 6775) 3 credits**

*Prerequisites: 4 credits in physiology*

A study of how marine animals function in their environment.

### **Neurophysiology (PCB 6835C) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

Neurophysiology brings students closer to understanding neurophysiological signaling at the cellular level and whole animal through the use of actual wet and dry laboratory experiences supplemented with lectures. Focuses on signaling from the perspective of the electrical properties of neurons and their signaling, the basis for all neuronal function. Students learn through both theory and practical laboratory experiences and then translate their findings into modular reports.

### **Advanced Neurophysiology Lab (PCB 6837L) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

Advanced neurophysiology brings students closer to understanding neurophysiology signaling at the cellular level and whole animal through the use of actual laboratory experiences. Focuses on signaling from the perspective of single ion channels to cellular synaptic transmission and behavior. The electrical properties of neuronal and their signaling is the basis for all neuronal function.

### **Cellular Neuroscience and Disease (PCB 6849) 3 credits**

*Prerequisite: PCB 3063 and permission of instructor; Corequisite: PCB 3023*

This course focuses on the cellular aspect of human neurological diseases, analyzing different signaling pathways and connecting malfunctions in them to various neurological disorders.

### **Sensory Biology and Behavior of Fishes (PCB 6871) 3 credits**

*Prerequisite: Permission of instructor*

A study of the anatomy and physiology of sensory structures in fishes, as well as the neural processing and behaviors elicited by these senses. Topics include vision, olfaction, audition, gustation, lateral line, tactile and electrosensation.

### **Neuroscience Seminar (PSB 6920) 0-1 credit**

A seminar on current research topics and techniques from leaders in the field. *Grading: S/U*

### **Advanced Animal Locomotion (ZOO 6376) 3 credits**

*Prerequisite: Permission of instructor*

This course explores animal movement over a range of species and environments. Students explore modes of locomotion by examining anatomy and mechanics of both skeletal and muscular systems and the media through which an animal moves. Topics are presented through lecture material and readings from the primary literature and text. Students show mastery of topics through presentations utilizing active learning techniques and written papers.

### **The Biology of Sea Turtles (ZOO 6406) 3 credits**

*Prerequisites: Graduate standing and permission of instructor*

This upper-level lecture, lab and field course introduces the behavioral, ecological and evolutionary adaptations of sea turtles and conservation-related topics. Major topics include species identification, functional anatomy, reproduction, migration, navigation, feeding ecology, physiology, development, nests and hatchlings, threats to survival and conservation strategies.

### **Biology of Sharks and Their Relatives (ZOO 6409) 3 credits**

*Prerequisite: Permission of instructor if the student is currently enrolled as an undergraduate*

Studies biology, ecology, physiology, behavior and taxonomy of the elasmobranch fishes. Includes a review of extant families and contemporary topics in elasmobiology through readings from the primary literature.

### **Seminar in Ichthyology (ZOO 6459) 1-2 credits**

*Prerequisite:*

A critical review of current literature dealing with fishes and fisheries. This course may be repeated for credit to a maximum of 4 credits. *Grading: S/U*

### **Principles in Behavioral Ecology (ZOO 6520) 3 credits**

*Prerequisites: For M.S., Ph.D. students in College of Science with B.S. in Biology, Psychology or Zoology*

This course seeks to understand the evolution and fitness consequences of behavior. Students read scientific papers and discuss key concepts and areas of study in the field of behavioral ecology.

### **Seminar on Emerging Topics in Avian Ecology (ZOO 6544C) 1 credit**

*Prerequisite: Graduate standing or permission of instructor*

Primarily student-led discussions of recent papers on an emerging topic-in avian ecology. Topic varies each semester and has application to the broader field of ecology. Students may take the course repeatedly up to a maximum of 4 credits.

### **Human Neuroanatomy (ZOO 6748) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

Detailed study of the anatomical components of the human nervous system at the cellular and systems level, with particular emphasis on the structure and function of the brain and spinal cord. An overview of diseases and injuries of the human nervous system will be included.

## CHEMISTRY AND BIOCHEMISTRY

### **Undergraduate Courses** /[link to graduate courses](#)

#### **Biochemistry 1 (BCH 3033) 3 credits**

*Prerequisites: CHM 2210 and CHM 2211*

The organic chemistry of biological compounds; carbohydrates; amino acids; peptides, and proteins; nucleosides and nucleotides; nucleic acids, replication, transcription and translation; saponifiable lipids; steroids and terpenes.

#### **Biochemistry 2 (BCH 3034) 3 credits**

*Prerequisite: BCH 3033*

Bioreactions and the role of enzymes and coenzymes; energy aspects; generation and utilization of ATP; metabolic pathways; regulatory mechanisms; photosynthesis.

#### **Biochemistry Laboratory (BCH 3103L) 3 credits**

*Prerequisites: BCH 3033 and CHM 2211L with minimum grades "C"*

An introduction to experimental techniques in physical chemistry as applied to biological systems; quantitative measurements in biochemistry.

#### **RI: Advanced Biochemistry (BCH 4035) 3 credits**

*Prerequisite: BCH 3033 with minimum grade of "C"*

Topics cover the structure and function of proteins and their biotechnological, medical and scientific use. In addition, students are assigned research topic assignments that facilitate understanding and

practical application of research methods used in protein chemistry. This is a research-intensive (RI) course.

### **Contemporary Chemical Issues (CHM 1020C) 3 credits**

This course provides students with an introduction to chemical principles and applications for the nonscience major. Students engage in problem solving and critical thinking while applying chemical concepts. Topics include the scientific method of problem solving, classification of matter, atomic theory, the periodic table, gases, chemical reactions, energy and chemical bonds.-This is a General Education course.

### **Introductory Chemistry (CHM 1025) 3 credits**

Introductory readiness course in general chemistry for students with weaker but satisfactory backgrounds in high school chemistry and algebra.

### **University Honors Seminar in Chemistry (CHM 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in chemistry.

### **Special Topics (CHM 1932) 1-4 credits**

Special topics course in chemistry.

### **General Chemistry for the Health Sciences (CHM 2032) 3 credits**

*Corequisite: CHM 2032L*

An introduction to the fundamental concepts of chemistry: scientific measurements; atomic theory; molecules and chemical bonds; chemical reactions; aqueous solutions; salts and electrolytes; acid-base theory; radioactivity and nuclear chemistry. Orientation toward majors in the allied health fields. This is a General Education course.

### **General Chemistry for the Health Sciences Lab (CHM 2032L) 1 credit**

*Corequisite: CHM 2032*

Intermediate experimental studies of chemical principles. This is a General Education course.

### **General Chemistry 1 (CHM 2045) 3 credits**

*Prerequisites or Corequisites: Students must have passed CHM 1025 or are currently enrolled or previously passed one of the following: MAC 1105, MAC 1114, MAC 1140, MAC 1147, MAC 2233, MAC 2311, MAC 2210*

*Corequisite: CHM 2045L*

This course is designed for students pursuing careers in the sciences or who need a more rigorous

presentation of chemical concepts than is offered in an introductory course. Students engage in problem solving and critical thinking while applying chemical concepts. Topics include the principles of chemistry including atomic theory, electronic and molecular structure, measurement, stoichiometry, bonding, periodicity, thermochemistry, nomenclature, solutions and the properties of gases. This is a General Education course.

### **General Chemistry 1 Lab (CHM 2045L) 1 credit**

*Corequisite: CHM 2045*

An introduction to experimental techniques in chemistry designed to demonstrate basic chemical principles. This is a General Education course.

### **General Chemistry 2 (CHM 2046) 3 credits**

*Prerequisite: CHM 2045; Corequisite: CHM 2046L*

An introduction to chemical principles including atomic structure, chemical bonding, kinetics, thermodynamics and properties of the elements. A prerequisite to all other chemistry courses in science programs.

### **General Chemistry 2 Lab (CHM 2046L) 1 credit**

*Prerequisites: CHM 2045, CHM 2045L; Corequisite: CHM 2046*

An introduction to experimental techniques in chemistry designed to demonstrate basic chemical principles. Qualitative analysis of selected anions and cations.

### **Organic Chemistry 1 (CHM 2210) 3 credits**

*Prerequisite: Minimum grades of "C" in CHM 2045, 2045L, 2046, and 2046L*

A study of the compounds of carbon and their physical properties, structures, chemical behavior and reaction mechanisms.

### **Organic Chemistry 2 (CHM 2211) 3 credits**

*Prerequisite: Minimum grade of "C" in CHM 2210*

Continuation of CHM 2210.

### **Organic Chemistry Lab (CHM 2211L) 2 credits**

*Prerequisite: CHM 2210*

*Prerequisite or Corequisite: CHM 2211*

Experimental study of the synthesis, purification, and identification of organic compounds using microscale techniques.

### **Directed Independent Research in Chemistry (CHM 2915) 1-3 credits**

Students work closely with research mentors to conduct research and inquiry in Chemistry. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student.

### **Directed Independent Research in Chemistry (CHM 2916) 0-3 credits**

Students work closely with research mentors to conduct research and inquiry in Chemistry. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

### **Chemistry Study Abroad (CHM 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Chemical Literature (CHM 3060) 1 credit**

*Prerequisites: CHM 2211 and some experience with a foreign language*

Skills in searching the chemical literature for information on specific topics to be presented in written and oral reports.

### **Environmental Chemistry (CHM 3080) 3 credits**

*Prerequisites: CHM 2045, 2046, 2210, 2211*

The chemistry of the environment. Includes processes in the atmosphere, hydrosphere, and geosphere, and their interactions. Selected emphasis on the physical processes that distribute materials through the environment. Topics include ozone, smog, greenhouse gases, global warming, energy, pE/pH, gas laws, redox cycling of elements, organic matter, chemistry of drinking and waste waters, biocides, and green chemistry.

### **Quantitative Analysis (CHM 3120) 2 credits**

*Prerequisites: CHM 2045, 2045L, 2046, 2046L; Corequisite: CHM 3120L*

Principles of analysis; gravimetric, volumetric and instrumental methods.

### **Quantitative Analysis Lab (CHM 3120L) 2 credits**

*Prerequisite: CHM 2045, 2045L, 2046, 2046L; Corequisite: CHM 3120*

Experiments in volumetric, gravimetric, and instrumental methods of analysis.

### **Introduction to Physical Chemistry (CHM 3400) 3 credits**

*Prerequisite: CHM 2046*

Principles of physical chemistry with special attention to applications in earth science and oceanography. For students in earth sciences, oceanography, and engineering. This course is also

intended for B.A. candidates in Chemistry.

**Physical Chemistry 1 (CHM 3410) 3 credits**

*Prerequisites: CHM 2211 with minimum grade of "C" and 8 credits of physics*

*Corequisite: CHM 3410L*

An introduction to theories of the states of matter, thermodynamics, phase and chemical equilibria, electrochemistry, kinetics and factors affecting reactivity and statistical thermodynamics.

**Physical Chemistry 1 Lab (CHM 3410L) 2 credits**

*Corequisite: CHM 3410*

Experiments in physical chemistry.

**Physical Chemistry 2 (CHM 3411) 3 credits**

*Prerequisite: CHM 3410*

*Corequisite: CHM 3411L*

Introduction to quantum chemistry, a description of quantum mechanics (QM) and Schrodinger equation, application of QM to rotational/vibrational motions and electronic spectroscopy, utilization of QM to describe atomic/molecular orbitals, structures and bonding.

**Physical Chemistry 2 Lab (CHM 3411L) 2 credits**

*Corequisite: CHM 3411*

Advanced experiments in physical chemistry.

**Inorganic Chemistry (CHM 3609) 3 credits**

*Prerequisite: CHM 2210; Corequisite: CHM 3609L*

A study of periodicity in the chemistry of the elements, descriptive inorganic chemistry, synthesis of inorganic compounds. For B.A. candidates in Chemistry.

**Inorganic Chemistry Laboratory (CHM 3609L) 1 credit**

*Corequisite: CHM 3609*

Experiments in inorganic chemistry.

**Cooperative Education - Chemistry (CHM 3949) 1-3 credits**

*Grading: S/U*

**Bioanalytical Instrumentation (CHM 4139) 2 credits**

*Prerequisites: CHM 3120, BCH 3033, and either PHY 2049 or PHY 2054*

*Corequisite: CHM 4139L*

An introduction to the theory, design, and operation of advanced instrumentation currently used in

research and quality control/quality assurance laboratories for the analysis and characterization of biomolecules. Topics include spectroscopic techniques, separation techniques, electrochemical methods, and statistical treatment of data.

### **Bioanalytical Instrumentation Lab (CHM 4139L) 2 credits**

*Prerequisites: CHM 3120L, BCH 3033, and PHY 2049L*

*Corequisite: CHM 4139*

Advanced experiments in the isolation, analysis, and characterization of biomolecules using spectroscopic, chromatographic, and electrochemical methods.

### **Organic Chemistry 3 (CHM 4220) 3 credits**

*Prerequisite: CHM 2211L*

*Corequisite: CHM 3410*

An in-depth study of a wide variety of organic reactions drawing on both valence bond and molecular orbital theories to explain reactivity. Strong emphasis on curved-arrow mechanisms.

### **Organic Spectroscopy (CHM 4230C) 3 credits**

*Prerequisites: CHM 2210 and CHM 2211*

This course aims at presenting an introduction to the techniques used to characterize mono- and di-functional organic molecules.

### **RI: Introduction to Drug Design (CHM 4273) 3 credits**

*Prerequisite: CHM 2210 or BCH 3033*

Basic principles of organic chemistry and biochemistry vital to drug design and drug action are the focus of this course with use of important drugs as examples. The course is further enhanced with student case projects with the goal of encouraging creative-and-critical thinking. This is a research-intensive (RI) course.

### **Introduction to Drug Development (CHM 4274C) 3 credits**

*Prerequisite: CHM 2211*

This course provides the basics in U.S. FDA drug regulations, facilities and process qualifications and the processes involved in drug discovery and development. Students learn how specific activities fit into the overall scheme of drug development and evaluate the impact of each activity on the overall progression of a new drug candidate. The principles of good documentation practices and basic analytical assays are introduced by hands-on activities.

### **Introduction to Drug Formulation (CHM 4276C) 3 credits**

*Prerequisites: CHM 2211 and CHM 4274C*

This course provides an introduction to drug formulation. Students learn about drug discovery, pharmacology, toxicology and formulation. Students are introduced to different forms of drug formulation, various routes of administration and assays to analyze these dosage forms. A laboratory portion is included that involves analytical assays for suspensions and solid dosage forms.

### **Medicinal Chemistry (CHM 4292) 3 credits**

*Prerequisites: BCH 3033 and CHM 2211 with grades of "C" or higher*

This course provides a comprehensive and balanced introduction to medicinal chemistry beginning with fundamental principles and progressing to principal methods used in drug design.

### **Introduction to Chemical Biology (CHM 4300) 3 credits**

*Prerequisites: BCH 3034 and CHM 2211*

A comprehensive introduction to the origins and emerging frontiers of chemical biology. This course develops the fundamental chemistry of molecules found in nature, a quantitative description of their interaction with themselves and each other and subsequent effects on biological function. Topics include protein design, molecular evolution, chemical genetics, metabolic engineering and methods in genomics and proteomics research.

### **RI: Structural Biochemistry (CHM 4350) 3 credits**

*Prerequisite: BCH 3033 with minimum grade of "C"*

Course emphasizes a computer-based approach to teaching structural biochemistry. It uses hands-on experience to develop essential skills for understanding relationships between structure and function of biomolecules. State-of-the-art software for visualization, manipulation and simulation of various biomolecules is used throughout. This course contains an assignment or multiple assignments designed to help students conduct research and inquiry at an intensive level. This is a research-intensive (RI) course.

### **Materials Chemistry (CHM 4714) 3 credits**

*Prerequisite: CHM 2210*

An introduction to solid-state and inorganic materials chemistry. Preparative techniques and physical methods of characterization are discussed, particularly X-ray diffraction. Semiconductors, carbon-based electronics, nanomaterials, etc. are discussed in context with their structures and optical, magnetic and conductive properties.

### **Directed Independent Study (CHM 4905) 1-4 credits**

*Grading: S/U*

### **Directed Independent Research in Chemistry (CHM 4915) 1-3 credits**

Students work with research mentors to conduct research and inquiry in Chemistry. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student.

### **Directed Independent Research in Chemistry (CHM 4916) 0-3 credits**

Students work with research mentors to conduct research and inquiry in Chemistry. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. *Grading: S/U*

### **Senior Seminar (CHM 4930) 1 credit**

### **Special Topics (CHM 4933) 1-4 credits**

### **Chemistry Study Abroad (CHM 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **RI: Honors Thesis in Chemistry (CHM 4972) 2 credits**

*Prerequisites: Students must have completed two semesters of CHM 4905 with grade of "B+," have maintained an overall Chemistry GPA of 3.3 and obtain permission of instructor*

This research intensive (RI) course provides the opportunity for in-depth, independent undergraduate research. This includes all aspects of the research process: development of a research question and the methods or experimental procedures utilized to study that question, how to conduct scientific experiments, data analysis and interpretation, including scientific technical writing. Students gain experience communicating the results of their research project in the form of an undergraduate thesis.

## **Chemistry and Biochemistry Graduate Courses**

### **Advanced Biochemistry (BCH 6740) 3 credits**

*Prerequisite: Graduate standing*

Principles of biomolecular structure determination by spectroscopic methods. Enzyme kinetics. Transport mechanisms across membranes. Molecular physiology and molecular genetics.

### **Advanced Topics in Biochemistry (BCH 6930) 3 credits**

*Prerequisite: Graduate standing*

Special topics in biochemistry.

### **Organic Chemistry 3 (CHM 5224) 3 credits**

*Prerequisite: Graduate standing*

A detailed overview of organic reaction mechanisms utilizing valence bond and molecular theories and

kinetic analysis.

### **Materials Chemistry (CHM 5716) 3 credits**

*Prerequisite: College of Science or College of Engineering graduate students only*

An introduction to solid-state and inorganic materials chemistry. Preparative techniques and methods of characterization are discussed, particularly X-ray diffraction. Semiconductors, carbon-based electronics, nanomaterials, etc. are discussed in context with their structures and optical, magnetic and conductive properties. A crystallography workshop is included.

### **Introduction to Chemical Research (CHM 5944) 1 credit**

Intended to be an introduction of new graduate students to the research interests of the department faculty. Departmental procedures and organizations will be discussed. Philosophical consideration of doing scientific research will also be discussed. All new graduate students are expected to take this course. *Grading: S/U*

### **Bioanalytical Methods and Applications (CHM 6137) 2 credits**

*Prerequisite: Graduate standing*

Analytical chemistry deals with methods and instruments that can determine the quality and the quantity of matters of interest. For biological samples, special care is necessary to deal with their fragility, heterogeneity and complexity. This course covers the operating principles and practical application of modern methodologies and technologies used for chemical analysis for biological samples. Research design, sample isolation, quantification, data analysis and result interpretation are discussed.

### **Instrumentation (CHM 6157) 3 credits**

*Prerequisite: Graduate standing*

An overview of modern instrumental techniques used in various areas of chemistry (analysis, characterization, identification). Topics include spectroscopy, chromatography, electrochemistry, theory and applications.

### **Advanced Organic Chemistry (CHM 6225) 3 credits**

*Prerequisite: Graduate standing*

Introduction to the concepts of modern physical organic chemistry. Elementary molecular orbital theory and applications. Methods for determining reaction mechanisms. Linear free energy relationships. Solvolysis reactions.

### **Advanced Drug Development (CHM 6277C) 3 credits**

This course provides the overview on processes involved in drug discovery and development. The

principles of current good manufacturing practices (cGMPs), quality control and quality assurance are covered. This course also gives an overview of U.S. Food and Drug Administration (FDA) regulations and intellectual property rights. Experts in drug development and regulation present lectures on these topics. A laboratory portion is included that involves the process of analytical method development, validation, stability analysis and the associated protocols and reports.

### **Drug Design (CHM 6278) 3 credits**

Basic principles of organic chemistry and biochemistry vital to drug design and drug action are the focus of this course with use of clinically important drugs as examples. Students who complete this course successfully will be proficient in understanding the processes involved in drug discovery and development from lead identification to introduction into clinical studies.

### **Advanced Drug Formulation (CHM 6279C) 3 credits**

This is an advanced course offering in-depth coverage of drug formulation. The course helps in understanding pre-clinical formulation; pharmacokinetic, stability and compaction studies; and formulation of various types of dosage forms.

### **Structural Biochemistry (CHM 6351) 3 credits**

*Prerequisite: CHM 2210 with minimum grade of "C"*

Emphasizes a computer-based approach to teaching structural biochemistry. It uses hands-on experience to develop essential skills for understanding the relationships between structure and function of biomolecules. Classes are held in computer labs. State-of-the-art software for visualization, manipulation and simulation is used throughout.

### **Advanced Topics in Organic Chemistry (CHM 6380) 3 credits**

Synthesis, reaction mechanisms, and physical organic chemistry.

### **Medicinal Chemistry (CHM 6428) 3 credits**

*Prerequisites: CHM 2211, BCH 3034, CHM 3411, all with minimum grade of "C"*

This course provides a comprehensive and balanced introduction to medicinal chemistry beginning with fundamental principles and progressing to principal methods used in drug design such as quantitative structure-activity relationships, computer-aided drug design and combinatorial chemistry.

### **Kinetics and Energetics of Reactions (CHM 6720) 3 credits**

*Prerequisite: Graduate standing*

A detailed look at reactions of chemical elements and molecules, their rates and thermodynamics. Chemical kinetics, rate laws, collision theory and transition state theory. Reaction and structural dynamic. Thermochemistry, properties of ideal and non-ideal systems. Chemical equilibria.

### **Synthesis and Characterization (CHM 6730) 3 credits**

*Prerequisite: Graduate standing*

Synthetic procedures and methods for preparation of inorganic, organic, and polymeric compounds, with special attention to recent developments. Methods of characterization and identification of chemical compounds, with emphasis on physical methods.

### **Topics in Chemistry (CHM 6830C) 1-4 credits**

### **Graduate Research (CHM 6918) 1-12 credits**

*Prerequisite: Permission of instructor*

Supervised research in chemistry. *Grading: S/U*

### **Graduate Seminar (CHM 6935) 1 credit**

Non-thesis topic.

### **Graduate Seminar (CHM 6936) 1 credit**

Thesis research seminar.

### **Current Topics in Bioanalysis (CHM 6937) 1 credit**

Analytical chemistry deals with methods and instruments that can determine the quality and the quantity of matters of interest. For biological samples, special care is necessary to deal with their fragility, heterogeneity and complexity. This course covers the operating principles and practical application of modern methodologies and technologies used for chemical analysis for biological samples. Research design, sample isolation, quantification, data analysis and result interpretation are discussed.

### **Master's Thesis (CHM 6971) 1-6 credits**

*Grading: S/U*

### **Advanced Research in Chemistry (CHM 7978) 1-9 credits**

*Prerequisite: Admission to doctoral candidacy*

Focused, relevant research in the student's course of study in the Ph.D. program in chemistry. This course requires oversight by the student's dissertation advisor. *Grading: S/U*

### **Dissertation (CHM 7980) 1-12 credits**

*Prerequisite: Admission to doctoral candidacy*

*Grading: S/U*

### **Chemistry for Environmental Scientists (CHS 6611) 3 credits**

*Prerequisites: Two semesters college chemistry with lab, graduate standing*

Course is designed for environmental scientists and requires minimal chemical training (one year of general chemistry with a "C" or better or permission of instructor). Introductory chemical basics are covered to lay a foundation for the remainder of the course. Atmospheric chemistry (global warming, ozone layer) are covered. However, aquatic chemistry and its effects on biotic communities and humans are emphasized.

## **COMPLEX SYSTEMS AND BRAIN SCIENCES**

### **Graduate Courses**

#### **Nonlinear Dynamic Systems (ISC 5453) 3 credits**

Introduction to nonlinear dynamical systems in an interdisciplinary setting. Topics covered include one-, two- and three-dimensional ordinary differential equations, bifurcations, one- and two-dimensional maps, iterated function systems, time scale separation and self-organization and elementary stochastic systems.

#### **Cognitive Neuroscience (ISC 5465) 3 credits**

An interdisciplinary survey of the neural basis of cognitive functions such as perception, attention, memory, and language.

#### **Directed Independent Study (ISC 5908) 1-3 credits**

*Prerequisite: Permission of Instructor*

Directed independent study in complex systems and brain sciences for undergraduate and graduate students.

#### **Special Topics (ISC 5930) 3 credits**

Special topics course in complex systems and brain sciences for both undergraduate and graduate students. Specific title, content, and textbook(s) vary with topic.

#### **Methods in Complex Systems (ISC 6450) 3 credits**

Classical statistical analysis and inference of linear systems and how those statistical methods and analysis procedures differ for non-linear complex systems. Topics include fractals, chaos, neural networks, and self-organizing critical systems.

#### **Computational Neuroscience 1 (ISC 6460) 3 credits**

*Prerequisite: Permission of instructor*

Covers the basics of computational neuroscience and introduces many research topics of both biological and artificial neural networks.

**Directed Independent Study (ISC 6908) 1-3 credits**

*Grading: S/U*

**Introduction to Complex Systems Tools (ISC 6925) 3 credits**

Objective of this "boot camp" is to provide students with the prerequisites-some conceptual background and sufficient working knowledge of mathematics-necessary to master the mathematically-based graduate courses at the Center for Complex Systems and Brain Science.

**Special Topics (ISC 6930) 1-3 credits**

Discussion of special topics in complex systems and brain sciences.

**Seminar in Attention (ISC 6932) 3 credits**

*Prerequisite: Permission of instructor*

This course examines attention and its role in perception, cognition, and action. Students read recent research articles dealing with significant issues in this area.

**Proseminar on Research in Complex Systems (ISC 6937) 1-3 credits**

Introductory survey course of research in complex systems and brain sciences at Florida Atlantic University, aimed at first semester graduate students.

**Advanced Research (ISC 7978) 1-9 credits**

*Prerequisite: Admission to Ph.D. degree program*

Focused, relevant research in the student's course of study in the Ph.D. degree program in complex systems and brain sciences. This course requires oversight by the student's dissertation advisor.

*Grading: S/U*

**Dissertation (ISC 7980) 1-15 credits**

*Grading: S/U*

**Dynamical Systems and Chaos 1 (MAP 6211) 3 credits**

[\(See Mathematics and Statistics courses, this section\)](#)

**Developmental Neurobiology (PSB 6515) 3 credits**

**Cellular and Molecular Neuroscience (PSB 6345) 3 credits**

**Systems and Integrative Neuroscience (PSB 6346) 3 credits**

## **Special Topics in Behavioral Neuroscience (PSB 6930) 3 credits**

### **Special Topics (PSY 5930) 3 credits**

(See [Psychology courses, this section](#))

## ENVIRONMENTAL SCIENCES

This interdisciplinary master's program draws on several disciplines in the Charles E. Schmidt College of Science. [See the Interdisciplinary Programs section in the College of Science Programs section.](#)

## EXERCISE SCIENCE AND HEALTH PROMOTION

**Undergraduate Courses** /[link to graduate courses](#)

### **Exercise Physiology 1 (APK 4110) 3 credits**

*Prerequisites: BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, CHM 2045 and CHM 2045L, all with minimum grades of "C"*

*Corequisite: APK 4110L*

A lecture course dealing with the physiological responses and adaptations to acute and chronic forms of exercise. Areas of emphasis include: energy metabolism, cardiovascular, physiology, pulmonary function, muscular system, body composition and aging.

### **Exercise Lab Techniques (APK 4110L) 1 credit**

*Prerequisites: BSC 2085, 2085L, 2086, 2086L, CHM 2045, 2045L, HSC 2100, all with minimum grades of "C"*

*Corequisite: APK 4110*

The application of physiological principles toward understanding the physiological adjustments that occur to maintain homeostasis in the exercising human.

### **Exercise Physiology 2 (APK 4134) 2 credits**

*Prerequisites: APK 4110 and 4110L with minimum grades of "C"*

Course furthers the underlying knowledge of physiological function as it pertains to exercise. Perspectives and data related to environmental aspects of exercise are explored, with special attention on training at altitude and the effects of microgravity on muscle loss and bone density.

### **Health, Fitness for Life (HSC 2100) 2 credits**

A study of the strategies and techniques of healthful living. A wellness model will provide the

framework for this course. Personal health and fitness appraisals will be conducted.

### **First Aid and CPR (HSC 2400) 2 credits**

Study of the techniques of emergency first aid, cardiopulmonary resuscitation and accident prevention. Emphasis will be placed on examining the interrelationships among human behavior of the environment and accidents. Opportunity exists for each student to earn First Aid, CPR, and AED certification.

### **Perspectives in Health (HSC 3102) 3 credits**

*Prerequisite: Junior standing or higher and HSC 2100 with a grade of "C" or better*

A study of the major health and wellness issues facing humankind. Emphasis will be placed on examining appropriate health enhancement strategies.

### **Stress Management (HSC 4104) 3 credits**

*Prerequisite: Junior standing or higher*

The course includes a comprehensive study of the scientific foundations of stress. These include lifestyle conditions and their relationship to disease, recognizing stressors in various settings and stages of life, behavioral change interventions, and stress management techniques. This course examines and applies stress management concepts based on individual response and adaptation to internal and external influences.

### **Sexual Health Peer Education (HSC 4133) 3 credits**

Students gain knowledge and professional presentation skills related to sexual health. By presenting learned sexual health information in front of various academic audiences, students demonstrate their understanding of the concepts.

### **Weight Management (HSC 4139) 3 credits**

*Prerequisite: Junior standing or higher*

Course examines the different aspects of weight management. Weight loss and weight gain methods are discussed and insight is provided into the healthy approach of weight loss and weight gain. A variety of commercial diets are explored and critiqued.

### **Substance Abuse (HSC 4143) 3 credits**

*Prerequisite: Junior standing or higher*

The course examines the different aspects of substance abuse on personal health, identifies factors associated with substance use and abuse, describes the signs and symptoms of possible substance use and abuse, and identifies methods of prevention and control.

### **Health Promotion (HSC 4581) 3 credits**

*Prerequisite: HSC 2100 with a grade of "C" or better*

A study of the fundamental concepts of health education and health promotion. Emphasis will be given to the process and practice of health promotion and the application of related health behavioral theories and models.

### **Pilates Exercise (PEM 1127) 2 credits**

A comprehensive exercise course designed to instruct students to the exercise techniques and philosophy of Joseph H. Pilates.

### **Weight Training (PEM 1130) 2 credits**

Course introduces students to the basic fundamental and scientific principles of weight training and conditioning, as well as to improve overall fitness level and skill. Students learn to weight lift independently, while improving at their own pace to reach their fitness goals.

### **Jogging (PEM 1145) 2 credits**

This course provides basic knowledge regarding proper jogging techniques, training, and overall physical fitness. Areas covered include clothing/shoes, training techniques, walking injuries, importance of heart rate, and psychological barriers to jogging. Importance of individual fitness, primarily in respect to cardiovascular endurance, will be emphasized with flexibility and strength.

### **Yoga (PEM 2121) 1 credit**

This course is designed to introduce students to yoga. The class includes theory and physical practice of body position, breathing and meditation.

### **Swimming (PEN 2121) 1 credit**

Instruction and practice in the elementary forms of swimming.

### **Swim Fitness (PEN 2172) 1 credit**

*Prerequisite: Ability to swim 25 yards (any stroke)*

Introduction of the principles and techniques of swimming for fitness enhancement.

### **Applications of Training Physiology 1 (PEP 3192) 3 credits**

*Prerequisites: HSC 2100, PSY 1012 with grades of "C" or better or equivalent*

*Prerequisites or Corequisites: APK 4110 and APK 4110L*

This course bridges the gap between science and practical application to gain a better understanding of how the body works most efficiently. This includes understanding functional anatomy, movement, screens/assessments, corrective exercises, program designs and leadership roles for various types of

exercise styles/programs.

### **Exercise Leadership 2 (PEP 3136) 3 credits**

*Prerequisites: HSC 2100, PSY 1012 with grades of "C" or better*

*Prerequisites or Corequisites: APK 4110 and APK 4110L with grades of "C" or better*

Methods and techniques in the use of various weight training equipment and machines. Scientific principles of strength training, program development, exercise leadership and supervision of weight training and other group exercise activities are included.

### **Applications of Training Physiology 2 (PEP 4138) 3 credits**

*Prerequisites or Corequisites: APK 4134, PEP 3192 and PET 4550 with grades of "C" or better*

Course continues to bridge the gap between scientific principles and application into practice. Program design and applied principles of bodily systems (i.e., muscle and endocrine) are discussed in a manner that can practically improve athletic performance.

### **Neurophysiology of Human Movement (PET 3050) 3 credits**

*Prerequisites: BSC 2085, 2085L, 2086, 2086L, PSY 1012 with grades of "C" or better or permission of instructor*

A study of nervous system function across molecular, cellular and systems levels to explain involuntary and voluntary human movement.

### **Introduction to Health and Exercise Science (PET 3102) 3 credits**

*Prerequisites: Exercise Science and Health Promotion majors only, minimum, Junior standing or higher*

An introductory course designed to examine the philosophical, historical, psychosocial origin of the fields of exercise science and health promotion. Current issues and future directions will be explored.

### **Nutrition in Health and Exercise (PET 3361) 3 credits**

*Prerequisite: Junior standing or higher*

Study of the nutritional needs of the athlete and active person. Emphasis includes: fat, carbohydrate, protein, vitamin, mineral and water needs of the active person; energy metabolism, food and fluid intake prior to, during, and after exercise; nutritional management of anemia and diabetes; nutrient needs of the young and old athlete.

### **Tactical Strength and Conditioning (PET 4093) 3 credits**

This course addresses the unique training and conditioning requirements of tactical athletes with an emphasis on the physiological, metabolic and biomechanical demands related to these occupations. This class prepares students for NSCA's TSAC-F certification and employment within the tactical

strength and conditioning field.

### **Obesity: Biological, Psychological and Cultural Factors (PET 4263) 3 credits**

Focuses on different influences such as biology, psychology and culture in weight gain eventually leading to obesity. Also emphasizes the different approaches and settings of prevention and intervention in weight loss and weight loss maintenance (e.g., physical activity, dietary and pharmacological).

### **Kinesiology (PET 4330C) 4 credits**

*Prerequisites: BSC 2085, 2085L, 2086, 2086L with grades of "C" or better*

A study of functional anatomy and elementary biomechanics. Emphasis will be placed on the analysis of the skeletal, muscular and nervous systems and the biomechanical factors associated with efficient motor performance.

### **Biomechanics (PET 4340C) 3 credits**

*Prerequisites:-APK 4110, APK 4110L, BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, all with grades of "C" or better*

A study of the biomechanics of sport and exercise. Emphasis will be placed on an analysis of efficiency in human movement.

### **Management Principles in Exercise Science and Health Promotion (PET 4404) 3 credits**

*Prerequisite: PET 3102 with a grade of "C" or better*

Study of management principles in the field of exercise science and health promotion. Emphasis is placed on entrepreneurial skills, social media marketing, technology and financial management. Industry trends, market analysis, modern practices and development strategies related to creating a web-based fitness/wellness business are covered.

### **Exercise Testing and Prescription (PET 4550) 4 credits**

*Prerequisite: HSC 2100, APK 4110, APK 4110L, BSC 2085, BSC 2085L, BSC 2086, BSC 2086L, CHM 2045, CHM 2045L, all with grades of "C" or better*

A practical course in exercise testing and programming for apparently healthy individuals and those with controlled disease including program design, preset health status assessment, protocols for the evaluation of cardiovascular functions, aerobic capacity, muscular fitness, pulmonary function and body composition, basic electrocardiography, interpretation of test results, and handling emergency situations.

### **Fitness Assessment and Exercise Prescription (PET 4551) 3 credits**

*Prerequisites: HSC 2100, APK 4110, APK 4110L with grades of "C" or better or equivalent*

Introduces techniques appropriate for screening for exercise, health appraisal, assessment, and exercise prescription for apparently healthy individuals or those who have controlled disease.

### **Exercise Testing and Prescription for Special Populations (PET 4552) 3 credits**

*Prerequisites: APK 4110, APK 4110L, PEP 3192, PET 4551 with grades of "C" or better or permission of instructor*

Focuses on exercise programs specifically designed for special populations including cardiac rehabilitation. Includes pharmacology, electrocardiography, pathophysiology of chronic diseases, exercise testing, prescription, and leadership for special cases.

### **Directed Independent Study (PET 4905) 1-3 credits**

### **Special Topics (PET 4930) 1-3 credits**

Topics not covered by other courses. Topics will vary.

### **Internship (PET 4946) 3-9 credits**

*Prerequisite: All ESHP program course work and permission of internship coordinator*

Supervised field experience in one or more of the following professional settings: recreation, administration, physical fitness leadership, health promotion, sports management. Supervision is provided by both the cooperating agency and university.

### **Practicum in Exercise Science and Health Promotion (PET 4947) 3 credits**

*Prerequisites: APK 4110 and HSC 2400 with grades of "C" or better*

Introduction to field experiences in exercise science and health promotion.

## **Exercise Science and Health Promotion Graduate Courses**

### **Advanced Exercise Physiology 1 (APK 6111) 3 credits 3 credits**

*Prerequisite: APK 4110*

An advanced study of human physiology and its interactions with physical activity and training. Emphasis will be placed on the study of the mechanisms underlying the acute and chronic responses to stress.

### **Advanced Exercise Physiology 2 (APK 6116) 3 credits**

*Prerequisite: APK 4110 or equivalent*

A comprehensive examination of the major organ systems contributing to the physiological response to exercise, both acute and chronic. Specifically, this course focuses on three of these systems:

cardiovascular, pulmonary, and neuromuscular.

### **Drug Abuse Behavior (HSC 5156) 3 credits**

Drug abuse behavior is examined from the biological, psychological and sociological perspectives. Epidemiological patterns are studied to identify contributory causal relationships in drug use behavior. Various interventions to control, prevent and manage the behavior are examined and evaluated to identify effective behavior change strategies.

### **Chronic Stress and Population Health (HSC 5177) 3 credits**

Exploration of a science-based study of stress as it relates to the mechanisms of psychological stressors to induce chronic health issues. In addition, issues related to the measurement, prevalence and intervention strategies are discussed. Epidemiological data are examined to determine disproportionate prevalence rates of health status among various population groups.

### **Human Obesity (HSC 5178) 3 credits**

This course focuses on advanced topics, including various factors contributing to weight gain that eventually leads to obesity in humans. Topics include the influences of biology, psychology and culture. This course also emphasizes the different research and evidence-based approaches and settings of prevention and intervention in weight loss and weight loss maintenance. Finally, the lectures, discussions and projects (critiques of articles and nutritional/behavioral assessments) given in this course enable students with advanced theoretical and practical knowledge to understand and evaluate obesity prevention interventions.

### **Personal and Community Health (HSC 5203) 3 credits**

Health problems and issues relating to the individual and to the community.

### **Teaching Health in Elementary School (HSC 5315) 3 credits**

Curriculum, theory, and practices in teaching health in the elementary school.

### **Advanced Concepts in Health Promotion (HSC 5587) 3 credits**

Analysis of the growing body of knowledge concerning health promotion and health behavior. Concepts of theory, research and practice are analyzed and used as a framework for advanced investigative study.

### **Evaluation of Health Promotion and Health Education Programs (HSC 6115) 3 credits**

Introduces procedures and skills essential to the evaluation of health promotion and health education programs in a variety of settings. Major areas include selecting evaluation design, issues, and steps involved in conducting an evaluation and communicating evaluation results.

### **Needs Assessment and Program Planning in Health Promotion (HSC 6248) 3 credits**

Provides students with the practical knowledge and skills to assess health resources and needs and to develop and implement health promotion programs in different settings.

### **Epidemiological Basis of Health (HSC 6505) 3 credits**

A study of the human and environmental factors that enhance or diminish health. An examination of the strategies for health enhancement will be emphasized.

### **Health Behavior, Health Education, and Health Promotion (HSC 6585) 3 credits**

Provides the fundamental concepts of health behavior within social and psychological contexts. Focus is on applying health behavior theories to development of effective health promotion programs. Health education skills addressing problems relating to lifestyle and physical health will be introduced.

### **Advanced Sport Nutrition (HUN 6247) 3 credits**

*Prerequisite: PET 3361 or equivalent*

An advanced study of the role of nutrition as a means to enhance performance in exercise and sport. Topics include principles of energy metabolism, nutrients in their use during exercise, regulation of metabolism by macro and micro nutrients and their role in weight control with athletes. The validity and safety of proposed ergogenic aids are also explored.

### **Exercise Neuroscience (PET 5077) 3 credits**

*Prerequisite: APK 4110*

A team-taught course highlighting the results of clinical exercise trials targeting the age-related loss in neuroprotective mechanisms and skeletal muscle function.

### **Strength and Conditioning Program Design (PET 5391) 3 credits**

*Prerequisite: PEP 3136 or equivalent*

Course teaches students how to design strength and conditioning programs for heterogeneous populations. Development of these programs is through the advanced periodized manipulation of acute training variables. The course covers high-level sport-specific exercise prescription that aids injury prevention and performance enhancement.

### **Advanced Exercise Testing and Prescription (PET 5521) 3 credits**

A study of the common techniques and equipment used in the exercise science field. Practical applications will be examined and discussed. Areas of emphasis will include electrocardiography, blood pressure, body composition, oxygen consumption, and respiratory measures.

### **Special Topics (PET 5930) 1-4 credits**

Special topics in exercise science and health promotion.

### **Practical Applications in Exercise Science and Health Promotion (PET 5947) 1-3 credits**

*Prerequisite: PET 4550, APK 6111, or permission of instructor*

Supervised clinical experience in fitness development and health enhancement education.

### **Behavior and Performance in Sport and Exercise (PET 6216) 3 credits**

A study of the social and psychological variables affecting sport and exercise performance. Emphasis will be placed on topics such as lifestyle assessment, theories of play, stress, motivation, aggression, and group cohesion.

### **Functional Biomechanics (PET 6346) 3 credits**

*Prerequisite: PET 4330C or equivalent*

Students gain knowledge of biomechanical measurement techniques involving movement and technique analysis, force-posture relationships, investigation of dynamic muscular parameters, and electromyography. Students apply the principles of biomechanics in an analysis, study, and reporting of selected exercise and sports movements.

### **Skeletal Muscle Physiology (PET 6382) 3 credits**

*Prerequisite: APK 4110 or permission of instructor*

This course explores skeletal muscle plasticity and adaptation to exercise and disease. Focus is on pre-clinical rodent models and humans, but also other experimental systems where appropriate. Emphasis is placed on skeletal muscle responses occurring at the cell and molecular level.

### **Research and Evaluation (PET 6505C) 3 credits**

A study of basic and applied research principles and methodology and their application to the testing and evaluation of physical performance and associated behaviors in recreation and athletics. This course serves as a capstone experience, which includes a mock research proposal (three chapters of a master's thesis) and a video presentation.

### **Directed Independent Study (PET 6905) 1-5 credits**

Current Issues in Exercise Science and Wellness Education (PET 6930) 3 credits

This course deals with the study of special topics of interest to the exercise science and wellness education fields. Topics will vary.

### **Master's Thesis (PET 6971) 1-6 credits**

### **Entrepreneurship in Health/Fitness Industry (SPM 6116) 3 credits**

Study of the management process of health/fitness programs in corporate, community, and commercial settings.

### **Educational Statistics (STA 6113) 3 credits**

(See [Educational Leadership and Research Methodology courses in the College of Education.](#))

## GEOSCIENCES/GEOGRAPHY

**Undergraduate Courses** /[link to graduate courses](#)

### **Environmental Issues in Atmospheric and Earth Science (ESC 3704) 3 credits**

Investigation of the complex interactions between humans and their environment. Environmental problems encompassing selected aspects of the atmosphere, hydrosphere, biosphere, and lithosphere: including deforestation, desertification, air and water quality, and processes of land degradation.

### **Environmental Science and Sustainability (EVR 1001) 3 credits**

This course is a survey of basic chemical, biological and physical principles of environmental science and their applications to environmental issues. This course is appropriate for students in a wide range of disciplines or programs. This is a General Education course.

### **Climate Change: The Human Dimensions (EVR 1110) 3 credits**

Anthropogenic climate change is often thought of from a scientific perspective. However, because it is human created, we also need to understand the human dimensions, such as how people (not only scientists) understand climate, how people affect climate, and how climate affects people. This course provides an inspirational perspective on human behavior, leaving students with a refined understanding of and appreciation for our common futures. This is a General Education course.

### **Environment and Society (EVR 2017) 3 credits**

Introduction to the study of major environmental problems and issues confronting modern society: economic and ecosystem concepts, population patterns and dynamics, resource use and misuse, environmental quality, and environmental citizenship. This is a General Education course.

### **Climate Change: Myths, Realities and Solutions (EVR 3114) 3 credits**

In this course, students learn the science behind the changing climate. Students also learn the common arguments and how to discern the truth. Finally, students learn about how resilient communities can be built that not only mitigate and adapt, but also thrive.

### **Hazards, Climate and People (EVR 4112) 3 credits**

This course introduces the interaction between society and natural hazards with special consideration given to perceptions of risk, vulnerability, preparedness and recovery. Additionally, the course explores climate change and uncovers its role as related to the magnitude and frequency of certain hazards. This is an Academic Service Learning (ASL) course.

### **Introduction to Coastal Freshwater Resources (EVR 4453) 3 credits**

In this course, students explore the intricacies of freshwater resources in coastal areas, examine the effects of natural and human activities on these resources and delve into the scientific and technological aspects associated with water resource development and conservation. Coastal freshwater systems in Florida, in particular, face numerous challenges such as global warming, sea-level rise, hurricane flooding, droughts, over-pumping, seawater intrusion and more.

### **World Geography (GEA 2000) 3 credits**

Examination of contemporary world problems through geographical analysis of physical, economic, social, and political systems of major countries and world regions. Credit will not be given for both GEA 2000 and GEA 3003. This is a General Education course.

### **Geography Study Abroad (GEA 2952) 1-6 credits**

*Prerequisite: Sophomore standing and permission of instructor*

Credit for enrollment in approved study abroad programs.

### **Geography of the Developing World (GEA 3003) 3 credits**

Survey of the physical, economic, political, and social systems that characterize the lesser developed nations of the world. Focus on problems affecting Latin America, Africa, the Middle East, South Asia, and China. Credit will not be given for both GEA 3003 and GEA 2000.

### **RI: Human-Environment Interactions in South Florida (GEA 4275) 3 credits**

This course is for Geography majors and majors in other related fields. Methods covered in previous Geosciences courses are emphasized in a collaborative learning environment. Critical and systematic thinking skills are used in a series of case-study projects. This is a research-intensive (RI) course.

### **Culture and Environment: Latin American and the Caribbean (GEA 4405) 3 credits**

This course explores Latin American and Caribbean environments and peoples. Particular attention is paid to natural regions, culture, colonization, religion, politics, agriculture, art, and globalization. Ideas and concepts are illustrated with PowerPoint presentations and videos.

### **Geography Study Abroad (GEA 4957) 1-6 credits**

*Prerequisite: Sophomore standing and permission of instructor*

Credit for enrollment in approved study abroad programs.

### **Introduction to Physical Geography (GEO 2200C) 3 credits**

The natural environment and its physical patterns - an introduction to landforms, soils, water, vegetation, and other physical features of the earth. Laboratory work.

### **Sea-Level Rise: Impacts and Responses (GEO 3342) 3 credits**

This course surveys causes and impacts of climate change and sea-level rise and the resulting impacts on metropolitan South Florida. Critical issues related to climate change and sea-level rise are examined.

### **Quantitative Methods (GEO 4022) 3 credits**

*Prerequisite: STA 2023 or equivalent*

Introduction to quantitative methods used in regional, economic and geographic analysis.

### **Water Resources (GEO 4280C) 3 credits**

*Prerequisite: GEO 2200C or GLY 2010C or equivalent*

Distribution, management, and use of water. Topics include agricultural and personal water use, wetland degradation and pollution.

### **Biogeography (GEO 4300) 3 credits**

Biogeography is the study of past and present distribution of plants and animals. The course combines the disciplines of biology and ecology with spatial and temporal aspects of geography. Class will be taught through lecture, in-class laboratory sessions with homework assignments, and field trips to local sites.

### **American Cultural Landscape (GEO 4422) 3 credits**

An examination of the cultural, economic and political forces that have given shape to the American landscape.

### **Tourism and Commercial Recreation (GEO 4542) 3 credits**

Geographic analysis of tourism and commercial recreation. Emphasis will be placed on spatial variation in tourist flows and tourism development, and the cultural, environmental, and economic impacts of tourism.

### **Urban Geography (GEO 4602) 3 credits**

Pattern of urban settlements. Types, functional areas, and the influence of distribution upon social, political and economic development. Emphasis on transportation, land use and the planning process.

### **Transportation and Spatial Organization (GEO 4700) 3 credits**

Transportation development, network configuration and allocation of transport flows. Analytical problems.

### **Directed Independent Study (GEO 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

*Grading: S/U*

### **Directed Independent Research in Geosciences (GEO 4915) 1-6 credits**

Students work closely with research mentors to conduct research and inquiry in Geosciences.

Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student.

### **Directed Independent Research in Geosciences (GEO 4916) 0-6 credits**

Students work closely with research mentors to conduct research and inquiry in Geosciences.

Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

### **Geosciences Honors Colloquium (GEO 4920) 1 credit**

*Prerequisite: Permission of instructor*

Exposes undergraduate students in the Honors track in Geography to various research topics and methodologies in the geosciences. Lectures given by a variety of speakers in the academic and professional realms of the geosciences. Repeatable for credit.

### **Special Topics (GEO 4930) 1-3 credits**

Specially arranged programs in remote sensing, GIS, and physical or human geography.

### **Field Experience (GEO 4948C) 1 credit**

*Prerequisites: Junior or senior standing; permission of instructor*

Direct observation, description, and analysis of selected field sites and associated topics. *Grading: S/U*

### **Introduction to Mapping and GIS (GIS 3015C) 3 credits**

Analysis of map properties and use of maps as sources of information. Essentials of location, scale, projection, direction, elevation, and general map elements. Introduction to map making in geographic information systems.

### **Photogrammetry and Aerial Photograph Interpretation (GIS 4021C) 3 credits**

Principles of aerial photography and photogrammetry including the photographic production process,

electromagnetic principles, history of aerial photography and aerial platforms, elements of visual image interpretation, and analog and digital (soft copy) photogrammetric methods.

### **Remote Sensing of the Environment (GIS 4035C) 3 credits**

*Prerequisite or Corequisite: GIS 3015C or equivalent*

Principles of photographic and electromagnetic remote sensing systems which detect, record and measure distributions of natural and cultural phenomena. Interpretation of aerial and orbital imagery for urban and environmental research and planning.

### **Digital Image Analysis (GIS 4037C) 3 credits**

*Prerequisite: GIS 4035C or equivalent*

Advanced remote sensing covering the analysis of digital satellite imagery of the Earth. Emphasis on the use of computer-based image processing systems.

### **Principles of Geographic Information Systems (GIS 4043C) 3 credits**

*Prerequisite: GIS 3015C or equivalent*

Basic concepts of geographic information systems. Evaluation of hardware and software components. Examination of data structures, and fundamental GIS functions. Application potential and laboratory experience with selected GIS systems.

### **Applications in Geographic Information Systems (GIS 4048C) 3 credits**

*Prerequisite: GIS 4043C or equivalent*

Advanced technical, implementation and application issues in geographic information systems. Geocoding, algorithms for 2- and 3-dimensional representations, and system planning and implementation issues.

### **Web GIS (GIS 4054C) 3 credits**

*Prerequisite: GIS 4043C or equivalent*

This course provides students with a comprehensive and up-to-date overview of Web GIS, including the basic concepts, principles, related fields and frontiers. It also provides the state-of-the-art technical skills to build Web GIS applications and the knowledge needed to choose from various Web GIS development options.

### **Programming in GIS (GIS 4102C) 3 credits**

*Prerequisite: GIS 4043C or equivalent*

The course introduces students to the basic programming concepts and methodologies for customizing and/or extending the available functions in the cutting edge GISystems and the pertinent statistical data analysis methods.

### **Spatial Data Analysis (GIS 4115C) 3 credits**

*Prerequisite: GIS 4043C*

This course introduces a variety of spatial quantitative methods commonly used in the GISciences.

### **Geospatial Databases (GIS 4118) 3 credits**

*Prerequisite: GIS 4043C*

Geospatial databases provide the functions of storing, managing and querying geospatial data and are essential components of Geographical Information Systems (GIS). This course covers the fundamental principles, techniques and methodologies for designing and implementing a geospatial database and querying and geoprocessing in geospatial databases.

### **Geovisualization and GIS (GIS 4138C) 3 credits**

*Prerequisite: GIS 3015C or equivalent*

Advanced map design with an emphasis on the visualization of spatial data in a virtual environment. Lab projects include animated maps, fly-through animations, and 3D visualizations.

### **Mobile GIS and Drone Technology (GIS 4140C) 3 credits**

*Prerequisite: GIS 3015C with minimum grade of "C"*

This course introduces students to essential methods of generating spatial data in the field using mobile GIS and Unmanned Aerial Systems (UAS). The fundamentals of Global Navigation Satellite Systems (GNSS) is covered as will the operation of various UAS, FAA regulations that govern their use and the production of photogrammetric derivatives for subsequent use in GIS.

### **Weather, Climate and Climate Change (MET 2010) 3 credits**

Introduction to the processes of Earth's surface and atmosphere that lead to distinctive weather patterns and climate zones as experienced by humanity. The course examines temperature and pressure, atmospheric circulation, precipitation and storms, the hydrological cycle, global climate and vegetation patterns, air pollution and climate change. This is a General Education course.

### **Atmospheric Hazards (MET 3052) 3 credits**

*Prerequisite: MET 2010*

This course delivers comprehensive knowledge of atmospheric hazards, emphasizing the physical explanation, historical precedents and the influence of climate change. Through the analysis of diverse case studies, students explore a range of atmospheric hazards including tropical cyclones, severe thunderstorms, tornadoes, droughts, heatwaves, wildfires, winter storms and compound and cascading events where multiple hazards intersect. Special attention is given to the ways in which climate change is altering the frequency and impact of these hazards.

### **Tropical Climatology (MET 3112) 3 credits**

*Prerequisite: MET 2010*

This course presents a comprehensive exploration of tropical climatology. The focus is on the fundamental principles governing tropical weather and climate, the processes driving the circulation, severe weather events, and the pivotal role of the tropical climate in shaping global circulation patterns.

### **Climate Data Applications (MET 4142) 3 credits**

*Prerequisite: MET 2010*

This course offers a comprehensive introduction to the world of climate data. Students explore the differences between various types of climate data, understand their sources and multiple formats and gain hands-on experience in data handling, visualization and interpretation. With an emphasis on practical applications, students develop basic programming skills (Python) to assess, analyze and utilize climate data effectively for research and decision-making.

## **Geography Graduate Courses**

### **Environmental Restoration (EVR 6334) 3 credits**

*Prerequisite: GEO 4300 or PCB 4043, or permission of instructor*

Course introduces students to the rapidly expanding practice of restoring degraded ecosystems and landforms through a mixture of lecture, discussion, field visits, and individual research projects.

### **Restoration Implementation and Management (EVR 6358) 3 credits**

Restoration projects require the approval of multiple government agencies and cooperation of affected landowners and stakeholders at every phase. This course covers the legal aspects of government approval, creating communication plans for coalition building and collaboration with stakeholders, conflict resolution and ethics in restoration. The course uses a combination of discussion of academic literature, lecture, case studies and guest speakers, including from state and federal agencies, consulting firms and non-governmental organizations.

### **Paleoenvironmental Reconstruction (EVR 6931) 3 credits**

This seminar broadly examines paleoenvironmental research with a focus on environmental and climate change across the Holocene. Emphasis on the application of proxies and interpreting past human-environment interaction. This seminar broadly examines paleoenvironmental research with a focus on environmental and climate change across the Holocene. Emphasis on the application of proxies and interpreting past human-environment interaction.

### **Defining and Measuring Global Change Vulnerability (EVR 6938) 3 credits**

*Prerequisite: Permission of instructor*

This seminar introduces graduate students to the concepts and methods associated with scholarly research on global change vulnerability. This emerging literature derives from decades of research on coupled human-environment interactions. The fundamental premise is that there is a reciprocal relationship between people and their biophysical environments.

### **Human-Environmental Interactions (GEA 6277) 3 credits**

This course provides graduate students in geography with an environment to practice the various methods and approaches learned in their graduate program. It uses a multidisciplinary approach to explore diverse aspects of human-environment interactions in a specified region. This is an Academic Service Learning (ASL) course.

### **Biogeography (GEO 5305) 3 credits**

Biogeography is the study of distributions of organisms and the processes responsible for the patterns. This course examines theories concerning spatio-temporal processes and patterns, populations, communities, ecosystems, biodiversity, disturbance, succession, speciation and conservation. Classes are taught by lecture, discussion of academic literature and field-based research at local sites.

### **Geographic Analysis of Population (GEO 5435C) 3 credits**

*Prerequisite: GEO 4022 or equivalent*

Examination of theory and method in the geographical analysis of population. Focus on population distribution, its composition and causes, consequences, and projection of change. Mathematical and statistical models.

### **Research in the Geosciences (GEO 6118) 3 credits**

*Prerequisite: Admission to graduate program in geosciences*

An introduction to and overview of research in the geosciences with an emphasis on department research interests. This seminar is recommended strongly for all beginning geoscience graduate students.

### **Plants and People (GEO 6317) 3 credits**

*Prerequisite: Permission of instructor*

Course explores interaction between humans and plants - how people use plants in terms of traditional rural resource use and modern urban use. Topics covered include medicine, food, gardens, agriculture, religion, construction, ornamentation and fuel.

### **Culture, Conservation, and Land Use (GEO 6337) 3 credits**

Course considers relationship between humans and environment with emphasis on current cultural practices and ideologies concerning preservation and consumption from both local and global perspectives. A portion of the course is designed to permit students to reflect on the personal roles all of us play in relation to the ecosystems in which we live.

### **Seminar in Urban Area Analysis (GEO 6608) 3 credits**

An analysis of the distribution, structure, patterns of land use and transportation, economic base, inter- and intra-relationships, and other spatial aspects of urban phenomena. Emphasis upon modern data acquisition techniques, quantitative analysis and measurement, and graphical methods of analysis and presentation. Content will vary; may be repeated.

### **Directed Independent Study (GEO 6908) 1-3 credits**

Individually formulated research project pursued under the direction of a staff member competent in the particular phase of geographic study. Physical parameters, theories and applications of photography, radar, thermal infrared and other data-gathering systems will be investigated. Conversion of data for cartographic or computer graphics display will be studied. Content will vary (no more than 3 credits may be applied to the minimum degree requirements).

### **Graduate Research (GEO 6918) 1-12 credits**

*Prerequisite: Permission of instructor*

Supervised research in the geosciences. *Grading: S/U*

### **Geosciences Colloquium Series (GEO 6920) 1 credit**

This course is designed to help incoming graduate students develop an awareness of and an appreciation for the multiple research perspectives/approaches that can be brought to studies in geosciences. It is organized around presentations in the department's colloquium series, which showcases geoscience-related research by faculty and graduate students in and outside the department.

*Grading: S/U*

### **Seminar in Special Topics in Regional or Systematic Geography (GEO 6938) 3 credits**

A study of selected topics that are central to the advanced study of geography: construction, analysis, and synthesis of regional systems. It includes techniques, methodology, and procedures for defining and solving problems of a geographic nature and involves case study illustrations. Specific content will vary.

### **Master's Thesis (GEO 6971) 1-6 credits**

Original investigation leading to scholarly analysis of a significant geographic topic in the area of specialization which will be supervised by a major professor and a graduate committee. *Grading: S/U*

### **Advanced Research (GEO 7978) 1-9 credits**

*Prerequisite: Doctoral students only*

Dissertation related research prior to taking the candidacy exam. May be repeated in subsequent semesters.

### **Dissertation (GEO 7980) 1-9 credits**

*Prerequisite: Doctoral students only*

Dissertation related research taken after passing the candidacy exam.

### **Digital Image Analysis (GIS 5033C) 3 credits**

*Prerequisite: GIS 4035C or GIS 5038C*

Course is the second in a three-course sequence that follows the national model for core curriculum in remote sensing. Digital techniques for processing and analyzing remotely sensed imagery include image enhancement, image classification, ground truthing, and accuracy assessment.

### **Remote Sensing of the Environment (GIS 5038C) 3 credits**

*Prerequisite: GIS 3015C*

The first of a three-course sequence, this one covers principles and concepts of remote sensing, aerial photograph and satellite image interpretation and analysis. Includes a survey of remote sensing data sources, hands on lab projects in a GIS environment and an introductory research project.

### **Principles of Geographic Information Systems (GIS 5051C) 3 credits**

*Prerequisite: GIS 3015C or equivalent*

Basic concepts of geographic information systems. Evaluation of hardware and software components. Examination of data structures and fundamental GIS functions. Application potential and laboratory experience with GIS systems. Basic GIS project design and implementation.

### **Applications in Geographic Information Systems (GIS 5100C) 3 credits**

*Prerequisite: GIS 4043C or GIS 5051C or equivalent*

Advanced techniques for raster modeling, network systems, and statistical analysis in geographic information systems. System planning and implementation issues in applying GIS in diverse areas. GIS-based spatial modeling issues.

### **Programming in Geographic Information Systems (GIS 5103C) 3 credits**

*Prerequisites: GIS 4043C or 5051C*

Course covers basic computer programming concepts and methodologies. Issues for customizing and/or extending available functions in selected cutting edge GIS are discussed along with advanced

geoprocessing modeling and data analysis with scripts. Project design and development are addressed.

### **Photogrammetry and Aerial Photography Interpretation (GIS 6028C) 3 credits**

This course introduces concepts, theories and applications of photogrammetry. It covers history, principle, geometry, stereoscopy of aerial photography and fundamentals of analytical photogrammetry.

### **LiDAR Remote Sensing and Applications (GIS 6032C) 3 credits**

*Prerequisites: GIS 5051C; Geosciences graduate students only*

Introduces LiDAR principles, sensors and platforms, data processing and analysis and applications. Students master basic skills of LiDAR needed to leverage the commercial LiDAR sources and information products in a broad range of applications.

### **Web GIS (GIS 6061C) 3 credits**

*Prerequisite: GIS 4043C or GIS 5051C*

This course provides students with a comprehensive and up-to-date overview of Web GIS, including the basic concepts, principles, related fields and frontiers. It also provides state-of-the-art technical skills to build Web GIS applications and the knowledge needed to choose from various Web GIS development options.

### **Geospatial Databases (GIS 6112C) 3 credits**

*Prerequisite: GIS 4043C or GIS 5051C or equivalent*

Geospatial databases provide the functions of storing, managing and querying geospatial data and are an essential component of geographical information systems (GIS). This course covers the fundamental principles, techniques and methodologies for designing and implementing a geospatial database and querying and geoprocessing in geospatial databases. Students receive hands-on experience via labs and projects.

### **Topics in Geoinformation Science (GIS 6120) 3 credits**

*Prerequisites: GEO 4022 and GIS 4043C or equivalent*

Technical, operational, and management issues in geographic information systems. Examination of GIS function algorithms, data structures, error analysis, and other topics in GIS applications.

### **Hyperspectral Remote Sensing (GIS 6127) 3 credits**

*Prerequisites: GIS 4035C and 4037C or GIS 5033C and 5038C*

Course introduces state-of-the-art techniques for the processing and interpretation of hyper- and ultraspectral data with a focus on thematic information extraction from airborne and satellite-based hyperspectral sensors. Course covers the full hyperspectral remote sensing processing chain from data

acquisition and calibration to image processing and thematic mapping.

### **Spatial Data Analysis (GIS 6306) 3 credits**

*Prerequisite: GIS 5051C*

Introduces a range of spatial statistical methods commonly used in the analysis of geo-spatial data in GISciences. Emphasis on gaining insight into the overall framework for analysis and developing an understanding of various concepts with in-depth treatment of select techniques. Methods are mainly discussed within the context of GIS technology.

## **GEOLOGY**

**Undergraduate Courses** /[link to graduate courses](#)

### **The Blue Planet (ESC 2000) 3 credits**

Using the scientific method, critical thinking skills and data analysis, this course will examine the fundamental processes of the Earth system, composed of an atmosphere, hydrosphere, lithosphere, biosphere and exosphere, through time. The course will also explore interactions between these spheres, including critical analysis of scientific theories and emphasizes Earth's connections with humans. This is a General Education course.

### **Physical Geology/Evolution of the Earth (GLY 2010C) 4 credits**

Using the scientific method, critical thinking skills and data analysis, this course examines the fundamental processes of the Earth system, composed of an atmosphere, hydrosphere, cryosphere, lithosphere, biosphere and exosphere, through time. The course also explores interactions between these spheres, including critical analysis of scientific theories and emphasizes lithospheric connections with humanity. This is a General Education course.

### **The History of the Earth and Life (GLY 2100) 3 credits**

An introduction to historical geology. The study of ancient continents and life forms, with special emphasis on the geologic history of the North American continent. This is a General Education course.

### **Geology Study Abroad (GLY 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study programs.

### **Geology of Florida (GLY 4155C) 4 credits**

*Prerequisite: GLY 2010C or equivalent*

General review of the geological evolution of Florida from the Paleozoic to the recent. Emphasis is given to the local geomorphology and stratigraphy, and to evolution, extinction, and systematics of the major fossils. Also discussed are theories on the origin of the Everglades, fossil and living coral reef tracts, and the regional hydrogeology. Lecture, laboratory and field studies.

### **Paleontology (GLY 3603C) 3 credits**

*Prerequisites: GLY 2100 and an introductory biology course*

An introduction to the study of fossil plants and animals. Emphasis will be placed on the taxonomy and classification of major plant and animal phyla represented as fossils, and on the evolution of life as shown by the fossil record. Lecture, laboratory and field studies.

### **Coastal and Marine Science (GLY 3730) 3 credits**

Introduction to the study of coastal and marine environments, particularly as they are related to human use and management of biophysical resources. Focuses on materials and dynamic processes of ocean basins, sediments, and seawater; including ocean-climate linkage, greenhouse effect, and sea-level change.

### **Cooperative Education - Geology (GLY 3949) 1-3 credits**

*Grading: S/U*

### **Environmental Geochemistry (GLY 4241) 3 credits**

*Prerequisite: One semester of college chemistry*

Examination of current geochemical problems affecting the earth at global, regional, and local scales. Discussion of the natural geochemical background of substances including a review of geochemical principles.

### **Mineralogy and Petrology (GLY 4310C) 4 credits**

*Prerequisite: CHM 2045, CHM 2054L, GLY 2010C and PHY 2048*

Identification and classification of rocks and minerals in hand samples and thin sections using their physical and chemical properties. Discussion of elementary crystallography, symmetry and chemical bonding in controlling physical and chemical mineral properties. Association of igneous and metamorphic rocks to structures, landforms and tectonic settings. Use of mineral suites and textures to constrain rock crystallization and deformation history. Discussion of chemical equilibrium and the phase rule, and x-ray mineralogy techniques. Lecture and laboratory.

### **Ancient Carbonate Platforms (GLY 4351C) 3 credits**

*Prerequisite: Permission of instructor*

This course introduces students to the geology of the carbonate platforms including types of platforms,

types of sediment, platform sediment zonation and interpretation of carbonate sedimentary record. Includes nine- to eleven-day field trip to western Texas and southern New Mexico.

### **Structural Geology (GLY 4400C) 4 credits**

*Prerequisite: GLY 2010C*

Structural features of the earth's crust and the deformational forces responsible. Structural aspects of rock mechanics. Applications to mineral exploration and mining, hydrogeology, and engineering geology. Lecture and laboratory.

### **Solid Earth Geophysics (GLY 4451) 3 credits**

Course gives an introduction to the fundamental principles of each major branch of geophysics: seismology, gravitation, magnetism, and electrical and thermal properties. Emphasis is given to geodynamics and plate tectonics.

### **Stratigraphy and Sedimentation (GLY 4500C) 4 credits**

*Prerequisites: GLY 2010C and GLY 2100*

An introduction to sediments, sedimentary processes, and the stratigraphic record. Focus will be on methods of stratigraphic analysis, transport and deposition of sedimentary environments, and types and compositions of sedimentary rocks. Lecture and laboratory.

### **Geomorphology (GLY 4700C) 3 credits**

An introductory study of landscapes, how they formed in response to earth-building and erosional processes and their relationship to underlying geology. Applications of landform analysis to geological mapping, mineral and petroleum exploration, geological and ocean engineering. Global landscapes. Slide illustrated lectures and laboratory.

### **Geology Field Methods (GLY 4750C) 3 credits**

*Prerequisite: Permission of instructor*

Geologic survey techniques, identification and description of rocks, structures and fossils, and report writing. Includes an out-of-state field trip (in southeast U.S.) plus several weekend trips to southern Florida localities. A fee is charged for field trips.

### **Field Camp (GLY 4790) 6 credits**

*Prerequisite: Approval by department's undergraduate committee*

Exercises in field mapping, air photo interpretation, stratigraphic analysis, structural and hydrologic problems. The camp is held in the Durango, Colorado, area during mid-May to mid-June (summer term A). In addition to the University's standard credit registration fees, a separate camp fee is charged. For 2001 the fee was \$1300. Food and other personal expenses are additional.

### **Hydrogeology (GLY 4822) 3 credits**

*Prerequisites: GLY 2010C, MAC 2311, and CHM 2045 or permission of instructor*

Strong environmental emphasis. Analytical study of the principles and applications of ground and surface water flow. Quantitative prediction of leachate attenuation. Flow net theory. Well hydraulics. Water quality, management and legislation.

### **Groundwater Numerical Modeling (GLY 4832C) 3 credits**

*Prerequisite: GLY 4822 or equivalent*

This course introduces students to the theory and practice of groundwater modeling, with emphasis on model conceptualization, construction, simulation and calibration using Groundwater Modeling System (GMS), an advanced and popular 3D simulation software for groundwater flow and transport modeling. The class comprises three parts: a rapid overview/review of groundwater mechanics, an introduction to finite-difference methods and application of GMS.

### **Directed Independent Study (GLY 4905) 1-3 credits**

*Prerequisite: Requires prior arrangement with faculty member*

*Grading: S/U*

### **Directed Independent Research in Geosciences (GLY 4915) 1-6 credits**

Students work closely with research mentors to conduct research and inquiry in Geosciences. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student.

### **Directed Independent Research in Geosciences (GLY 4916) 0-6 credits**

Students work closely with research mentors to conduct research and inquiry in Geosciences. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

### **Special Topics (GLY 4930C) 1-3 credits**

Specially arranged programs in geology.

### **Field Experience (GLY 4948C) 1 credit**

*Prerequisites: Junior or senior standing; permission of instructor*

Direct observation, description, and analysis of selected field sites and associated topics. *Grading: S/U*

### **Geology Study Abroad (GLY 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study programs.

## **Geology Graduate Courses**

### **Paleoenvironments and People (EVR 6417) 3 credits**

This course examines paleoclimate events and past human-environment interaction primarily during the Holocene. Through exploring how people have modified their environment and responded to notable climate stress events such as the Younger Dryas, Terminal Classic Drought and Little Ice Age, students gain experience and skills to consider how future climate scenarios may affect modern societies.

### **Environmental Geochemistry (GLY 5243) 3 credits**

*Prerequisite: One year of college chemistry*

Examination of current geochemical problems affecting the earth at global, regional, and local scales. Discussion of the natural geochemical background of substances including a review of geochemical principles.

### **Shore Erosion and Protection (GLY 5575C) 3 credits**

Study of geomorphology and use of coasts, sediment budgets and dune-beach interaction, effects of engineering structures, coastal hydraulics, tides and currents, waves and structures, coastal water level fluctuations, shore erosion control, beach replenishment, coastal protection and restoration, fate of replenished beaches.

### **Marine Geology (GLY 5736C) 3 credits**

Theoretical and applied earth science in the marine environment. Introduction to the history of marine geology, structure and evolution of continental margins and the worlds basins in terms of modern plate tectonic theory, ocean sediments and sedimentary regimes, geologic effects of waves and currents, dynamics of coastal environmental processes, fluctuations of mean sea level through time, ocean mineral resources.

### **Advanced Topics in Applied, Coastal, and Hydrogeology (GLY 5934) 3 credits**

Occasional advanced courses in specialized areas of engineering, coastal and hydrogeology not fully covered in other program courses.

### **Advanced Environmental Geochemistry (GLY 6246) 3 credits**

A study of the principles of geochemistry as they are applied to environmental problems relating to water. Hydrogeology includes study of contamination of surface and underground terrestrial water and coastal waters. The course will familiarize students with the methods, capabilities, and jargon of

geochemistry as it applies to their areas of interest.

### **Comparative Carbonate Sedimentology (GLY 6352) 3 credits**

*Prerequisites: Permission of instructor*

Dedicated to the study of carbonate deposits in the process of formation, methods of studies, examination of sediment types and factors that control their distribution and tracking depositional environments, rocks and calcareous organisms into the recent geologic past (Pleistocene and Holocene).

### **Environmental Geophysics (GLY 6457 ) 3 credits**

*Prerequisite: Graduate standing in geology or related discipline or permission of instructor*

An introduction to near-surface geophysical methods for mapping the ground at shallow depths. Emphasis on electromagnetic and electrical methods such as ground penetrating radar (GPR) and resistivity imaging specifically for environmental applications. A field-based case study using an integrated array of real geophysical data sets collected in a local site will be conducted to give students a practical approach to applied geophysical methods.

### **Coastal Environments (GLY 6737) 3 credits**

Dynamics of depositional systems in coastal environments. Emphasis on variability of sediments, geomorphology and littoral processes associated with coastal dunes, lagoons, estuaries, beaches and nearshore environments.

### **Global Environmental Change (GLY 6746) 3 credits**

An introduction to the study of global climate change through time. Included and in-depth studies of the causes of and evidence for past environmental changes, major perturbations of global natural environmental systems, the effects of sea level changes, solar variations, and planetary dynamics on climate, and details of Quaternary paleoclimate models.

### **Groundwater Solute Transport Modeling (GLY 6828) 3 credits**

*Prerequisite: GLY 6836 or equivalent*

Studies the mechanisms that govern the movement of water and pollutants in aquifers. Develops a complete conceptual model and overviews a sound mathematical model of flow and pollution in saturated aquifers, including the relevant processes and internal relations, and identifies their parameters. Introduction of numerical methods. Uses documented analytical and numerical models for the solution of groundwater flow with solute. Extensive hands-on experience on PC and Workstation.

### **Modeling Groundwater Movement (GLY 6836) 3 credits**

*Prerequisite: GLY 4832C or equivalent*

Focuses on hydrogeologic modeling, considers groundwater flow space and time scale, and surface-ground waters interaction. Evaluates methods of analysis for the rainfall-runoff process, evapotranspiration and soil moisture, deep percolation, river-aquifer interaction and flow routing, and catchment basin modeling. Construction of the conceptual groundwater model, defining the mathematical solution, and application of the numerical method of solution. Surveys numerical methods. Overviews the parameter identification. Uses documented numerical models and computer codes for the solution of groundwater problems. Extensive hands-on experience on PC and Workstation.

**Methods in Hydrogeology (GLY 6838) 3 credits**

*Prerequisite: GLY 4822 or equivalent with a grade of "C" or better, or permission of instructor*

Designed to introduce students to practical aspects of hydrogeology, including project design, field methods and data analysis.

**Coastal Hazards (GLY 6888) 3 credits**

A global review of natural and human-induced hazards as they affect coastal zones, including the identification of site specific and regional coastal hazards. Mitigation and management are related to individual and community hazard perceptions, risk assessment and response. Emphasis is placed on the susceptibility of the SE Florida region to oil (chemical) spills, coastal floods due to extreme events, and to the potential impacts of global sea level rise.

**Benchmark Developments in Hydrogeology (GLY 6897) 3 credits**

*Prerequisite: GLY 4822 or permission of instructor*

This seminar examines changes in humans' understanding of groundwater through time beginning with ancient uses of groundwater, continuing through the present and ending with projections about the future of hydrogeologic research. Students will solidify their knowledge of the fundamental principles of hydrogeology and will broaden their understanding of the history and philosophy of science.

**Directed Independent Study (GLY 6908) 1-3 credits**

Faculty supervised directed independent study. *Grading: S/U*

**Thesis Seminar (GLY 6931) 3 credits**

Methods, procedures and policies for preparing, presenting, defending, and completion of a thesis or dissertation. Focus on the framework and scientific style for scholarly reports and composition. Consideration of title; abstract; introduction; data selection, correlation and arrangement; methods and experiment; results; discussion; summaries; and conclusions. Practica provide weekly experience to

steps in thesis preparation.

### **Special Topics in Applied Geology (GLY 6934) 1-4 credits**

Occasional special topics and courses in specialized areas of coastal geology, hydrogeology, engineering geology and environmental geology.

### **Master's Thesis (GLY 6971) 1-6 credits**

*Grading: S/U*

### **Physical and Geological Oceanography (OCE 6097) 3 credits**

*Prerequisite: Permission of instructor*

Provides an overview of the atmospheric, physical and geological processes that govern our oceans and coastal margins.

## **INTERDISCIPLINARY STUDIES**

### **Undergraduate Courses**

#### **Introduction to Animal Science (ANS 3006C) 4 credits**

*Prerequisites: BSC 1010, 1010L, 1011, 1011L and CHM 2045, 2045L, 2046, 2046L*

Overview of nutrition, physiology, genetics, growth and development related to the equine, beef, swine, dairy, aquatic and poultry industries. Overview of the farm animal, poultry and aquatic industries. Lab consists of relevant field experiences in these industries.

#### **Introduction to Undergraduate Research 1: Lower Division (IDS 1911) 1 credit**

*Prerequisite: Permission of instructor*

This course introduces first-year students to academic research and prepares them for engagement in undergraduate research.

#### **Introduction to Undergraduate Research 2: Lower Division (IDS 1913) 1 credit**

*Prerequisites: IDS 1911 with minimum grade of "C," permission of instructor*

This course introduces first-year students to the process of discovery as it relates to formulating research questions, preparing a research poster and developing research communication skills.

#### **Health Science 1: Foundation (IDS 2122) 3 credits**

An introductory course into interprofessional education and collaborative practice (IPECP) within the world of healthcare through specific competencies. Students will be exposed to team-based learning through understanding roles, responsibilities, ethics, communication and teamwork.

### **Human Mission to Mars (IDS 2382) 3 credits**

This course is designed to explore the challenges and opportunities offered by the planned human missions to Mars, covering topics such as human space travel to the red planet, the impact of spaceflight on the human body, the effects of long-term spaceflight on human consciousness, human relationships and groups of humans, the key components of building and functioning a Martian habitation module, growing food on Mars and the ethical and political issues related to a human mission to Mars. To address problems and challenges associated with these topics, students explore the process of scientific inquiry and creativity applying the scientific method to propose solutions to problems in these various areas. All the while, they also embrace the uncertainty associated with the critical evaluation of these problems and challenges. This is a General Education course.

### **Undergraduate Research Experience (IDS 2912) 0 credits**

*Prerequisite: Permission of instructor*

This course is designed to provide skill building for undergraduate research. Students define research topics, formulate research questions, conduct a literature review, prepare research proposals and develop research communication skills. Students may enroll in this course up to two times. *Grading: S/U*

### **Health Science 2: Evaluating the Evidence (IDS 3184) 1 credit**

*Prerequisite: IDS 2122*

*Corequisite: IDS 3893*

In this course students are introduced to evidence-based health care and the process of identifying and evaluating the evidence.

### **Health Science 3: Capstone (IDS 3893) 1 credit**

*Prerequisite: IDS 2122*

*Corequisite: IDS 3184*

In this course students evaluate and disseminate evidence related to a health issue.

### **Premed Success (IHS 3124) 2 credits**

*Prerequisites: 8 credits of general biology and chemistry*

Designed to help pre-health professional students (medical, dental, pharmacy, veterinary, etc.) negotiate the complex and often confusing world of medical school applications, admission tests, admission essays, interviews, financing medical school and much more. The scope of this course can be expanded to fit student needs and interests.

### **Basic Clinical Skills for Pre-Health Students (IDS 3125) 2 credits**

*Prerequisite: Minimum overall GPA of 3.0*

Provides students with basic clinical skills that will ensure more meaningful medical experiences (through shadowing or volunteering) prior to entering a health-related graduate program. Students are introduced to medical professionalism and gain basic medical knowledge through training on blood borne pathogens, vital signs, CPR, HIPAA, EKGs and taking patient histories.

**Fundamentals of Research and Inquiry (IDS 3910) 1 credit**

*Prerequisite: Permission of instructor*

Introduction to scientific research. Students learn and apply the scientific method to their own research questions. The course focuses on scientific literacy such as reading scientific papers, interpreting and analyzing data and communicating scientific results. The course promotes and facilitates the matching of students to research mentors, but cannot guarantee the matching.

**Introduction to Undergraduate Research Design (IDS 3911) 1 credit**

*Prerequisite: Permission of instructor*

Introduction to research exposure and skill building focused on the scientific process and nature of discovery. Students define research topics, formulate research questions, develop research proposals, prepare experimental plans and develop research communication skills.

**Medical Shadowing Internship (IDS 3940) 1 credit**

*Prerequisites: IDS 3125 and a minimum GPA of 3.0*

Designed for students interested in becoming healthcare professionals such as medical doctors, dentists, pharmacists and veterinarians. Students explore the medical field by shadowing selected healthcare professionals in a variety of settings and observing their daily activities, obtaining limited hands-on experience. The scope of this course can be expanded to fit student needs and interests. May be repeated for credit for up to six semesters.

**Science Internship (IDS 3941) 1-3 credits**

*Prerequisite: Permission of instructor*

This is an internship course that offers students "real-world" experience in a structured format within specific science disciplines (such as biology, psychology, chemistry, geosciences, physics or mathematics) and which are related to each student's science major. *Grading: S/U*

**Artificial Intelligence Applications in Biology (IDS 4139) 3 credits**

*Prerequisites: BCH 3033 or PCB 3063 or permission of instructor*

This course introduces the underlying concepts, techniques and potential of artificial intelligence (AI) in biology. It explores the application of AI and machine learning (ML) methods and algorithms to selected areas in biology. The course also exposes students to contemporary interactive tools to build

AI and ML solutions without the need for extensive programming.

### **Directed Independent Study (IDS 4906) 1-3 credits**

*Prerequisite: Permission of instructor*

Study of topics relating to the special needs and interests of individual students. *Grading: S/U*

### **Special Topics (IDS 4934) 1-3 credits**

Special topics of interest to science students.

### **Current Issues in Biomedicine (ISC 1430) 1 credit**

Course is designed for pre-health profession freshmen who participate in the Freshman Learning Communities. This course is an introduction to current/controversial issues in the medical field that helps students understand the innovations on the horizon in medicine. Students will leave the course more knowledgeable about cutting-edge research in biomedicine and the various career paths in this field.

### **Introduction to Preprofessional Studies (PCB 3083) 3 credits**

*Prerequisites: 8 credits general chemistry, 8 credits general biology, permission of instructor*

*Corequisite: PCB 3083L*

To familiarize premedical or allied field students with the requirements, demands and rewards of a career in medicine. The course features lectures about a variety of medical disciplines.

### **Introduction to Preprofessional Studies Lab (PCB 3083L) 1 credit**

*Prerequisite: Permission of instructor; Corequisite: PCB 3083*

Shadowing of physicians in hospital and office settings, including visits to local facilities and observations of actual medical procedures.

## **MATHEMATICS AND STATISTICS**

Courses offered by the Department of Mathematics and Statistics may require the use of a calculator or computer software. Mathematics majors may not count mathematics courses taken as pass/fail as part of their program.

*Prerequisite courses must be completed with grades of "C" or better.*

**Mathematics Placement Assessment (ALEKS PPL):** All entering freshmen, as well as entering transfer students with no prior college-level course work in mathematics, are required to take an online

exam to determine placement in their first mathematics course at FAU. Students may take the exam multiple times, with the highest score used to determine placement. There is a nominal charge for the exam. It is highly recommended that entering transfer students with prior college-level course work in mathematics, but who need additional mathematics courses, also take the exam (though it is not a requirement). For more information, visit [here](#).

**Undergraduate Courses** /[link to graduate courses](#)

**\*Prerequisite courses must be completed with grades of "C" or better.**

**\* RI: Introduction to Data Science (CAP 3786) 3 credits**

*Prerequisite: COP 2220 or MAD 2502*

This research-intensive (RI) course surveys the foundational topics in data science: Data acquisition, data exploration and visualization, data analysis with statistics and machine learning, data at scale via working with big data. The course uses statistical software to work through real-world examples that illustrate these concepts. Concurrently, students learn statistical and mathematical foundations that power the data scientific approach to problem solving.

**\* Cryptography and Information Security (CIS 4362) 3 credits**

*Prerequisites: MAS 2103 and MAD 2502*

Classical cryptology, entropy. Stream and block ciphers. Public-key versus symmetric cryptography, one-way and trap-door functions. Primality and factorization, DLP, Diffie-Hellman, RSA and ElGamal cryptosystems. Issues of computer and network security. Secure protocols, identification, authentication, digital signatures, secret sharing schemes.

**\* Modern Analysis (MAA 4200) 3 credits**

*Prerequisites: MAC 2313, MAD 2104 and MHF 3202*

Basic properties of real numbers. Functions. Limits and properties of continuous functions. Differential calculus.

**\* Introductory Analysis 1 (MAA 4226) 3 credits**

*Prerequisite: MAS 3156*

Course covers real and complex numbers, metric spaces, sequences and series, continuity, differentiation and integration of functions of one or more real variables.

**\* Introductory Analysis 2 (MAA 4227) 3 credits**

*Prerequisite: MAA 4226*

Continuation of Introductory Analysis 1. Course covers real and complex numbers, metric spaces,

sequences and series, continuity, differentiation and integration of functions of one or more real variables.

**\* Introductory Complex Analysis (MAA 4402) 3 credits**

*Prerequisite: MAC 2313*

An introduction to complex analysis, analytic functions, Taylor series, Cauchy's theorem. Calculus of residues. Recommended for engineering and science majors.

**\* College Algebra (MAC 1105) 3 credits**

Gordon Rule, computational

*Prerequisite: MAT 1033 or MGF 1130 or MGF 1131 or suitable placement score*

Through this course, student will develop problem solving skills, critical thinking, computational proficiency, and contextual fluency through the study of equations, functions, and their graphs. Emphasis will be placed on quadratic, exponential, and logarithmic functions. Topics will include solving equations and inequalities, definition and properties of a function, domain and range, transformations of graphs, operations on functions, composite and inverse functions, basic polynomial and rational functions, exponential and logarithmic functions, and applications. This is a General Education course.

**\* Trigonometry (MAC 1114) 3 credits**

Gordon Rule, computational

*Prerequisite: MAC 1105*

Theory of trigonometric functions and their inverses, graphs, identities and conditional equations, solutions of triangles, complex numbers and polar representation. Additional topics as time permits. This is a General Education course.

**\* Precalculus Algebra (MAC 1140) 3 credits**

Gordon Rule, computational

*Prerequisite: MAC 1105*

*Recommended Corequisite: MAC 1114*

Polynomial, rational, and other algebraic functions; exponential and logarithmic functions; piecewise-defined functions. Properties and graphs of functions. Polynomial and rational inequalities. Conic sections. Matrices and determinants. Sequences and series. Mathematical induction. Binomial theorem. Applications. This is a General Education course.

**\* Precalculus Algebra and Trigonometry (MAC 1147) 4 or 5 credits**

Gordon Rule, computational

*Prerequisite: MAC 1105*

Polynomial, rational, and other algebraic functions; trigonometric, inverse trigonometric, exponential and logarithmic functions; piecewise-defined functions. Properties and graphs of functions. Polynomial and rational inequalities. Trigonometric identities. Conditional trigonometric equations. Conic sections. Solutions of triangles. Vector algebra. Parametric equations. Polar coordinates. Matrices and determinants. Sequences and series. Mathematical induction. Binomial theorem. Applications. This is a General Education course.

**\*Prerequisite courses must be completed with grades of "C" or better.**

**\* Introduction to Calculus with Applications (MAC 2210) 4 credits**

*Prerequisite: MAC 1105*

This course provides an overview of the salient math topics most heavily used in the core sophomore-level STEM courses. These include algebraic manipulation, trigonometry, vectors and complex numbers, sinusoids and harmonic signals, systems of equations and matrices, differentiation, integration and differential equations. All math topics are presented within the context of applications. This is a General Education course.

**\* Methods of Calculus (MAC 2233) 3 credits**

*Gordon Rule, computational*

*Prerequisite: MAC 1105*

A descriptive and intuitive introduction to the methods and applications of differentiation and integration. Primarily for social science and business administration majors. This is a General Education course.

**\* Life Science Calculus 1 (MAC 2241) 4 credits**

*Gordon Rule, computational*

*Prerequisite: MAC 1105*

This course is an introduction to the methods and applications of differential and integral calculus for students in the life sciences. Topics include limits, continuity, derivatives of basic functions in mathematics, differentiation rules, optimization problems, the definite integral and area under a curve, basic theory of differential equations and modeling with differential equations in life sciences. This is a General Education course and counts toward the Gordon Rule computational requirement. Students cannot receive credit for both this course and Methods of Calculus (MAC 2233).

**\* Calculus with Analytic Geometry 1 (MAC 2311) 4 credits**

*Gordon Rule, computational*

*Prerequisites: MAC 1147, or MAC 2210, or both MAC 1140 and MAC 1114*

In this course, students will develop problem solving skills, critical thinking, computational proficiency, and contextual fluency through the study of limits, derivatives, and definite and indefinite integrals of functions of one variable, including algebraic, exponential, logarithmic, and trigonometric functions, and applications. Topics will include limits, continuity, differentiation and rates of change, optimization, curve sketching, and introduction to integration and area. This is a General Education course.

**\* Calculus with Analytic Geometry 2 (MAC 2312) 4 credits**

*Gordon Rule, computational*

*Prerequisite: MAC 2311*

Continuation of MAC 2311. Logarithmic, Exponential, hyperbolic, and inverse trigonometric functions, techniques of integration, partial fractions, area, trapezoid and Simpson's rules, volume, work; analytic geometry; Taylor approximations; sequences and series; polar representation of complex numbers. This is a General Education course.

**\* Calculus with Analytic Geometry 3 (MAC 2313) 4 credits**

*Prerequisite: MAC 2312*

Vector space, inner product, length, cross product, curves in space; functions of several variables: differentiability, gradient, tangent planes, differential approximation, surfaces, optimization with constraints, multiple integrals, theorems of Green, Stokes and Gauss.

**\* Discrete Mathematics (MAD 2104) 3 credits**

*Gordon Rule, computational*

*Prerequisite: MAC 1105 or higher*

A proof-oriented approach to and applications of propositional logic, sets, functions, relations, combinatorics, graphs and trees.

**\* Introduction to Computational Mathematics (MAD 2502) 3 credits**

*Prerequisite: MAC 2311 or MAP 2492*

*Corequisite: MAP 2492*

An introduction to mathematical computation by means of algorithmically solving a number of mathematical problems. Introduction to C++. The emphasis will be on the mathematical algorithms involved with problems from analysis, number theory, combinatorics, algebra, linear algebra, numerical analysis and probability.

**Discrete Mathematical Structures (MAD 3106) 3 credits**

*Prerequisites: MAC 2311 or MAD 2104 or MAS 2103 with minimum grades of "C"*

Introduction of various mathematical structures and theorems to prepare students for further study in mathematics and applied mathematics. Topics are chosen from graph theory, network flows, matchings and algorithmic proofs, min-max theorems, lattices, Hasse diagrams, finite geometries and designs, eventually periodic functions, and periodic structures.

**\*Prerequisite courses must be completed with grades of "C" or better.**

**\* Numerical Methods (MAD 3400) 3 credits**

*Prerequisites: MAC 2312, and some programming experience (not available for students with credit for MAD 4401)*

An introductory course in scientific computation for engineering and science students. Topics covered include numerical errors, roots of equations, curve fitting, matrix methods, numerical integration, solution of differential equations and graphic output.

**\* Graph Theory (MAD 4301) 3 credits**

*Prerequisites: MAD 2104 and MAS 2103*

A first course in theory and applications of graphs including basic properties; coloration; algebraic and geometric aspects; enumeration; algorithms; network flows.

**\* Numerical Analysis 1 (MAD 4401) 3 credits**

*Prerequisites: MAC 2313, MAP 2302, MAS 2103 and some programming experience*

Floating point arithmetic, interpolations, approximations, differentiation and integration, linear and non-linear systems of equations, differential equations, eigenvalues and eigenvectors, error analysis and norms. This course emphasizes theory. (Not available for students with credit for MAD 3400.)

**Post-Quantum Cryptography (MAD 4475) 3 credits**

*Prerequisites: MAS 2103 and COP 2220 with minimum grades of "C"*

This course provides an introduction to quantum-resistant cryptographic schemes: their underlying mathematical problems, formalisms, and constructions, with a focus on the computational aspects. Topics include code-based cryptography, lattice-based cryptography, isogeny-based cryptography, and multivariate-based cryptography.

**Cryptography of Blockchain (MAD 4476) 3 credits**

*Prerequisites: MAD 2104 and COP 2220 with minimum grades of "C"*

This course provides mathematical foundations of blockchain. Topics include history of blockchain, consensus mechanisms, Hash function, digital signature schemes, zero-knowledge proofs and SNARKs, verifiable random functions and quantum-safe blockchain.

**\* Introduction to Coding Theory (MAD 4605) 3 credits**

*Prerequisites: MAS 2103 and STA 4442 or equivalent*

Introduction to the theory of Error Correcting Codes. Binary symmetric channel, probability of error, finite fields, linear codes, standard array, maximum likelihood decoding, sphere packing, Plotkin and other bounds, Hamming codes, Perfect codes, BCH codes, Dual codes, the Krawtchouk polynomials, and MacWilliams' theorem.

**Topics in Mathematics for Teachers (MAE 1935) 1-3 credits**

**Topics in Mathematics for Teachers (MAE 3935) 1-3 credits**

**\* Mathematics of Data Science (MAP 2192) 3 credits**

*Prerequisites: MAC 1105 or MGF 1106 or MGF 1130 and programming competency at the level of an online short course*

This course surveys mathematical foundations in data science. Topics may include modeling with functions, matrices, solving linear systems, differentiation, integration, multivariate thinking and geometry, regression models, optimization, sensitivity analysis and graph theory.

**\* Differential Equations 1 (MAP 2302) 3 credits**

*Gordon Rule, computational*

*Prerequisite: MAC 2312*

An introduction to ordinary differential equations stressing basic techniques and applications.

**Mathematics for Biological Sciences 1 (MAP 2491) 3 credits**

*Gordon Rule, computational*

*Prerequisite: MAC 1105 with minimum grade of "C"*

This course is an introduction to the fundamental mathematical methods in differential and integral calculus, and introductory concepts in differential equations and dynamical systems with an emphasis on modeling dynamic processes in the biological sciences. Topics include limits, continuity, derivatives of basic functions in mathematics, differentiation rules, vector fields and changes in states, the Riemann integral and area under a curve, Euler's method for computing solutions to differential equations and optimization problems. Theory is complemented with basic programming to aid visualization, modeling and simulation. This is a General Education course and counts toward the Gordon Rule computational requirement. Students cannot receive credit for both this course and Methods of Calculus (MAC 2233).

**Mathematics for Biological Sciences 2 (MAP 2492) 3 credits**

*Prerequisite: MAP 2491 or MAC 2233 or MAC 2241 or Mac 2311 with minimum grade of "C"*

This is the second semester of the Mathematics for Biological Sciences sequence. It develops the foundational mathematical machinery necessary to study behaviors and properties of continuous and discrete dynamical systems of more than one variable including results from multivariate calculus, differential equations and linear algebra. Mathematical concepts are grounded in real examples, from and applications to, biology, physiology, neuroscience, ecology, evolution, psychology and/or the social sciences. Theory is complemented with basic programming to aid visualization, modeling and simulation.

**\*Prerequisite courses must be completed with grades of "C" or better.**

**\* Engineering Mathematics 1 (MAP 3305) 3 credits**

*Prerequisite: MAC 2312*

Complex numbers, first order differential equations, second order linear differential equations, solution of equations by Laplace transforms, solution of linear systems of differential equations.

**\* Applied Mathematical Modeling (MAP 4103) 3 credits**

*Prerequisites: MAP 2492 or ([MAP 2302 or MAP 3305] and [MAS 2103 or MAC 2313])*

This course covers the use of differential and difference equations in scientific modeling. Emphasis is on the "modeling" cycle with undergraduate research and inquiry (URI) components.

**Introduction to Methods in Complex Systems (MAP 4112) 3 credits**

*Prerequisites: MAC 2313 and (MAS 2103 or MAP 3305)*

Introduction to mathematical tools for analyzing and developing complex systems, including neural networks, reinforcement learning and deep learning systems. Basic principles, methods and applications of deep artificial neural networks to scientific data with an emphasis on image data.

**\* Actuarial Mathematics 1 (MAP 4172) 3 credits**

*Prerequisites: MAC 2311, MAC 2312, MAC 2313, and STA 4442*

The course covers concepts from calculus and probability as they pertain to actuarial sciences. It covers differential equations, parameterized curves, general probability, Bayes' theorem, and univariate and multivariate probability distributions.

**\* Actuarial Mathematics 2 (MAP 4173) 3 credits**

*Prerequisites: ECO 2023 and RMI 3011*

Interest theory (discrete and continuous), mathematics underlying economics and finance.

**\* Mathematics of Cybersecurity (MAP 4190) 3 credits**

*Prerequisites: MAD 2104 and MAS 2103*

This course introduces students to common mathematical concepts and tools relevant to cybersecurity. It includes fundamentals on metrics, probability models, data analysis, graph theory and game theory. By studying examples, students learn how to use mathematics to analyze and solve problems in cybersecurity.

**\* Differential Equations 2 (MAP 4303) 3 credits**

*Prerequisite: MAP 2302*

Further techniques in ordinary differential equations and an introduction to partial differential equations.

**\*Prerequisite courses must be completed with grades of "C" or better.**

**\* RI: Industrial Problems in Applied Math (MAP 4913) 3 credits**

*Prerequisites: MAP 2492 or ([MAP 2302 or MAP 3305] and [MAS 2103 or MAC 2313])*

This research-intensive course pits students in small groups against real-world problems provided by industrial partners.

**Internship in Actuarial Sciences (MAP 4945) 1-6 credits**

*Prerequisite: Permission of department*

Supervised internships individually assigned to accommodate students' professional development in the actuarial field. May be repeated for a maximum of 6 credits.

**\* Matrix Theory (MAS 2103) 3 credits**

*Prerequisite: MAC 2233 or MAC 2311*

Vectors and vector spaces. Linear transformation and matrices. Rank and determinants. Systems of linear equations. Diagonalization. Characteristic values.

**Vector Calculus (MAS 3156) 3 credits**

*Prerequisites: MAC 2313 and MAS 2103, with minimum grades of "C"*

Implicit and inverse Function Theorems; Vectors and Vector Fields in Space; Divergence and Curl; Green's, Stokes' and Gauss' Theorems. Introduction to Tensors and Applications.

**Introductory Number Theory (MAS 3203) 3 credits**

The basic theory of divisibility and congruences. The theorems of Fermat, Euler and Wilson. Quadratic residues.

**\* Linear Algebra 2 (MAS 4107) 3 credits**

*Prerequisite: MAS 2103 or Linear Algebra 1*

Vector spaces, complex numbers, basis and dimension, eigenvalues and eigenvectors, Cayley-Hamilton theorem, Jordan normal form, and other topics.

**\* Mathematics for Cryptography (MAS 4206) 3 credits**

*Prerequisites: MAD 2104 and MAS 2103*

This course introduces students to the mathematical foundations of cryptography. It includes probability theory, modular arithmetic, selected topics from number theory, coding theory and lattices. In this course, students learn how mathematics is used in the construction and analysis of cryptographic schemes with some applications in modern cryptography.

**\* Modern Algebra (MAS 4301) 3 credits**

*Prerequisites: MAD 2104 and MHF 3202*

Elementary number theory. Groups, rings and ideals, polynomials, and fields.

**\* Introductory Abstract Algebra 1 (MAS 4304) 3 credits**

*Prerequisite: MAS 4301*

Course covers basic structures of abstract and linear algebra, such as groups, rings and ideals, polynomials and factorization, vector spaces and modules, linear transformations, and the classical Galois theory of fields.

**\* Introductory Abstract Algebra 2 (MAS 4306) 3 credits**

*Prerequisite: MAS 4304*

A continuation of Introductory Abstract Algebra 1. Course covers basic structures of abstract and linear algebra, such as groups, rings and ideals, polynomials and factorization, vector spaces and modules, linear transformations, and the classical Galois theory of fields.

**Intermediate Algebra (MAT 1033) 3 credits**

*Prerequisite: High school algebra*

This course covers topics in intermediate algebra, including properties of and operations on real numbers, scientific notation, linear equations and inequalities, polynomial and rational expressions, exponents and radicals, products and factoring, quadratic equations, and graphing.

**University Honors Seminar in Mathematics (MAT 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in mathematics.

**\*Prerequisite courses must be completed with grades of "C" or better.**

**Topics in Mathematics (MAT 1931) 1-4 credits**

*Prerequisite: Permission of instructor*

Topics of interest to lower-division students.

**Topics in Mathematics (MAT 1932) 1-3 credits**

*Gordon Rule, computational*

*Prerequisite: Permission of instructor; Corequisite: MAC 1105*

Topics of interest to lower-division students.

**University Honors Seminar in Mathematics (MAT 1935) 3 credits**

*Gordon Rule, computational*

A seminar in the University Honors Program on topics in mathematics.

**Mathematics Study Abroad (MAT 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Cooperative Education - Mathematics (MAT 3949) 1-2 credits**

*Grading: S/U*

**Directed Independent Study (MAT 4906) 1-4 credits**

*Prerequisite: Permission of instructor*

Study of topics relating to the special needs and interests of individual students.

**Directed Independent Research in Mathematics (MAT 4915) 1-6 credits**

Students work closely with research mentors to conduct research and inquiry in Mathematics.

Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student.

**Directed Independent Research in Mathematics (MAT 4916) 0-6 credits**

Students work closely with research mentors to conduct research and inquiry in Mathematics.

Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

**Special Topics (MAT 4930) 1-4 credits**

*Prerequisite: Permission of instructor*

Lectures on specialized topics.

**\* Mathematical Problem Solving (MAT 4937) 3 credits**

*Prerequisites: MAD 2104, MAS 2103, MAC 2312 and (suggested) MAD 2502*

Miscellany of challenging mathematical problems not usually met in the standard courses.

### **Mathematics Study Abroad (MAT 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Honors Thesis in Mathematics (MAT 4970) 3 credits**

*Prerequisite: Permission of department*

Supervised research and writing of the honors thesis.

### **Mathematical Thinking in Context 1 (MGF 1130) 3 credits**

*Gordon Rule, computational*

In this course, students will utilize multiple means of problem solving through student-centered mathematical exploration. The course is designed to teach students to think more effectively and increase their problem-solving ability through practical application and divergent thinking. The course is appropriate for students in a wide range of discipline/programs. This is a General Education course.

*\*Prerequisite courses must be completed with grades of "C" or better.*

### **Mathematical Thinking in Context 2 (MGF 1131) 3 credits**

*Gordon Rule, computational*

Through this course, students will experience the practicality of mathematics in a global society. Students will engage in applications of tools and techniques of mathematics in a variety of contextual situations from everyday life. The course is appropriate for students in a wide range of discipline/programs. This is a General Education course.

### **\* Introduction to Advanced Mathematics (MHF 3202) 3 credits**

*Prerequisite: MAC 2312*

This course serves as a transition into advanced mathematics courses. Students learn the formalism for correctly doing and writing proofs in mathematics. Topics include logic and language of proofs, set theory, mathematical induction, relations and orders, functions, and foundations of advanced calculus.

### **\* Mathematical Logic (MHF 3302) 3 credits**

*Prerequisites: PHI 2102 or MAD 2104 or MAS 2103 or permission of instructor*

An introduction to mathematical logic from a contemporary point of view with an eye toward its applications in philosophy, computer science and linguistics.

**\* History of Mathematics (MHF 3404) 3 credits**

*Prerequisite: MAD 2104*

Chronological study of the evolution of mathematical thought from primitive counting to modern ideas up to the 21st century.

**\* Survey of Geometry (MTG 3212) 3 credits**

*Prerequisite: MAD 2104*

Euclidean and non-Euclidean geometries. Introduction to projective geometry and the geometry of transformations.

**\* Topology for Data Science (MTG 4325) 3 credits**

*Prerequisites: MAD 2104, MAS 2103 and (COP 2220 or MAD 2502)*

Introduction to concepts and methods in applied topology and topological data analysis tools, including persistent homology, and their uses in data science: topological spaces, metric spaces, continuity, simplicial complexes, vector spaces and simplicial homology. Mathematical concepts are grounded by discussions of efficient implementations of computational algorithms and applications.

**Topics in Geometry (MTG 4930) 1-4 credits**

Topics in geometry chosen from Euclidean Geometry, Projective Geometry, Geometry of the Complex Plane, Hyperbolic Geometry, Finite Geometries, Automorphism Groups, Riemannian Geometry, Fractal Geometry, Combinatorial Geometry, Computational Geometry, or other areas of current interest.

**University Honors Seminar in Statistics (STA 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in statistics.

***\*Prerequisite courses must be completed with grades of "C" or better.***

**Topics in Statistics (STA 1932) 1-3 credits**

*Gordon Rule, computational*

Topics of interest to lower-division students.

**\* Introductory Statistics (STA 2023) 3 credits**

*Gordon Rule, computational*

*Prerequisite: MAT 1033 or MAC 1105 or MGF 1130 or MAC 2233*

In this course, students will utilize descriptive and inferential statistical methods in contextual situations, using technology as appropriate. The course is designed to increase problem-solving abilities

and data interpretation through practical applications of statistical concepts. This course is appropriate for students in a wide range of disciplines and programs. This is a General Education course.

### **Statistics Study Abroad (STA 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **\* SAS for Data and Statistical Analyses (STA 3024) 3 credits**

*Prerequisite: STA 2023 or equivalent*

This course introduces the SAS language in a lab-based format. The objective is to develop programming and statistical computing skills to address data management and analysis issues using SAS. The course provides an extensive survey of some of the most common statistical tools and provides decision-making strategies in selecting the appropriate statistical method for the data at hand.

### **\* Computational Statistics (STA 3100) 3 credits**

*Prerequisites: MAC 2311 and STA 2023 or higher*

Computer algorithms for evaluation, simulation and visualization, random number generation, sampling from prescribed distributions. Simulations, graphics for data display, computation of probabilities and percentiles, hypothesis testing, simple linear regression and multiple regression.

### **Intermediate Statistics Laboratory (STA 3163L) 1 credit**

*Gordon Rule, computational*

*Prerequisite: PSY 3234*

Computer organization, computer implementation of basic and intermediate statistical inferences that include describing data, graphic presentation, analysis of data. Applications will reflect the descriptive and statistical inferences appropriate to the discipline under which this course is offered (e.g., business, education, engineering, mathematics, psychology, etc.).

### **\* Introduction to Biostatistics (STA 3173) 3 credits**

*Prerequisite: MAC 1105*

Introduces basic statistical concepts and procedures that are necessary to conduct statistical analysis for biological researchers. The topics covered are probabilistic foundations, experimental designs and their analyses, summarizing and visualizing data, inferential statistics, including hypothesis tests and regression modeling.

\*Prerequisite courses must be completed with grades of "C" or better.

### **Cooperative Education - Statistics (STA 3949) 1-2 credits**

*Prerequisite: Permission of instructor*

*Grading: S/U*

**\* Probability and Statistics for Engineers (STA 4032) 3 credits**

*Prerequisite: MAC 2312*

Basic concepts of probability; random variables; discrete and continuous probability distributions; functions of random variables; estimation theory; tests of hypotheses.

**\* Applied Statistics 1 Lab (STA 4202L) 1 credit**

*Prerequisite: STA 4442*

*Corequisite: STA 4234*

This is a first course in regression analysis. Regression analysis explores relationships among variables by modeling a response. The course focuses on data analysis, statistical graphs and diagnostics via personal computing.

**\* Statistical Designs (STA 4222) 3 credits**

*Prerequisites: STA 4234, and MAC 2312*

Basic concepts of experimental design: randomized blocks, Latin squares, incomplete blocks, factorial designs, fractional factorials, nested designs. Introduction to design of sample surveys: simple random, stratified, cluster sampling; complex designs; ratio and regression estimation; enumerative versus analytical surveys. Student project required.

**\* Applied Statistics 1 (STA 4234) 2 credits**

*Prerequisite: STA 4442; Corequisite: STA 4202L*

Point and interval estimation, hypothesis tests, non-parametric procedures, contingency tables. Essential distribution theory. Linear models, including multiple regression and analysis of variance. Emphasis on data analysis, statistical graphics, and diagnostics via personal computing.

**\* RI: Statistical Learning (STA 4241) 3 credits**

*Prerequisites: STA 4234 or equivalent*

This is an introductory-level course in supervised learning with a focus on regression and classification methods. The course helps students to understand basic concepts, ideas and methods in statistical learning. Considerable amount of effort is also placed on computational aspects of algorithm implementation. This is a research-intensive (RI) course.

**\* Probability and Statistics 1 (STA 4442) 3 credits**

*Prerequisite: MAC 2312*

An introductory course treating combinatorics, probability spaces, laws of large numbers, and central limit theorem. An introduction to Markov processes, information theory and applications.

**\*Prerequisite courses must be completed with grades of "C" or better.**

**\* Probability and Statistics 2 (STA 4443) 3 credits**

*Prerequisite: STA 4442*

Properties of test statistics, estimation and testing, linear models, contingency tables; topics from non-parametric statistics, design of experiments or methods of inference.

**\* Linear Programming and Game Theory (STA 4618) 3 credits**

*Prerequisite: MAS 2103*

Dantzig's simplex method. Duality. Convexity and optimal strategies. Applications.

**\* Applied Statistics 2 (STA 4702) 3 credits**

*Prerequisite: STA 4234*

Multivariate statistical methods, including the multivariate normal distribution, component analysis, factor analysis, multivariate analysis of variance and regression, discriminant analysis, and causal modeling. Students will use SAS and/or SPSS statistical software.

**Applied Time Series and Forecasting (STA 4853) 3 credits**

*Prerequisite: STA 4234 or equivalent*

Gives a basic introduction to time series and forecasting methods that can be applied to finance, economics, engineering and the natural and social sciences. Topics covered include stationary processes, ARMA models, modeling and forecasting with ARMA processes, spectral analysis and non-stationary and seasonal time series models.

**Directed Independent Study (STA 4906) 1-4 credits**

*Prerequisite: Permission of instructor*

Study of topics relating to the special needs and interests of individual students.

**Directed Independent Research in Mathematical Sciences (STA 4915) 1-6 credits**

Students work closely with research mentors to conduct research and inquiry in Mathematical Sciences. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student.

**Directed Independent Research in Mathematical Sciences (STA 4916) 0-6 credits**

Students work closely with research mentors to conduct research and inquiry in Mathematical Sciences. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

### **Special Topics (STA 4930 ) 1-4 credits**

*Prerequisite: Permission of instructor*

Topics of interest to upper-division students.

### **Statistics Study Abroad (STA 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

## **Mathematics and Statistics Graduate Courses**

*\*Prerequisite courses must be completed with grades of "C" or better.*

### **Introduction to Data Science (CAP 5768) 3 credits**

(See [Computer Science and Computer Engineering courses](#), College of Engineering and Computer Science section)

### **\* Multivariable Analysis (MAA 5105) 3 credits**

*Prerequisites: MAA 4200, MAS 4107*

Derivative of a function of several variables, implicit and inverse function theorems, submanifolds of Euclidean space, rank theorem, tangent spaces, the derivative as a linear transformation, differential forms, integration on manifolds, Stokes' Theorem.

### **\* Introductory Analysis 1 (MAA 5228) 3 credits**

*Prerequisite: MAS 3156 or permission of instructor*

Metric space topology, uniform convergence, Arzela-Ascoli theorem, differentiation and integration of single variable functions, power series, Stone-Weierstrass Theorem, measure theory, Lebesgue integral, convergence theorems for the Lebesgue integral, absolute continuity, the fundamental theorem of calculus.

### **\* Introductory Analysis 2 (MAA 5229) 3 credits**

*Prerequisite: MAA 5228*

Continuation of topics in MAA 5228. Metric space topology, uniform convergence, Arzela-Ascoli theorem, differentiation and integration of single variable functions, power series, Stone-Weierstrass Theorem, measure theory, Lebesgue integral, convergence theorems for the Lebesgue integral, absolute continuity, the fundamental theorem of calculus.

### **\* Real Analysis (MAA 6306) 3 credits**

*Prerequisite: MAA 5229*

Abstract measure theory. The Lebesgue integral. Convergence. Radon Nikodym and Fubini theorems.  $L_p$  spaces and selected topics.

### **Complex Analysis 1 (MAA 6406) 3 credits**

*Prerequisite: MAA 5228*

The complex plane and its geometry, stereographic projection and linear fractional transformations, analytic and harmonic functions, contour integration, Cauchy's theorem and the calculus of residues, and special functions and conformal mapping.

### **Topics in Real and Complex Analysis (MAA 6416) 1-4 credits**

*Prerequisite: Permission of instructor*

Advanced treatment of topics such as theory of distributions, Fourier analysis, and special functions. May be repeated for credit.

**\*Prerequisite courses must be completed with grades of "C" or better.**

### **\* Introduction to Functional Analysis (MAA 6506) 3 credits**

*Prerequisites: MAS 5145, MAA 5228, and MAA 5229*

Introduction to the theory of functional analysis. Normed linear spaces, Hilbert spaces, Hahn-Banach Theorem, Open Mapping Theorem, Uniform Boundedness Principle, weak convergence, bounded linear operators. Applications to partial differential equations.

### **\* Introductory Combinatorics (MAD 5202) 3 credits**

*Prerequisites: MAC 2313 and MAD 2104 or permission of instructor*

An introductory course in combinatorics; graphs and networks, enumeration, lattices, designs, codes, applications, and proof techniques.

### **\* Introduction to Cryptology and Information Security (MAD 5474) 3 credits**

Classical ciphers and their analysis; unconditional versus computational security; basic constructions for stream ciphers; examples and modes of operation of block ciphers; cryptographic hash functions; public key encryption with ElGamal and RSA; digital signature schemes; Diffie-Hellman key exchange.

### **Introductory Discrete Mathematics (MAD 6108) 3 credits**

*Prerequisite: Enrolled in M.S.T. program or permission of instructor*

Topics include sets, logic, graph theory, algorithms, counting, recurrence equations and generating

functions. Advanced topics may be chosen from partially ordered sets, Boolean algebras, automata and game theory. This course is not intended for Ph.D. students.

### **Enumerative Combinatorics (MAD 6206) 3 credits**

*Prerequisite: Permission of instructor*

Introduction to enumeration. Sets and multisets, permutations, sieve methods, partially ordered sets, lattices, incidence algebra, Moebius inversion, and generating functions.

### **\* Combinatorics 2 (MAD 6207) 3 credits**

*Prerequisite: MAD 6206*

Advanced topics in graph theory, enumeration, generating functions and symmetric functions. Students are expected to present material from the textbook and to solve exercises.

**\*Prerequisite courses must be completed with grades of "C" or better.**

### **Topics in Combinatorics (MAD 6209) 1-4 credits**

*Prerequisite: Permission of instructor*

Advanced treatment of topics such as block designs, coding theory, enumeration, graph theory, matroid theory, and umbral calculus. May be repeated for credit.

### **\* Graph Theory (MAD 6307) 3 credits**

*Prerequisite: MAS 4107 or MAS 5311*

A first graduate course in theory and applications of graphs, including basic properties, algorithms, matchings, network flows, connectivity, colorings, planarity, vector spaces, and polynomials associated with a graph.

### **Computational Mathematics (MAD 6403) 3 credits**

*Prerequisite: Graduate standing or permission of instructor*

An introduction to some of the fundamental tools and methods of computational mathematics and their applications.

### **\* Numerical Analysis (MAD 6407) 3 credits**

*Prerequisites: MAA 5105, MAA 5228, and MAS 5145 or permission of instructor*

Graduate-level treatment of scientific computing and numerical analysis: floating point number systems, nonlinear systems of equations, function approximation, numerical optimization, numerical methods for differential equations.

### **\* Cryptanalysis (MAD 6478) 3 credits**

*Prerequisites: MAD 6477 or MAD 5474*

Entropy, probabilistic attacks. Passive and active attacks. Ciphertext-only, known-plaintext, chosen-plaintext, chosen-ciphertext attacks, adaptive attacks. Types of security. Know attacks on computationally secure systems. Meet in the middle attacks. Differential and linear cryptanalysis. Random number generators, tests, analysis and weakness.

**\* Coding Theory (MAD 6607) 3 credits**

*Prerequisites: MAS 4301 or permission of instructor*

Channels, introduction to information theory, Shannon's capacity theorem, linear codes, Hamming, cyclic codes, BCH codes, sphere packings, the Golay codes, weight enumerators, MacWilliams' equation.

**\*Prerequisite courses must be completed with grades of "C" or better.**

**Topics in Mathematics for Teachers (MAE 5935) 1-4 credits**

*\*Prerequisite courses must be completed with grades of "C" or better.*

**\* Introduction to Dynamical Systems and Chaos 1 (MAP 6211) 3 credits**

*Prerequisite: Engineering Mathematics 2*

Scalar autonomous equations, elementary bifurcations, scalar maps, one-dimensional chaos, scalar non-autonomous equations, bifurcations of periodic equations, equations on tori and circle maps, planar autonomous systems.

**\* Ordinary Differential Equations (MAP 6336) 3 credits**

*Prerequisites: MAA 5228 and MAS 5145, or permission of instructor*

Introduction to the theory of ordinary differential equations (ODEs), including existence, uniqueness, continuous dependence of solutions, the Hartman-Grobman Theorem, the Stable Manifold Theorem, the Poincare-Bendixson Theorem, and Floquet Theory. Applications to mechanical and biological systems.

**\* Partial Differential Equations (MAP 6345) 3 credits**

*Prerequisite: MAA 5105*

Introduction to the theory of partial differential equations. Laplace's Equation, the Heat Equation, the Wave Equation, first order equations, The Fourier Transform, Sobolev spaces, the Sobolev embedding theorems, and second order elliptic equations.

**Topics in Applied Mathematics (MAP 6436) 1-4 credits**

*Prerequisite: Permission of instructor*

Advanced treatment of topics including ordinary and partial differential equations, potential theory, the calculus of variations, and optimal control theory. May be repeated for credit.

**Internship in Applied Mathematics (MAP 6941) 1-6 credits**

*Prerequisites: Graduate level and permission of instructor*

Supervised internships individually assigned to accommodate graduate students' professional development in applied mathematics. May be repeated for a maximum of 6 credits.

**\* Linear Algebra (MAS 5145) 3 credits**

*Prerequisite: MAS 4107*

Linear transformations, eigenvalues and eigenvectors, characteristic and minimal polynomials, rational and Jordan canonical forms, determinants, quadratic forms, orthogonal diagonalization of symmetric matrices, unitary and Hermitian transformations.

**\* Introductory Abstract Algebra 1 (MAS 5311) 3 credits**

*Prerequisite: MAS 4301 or permission of instructor*

Groups, subgroups, and homomorphisms, the Sylow theorems, the structure theorem for finite abelian groups, elementary theory of fields and polynomial rings, the fundamental theorem of Galois theory.

**\* Introductory Abstract Algebra 2 (MAS 5312) 3 credits**

*Prerequisite: MAS 5311 or permission of instructor*

Continuation of MAS 5311. Groups, subgroups, and homomorphisms, the Sylow theorems, the structure theorem for finite abelian groups, elementary theory of fields and polynomial rings, the fundamental theorem of Galois theory.

**\* Algebraic Number Theory (MAS 6215) 3 credits**

*Prerequisites: MAS 5311, 5312*

The structure of the ring of integers in an algebraic number field; extension of primes and decomposition into products of prime ideals, action of the Galois group on these decompositions, bounds on the size of the ideal class group and the structure of the group of units.

**\*Prerequisite courses must be completed with grades of "C" or better.**

**Number Theory and Cryptography (MAS 6217) 3 credits**

Elementary number theory with applications to cryptography, including: congruences and modular arithmetic, finite fields, public key cryptography (RSA), primality testing and factoring.

**\* Algebraic Curves (MAS 6315) 3 credits**

*Prerequisites: Graduate standing; MAS 5311 and MAS 5312*

An introduction to algebraic curves. Topics include affine algebraic sets and varieties, local properties of plane curves, projective varieties, morphisms and rational maps.

**\* Advanced Algebra and Geometry (MAS 6318) 3 credits**

*Prerequisites: MAS 2103 and MAS 4301*

Integrative treatment of advanced topics in classical algebra and geometry. Not intended for students in the Ph.D. program in mathematics.

**\* Commutative Algebra (MAS 6333) 3 credits**

*Prerequisites: Graduate standing; MAS 5311 and MAS 5312*

An introduction to commutative rings. Topics include ideals, modules, rings and modules of fractions, integral dependence and valuations and chain conditions (Noetherian and Artinian rings).

**Topics in Algebra (MAS 6396) 1-4 credits**

*Prerequisite: Permission of instructor*

Advanced treatment of topics such as field theory and Galois theory, finite groups, abelian groups, ring theory, commutative rings, cohomology of algebraic systems and ordered algebraic structures. May be repeated for credit.

**Special Topics (MAT 5932) 1-4 credits**

*Prerequisite: Permission of instructor*

Lectures on advanced specialized topics. May be repeated for credit.

**Seminar in Mathematics (MAT 5938) 0-4 credits**

*Prerequisite: Permission of instructor*

This course is a graduate problem-solving seminar, intended to prepare students for the Ph.D. qualifying exams in algebra and analysis. A variety of problems is assigned each week, and students are expected to present and discuss solutions in class. *Grading: S/U*

**\* Supervised University Instruction in Mathematics (MAT 5946) 1-3 credits**

*Prerequisite: Permission of instructor*

Guidance and supervised practice in the art of lecturing undergraduate mathematics. May be repeated once for credit. *Grading: S/U*

**\* Problem Solving and Recreational Mathematics (MAT 6516) 3 credits**

*Prerequisites: MAA 4200 and MAS 4301*

Introduction to mathematical problem solving literature, principles and methods of problem solving, and analysis of selected famous problems in recreational mathematics. Not intended for students in the Ph.D. program in mathematics.

**\* Mathematics and Technology (MAT 6715) 3 credits**

*Prerequisites: MAS 2103 and MAA 4200*

Technology has the potential to enhance the understanding and emphasize the interconnectedness of mathematics. This class explores applications of different classes of computer software. The student learns how appropriate technology can be used to present, explore, and build mathematical intuition. This course is not intended for students in the Ph.D. program in mathematics.

**\*Prerequisite courses must be completed with grades of "C" or better.**

**Directed Independent Study (MAT 6907) 1-4 credits**

*Prerequisite: Permission of instructor*

Advanced topics relating to the special needs and interests of individual students.

**Special Topics (MAT 6933) 1-4 credits**

*Prerequisite: Permission of instructor*

Topics will vary. May be repeated for credit.

**Advanced Seminar in Mathematics (MAT 6939) 1-4 credits**

*Prerequisite: Permission of instructor*

Advanced seminar in mathematics on specialized topics. May be repeated for credit. *Grading: S/U*

**Master's Thesis (MAT 6971) 1-6 credits**

**Advanced Research in Mathematics (MAT 7978) 1-9 credits**

*Prerequisite: Admission to Ph.D. program*

Research that is focused and relevant to the student's course of study in the Ph.D. program in Mathematics. The course requires oversight by the student's dissertation advisor. *Grading: S/U*

**Dissertation (MAT 7980) 1-12 credits**

*Prerequisite: Admission to doctoral candidacy*

**Topics in the History of Mathematics (MHF 6405) 3 credits**

Studies of English translations of various mathematical classics from ancient to modern times, covering a wide range of various mathematical ideas relevant to the teaching of mathematics at the high school level.

**Calculus from a Historical Perspective (MHF 6410) 3 credits**

Selected topics in calculus from the historical point of view including Archimedes' quadrature of the parabola, the calculation of Pi, the Bernoulli numbers, and sums of powers of numbers.

**\* Advanced Euclidean Geometry (MTG 6226) 3 credits**

*Prerequisites: MAS 2103 and MAS 4301*

Emphasizes the uses of homogeneous barycentric coordinates in triangle geometry and of dynamic software to explore basic theorems and problems. Not intended for students in the Ph.D. program in mathematics.

**Applied Differential Geometry (MTG 6256) 3 credits**

*Prerequisite: MAA 5105*

Differentiable manifolds, affine connections, tensor analysis, Riemannian geometry and Lie groups, with applications to physics and complex variables.

**General Topology 1 (MTG 6316) 3 credits**

Basic axioms and concepts of point-set topology, Tietze extension theorem, Urysohn lemma, Tychonoff theorem.

**\*Prerequisite courses must be completed with grades of "C" or better.**

**\* Applied Computational Topology (MTG 6329) 3 credits**

*Prerequisites: MAS 2103 and (MAD 2502 or CAP 5768)*

An introduction to the computational methods of topology, focusing on topological data analysis, persistence homology and applications.

**\* Algebraic Topology (MTG 6345) 3 credits**

*Prerequisites: MAA 5228, MAA 5229, MAS 5311, and MAS 5312*

An introduction to the fundamental concepts and basic methods of algebraic topology: homotopy, homology, and cohomology of cell complexes and their applications to geometry and algebra.

**Fractal Geometry (MTG 6415) 3 credits**

*Prerequisite: Permission of instructor*

Fractal geometry describes the seemingly irregular shapes and patterns we encounter in the natural world. This course explores the mathematical concepts behind fractal geometry and gives numerous applications of integration of mathematics with the natural world.

### **Dynamical Systems, Chaos, and Computing (MTG 6418) 3 credits**

*Prerequisite: Permission of instructor*

Students reconstruct some modern mathematical discoveries in dynamical systems using widely accessible programs such as spreadsheets and dynamical geometry software. Explorations illustrate the relation of chaos theory to iteration of second order polynomials and fractal geometry as well as general mathematical patterns.

### **\* Biostatistics (STA 5195) 3 credits**

*Prerequisite: STA 4234*

An introduction to statistical tools used routinely for inference and data analysis in the health sciences. Topics include biostatistical design of medical studies, measure of disease occurrence and association, methods for rates and proportions, ROC analysis for screening and diagnosis, discrimination and classification, principal component analysis and factor analysis, log-linear models and survival analysis.

### **\* Statistical Computing (STA 6106) 3 credits**

*Prerequisite: STA 4443 or equivalent*

Algorithms in statistical computing: Random number generation, generating other distributions, random sampling and permutations. Matrix computations in linear models. Non-linear optimization with applications to statistical procedures. Other topics of current interest, such as issues of efficiency and use of graphics.

### **Survey of Statistics and Probability (STA 6116) 3 credits**

*Prerequisite: Enrolled in M.S.T. program or permission of instructor*

Topics include graphical analysis of data, statistical inference and modeling, analysis of variance and the design of experiments. Not intended for Ph.D. students in mathematics.

### **\* Survival Analysis (STA 6177) 3 credits**

*Prerequisite: STA 4234 or equivalent*

Introduces basic concepts of clinical trials, then the principles and methods of statistical inference that are commonly used for epidemiologic analysis of survival data. The major topics covered are: Basic concepts in survival analysis, types of censoring, life table and Kaplan-Meier, log-rank method and Cox proportional model. Software package R language is utilized.

**\* Biostatistics - Longitudinal Data Analysis (STA 6197) 3 credits**

*Prerequisite: STA 4234*

Course covers techniques for analyzing longitudinal or repeated measured data, including derivation and estimation of model parameters. Also covers univariate and multivariate analysis of variance for repeated measures, random or mixed-effect models, covariate pattern models, generalized estimating equations models, mixed-effect logistic regression models, and missing data in longitudinal studies.

**\* Applied Statistical Methods (STA 6207) 3 credits**

*Prerequisite: STA 4443 or STA 6326 or equivalent*

Overviews of normal theory inference and categorical data methods; basic concepts of experimental design; analysis of variance and covariance; introduction to regression models and selection procedures. Statistical software Minitab and R are used for data analysis.

**\* Regression Analysis (STA 6236) 3 credits**

*Prerequisites: STA 4032 or STA 4443 and senior or graduate standing*

This course provides basic theory, methods and applications of regression analysis. Topics covered include simple regression (least squares method), multiple regression, transformation, inference and correlation analysis, categorical variables, residual diagnostics, model building and multi-collinearity.

**\* Mathematical Statistics (STA 6326) 3 credits**

*Prerequisite: STA 6444*

Theory of inference, regression, ANOVA, robust procedures, or other selected topics.

**\* Mathematical Probability (STA 6444) 3 credits**

*Prerequisite: STA 4443*

Theory of random variables, stochastic processes, Brownian motion, renewal processes, martingales, or other selected topics and applications.

**Topics in Probability and Statistics (STA 6446) 1-4 credits**

Advanced treatment of topics from stochastic processes, limit laws, decision theory, and sequential methods. May be repeated for credit.

**\* Applied Time Series Analysis (STA 6857) 3 credits**

*Prerequisite: STA 4234*

This course introduces fundamental concepts and some common models for time series data. Topics include stationarity, autocovariance function and spectrum, integral representation of a stationary time series and interpretation, ARMA, ARIMA and GARCH models, estimation and forecasting,

multivariate time series, using R for the analysis of time series, and applications of time series.

### **Directed Independent Study (STA 6907) 1-4 credits**

Study of topics relating to the special needs and interests of individual students.

**\* Prerequisite courses must be completed with grades of "C" or better.**

## PHYSICS

### **Undergraduate Courses** /[link to graduate courses](#)

#### **Introduction to Astronomy (AST 2002) 3 credits**

This course provides a comprehensive look at modern astronomy, emphasizing the use of the scientific method and the application of physical laws to understand the Universe including Earth and its environment. Throughout this course, students develop the ability to discern scientific knowledge from non-scientific claims by using critical thinking. Designed for non-science majors; no credit for Physics B.S. majors. This is a General Education course.

#### **Astronomy and Astrophysics (AST 3018) 3 credits**

*Prerequisites: AST 2002 and (PHY 2048 or PHY 2053)*

*Corequisite: PHY 2048 or PHY 2053*

Survey of astronomy and astrophysics for physical science, engineering or mathematics majors. Covers a broad range of astronomical topics from orbital mechanics to cosmology. Focuses on explaining astrophysical processes through observation and theoretical models.

#### **Solar System Astronomy (AST 3110) 3 credits**

*Prerequisites: AST 2002 and (PHY 2048 or PHY 2053)*

*Corequisite: PHY 2048 or PHY 2053*

An intermediate, interdisciplinary course on the nature and dynamics of the solar system through applications of physics, atmospheric science, chemistry and geology. The course expands students' understanding of the different bodies in the solar system, of the fundamental principles of Earth processes to explain/predict processes on other bodies in or outside the solar system and to help them to consider the bodies for future exploration.

#### **Techniques of Observational Astronomy (AST 3722) 3 credits**

*Prerequisites: AST 2002 and (PHY 2048 or PHY 2053)*

*Corequisite: PHY 2048 or PHY 2053*

An in-depth treatment of how professional astronomers gather, reduce, analyze and interpret observations, mostly focused on the optical/infrared portion of the electromagnetic spectrum.

**Stars and the Galaxy (AST 4300) 3 credits**

*Prerequisites: AST 2002 and (PHY 2048 or PHY 2053)*

*Corequisite: PHY 2048 or PHY 2053*

Course provides a solid foundation in the subject of stellar structure and how it relates to our understanding of the Milky Way and its neighbors in the Local Group. The approach concentrates largely on the stellar populations of these systems, the techniques used to study their chemical abundances, ages and distances.

**Galaxies and Cosmology (AST 4402) 3 credits**

*Prerequisites: AST 2002 and (PHY 2048 or PHY 2053)*

*Corequisite: PHY 2048 or PHY 2053*

Study of different types of galaxies, their evolution, their relationship to active galaxies and quasars and the evolution of the Universe.

**First-Year Physics Seminar (PHY 1090) 1 credit**

This course introduces beginning Physics majors to the department, its faculty, resources and research opportunities.

**University Honors Seminar in Physics (PHY 1930) 1-4 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in physics.

**Physics for Engineers 2 (PHY 2044) 3 credits**

*Prerequisites: MAC 2312 and PHY 2048*

Intended for engineering majors, the course surveys fundamental laws and phenomena of electricity, magnetism, and optics. Emphasis on mathematical analysis of physical problems.

**General Physics 1 or General Physics for Engineers 1 (PHY 2048) 3 or 4 credits**

*Prerequisite: MAC 2311*

This calculus-based course serves as the first in a two-part series, covering topics like kinematics, dynamics, energy, momentum, rotational motion, fluid dynamics, oscillatory motion and waves. Designed for science and engineering majors, the course integrates critical thinking, analytical skills and real-world applications. The 3-credit version of this class is exclusively for Engineering majors. This is a General Education course.

### **General Physics 1 Laboratory (PHY 2048L) 1 credit**

*Corequisite: PHY 2048 or PHY 2053*

Experiments in mechanics, fluids, heat, wave motion and sound comprise this course. Several classes cover developing theoretical problem solving techniques. This is a General Education course.

### **General Physics 2 (PHY 2049) 4 credits**

*Prerequisites: PHY 2048 and MAC 2312*

Intended for science majors, the course surveys fundamental laws and phenomena of electricity, magnetism, and optics. Emphasis on mathematical analysis of physical problems.

### **General Physics 2 Laboratory (PHY 2049L) 1 credit**

*Corequisite: PHY 2049 or PHY 2054 or PHY 2044*

Experiments in electricity and magnetism, optics, and modern physics comprise this course. Several classes cover developing theoretical problem solving techniques.

### **College Physics 1 (PHY 2053) 4 credits**

*Prerequisite: Minimum grade of "C" in one of the following: MAC 1114 or 1147 or 2233 or 2311*

This course is the first in a two-part series intended for non-physics majors, offering an algebra and trigonometry approach to topics such as kinematics, dynamics, energy, momentum, rotational motion, fluid dynamics, oscillatory motion and waves. The course fosters analytical and critical thinking skills to promote a scientific understanding of the real world. No credit for physics majors. This is a General Education course.

### **College Physics 2 (PHY 2054) 4 credits**

*Prerequisite: PHY 2053*

The algebra- and trigonometry-based course surveys fundamental laws and phenomena of electricity and magnetism, optics, special relativity, atomic and nuclear physics. Emphasis on understanding of physical concepts through examples drawn from the physical and life sciences. No credit for physics majors.

### **Physics Study Abroad (PHY 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Survey of Modern Physics (PHY 3101C) 3 credits**

*Prerequisites: PHY 2049 and MAP 3305*

Survey of the quantum and statistical theories underlying modern physics as well as an overview of

atomic and nuclear physics. The in-class lecture section will be complemented by experimental and computational exercises.

### **Classical Mechanics (PHY 3221) 3 credits**

*Prerequisites: PHY 2048, MAP 3305*

This course covers analytical mechanics through the Lagrangian and Hamiltonian variational formalisms. It emphasizes problem solving in applications to central-force and rigid-body motion as well as small oscillations.

### **Electromagnetism 1 (PHY 3323) 3 credits**

*Prerequisite: PHY 2049, MAC 2313*

Study of dynamic fields and the unification of electric and magnetic phenomena. Emphasis on induction and radiation phenomena with applications to optics and relativistic electrodynamics.

### **Electromagnetism 2 (PHY 3324 ) 3 credits**

*Prerequisite: PHY 3323*

This course studies dynamic fields and the unification of electric and magnetic phenomena. In particular, it considers induction and radiation phenomena as well as topics in optics and relativistic electrodynamics.

### **Physical Electronics (PHY 3722C) 3 credits**

*Prerequisite: PHY 2049*

A series of interrelated lectures and laboratory exercises that studies D.C. and A.C. circuits, transistors, vacuum tubes, rectifiers, amplifiers, oscillators, and pulse circuits. Emphasis on building circuits, including integrated circuits.

### **Undergraduate Laboratory 1 (PHY 3802L) 1-2 credits**

*Prerequisite: PHY 3101C*

A series of laboratory experiments in classical and modern physics, electrical measurement techniques, and optics, with applications to problems in atomic, nuclear, and solid-state physics comprise this course.

### **Third-Year Physics Seminar (PHY 3932) 1 credit**

*Prerequisite: PHY 3101C*

Focuses on career development for upper-division Physics majors. Topics covered include graduate school applications, CV/résumé development and undergraduate research opportunities.

### **Statistical Physics (PHY 4523) 3 credits**

*Prerequisites: PHY 3101C*

An introduction to the statistical mechanics and thermodynamics of macroscopic systems in equilibrium. This course develops various ensemble theories and uses them to study the physical properties of classical and quantum ideal gases, crystals, magnetic materials and other systems.

**Quantum Mechanics 1 (PHY 4604) 3 credits**

*Prerequisite: PHY 3101C*

This course introduces the modern theory of quantum mechanics. It studies both wave and matrix mechanics as well as their interrelation in the modern theory. Applications studied include particle systems, the simple harmonic oscillator, and the hydrogen atom.

**Quantum Mechanics 2 (PHY 4605) 3 credits**

*Prerequisite: PHY 4604*

Continuation of the development of modern quantum mechanics with emphasis on approximation methods suitable for analyzing more realistic quantum systems. Course also examines one or more advanced topics of current interest in the field.

**Undergraduate Laboratory 2 (PHY 4803L) 1 credit**

*Prerequisite: PHY 3101C*

Continued laboratory experiments in classical and modern physics, electrical measurement techniques and optics, with applications to problems in atomic, nuclear and solid-state physics.

**Directed Independent Study (PHY 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

Study of topics in physics relating to the special needs and interests of individual students.

**Undergraduate Research (PHY 4910) 1-6 credits**

*Prerequisite: Permission of instructor*

This course offers credit to undergraduates participating in current research within the department.

**Special Topics (PHY 4936) 1-4 credits**

*Prerequisite: Permission of instructor*

Lectures and directed reading on topics of contemporary interest in physics.

**Physics Study Abroad (PHY 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

**Undergraduate Thesis (PHY 4972) 3-6 credits**

*Prerequisite: Permission of instructor*

This course offers credit to undergraduates participating in current research within the department and preparing a final activity report. Undergraduate theses must be approved by research supervisors and the department chair, but need not be defended. *Grading: S/U*

**Computational Physics (PHZ 3151C) 3 credits**

*Prerequisites: MAC 2313, PHY 3101C*

The course covers selected topics in numerical computation and computer-assisted analysis, with applications to physical systems.

**Mathematical Methods for Physics (PHZ 4113) 3 credits**

*Prerequisite: MAP 3305*

This course develops applied mathematics for the physical sciences. It introduces integral transform, Green's function and orthogonal function expansion methods for solving differential equations. It also examines selected advanced topics, such as complex variables.

**Introduction to Biophysics (PHZ 4710) 3 credits**

*Prerequisites: PHY 2054 or PHY 2049 or equivalent*

An introductory survey of the ideas and application of physics in the realm of biology. Accessible to both Physics and Biology students. Emphasis is placed on how the ideas and tools of statistical physics can be used to give physical insights into complex biological problems with the aim of reaching new levels of quantitative understanding and prediction.

**Physical Science (PSC 2121) 3 credits**

A self-contained course for non-science majors that emphasizes analytical thinking and problem solving. It covers essential concepts in astronomy, physics, chemistry, geology and meteorology. No credit for both PSC 2121 and one of PHY 2043, PHY 2048 or 2053. This is a General Education course.

**Physics Graduate Courses**

**Directed Independent Study (AST 6907) 1-3 credits**

Independent study of advanced topics supervised by a member of the Physics faculty.

**Topics in Physics (PHY 5935) 1-4 credits**

An intensive study of topics of special interest to inservice teachers. It provides no credit toward a major in Physics.

### **Special Topics (PHY 5937) 1-4 credits**

*Prerequisite: Permission of instructor*

Lectures and directed reading in advanced physics.

### **Mechanics (PHY 6247) 3 credits**

Classical mechanics from the advanced standpoint: Hamilton's principle, Lagrange's and Hamilton's equations, canonical transformations, Hamilton-Jacobi equations, and integral invariants.

### **Electromagnetism (PHY 6346) 3 credits**

Boundary-value problems in electrostatics, magnetostatics and steady currents; it looks at multipoles, dielectrics, Maxwell's equations, and energy and momentum of the electromagnetic field.

### **Electromagnetic Fields (PHY 6347) 3 credits**

*Prerequisite: PHY 6346*

Plane electromagnetic waves and wave propagation, wave guides, simple radiating systems, radiation from moving charges, and scattering and multipole fields.

### **Statistical Mechanics (PHY 6536) 3 credits**

Theory and application of classical and quantum statistical mechanics.

### **Quantum Mechanics 1 (PHY 6645) 3 credits**

Fundamental concepts of quantum mechanics, quantum dynamics, angular momentum, exactly solvable three-dimensional problems, symmetry in quantum mechanics, approximation methods, scattering theory.

### **Quantum Mechanics 2 (PHY 6646) 3 credits**

*Prerequisite: PHY 6645*

Advanced concepts of quantum mechanics, many-particle theory and the local density approximation, introduction to relativistic and quasi-relativistic quantum theory, time-dependent perturbation theory and the interaction of particles with radiation.

### **Quantum Field Theory 1 (PHY 6668) 4 credits**

*Prerequisite: PHY 6645*

Introduction to relativistic particle equations (Klein-Gordon, Dirac, Maxwell, Proca); classical field theory (Euler Lagrange equations and Noether's theorem); symmetries and invariances; introduction to field quantization; quantization of the Klein-Gordon, Dirac and Maxwell fields; covariant commutation relations; S-matrix expansion; Wick's theorem; QED S-operators and S-matrix elements to second order.

### **Quantum Field Theory 2 (PHY 6669) 3 credits**

*Prerequisite: PHY 6668*

Cross sections, Spin sums, polarization sums, trace theorems; calculation of QED interactions; radiative corrections; renormalization; introduction to weak interactions; leptonic weak interactions; IVB theory; gauge theory of weak interactions; the Goldstone model; the Higgs model; standard electro-weak theory.

### **Directed Independent Study (PHY 6907) 1-3 credits**

Independent study of advanced topics supervised by a member of the Physics faculty.

### **Graduate Research (PHY 6918) 1-12 credits**

*Prerequisite: Permission of instructor*

Supervised research in physics for master's degree. *Grading: S/U*

### **Graduate Colloquium (PHY 6920) 1 credit**

*Prerequisite: Permission of instructor*

This includes lectures and discussion on current topics in physics by graduate students, faculty, or visitors. *Grading: S/U*

### **Special Topics (PHY 6938) 1-4 credits**

Lectures and reading in physics.

### **Master's Thesis (PHY 6971) 1-12 credits**

*Prerequisite: Permission of graduate coordinator*

*Grading: S/U*

### **Advanced Research in Physics (PHY 7978) 1-9 credits**

*Prerequisite: Admission to Ph.D. program*

Research that is focused and relevant to the student's course of study in the Ph.D. program in Physics. The course requires oversight by the student's dissertation advisor. *Grading: S/U*

### **Dissertation (PHY 7980) 1-12 credits**

*Prerequisite: Admission to doctoral candidacy*

*Grading: S/U*

### **Mathematical Physics (PHZ 5115) 3 credits**

Further topics in mathematical physics including: solution of partial differential equations by Greens functions, perturbation theory, integral equations, calculus of variations, and topics of special interest.

### **Mathematical Physics 2 (PHZ 5116) 3 credits**

Topics in mathematical physics including: complex variables, calculus on manifolds, Riemannian geometry, Lie groups, connections and curvature on fiber bundles, and/or selected topics of special interest.

### **Computational Physics (PHZ 5156) 3 credits**

*Prerequisite: Two semesters of calculus or permission of instructor*

Introduction to the use of numerical methods to solve realistic physics problems. Emphasis on good programming techniques and on obtaining insight into the problem rather than just numerical answers. Discussion of recent developments such as distributed and symbolic computing.

### **Introduction to Biophysics (PHZ 5715) 3 credits**

*Prerequisites: PHY 2049 or PHY 2054 or equivalent*

A survey of the ideas and application of physics in the realm of biology designed to be accessible to physics or biology students. Emphasis on how the ideas of statistical physics can be used to give physical insights into complex biological problems with quantitative understanding and prediction.

### **Numerical Relativity (PHZ 7609) 3 credits**

*Prerequisite: PHY 6938 (General Relativity)*

Offers an introduction to the mathematical formalisms employed to solve the Einstein equations numerically.

### **Radiation Biology (RAT 6204) 3 credits**

*Prerequisite: Permission of instructor*

An overview of the effects of ionizing radiations on human and other biological systems. The course involves consideration of cell survival after exposure to ionizing radiations, repair of radiation damage, radiosensitizers and radioprotectors, doses and risks in diagnostic radiology, cardiology, nuclear medicine and basic safety rules. A student seminar is required at the end of the course.

### **Radiation Protection and Safety (RAT 6310) 3 credits**

*Prerequisite: Permission of instructor*

Course provides students with the knowledge and technical background to understand the calculation methodology, compliance with safety standards and use of quantitative risk assessment for radiation protection and safety.

### **Shielding and Commissioning (RAT 6376) 3 credits**

*Prerequisite: Permission of instructor*

Covers the science of opening a new radiation oncology center. Covers shielding calculations, installing and running the acceptance testing of a linear accelerator, high dose rate brachytherapy afterloader, CT simulator, treatment planning systems, commissioning of the treatment planning systems.

### **Medical Imaging Physics ( RAT 6616 ) 3 credits**

*Prerequisite: Graduate standing*

Course covers the mathematical and physical principles of medical imaging and its applications as recommended by the AAPM. Students obtain a good understanding of Radiography, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Ultrasound Imaging (US), Fluorescence and Nuclear Medical Imaging.

### **Radiation Therapy Physics (RAT 6628) 3 credits**

Introductory course with a clinical orientation that reviews the rationale, basic science, methods, and applications of radiation therapy to the treatment of human diseases. Low- and high-energy photon therapy, electron and proton therapy, and low- and high-dose rate brachytherapy.

### **Advanced Photon Beam Radiation Therapy (RAT 6629) 3 credits**

*Prerequisite: RAT 6628*

Course covers the physics and clinical application of advanced external beam photon therapies with special emphasis on IMRT (Intensity Modulated Radiation Therapy).

### **Radiation Physics (RAT 6686) 3 credits**

Course covers the basics of ionizing and non-ionizing radiation, atomic and nuclear structure, basic nuclear and atomic physics, radioactive decay, interaction of radiation with matter, radiation detection, and dosimetry.

### **Nuclear Medical Physics ( RAT 6687 ) 3 credits**

*Prerequisite: Permission of instructor*

Covers the fundamentals of nuclear physics and its application in the medical field as recommended by the AAPM. Students gain understanding of the physics and instrumentation of nuclear medicine.

### **Directed Independent Study (RAT 6904) 1-3 credits**

*Prerequisite: Permission of instructor*

Guided study of advanced topics in medical physics relating to particular needs of individual students.

### **Directed Independent Study (RAT 6907) 1-3 credits**

Independent study of advanced topics supervised by a member of the Physics faculty.

### **Seminar in Medical Physics (RAT 6932) 1 credit**

*Prerequisite: Permission of instructor*

Includes lectures and discussion on current topics in medical physics by faculty, graduate students and visitors. *Grading: S/U*

### **Radiation Therapy: Clinical Practicum and Shadowing (RAT 6947) 3 credits**

*Prerequisites: RAT 6628, RAT 6629*

Application of medical physics to cancer therapy in a hospital setting under close supervision. Dosimetry, calibrations, commissioning, radiation survey, and treatment planning. Clinically oriented laboratory-type projects are assigned. *Grading: S/U*

### **Master's Thesis (RAT 6975) 7 credits**

*Prerequisite: Permission of advisor*

Research supervised by the thesis advisor. *Grading: S/U*

## PSYCHOLOGY

**Undergraduate Courses** /[link to graduate courses](#)

### **Comparative Animal Behavior (CBH 4024) 3 credits**

*Prerequisite: PSY 1012, BSC 1010*

An introduction to the evolution and adaptive significance of animal behavior. Topics include traditional and modern ethological concepts; sensory function; orientation, migration and communication; territoriality and animal social behavior.

### **Psychopathology (CLP 4144) 3 credits**

*Prerequisite: PSY 1012*

Understanding of so-called physical and mental illness by means of conventional and common path theories.

### **Clinical Psychology (CLP 4343) 3 credits**

*Prerequisite: PSY 1012*

Provides an understanding of the practice of modern clinical psychology. Students will be able to understand the theory and application of evidence-based practice in clinical psychology, including assessment, treatment, forensic settings, healthcare applications and organizational consulting.

### **Forensic Psychology (CLP 4390) 3 credits**

*Prerequisite: PSY 1012 with minimum grade of "C-"*

This course provides an introduction to forensic psychology – the application of psychological science and professional psychological practice to the law to inform a pending legal decision. “Forensic” comes from the Latin word for “court,” and “forensic psychologists” are psychologists who help courts make decisions about people when some question related to psychology is involved. Thus, forensic psychologists are typically involved in cases “preadjudication,” which means before the legal decision is made.

### **Psychology of Human Development (DEP 3053) 3 credits**

*Prerequisite: PSY 1012*

Examines changes in behavior over the course of development and the processes underlying these changes. All major areas of child development are reviewed, including cognitive, social/personality, language, and biological, with attention to development in adolescence and adulthood.

### **Personality and Social Development (DEP 4095) 3 credits**

*Prerequisites: PSY 1012 and DEP 3053*

A review of psychological theory and research on age trends and individual differences in personality and social development.

### **Infant Development (DEP 4115) 3 credits**

*Prerequisites: PSY 1012 and DEP 3053*

*Corequisite: DEP 3053*

This course provides an overview of the field of infant development with a particular focus on behavioral development. Topics to be considered are physical, physiological, sensory, perceptual, and cognitive development during the first year of life in humans and other species.

### **Language Acquisition (DEP 4130) 3 credits**

*Prerequisites: PSY 1012 and DEP 3053*

A broad background course in the psychological aspects of language and its acquisition. Topics include the psychology and acquisition of grammar, word meaning, reading comprehension, and conversational rules, among others.

### **Cognitive Development (DEP 4163) 3 credits**

*Prerequisites: PSY 1012 and DEP 3053*

An examination of psychological research and theory of age changes in children's thinking. Topics include Piagetian theory and concept and memory development.

### **Psychology of Adolescence (DEP 4305) 3 credits**

*Prerequisite: PSY 1012*

A topical study of adolescent behavioral and psychological development with emphasis on theory, methods of inquiry, and practical implications.

### **Human Development Laboratory (DEP 4797C) 3 credits**

*Prerequisite: DEP 3053*

Students participate in research activities and seminar discussions that illustrate current methods in the psychological study of human development. Firsthand research experiences and related readings provide exposure to and training in the practice of human developmental research applied to different age periods and domains.

### **Cognition (EXP 3505) 3 credits**

*Prerequisites: PSY 1012 and PSY 3234 with minimum grade of "C-"*

*Corequisite: PSY 3234 with minimum grade of "C-"*

Experimental and theoretical aspects of human learning and cognition. Topics include attention, human learning and memory, organization of knowledge, concept formation and problem solving.

### **Human Perception (EXP 4204) 3 credits**

*Prerequisites: PSY 1012 and either EXP 3505 or PSB 3002*

The development of theoretical models of human perception on the basis of experimental research into visual sensory systems, the perception of movement and space, and differential information processing capacities.

### **Psychology of Motivation (EXP 4304) 3 credits**

*Prerequisite: PSY 1012*

A critical examination of the concept of motivation as an explanatory mechanism in understanding behavior.

### **Psychology of Learning (EXP 4404) 3 credits**

*Prerequisite: PSY 1012 and PSY 3213*

Lectures concerned with problems, methods and content in the area of learning.

### **Human Memory (EXP 4525) 3 credits**

*Prerequisite: PSY 1012*

This course presents psychological research and theory related to human memory. Multiple memory systems are discussed, including short-term or working memory, long-term memory, procedural

memory, implicit memory, and semantic memory. Different populations of memory users are also discussed, including children, older adults, and amnesics.

### **Cognition Laboratory (EXP 4934C) 3 credits**

*Prerequisites: PSY 1012 and EXP 3505 (may be taken concurrently)*

Students apply knowledge of cognitive psychology to the testing of scientific hypotheses, improve skills in oral and written reports, and obtain firsthand experience with the ways that cognitive psychologists use computers to conduct research.

### **Industrial Organizational Psychology (INP 4003) 3 credits**

*Prerequisite: PSY 1012 with minimum grade of "C-"*

This course describes the applications of psychology to the modern business world, including advertising and marketing, negotiation and selling, customer service, hiring and firing, motivation and teamwork, coaching and discipline, supervision and leadership, organizational stress-management, dysfunctional work behavior, workplace violence and harassment, conflict resolution and crisis management, organizational culture and business ethics, and careers in business psychology and corporate consulting.

### **Interpersonal Processes (PCO 4734) 3 credits**

*Prerequisites: PSY 1012 and either PSY 3213 or PSY 3234*

An examination of psychological processes involved in the development, maintenance and dissolution of interpersonal relationships.

### **Personality Theories (PPE 4003) 3 credits**

*Prerequisite: PSY 1012*

Psychoanalytic, behavioristic and humanistic theories of personality. Primary emphasis on cognitive systems of individuals.

### **Experimental Studies of Personality (PPE 4700) 3 credits**

*Prerequisite: PSY 1012*

An examination of psychological theory and research on how a variety of personality trait dimensions interact with situations to determine social behavior.

### **Biological Bases of Behavior (PSB 3002) 3 credits**

*Prerequisites: PSY 1012 and PSY 3234 with minimum grade of "C-"*

*Corequisite: PSY 3234 with minimum grade of "C-"*

A study of the structures and functions of the neural and endocrine systems as they relate to behavior.

### **Computer Lab in Psychobiology (PSB 3002L) 3 credits**

*Prerequisite: PSB 3002*

Computer-based system of instruction that covers cell biology, electrical theory, resting-membrane potentials, action potentials, synaptic potentials, neuroanatomy and neurochemistry, and sensory systems.

### **Biological Bases of Behavior 2 (PSB 4006) 3 credits**

*Prerequisite: PSB 3002*

A survey of the biological bases of specific species-typical behaviors such as sleep, language and memory, ingestive behaviors, reproductive behavior, emotion and stress, and human communication.

### **Neuropsychology (PSB 4240) 3 credits**

*Prerequisites: PSY 1012 and PSB 3002*

Explores the fundamentals of human neuropsychology, including the effects of brain damage on memory, language and spatial behavior, development and recovery of function.

### **Human Psychophysiology (PSB 4323) 3 credits**

*Prerequisite: PSB 3002*

An introduction to the study of human physiological responses (EEG, EKG, etc.) and related psychological processes.

### **Psychopharmacology (PSB 4444) 3 credits**

*Prerequisites: PSY 1012 and PSB 3002*

An introduction to the major classes of psychoactive drugs and how they affect behavior. Equal emphasis will be given to laboratory and clinical studies.

### **Developmental Psychobiology (PSB 4504) 3 credits**

*Prerequisite: PSY 1012*

Examines biological and psychological contributions to the development of behavior. Topics include: the concept of innate behavior; critical periods in early development; and selected aspects of motivational development.

### **RI: Neurobiology of Learning and Memory (PSB 4810) 3 credits**

*Prerequisites: PSB 3002, PSB 4006, PSY 3213*

This course examines contemporary and classical research on the neural substrates of learning and memory. The format includes 50 percent lectures and 50 percent student presentations of research papers. Students work in groups to design and complete a research project during the semester. This is a research-intensive (RI) course.

### **Neuroscience of Sleep (PSB 4842) 3 credits**

*Prerequisite: PSB 3002 with minimum grade of "C-"*

This course introduces the field of sleep science. Topics addressed include the neurochemistry of sleep, circadian biology, normal sleep physiology, sleep across the lifespan, diagnostic sleep testing, sleep deprivation, sleep disorders and dreams.

### **Directed Independent Research in Neuroscience and Behavior (PSB 4915) 1-3 credits**

*Prerequisite: Permission of instructor*

Students work closely with research mentors to conduct research and inquiry in neuroscience and behavior. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student.

### **Directed Independent Research in Neuroscience and Behavior (PSB 4917) 0-3 credits**

*Prerequisite: Permission of instructor*

Students work closely with research mentors to conduct research and inquiry in neuroscience and behavior. Requirements for the course and the criteria for evaluation are agreed upon by the research mentor and the student. *Grading: S/U*

### **Special Topics in Neuroscience and Behavior (PSB 4930) 3 credits**

*Prerequisite: Permission of instructor*

A detailed examination of selected topics of interest to students in neuroscience and behavior.

### **General Psychology (PSY 1012) 3 credits**

In this course, students will gain an introduction to the scientific study of human behavior and mental processes. Topics may be drawn from historical and current perspectives in psychology. This is a General Education course.

### **University Honors Seminar in Psychology (PSY 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in psychology.

### **Special Topics in Psychology (PSY 2930) 1-3 credits**

*Prerequisite: Permission of department*

Selected topics in psychology.

### **Psychology Study Abroad (PSY 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Careers in Psychology (PSY 3070) 3 credits**

*Pre- or corequisite: PSY 1012*

The purpose of this course is to introduce the discipline of psychology and describe careers that psychology majors typically pursue.

### **Research Methods in Psychology (PSY 3213) 3 credits**

*Prerequisites: PSY 1012 and PSY 3234 with minimum grade of "C-"*

*Corequisite: PSY 3234 with minimum grade of "C-"*

Introduction to research design and methods in psychology. Topics include observation and description of behavior; methods of measurement; and analytic and quasi-analytic experimental design. Laboratory exercises included to illustrate designs and provide experience in research report writing.

### **Experimental Design and Statistical Inference (PSY 3234) 3 credits**

*Gordon Rule, computational*

*Prerequisite: PSY 1012*

Interpretation of data and inferential techniques are considered for a variety of experimental paradigms in the life sciences including small and correlated samples.

### **Cooperative Education - Psychology (PSY 3949) 1-3 credits**

*Grading: S/U*

### **Multicultural Psychology (PSY 4027) 3 credits**

*Prerequisite: PSY 1012*

*Prerequisites or Corequisites: PSY 3213 and PSY 3234*

The purpose of this course is to examine cultural processes as a defining characteristic of what it is to be human and as a central, or proximal, variable in psychology. The course is intended to provide students with a better appreciation of the myriad ways in which culture determines psyche and behavior and to enhance their awareness of the countless variation in human behavior across cultures. This course prepares students to navigate modern issues of multiculturalism in a diverse society.

### **Psychometrics and Psychological Testing (PSY 4302) 3 credits**

*Prerequisites: PSY 1012 and PSY 3234*

Theory and method in personality measurement: reliability, validity, examples of tests used to measure personality traits and other dispositions.

### **History and Systems of Psychology (PSY 4604) 3 credits**

*Prerequisite: PSY 1012*

Philosophical sources. Emergence of such systems as structuralism, functionalism, behaviorism, and Gestalt psychology and contemporary theory in psychology.

**Evolutionary Psychology (PSY 4810) 3 credits**

*Prerequisite: PSY 1012*

Provides a broad overview of historical and modern research and theory in evolutionary psychology, the study of the evolution of the mechanisms of the mind. Topics include mating, parenting, social exchange, and violence.

**Directed Independent Study (PSY 4906) 1-3 credits**

*Prerequisite: Permission of instructor*

*Grading: S/U*

**Directed Independent Research in Psychology (PSY 4915) 1-3 credits**

*Prerequisite: Permission of instructor*

Students work with research mentors to conduct research and inquiry in Psychology. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student.

**Directed Independent Research in Psychology (PSY 4916) 0-3 credits**

*Prerequisite: Permission of instructor*

Students work with research mentors to conduct research and inquiry in Psychology. Requirements for the course and the criteria for evaluation are agreed upon by the mentor and student. *Grading: S/U*

**Special Topics (PSY 4930) 1-3 credits**

*Prerequisite: Permission of instructor*

Selected topics in Psychology.

**Honors Seminar (PSY 4932) 3 credits**

*Prerequisite: Permission of department*

**Honors Critical Questions in Psychology (PSY 4935) 3 credits**

*Prerequisites: 3.2 GPA and invitation from faculty (permission of instructor)*

An advanced seminar-style course for undergraduate honors students in the B.A. in Psychology or B.S. in Neuroscience and Behavior programs, which introduces key concepts on controversial issues from different psychological viewpoints. Topics vary from semester to semester, such as relationship between psychological development and evolution, incidence of violence in society and prosecution of violent acts, and whether or not artificial intelligence is a good model for human intelligence.

### **Psychology Study Abroad (PSY 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Honors Thesis (PSY 4970) 1-3 credits**

*Prerequisite: Permission of department*

*Grading: S/U*

### **Social Psychology (SOP 3004) 3 credits**

*Prerequisites: PSY 1012 and PSY 3234 with minimum grade of "C-"*

*Corequisite: PSY 3234 with minimum grade of "C-"*

Introduction to psychological theory and research on the nature and causes of human social behavior.

### **Psychology of Women (SOP 3742) 3 credits**

*Prerequisite: PSY 1012*

Lectures and discussions dealing with the empirical and theoretical literature related to the psychological aspects of sexual differentiation in general, and women in particular.

### **Social Behavior Laboratory (SOP 4230C) 3 credits**

*Prerequisite: PSY 1012*

Methods and theories relevant to the scientific study of social behavior, with special attention to social attraction, helping and compliance, group productivity, and the spread of social influence in groups and populations. Lecture and laboratory.

### **Police Psychology (SOP 4750) 3 credits**

*Prerequisite: PSY 1012 with minimum grade of "C-"*

Understand the current applications of psychology to policing and law enforcement, including (1) operational assistance (community policing, crisis negotiation, special units, criminal investigation); (2) clinical services (critical incident response, officer-involved shooting, law enforcement psychotherapy, family services); and (3) administrative and management services (officer selection and screening, fitness-for-duty, discipline and internal investigation).

### **Psychology and the Law (SOP 4751) 3 credits**

*Prerequisite: PSY 1012*

Course helps students understand the modern applications of psychology to civil and criminal competencies, torts and personal injury, investigation and interviewing, the insanity defense, criminal classification, juvenile and family law, sexual deviance and violent behavior, offender profiling, dangerousness prediction, trial testimony, jury psychology and the role of the psychologist as expert

witness.

### **Intermediate Statistics Lab (STA 3163L) 1 credit**

*Gordon Rule, computational*

*Prerequisites: PSY 1012 and PSY 3234 (may be taken concurrently)*

Computer organization, computer implementation of basic and intermediate statistical inferences that include describing data, graphic presentation, analysis of data. Applications will reflect the descriptive and statistical inferences appropriate to the discipline under which this course is offered (e.g., business, education, engineering, mathematics, psychology, etc.).

### **Social Psychology Study Abroad (SYP 2952) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

### **Social Psychology Study Abroad (SYP 4957) 1-6 credits**

*Prerequisite: Sophomore standing*

Credit for enrollment in approved study abroad programs.

## **Psychology Graduate Courses**

### **Seminar in Cognitive Development (DEP 6067) 3 credits**

A study of the development of processes involved in thinking and learning.

### **Parent-Child Relationships (DEP 6609) 3 credits**

Course will provide an overview of contemporary theory and research on human parent-child relationships. Fundamentals of developmental psychology will be applied to central issues facing children, parents, and their families.

### **Evolutionary Developmental Psychology (DEP 6610) 3 credits**

*Prerequisite: Graduate status or permission of instructor*

This seminar acquaints students with the emerging field of evolutionary developmental psychology. Introduction of key concepts, issues, and lines of research. Students are expected to take an active role in discussing and developing the topic under consideration.

### **Special Topics in Developmental Psychology (DEP 6930) 3 credits**

A survey of current research and theory pertaining to selected topics in developmental psychology.

### **Seminar in Development of Social Cognition (DEP 6931) 3 credits**

A critical review of contemporary theory and research on social cognition as it relates to children's social and personality development.

**Seminar in Individual Differences in Children's Thinking (DEP 6932) 3 credits**

An overview and critical analysis of concepts, theories and empirical findings related to individual differences in children's (and adults') intellectual performance.

**Seminar in Human Perception (EXP 6208) 3 credits**

A study of the development of theoretical models of perception with an emphasis on human information-processing capacities.

**Seminar in Cognition (EXP 6609) 3 credits**

A discussion of experimental and theoretical aspects of cognition. Topics include attention, human learning and memory, organization of knowledge, problem solving, and decision making.

**Special Topics in Cognition (EXP 6930) 3 credits**

A survey of the current literature pertaining to selected topics in cognition.

**Directed Independent Study (EXP 6908) 1-3 credits**

*Grading: S/U*

**Special Topics in Personality and Social Psychology (PPE 6930) 3 credits**

A survey of the current literature pertaining to selected topics in personality and social psychology.

**Principles of Neuroscience (PSB 6037) 3 credits**

A survey of principles of neuroscience as they relate to behavior. Topics include morphology and connectivity of neural cells, biological potentials, gross structure of the central and peripheral nervous system, and sensory, motor, and higher-order integrative functions.

**Seminar in Behavioral Neuroscience (PSB 6058) 3 credits**

A subdiscipline of neuroscience, behavioral neuroscience explores how behavior is controlled by the nervous system. Topics such as neural control of waking and arousal, neural control of movement, and the role of dopamine in reinforcement are covered.

**Cellular and Molecular Neuroscience (PSB 6345) 3 credits**

This is a graduate course in neuroscience that covers the structure and function of neurons and glial cells including electrophysiology, neurotransmitter systems and synaptic function/plasticity. It is given in conjunction with PSB 6346.

### **Systems and Integrative Neuroscience (PSB 6346) 3 credits**

This course is for graduate students who have completed PSB 6345 successfully. This course follows PSB 6345 with content on development, neuroanatomy, sensory systems, motor systems and cognition.

### **Developmental Neurobiology (PSB 6515) 3 credits**

*Prerequisites: PSY 1012 and PSB 3002*

In-depth coverage of the principles and recent advances in the development of the brain and nervous system, including nerve cell migration, axon outgrowth, specificity, plasticity, neurotrophism, nerve cell death, and the influence of experience on the nervous system.

### **Developmental Neuropsychology (PSB 6516) 3 credits**

*Prerequisite: Graduate status or permission of instructor*

This seminar is designed to introduce students to theories and research on brain maturity and human cognitive development. Key concepts such as brain asymmetry and neuroplasticity are analyzed. Abnormalities resulting from neurological or other biological disruptions are discussed.

### **Neuroscience Ph.D. Lab Rotation (PSB 6910L) 2 credits**

Students admitted to the Neuroscience Ph.D. program complete three laboratory research rotations in Year 1 (fall-spring semesters) with different faculty mentors to gain research experience in the area of neuroscience. *Grading: S/U*

### **Special Topics in Behavioral Neuroscience (PSB 6930) 3 credits**

A survey of the current literature pertaining to selected topics in behavioral neuroscience.

### **Advanced Research in Neuroscience (PSB 7918) 1-9 credits**

*Prerequisites: Completion of 18 required credits in Year 1 of the Neuroscience Ph.D. program and a GPA of at least 3.0*

Focused, relevant research in the student's course of study in the Ph.D. program in Neuroscience. This course requires oversight by the student's dissertation advisor, who can grade the student's performance at the end of the semester. Advanced research work forms the basis for the dissertation proposal.

*Grading: S/U*

### **Dissertation (PSB 7980) 1-9 credits**

*Prerequisite: Admission to doctoral candidacy*

Dissertation research leading the Ph.D. degree in Neuroscience. *Grading: S/U*

### **Special Topics (PSY 5930) 3 credits**

Selected topics in psychology.

### **Experimental Design 1 (PSY 6206) 3 credits**

An introduction to the design and analysis of experiments in psychology, with special emphasis on analysis of variance models.

### **Experimental Design 1 Lab (PSY 6206L) 1 credit**

The primary goal of this course is to provide students with hands-on experience using SPSS, an advanced statistical software package used in the social and biological sciences. Students gain experience in behavioral data entry, manipulation, analysis, interpretation and visualization.

### **Experimental Design 2 (PSY 6207) 3 credits**

*Prerequisite: PSY 6206 or its equivalent*

Advanced treatment of experimental designs in psychology, with special emphasis on the analysis of variance in multifactor experiments. It also examines covariance and multiple regression analysis.

### **Special Topics (PSY 6930) 1-3 credits**

Selected topics in psychology are discussed.

### **Cooperative Education - Psychology (PSY 6949) 1-3 credits**

### **Master's Thesis (PSY 6971) 1-6 credits**

*Grading: S/U*

### **Advanced Research in Psychology (PSY 7978) 1-9 credits**

*Prerequisite: Admission to Ph.D. program*

Focused, relevant research in the student's course of study in the Ph.D. program in psychology. This course requires oversight by the student's dissertation advisor. *Grading: S/U*

### **Dissertation (PSY 7980) 1-15 credits**

*Grading: S/U*

### **Advanced Social Behavior (SOP 6079) 3 credits**

Advanced theory and methods for studying the dynamics of social systems. Topics include social interaction, the social inhibition of pro- and antisocial behavior, group productivity, and dynamic social impact.

## **URBAN AND REGIONAL PLANNING**

## **Undergraduate Courses** /[link to graduate courses](#)

### **Designing the City (URP 2051) 3 credits**

This course focuses on the process of urbanization and the social, cultural, political, and economic dynamics behind the complex urbanization process. It explores the historical development of cities, how different patterns of human behavior shape the city space, the role of society in place-making, and planning and governance of cities, including related institutions and organizations. This is a General Education course.

### **Introduction to Urban Planning and Design (URP 3000) 3 credits**

An introduction to and survey of the evolution of cities, urban planning and urban design. Both historical and contemporary perspectives will be employed. Concepts and theories about planning and the relationship between knowledge and action. The political, social and economic forces affecting communities, planning and design.

### **Planning Methods (URP 4011) 3 credits**

Proficiency in application of quantitative and qualitative analytical techniques. Analysis of past and existing conditions and evaluation of alternative policies and programs. Computer applications in planning.

### **City Structure and Change (URP 4055) 3 credits**

This course assists students in understanding the built environment as a dynamic product of social, cultural, political, and economic forces. Students conduct field work to analyze spatial structure and gain experience in graphic communication using maps, drawings, diagrams, and images.

### **Planning Implementation Strategies (URP 4120) 3 credits**

Legal, economic, and political mechanism and strategies for implementing plans, policies and programs to stimulate growth, stem urban decline and protect historic, cultural, and natural resources. Regulatory tools, incentive and disincentive policies, eminent domain, public acquisition, and public spending options used to promote public objectives in planning.

### **Introduction to Visual Planning Technology (URP 4254) 3 credits**

The practice of urban planning now requires that students understand how to use a variety of computer-based applications for creating appropriate visual information linked to other types of data. This course provides an overview of several of these applications: PowerPoint, Excel, Adobe Photoshop, GIS, and 3D visualization.

### **Advanced Visual Planning Technologies (URP 4255) 3 credits**

*Prerequisites: URP 4254 with minimum grade of "C"; For B.U.D. and B.U.R.P. students only*

The practice of urban planning now requires that students understand how to use a variety of computer-based programs for creating appropriate visuals and graphics. This course explores the computer-based programs to conduct site analysis, create persuasive graphics and improve communications.

### **RI: Web-Based Applications in Planning (URP 4273) 3 credits**

This course focuses on web-based urban and regional planning applications and how they can provide decision support to community-wide land use design, suitability modeling, scenario-based design, comparisons and evaluation of alternatives. This is a research-intensive (RI) course.

### **Plan Making and Zoning (URP 4343) 3 credits**

*Prerequisite: URP 3000*

Designed to provide students with an understanding of how plans are made and how cities are designed. Emphasis on why planners plan, the different scales and types of plans, how zoning works and how to conduct planning analyses.

### **Sustainable Cities (URP 4403) 3 credits**

The sustainability of cities has gained attention due to the effects of urbanization on the environment, the economy, and social and political justice. This course focuses on planning as a means of making cities more sustainable.

### **RI: Sustainable Cities (URP 4403) 3 credits**

The sustainability of cities has gained attention due to the effects of urbanization on the environment, the economy, and social and political justice. This course focuses on planning as a means of making cities more sustainable. This course is research intensive (RI).

### **Environmental Planning Methods (URP 4420) 3 credits**

Focus on balancing growth and development with protection and preservation for natural resources. Emphasizes planning problems and options in suburban and exurban settings. Concern for air, water and land resources, as well as wildlife habitat.

### **Planning for Hazards/Disasters (URP 4430) 3 credits**

*Prerequisite: Juniors and seniors only*

Designed to provide students with an understanding of the impact of natural hazards on cities and communities. Emphasis is placed on practical mitigation and recovery strategies as they relate to planning and plan development, vulnerability concepts and methods and the collaboration between organizations, agencies and institutions in efforts toward resilient and sustainable communities.

### **Health and the Built Environment (URP 4523) 3 credits**

The course covers historical/current intersections between urban planning and health, epidemiological and public health principles and methods, and various aspects of health (e.g., exercise, injuries, respiratory health) that are influenced by the built environment and urban planning. Students gain knowledge of Health Impact Assessments and other tools that can be used by urban planners to incorporate considerations of health.

### **Urban Development Planning Methods (URP 4546) 3 credits**

This course focuses on redevelopment, rehabilitation and reuse of existing urbanized areas such as older neighborhoods, downtowns, waterfronts, shopping plazas, and strip commercial developments. Emphasizes community and economic development options to stem decline, stimulate revitalization, promote infill development and gain more efficient use of land and space.

### **Introduction to Transportation Planning (URP 4710) 3 credits**

Introduction to transportation planning issues, planning processes and travel behavior data.

### **RI: Shared and Automated Transport: Current Trends (URP 4712) 3 credits**

This course engages students in the current state of knowledge regarding emerging shared and automated transport modes, drawing from information about current professional practices as well as the research literature. As a seminar-style course, students engage in readings, discussions and presentations to learn about these new modes and grapple with the emerging policy and planning issues surrounding them. This is a research-intensive (RI) course.

### **Land Use and Transportation Planning (URP 4714) 3 credits**

*Prerequisite: For B.U.D. and B.U.R.P. students or permission of instructor*

Transportation shapes the development of cities. This course examines the relationship between transportation and land use and examines what policies have been successful in creating balanced multimodal transportation systems and integrated land uses. Topics address land use theory and patterns; market forces; regional planning livable communities and smart growth; urban design and new urbanism; mobility, accessibility and multimodal transportation systems; transit-oriented development; and zoning.

### **Capital Facilities Planning (URP 4730) 3 credits**

*Prerequisites: URP 3000 and URP 4011*

Course familiarizes students with common local and regional capital facilities. Topics include attributes of such facilities, capital improvement plans, and capital improvement budgeting. Students learn how to construct capital improvement plans and programs and how to analyze the fiscal impacts of capital investment.

### **Housing Policy and Planning (URP 4741) 3 credits**

This course introduces low income housing policies in the United States and the methods to conduct needs assessment for affordable housing. It also addresses other related issues, such as housing bubbles and foreclosures and policy responses in the housing market.

### **Site Planning (URP 4870) 3 credits**

This course covers the basic principles and methods of site planning and the evaluation of site plans.

### **Urban Design: Theories and Methods (URP 4883) 3 credits**

*Prerequisite: Upper-level undergraduate standing*

Provides fundamental knowledge in terms of urban design theories, basic methods of analysis and modes of graphic representations in urban design. Course emphasizes graphic communication and presentation skills necessary for use in urban design projects.

### **Directed Independent Study (URP 4905) 1-3 credits**

Independent study, research or other directed project to extend and integrate the student's knowledge of issues and applications related to planning practice.

### **Directed Independent Research (URP 4910) 1-3 credits**

*Prerequisite: Permission of instructor*

Independent research to extend and integrate the student's knowledge of issues and approaches in the field.

### **Directed Independent Research (URP 4916) 0 credits**

*Prerequisite: For B.U.D. and B.U.R.P. students*

This is a supervised research course. *Grading: S/U*

### **Urban Design Studio 1 (URP 4920) 3 credits**

*Prerequisites: URP 4870 and URP 4883; for B.U.D. students with permission of instructor*

*Prerequisite or Corequisite: URP 4883*

This studio presents design approaches to study complex small- and mid-scale projects and the network of agents in their transformation. Students learn basic principles of urban design, fundamental skills to integrate multi-scalar design strategies and experiment with various representation methods.

### **Urban Design Studio 2 (URP 4922) 3 credits**

*Prerequisites: For B.U.D. students; permission of instructor; URP 4920 and URP 4255 with minimum grades of "C"*

The studio explores urban design as a catalyst of vibrant urban cultural life. Students engage in the conceptualization, planning and design of a district-scale intervention, while learning about urban revitalization from regional and global initiatives.

**RI: Urban Design Capstone (URP 4923) 3 credits**

*Prerequisites: For B.U.D. students; permission of instructor; URP 4922 with minimum grade of "C"*

Students develop an intensive research-based design project reflective of their interests. Emphasis on research design, data gathering methods and translating findings into a written report with design solutions. Studio time is used for lectures, to meet with faculty about their projects and to present progress reports to the class. This is a research-intensive (RI) course.

**RI: Honors Urban Design Capstone (URP 4924) 3 credits**

*Prerequisites: URP 4922 with minimum grade of "C"; for B.U.D. students or permission of instructor*

Students produce a substantive research-based design project that reflects an interdisciplinary approach and meaningful connections focusing on urban design with links among related academic fields. The course focuses on the creation of knowledge pertinent to the field, including leadership, creative and critical thinking, and engagement with the world outside the university. The course involves the refinement of writing, graphics and oral presentation skills to develop a professional-level urban design report. This is a research-intensive (RI) course.

**Special Topics (URP 4930) 1-3 credits**

**Planning Internship (URP 4945) 3 credits**

*Prerequisite: Permission of instructor*

This course requires 160 hours of work as an intern in a planning or planning-related agency or company, submission of a report that reflects on that experience and its relationship to material that each student has learned in the course of his or her studies at FAU and a resume critique by the Career Development Center. *Grading: S/U*

**Planning Abroad (URP 4955) 3 credits**

An opportunity to study urban and regional planning practice in another country.

**RI: Honors Planning Capstone (URP 4978) 3 credits**

Completion of an individual project involving student research and analysis of a problem or issue in planning and design. Refinement of writing and graphics skills or oral presentation. Emphasis on systematic work with regular deadlines and ongoing feedback from the instructor. This is a research-intensive (RI) course.

### **RI: Planning Capstone (URP 4979) 3 credits**

*Prerequisites: URP 3000, URP 4011, URP 4870*

Completion of an individual project involving student research and analysis of a problem or issue in planning and design, synthetic work resulting in (a) research paper or (b) planning document, film or three-dimensional model. Refinement of writing and graphics skills or oral presentation. This is a research-intensive (RI) course.

## **Urban and Regional Planning Graduate Courses**

### **Planning Abroad (URP 5958) 3 credits**

An opportunity to study urban and regional planning practice in another country.

### **History and Theory of Planning (URP 6101) 3 credits**

Covers the emergence and evolution of the planning profession, as well as the design and theoretical concepts that underpin contemporary planning practice .

### **Urban Governance (URP 6115) 3 credits**

Provides an overview of the literature on planning and governance. Focuses on the relationship between government and governance, governance in the networked society and participatory governance and conflict management.

### **Legal Aspects of Planning (URP 6131) 3 credits**

An overview of the legal issues in planning and discussion of the regulatory processes that enable planners to shape community growth and development.

### **Planning Methods 1 (URP 6200) 3 credits**

Quantitative reasoning skills in urban and regional planning; development of appropriate computer skills.

### **Statistics for Urban Planning (URP 6211) 3 credits**

This course provides an introduction to statistics with emphasis on applications to practical problems relevant to urban planning.

### **Regional and Scenario Planning (URP 6237) 3 credits**

Discussion of the need for regional planning and the unique governance challenges of regional planning. Theory and application of scenario planning techniques.

### **Introduction to GIS in Planning (URP 6270) 3 credits**

Overview of planning information systems, including basic terminology, tools, and policy issues. Lab fee: \$10 per student. To view our full cost of attendance information page, visit <https://www.fau.edu/finaid/other/cost-of-attendance/>.

### **Managing GIS Projects (URP 6272) 3 credits**

*Prerequisite: URP 6270 or permission of instructor*

Organizational and management issues involved in implementing geographic information systems.

### **GIS Applications in Planning (URP 6277) 3 credits**

*Prerequisite: URP 6270 or permission of instructor*

This course provides urban and regional planning applications of GIS. Included are demonstrations of environmental planning, community and economic development planning, urban design, and land use planning. Students learn to use GIS as a tool for decision-making.

### **Advanced Plan Making and Zoning (URP 6345) 3 credits**

Advanced plan making and zoning enables students to understand why and how plans are made, the different scales and types of plans, how zoning regulations work, and planning and zoning consistency. The course has four parts: (1) provide an overview of plans and plan making followed by adopting zoning regulations to implement those plans; (2) focus on the natural environment when making plans and zoning regulations; (3) focus on the built environment when making plans and zoning regulations; and (4) provide an overview of how planning and zoning works in practice.

### **Sustainable Cities (URP 6406) 3 credits**

Explores the intellectual foundations and historical development of sustainability as a concept, places it within the larger context of various development theories and looks at how it has influenced real-world practice in planning and public policy.

### **Environmental Analysis in Planning (URP 6425) 3 credits**

Analysis of natural and urban environments, and the application of planning systems.

### **Environmental Policy and Programs (URP 6429) 3 credits**

Policy and analytic perspectives on major issues in environmental planning systems.

### **Urban Revitalization Strategies (URP 6545) 3 credits**

Detailed examination of economic, management, and design tools in local economic development planning.

### **Economic Development Planning (URP 6549) 3 credits**

Policy and analytic perspectives on major issues in community and economic development planning

systems.

### **Transportation Planning (URP 6711) 3 credits**

Coverage of transportation planning issues, methods and basic policy analysis approaches. Overview of transportation planning, methods, and emerging planning issues.

### **Land Use and Transportation Planning (URP 6716) 3 credits**

*Prerequisite: Permission of instructor*

Transportation shapes the development of cities. This course examines the relationship between transportation and land use and examines the policies that have been successful in creating balanced multimodal transportation systems and integrated land uses. Topics address land use theory and patterns; market forces; regional planning, livable communities and smart growth; urban design and new urbanism; mobility, accessibility and multimodal transportation systems; transit-oriented development; and zoning.

### **Shared and Automated Transport: The Future of Urban Mobility (URP 6719) 3 credits**

This course engages students with the current state of knowledge regarding shared and automated transport modes, drawing from information about current professional practices as well as the research literature. As a seminar-style course, students become acquainted with research methods and how they can be used to inform understanding of emerging policy and planning issues surrounding new transportation modes.

### **Capital Facilities Planning (URP 6732) 3 credits**

Planning systems and analytical techniques for urban infrastructure.

### **Seminar in Housing (URP 6742) 3 credits**

Private sector production of housing; public sector regulation of housing. Development regulations and rent control; federal, state, and local government roles in providing housing.

### **Urban Spatial Structure (URP 6840) 3 credits**

Course covers economic theories and descriptive history of the spatial development of metropolitan areas and the role of technology and public policies in shaping urban growth and change. Equity perspectives on urban form and related public policies are also explored.

### **Urban Development and Design (URP 6841) 3 credits**

Overview of urban development processes, including basic terminology, tools, and policy issues.

### **Site Planning (URP 6873) 3 credits**

Principles and basic methods of site planning and site plan evaluation; development design guidelines; site plan approval process.

**Urban Design (URP 6881) 3 credits**

Elements, concepts, and methods of urban design. Analysis of urban form; methods of implementation.

**Urban Design Workshop (URP 6886) 3 credits**

Application of physical planning skills to a selected urban design problem; district or project scale.

**Directed Independent Study (URP 6905) 1-3 credits**

Research on analysis of a problem-oriented planning topic or project.

**Planning Workshop (URP 6920) 3 credits**

Individual and team approaches to resolving planning problems and issues.

**Special Topics (URP 6930) 3 credits**

Special topics in urban and regional planning.

**Planning Internship (URP 6945) 3 credits**

Supervised work experience in a public planning agency or private organization with planning concerns. *Grading: S/U*

**Master's Thesis (URP 6971) 3 credits**

*Prerequisites: 24 credits toward M.U.R.P. degree; M.U.R.P. students only*

Master's thesis course for planning students who are interested in research careers and further study at the doctoral level. To be repeated for a total of 6 credits.

**Planning Project (URP 6979) 3 credits**

*Prerequisite: 30 credits of urban planning courses*

Synthetic work resulting in: (a) research paper; (b) planning document; or (c) film or three-dimensional model.

[Link to Charles E. Schmidt College of Science Programs](#)





# UNIVERSITY CATALOG

## SUB MENU



### COURSE DESCRIPTIONS

[Arts and Letters](#)

[Business](#)

[Education](#)

[Engineering and Computer Science](#)

[Honors College](#)

[Medicine](#)

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[Science](#)

[Social Work and Criminal Justice](#)

### GENERAL INFORMATION

### ACADEMIC PROGRAMS

# COLLEGE OF SOCIAL WORK AND CRIMINAL JUSTICE

## COURSE DESCRIPTIONS

[School of Criminology and Criminal Justice](#)

[School of Social Work](#)

[Link to the College of Social Work and Criminal Justice Programs](#)

# CRIMINOLOGY AND CRIMINAL JUSTICE

**Undergraduate Courses** / [link to graduate courses](#)

## **Law, Crime and the Criminal Justice System (CCJ 2002) 3 credits**

An introductory course that provides students with an understanding of law, crime, and the criminal justice system in America. This is a General Education course.

## **Crime and Everyday Life (CCJ 2034) 3 credits**

This course is designed to help students develop a broader understanding of environmental influences on crime and criminal events. Students are introduced to topics of the realities of crime statistics and how they may appear skewed by media and political interpretation. In addition, students develop skills in crime mapping and how to view locations critically for crime management and potential crime prevention strategies. This includes students working in classroom groups to complete crime mapping sessions and evaluate simulated criminal complaint reports.

## **Special Topics (CCJ 2930) 1-3 credits**

In-depth analysis of current and emerging issues in criminal justice (lower division).

## **Criminology (CCJ 3014) 3 credits**

*Prerequisite: CCJ 4700*

A study of criminal and delinquent behavior theories within the context of several disciplines.

## **The Criminal Justice System (CCJ 3024) 3 credits**

Comprehensive survey of the history, philosophy and organization of the American police, the courts and correctional institutions, including probation and parole. Study of crime, law and the administration of criminal justice.

## **Artificial Intelligence for Social Good (CCJ 3071) 3 credits**

In this course, students learn about the social implications of artificial intelligence, data science and big data; strategies to ensure these systems are accountable to the communities and contexts they are meant to serve; and applied in ways that promote justice and equity.

## **Crime in the Schools (CCJ 3660) 3 credits**

Analysis of the nature and causes of crime committed on secondary and postsecondary school campuses. Explores the role of drugs, weapons, gangs, and bullies in creating fear and disorder. Reviews legal issues, legislative actions, liability concerns, and previous strategies.

### **Victimology (CCJ 3666) 3 credits**

The course provides an overview of the study of victims and the process, etiology and consequences of victimization. Special attention is paid to the types of victims, theories of victimization and the victim's treatment within the criminal justice system. (May be taken for credit in Women's Studies Program.)

### **Cooperative Education (CCJ 3949) 1-3 credits**

To provide professional experience for criminal justice majors. Open only to Criminal Justice majors. Credits do not count toward graduation. *Grading: S/U*

### **Ethics and the Justice System (CCJ 4054) 3 credits**

Course provides an introduction to theories in ethics and the exploration of a variety of ethical/moral issues that characterize and define the different facets of criminology and criminal justice policy and practice.

### **Restorative Community Justice (CCJ 4141) 3 credits**

This course introduces students to the basic concepts of restorative community justice, which includes victims, offenders, and communities in a reparative response to criminal behavior. Offenders are held accountable, while victims and communities are enabled to participate in the justice process as key stakeholders.

### **Immigration and the Criminal Justice System (CCJ 4196) 3 credits**

This course is designed to present an overview of the immigration consequences to non-citizens as a result of criminal activity. The course presents an in-depth study of immigration cases, the theories behind immigration law, including the consequences to an immigrant's status if they are convicted of a crime. The course examines the USSC landmark case *Padilla v. Kentucky*, examines immigration terms, defines and distinguishes what a conviction is for immigration purposes, and examines the main immigration consequences and major immigration crimes.

### **Drug Courts (CCJ 4293) 3 credits**

This course provides an in-depth examination of the historical and contemporary use of drug courts in the United States. Using scholarly articles, book chapters, documentaries, guest speaker(s)/interviews and courtroom observations, the course reveals many levels of how drug courts are utilized. Critical thinking and discussion ability are required for the course.

### **RI: Drug Courts (CCJ 4293) 3 credits**

This course provides an in-depth examination of the historical and contemporary use of drug courts in the United States. Using scholarly articles, book chapters, documentaries, guest speaker(s)/interviews and courtroom observations, the course reveals many levels of how drug courts are utilized. Critical

thinking and discussion ability are required for the course. This course is research intensive (RI).

### **Death Penalty (CCJ 4361) 3 credits**

This course is designed as an overview of death penalty litigation in America. The course presents an in-depth study of death penalty cases and the theories behind the death penalty. The course also explores death penalty sentencing including aggravating and mitigating circumstances. Methods of execution in the United States, their significance to the constitutionality of the death penalty and the potential future of the death penalty are covered.

### **Criminal Justice Management (CCJ 4450) 3 credits**

A study of criminal justice management and practice as it applies to the police, courts, and corrections.

### **Gangs, Groups and Justice (CCJ 4508) 3 credits**

This course is a critical examination of the history and development of gangs, including criminal justice system responses to gangs and gang-related behaviors. The course examines the relationship between gangs and other groups of offenders. In addition, the course examines the role of gangs in criminal behavior as well as the use of traditional theories of crime in the explanation of gang behavior.

### **Teen Technology Misuse (CCJ 4554) 3 credits**

Twenty-first century teens have employed communications technology to mistreat, embarrass, harass, control, threaten or abuse others. This includes, but is not limited to, cyber bullying, sexting, the criminal use of Facebook, electronic dating violence, predation and stalking. Students learn of the sociological, criminological, developmental and practical implications of this problem and how it can be addressed.

### **Studying Violence (CCJ 4623) 3 credits**

Course examines causes, patterns, results, and policies that deal with different types of criminal violence.

### **Serial Homicide (CCJ 4627) 3 credits**

This course is designed to provide students with an in-depth examination of the killers among us. It focuses on the myths and stereotypes that have evolved from mass media and public efforts to find explanations for the relatively rare phenomenon of serial homicide.

### **Media and Crime (CCJ 4631) 3 credits**

Students in this course learn how the criminal justice system is portrayed in television, movies, print, social media, radio and more. The finale to this course has students selecting a recent significant

criminal justice event/case and presenting a comparison of how it was covered in two media outlets. This allows students to recognize media frames, claims makers and narratives.

### **Elders and the Criminal Justice System (CCJ 4632) 3 credits**

This course utilizes an interdisciplinary approach to examining the many ways in which elders interface with the criminal justice system. Topics covered include the nature and extent of elderly crime, the criminal justice system's response to older offenders, elders as participants in criminal trials, elders as victims of crime and abuse, and legal issues for elderly populations. Particular attention is placed on assessing these topics from a policy perspective that incorporates concern for administrative, legal and ethical issues.

### **Drugs and Crime (CCJ 4642) 3 credits**

This course examines the dynamics of the international traffic in illicit drugs and presents an overview of the major issues of drug control. It also provides students with an understanding of the various organized criminal groups that operate in the United States and that play a major role in the illicit drug market.

### **White Collar Crime (CCJ 4644) 3 credits**

This course examines the definitions of white collar crime, as well as the extent and costs of this behavior. The majority of the class centers on the examination of different types of white collar crime, with an emphasis on corporate crime. Case studies are used to illustrate specific instances of white collar crime.

### **Race, Ethnicity and Criminal Justice (CCJ 4662) 3 credits**

*Prerequisites: All CCJ courses must be passed with a "C" or better*

This course utilizes a variety of theoretical and empirical readings to examine three interconnected domains surrounding the intersection of race, ethnicity, class, crime and criminal justice. It explores racial and ethnic relations in society, racial differences in crime and violence and racial and ethnic disparities in the justice system. The goal of the course is to provide a foundation for critically assessing the often controversial issues surrounding race, ethnicity, crime and criminal justice in society.

### **Women and Criminal Justice (CCJ 4670) 3 credits**

This course will provide an overview of women's involvement in the criminal justice system as offenders, victims and professionals. Considerable attention will be given to the treatment of women in the context of the larger social system. (May be taken for credit in Women, Gender and Sexuality Studies Program.)

### **Violence in Relationships (CCJ 4678) 3 credits**

This course introduces students to the intersection of gender and violence. Students explore the nature of relational violence, its historical roots and its manifestation on modern social life and institutions in relation to physical, emotional and sexual abuse. Additionally, the plight of battered women, the reasoning for staying with their abusers and their attempts to find safety are analyzed.

### **Human Trafficking: A Global Social Justice Issue (CCJ 4694) 3 credits**

This course is an examination of modern day slavery, or human trafficking. In this course students learn about the types of human trafficking, who the offenders and victims are, the trauma experienced by victims, the national and global scope of the problem and the role that governments, the criminal justice system, media and culture play in this issue.

### **Violence Against Women (CCJ 4697) 3 credits**

This course serves as an introduction to violence against women by drawing on mundane everyday life in a patriarchal system. There already exists an overview of violence against women in terms of dating violence and rape during times of war and domestic violence. Specifically, the course explores the relationships among women, patriarchy, pop culture and politics to discover the link to everyday oppression, violence against women, and the core root of the violence and harm as well as its perpetuation.

### **Methods of Research in Criminal Justice (CCJ 4700) 3 credits**

*Prerequisite: STA 2023*

A study of the purpose of research, the logic of scientific inquiry and research techniques in criminal justice.

### **Directed Independent Study (CCJ 4905) 1-3 credits**

*Prerequisite: Permission of instructor*

Under faculty supervision, students conduct independent reading, extensive research, and detailed analysis of a specified topic beyond the scope of the CCJ curriculum. Students are responsible for reviewing the Department's DIS guidelines and preparing a written application before registration. Minimum GPA of 3.0 required. Permission of the faculty supervisor is mandatory. Course cannot be repeated more than twice. A second repetition requires approval of the Department Chair.

### **Directed Independent Research (CCJ 4915) 1-3 credits**

*Prerequisites: For Criminology and Criminal Justice Majors only; permission of instructor*

A research project designed to extend and integrate the student's knowledge of issues and applications related to criminology and criminal justice.

### **Issues in Criminal Law (CCJ 4931) 3 credits**

Selected issues and contemporary problems in criminal law.

### **Special Topics (CCJ 4934) 1-3 credits**

In-depth analysis of current and emerging issues in criminal justice.

### **Criminal Justice Field Experience 1 (CCJ 4940) 0-4 credits**

*Prerequisite: Permission of instructor*

Supervised experience in areas such as police, courts, corrections, and other justice-related fields. Open only to Criminal Justice majors and minors. This is an Academic Service Learning (ASL) course.

*Grading: S/U*

### **Criminal Justice Field Experience 2 (CCJ 4941) 0-4 credits**

*Prerequisite: Permission of instructor*

Supervised experience in areas such as police, courts, corrections, and other justice-related fields. This course allows students to take a second internship after having completed CCJ 4940. However, credits from this course cannot be applied to the 30 credits required for the Criminal Justice major. They would be applied to the student's free electives. This is an Academic Service Learning (ASL) course. *Grading:*

*S/U*

### **Criminal Justice Study Abroad (CCJ 4947) 1-6 credits**

Course provides the opportunity for students to undertake criminal-justice-related study overseas in a group experience, pursuing structured visits to justice agencies in the chosen jurisdiction.

### **Corrections (CJC 4310) 3 credits**

An analysis of major correctional systems; their objectives and programs as they relate to the rehabilitation of offenders.

### **Introduction to Forensic Science (CJE 3674) 3 credits**

Forensic Science is the application of scientific disciplines and principles to the legal system, particularly the litigation in court of contested factual disputes. This course examines the distinct fields of education and study that collectively comprise the forensic sciences. These fields include, among others, forensic psychiatry and psychology; forensic anthropology; forensic pathology; forensic toxicology, serology and DNA typing; questioned documents; crime scene investigation; forensic engineering; fingerprint evidence; polygraph and other investigative devices; and forensic chemistry, including drug analysis.

### **Criminal Justice Technology (CJE 3692C) 3 credits**

Lab course that includes an overview and application of computer hardware and software with criminal justice data for criminal justice purposes. Course also includes discussion of concepts and practice as well as helps prepare students for the criminal justice workplace environment.

### **International Criminal Justice Systems (CJE 4174) 3 credits**

This course examines the different types of criminal justice systems that exist around the world and assess the growing threat to the United States from transnational criminal organizations. The course also traces the internationalizations of U.S. Law Enforcement and provides students with an understanding of the problems and challenges that face U.S. Law Enforcement personnel who must operate within a foreign criminal justice system.

### **Advanced Forensic Science (CJE 4247) 3 credits**

*Prerequisite: CJE 3674*

Advanced forensic science is designed to give the participants a deeper understanding of the methods, tools, and techniques used by both crime scene investigators and crime lab technicians to determine the probative value of evidence that may be produced during a criminal event. This class focuses on the techniques and information that can be gleaned from recovered evidence, the proper and detailed analysis of that evidence, and the use of both evidence and investigator notes to create an accurate reconstruction of a criminal event.

### **Policing in America ( CJE 4352 ) 3 credits**

Police organization and administration and its relationship to public administration. The politics of law enforcement. The urban political structure as it impinges on police administration.

### **Problem Solving in Crime Situations (CJE 4412) 3 credits**

Examination of contributing factors, analysis techniques, and crime prevention responses to crime and disorder problems. The course focuses on concepts and research results from environmental criminology, problem analysis, and situational crime prevention.

### **Crime Prevention (CJE 4444) 3 credits**

An examination of the theory, operation and evaluation of crime prevention as a function of the criminal justice system.

### **Fundamentals of Criminal Investigation (CJE 4610) 3 credits**

This course is designed to provide students with an understanding of the fundamentals of criminal investigations, blending scientific theories of crime detection with practical approach techniques. The course also covers both the rules of law as well as the ethical and legal obligations of the investigator.

### **Crime Analysis (CJE 4663) 3 credits**

An introduction to crime analysis and crime mapping, this course examines types of techniques used to study crime and disorder patterns and problems in law enforcement today. It covers the theory, data collection methods, and statistics used as well as the history of career opportunities for crime analysis.

### **Computer Crime (CJE 4668) 3 credits**

This course provides an overview of computer crime from a criminal justice perspective. It also examines computer crime prevention, computer security, legal and social issues, and modern investigative methodologies.

### **Juvenile Justice Administration ( CJJ 4010 ) 3 credits**

This course examines the historical, legal, organizational and social development of the juvenile justice system. The juvenile court, juvenile interactions with law enforcement, delinquency prevention and correctional programs are discussed and assessed.

### **Criminal Law and the Constitution (CJL 4064) 3 credits**

The course exclusively uses legal cases to study the limits of constitutional law as it relates to a defendant's due procedural rights as the individual is processed through the criminal justice system.

### **Judicial Administration and the Criminal Courts (CJL 4510) 3 credits**

A study of judicial administration and the operation of the criminal courts in an organizational content.

### **Terrorism (DSC 4012) 3 credits**

Students gain a historical perspective of the international evolution of terrorism. Emphasis is placed upon contemporary terrorist motive means and opportunity. Course also examines motivational factors - religious, political, and ideological - that drive various groups.

## **Criminology and Criminal Justice Graduate Courses**

### **Understanding Criminal Behavior (CCJ 6056) 3 credits**

Considers the scientific thought and practice in the field of criminology. Analyzes criminal and delinquent behavior within the demographic and ecological systems of society.

### **Restorative Justice Research, Policy and Practice (CCJ 6142) 3 credits**

Contrasts traditional justice system approaches with restorative justice by exploring the theory, policies and practices of this paradigm.

### **Courts, Sentencing and the Judicial Process (CCJ 6295) 3 credits**

Provides students with significant and influential research on topics related to judicial process in America. Exposes students to models of courtroom decision-making that address bureaucratic and organizational forces, politics, race and sex and the necessarily human nature of sentencing. Examines social policies aimed at the courts and sentencing.

### **Prisoner Re-entry Policy and Practice (CCJ 6335) 3 credits**

Offender re-entry is the process of transition of offenders from jails and prisons to the community. This seminar provides students with an in-depth analysis of the system and intervention elements impacting offender re-entry.

### **Applying Criminal Justice Theory, Research and Policy (CCJ 6485) 3 credits**

Application of knowledge and best practices by formulating, implementing, analyzing and evaluating a program or policy within a criminal justice agency.

### **Serial Homicide (CCJ 6608) 3 credits**

This course is designed to provide students with an in-depth examination of the killers among us. It focuses on the myths and stereotypes that have evolved from mass media and public efforts to find explanations for the relatively rare phenomenon of serial homicide.

### **Crime in Everyday Life (CCJ 6619) 3 credits**

Examines opportunity theory and how it can be used to understand types of crime and disorder that occur in everyday life. Covers how societal changes have impacted crime throughout history, the use of crime prevention through environmental design (CPTED) and how situational crime prevention can be used to reduce and address crime problems.

### **Violence Research and Policy (CCJ 6624) 3 credits**

Examines the issues that influence policies addressing interpersonal criminal violence. These issues include data sources and evaluation of their quality, patterns and theories of violence, different types of violence, and examination and evaluation of existing policies.

### **Class, Race and Gender in Criminal Justice (CCJ 6669) 3 credits**

An examination of how class, race and gender structure experiences within the criminal justice system. Explores class, race and gender in terms of criminal victimization, patterns of offending and roles within each part of the criminal justice system, including police, courts and corrections.

### **Victims and the Justice Process (CCJ 6675) 3 credits**

Advanced overview of the victims' rights movement, victimization theory, and the justice system's

response to victimization, as well as contemporary practices related to victim participation in the justice process. Explores initiatives for enhancing awareness of, sensitivity to, and integration of victims in the justice system.

### **Human Trafficking: A Global Justice Issue (CCJ 6696) 3 credits**

This seminar style course is an examination of modern-day slavery, or human trafficking. In this course, students learn about the different types of human trafficking including sex and labor trafficking, domestic servitude, debt bondage, organ trafficking, child soldiering and forced marriage. Students also learn who the offenders and victims are, the trauma experienced by victims, the national and global scope of the problem and the role that governments, the criminal justice system, NGOs and culture play in this issue.

### **Sex Offender Research and Policy (CCJ 6699) 3 credits**

Explores topics related to the sex offender population in the United States, including the history of sex offender laws to present legislation, sex offender typologies and statistics regarding sex crime victimization and perpetration. Popular sex offender policies are critically examined and strategies of sex crimes are explored.

### **Research Methods (CCJ 6704) 3 credits**

*Prerequisites: PAD 6701, STA 6113*

Course provides students with the fundamental theories and practice of criminological and criminal justice research. It examines theory and research, the nature of causation, the structure of inquiry, including research design, conceptualization, measurement and sampling; modes of observation, including experiments, survey research, and evaluation research; and elementary application of qualitative and quantitative analysis.

### **Qualitative Research and Methods in Criminal Justice (CCJ 6709) 3 credits**

This course is an opportunity to learn and apply key components of qualitative research, including planning and preparing impactful qualitative research projects, conducting fieldwork (online or in person), collecting and analyzing qualitative data and communicating results effectively through publication and presentation. Students first synthesize their interests in criminology and criminal justice (broadly defined) to actions they can take or social areas they can access to develop their own research questions. Then they collect or develop their own qualitative data set either online through social media, legal documents and governmental reports or through other sources. By the end of the course, students will be conceptually sorting and thematically analyzing that data and writing up results and reflections from their experiences.

### **Advanced Research and Evaluation for Criminal Justice (CCJ 6712) 3 credits**

Provides students advanced skills and knowledge in criminological and criminal justice research and evaluation. Course covers quantitative and qualitative methods used in evaluation and applied research and advanced techniques commonly used in the field.

### **Program Evaluation in Criminal Justice (CCJ 6735) 3 credits**

This course serves as an introduction to evaluation methodology and evaluation tools commonly used to assess publicly funded programs. Students become familiar with the concepts, methods and applications of evaluation research; learn how to read evaluation research critically; understand how to use evaluation results to anticipate or improve program performance; and will be able to propose an appropriate evaluation plan to assess the implementation and effectiveness of a program.

### **Criminal Justice Research and Policy Foundations (CCJ 6902) 3 credits**

Analyzes significant scholarship related to policing, judicial process and adult/juvenile corrections, covering system reforms and contemporary policies and practices.

### **Directed Independent Study (CCJ 6905) 3 credits**

*Prerequisite: Permission of instructor*

Reading, research, and in-depth analysis of a selected topic under faculty direction. Students are responsible for identifying a topic of study and securing the approval of an appropriate faculty member before registration.

### **Special Topics (CCJ 6934) 3 credits**

In-depth exploration, analysis, and assessment of contemporary topics of special concern to the administration of criminal/juvenile justice systems.

### **Master's Thesis (CCJ 6971) 1-6 credits**

*Prerequisite: Program coordinator approval; Grading: S/U*

### **Corrections Research, Policy and Practice (CJC 6021) 3 credits**

Analysis of policy, theory and research pertinent to the administration and management of jails, prisons and community corrections. Reviews historical development of corrections policy and analysis of reform efforts.

### **Prison Gangs (CJC 6216) 3 credits**

This course is a critical examination of the characteristics and impacts of prison gangs, including criminal justice system responses to prison gangs, prison culture and organization, and how they influence misconduct, victimization and desistance from gangs and crime. The course examines the relationship between prison gangs, communities, law enforcement and other groups of people. In

addition, the course examines the role of prison gangs in criminal behavior as well as the use of traditional theories of crime (e.g., structural and process perspectives) in the explanation of prison gang behavior.

### **History of Policing (CJE 6057) 3 credits**

Course provides students with a macro view of American policing, including historical interactions with vulnerable and minority populations. The course presents a forum to discuss the chronological evolution of policing and to critique strategic and philosophical evidence. Key events and turning points in American policing are also discussed, including the development of the FBI, relevant case law, oversight commissions and more.

### **Police Research, Policy and Practice (CJE 6426) 3 credits**

Examines the factors of recent police innovation and critically explores the effects on crime and disorder through research.

### **Computer Crime Research and Policy (CJE 6688) 3 credits**

Provides an overview of cybercrime from a criminal justice perspective. Examines current trends, security elements, legal and social elements and modern investigative methodologies. Reviews latest research with a focus on identifying best practices for individuals, organizations and society to create and implement in their prevention and response goals.

### **Juvenile Justice Research, Policy and Practice (CJJ 6046) 3 credits**

Analysis of policy, theory and research pertinent to the management of juvenile justice systems and youth service agencies. Focuses on policy issues and responses to at-risk youth, spanning prevention, diversion and intervention within a multilayered, intergovernmental context.

### **Problem-Solving Courts (CJL 6521) 3 credits**

This course is designed for students to learn about common policies related to problem-solving courts and to examine the theoretical and empirical research underlying them.

## **SOCIAL WORK**

**Undergraduate Courses** / [link to graduate courses](#)

*A minimum grade of "C" is required for each social work (SOW-prefixed) course.*

### **Global Perspectives of Social Services (SOW 1005) 3 credits**

Prepares students to critically analyze and propose possible solutions for challenges facing social service

programs in developing and industrial countries using frameworks based on human rights, social development, and sustainable development. This is a General Education course.

### **Race and Cultural Inclusion in Social Work (SOW 1130) 3 credits**

This course provides students with an understanding of the concepts of race, culture, and inclusive practice in the field of social work. Students are provided the opportunity to explore and examine the role of cultural diversity, including the origin of specific populations and the effects of migration on cultures. Further, students will gain an understanding of the effects of diaspora and migration and the interactions that exist between and among cultures, societies and nations.

### **University Honors Seminar in Social Work (SOW 1930) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

A seminar in the University Honors Program on topics in social work.

### **Special Topics (SOW 2930) 1-3 credits**

The career of social work is explored in relationship to social problems.

### **Social Welfare Policy and Provisions (SOW 3232) 3 credits**

*Prerequisite or Corequisite: SOW 3302; majors only*

An analysis of social welfare policies and provisions within the context of the history of social welfare; income maintenance, housing, employment, health care, child welfare and other special populations.

This is an Academic Service Learning (ASL) course.

### **Profession of Social Work (SOW 3302) 3 credits**

*Writing Across Curriculum (Gordon Rule)*

Programs, policies, and services, their auspices, goals, and operations for consumers of various social, racial and ethnic groups.

### **Human Behavior and Social Environment 1 (SOW 4101) 3 credits**

*Prerequisite or Corequisite: SOW 3302*

Human behavior and development as they are influenced in the macro social environment. Emphasis on social systems theory, political process, organizations and institutions.

### **Human Behavior and Social Environment 2 (SOW 4102) 3 credits**

*Prerequisite or Corequisite: SOW 3302*

Human behavior and development as they are influenced by multiple factors in the social environment

through the lifespan to the termination of life. This is an Academic Service Learning (ASL) course.

### **Family Violence (SOW 4141) 3 credits**

An in-depth analysis of social work and the family, with particular focus on violence within the family. Attention will be given to all areas of abuse and/or neglect, as they affect all members of the family — children, adults, and elders.

### **Social Justice and Social Work: Issues and Responses (SOW 4212) 3 credits**

This course is designed to critically analyze social justice issues in social work and social policy.

### **Ethical Issues in Social Work Practice (SOW 4290) 3 credits**

This course provides students with a comprehensive exploration of values and ethical issues as they apply to social work theory, research, policy and practice with individuals, families, groups, organizations and communities. Although values and ethical issues pervade all social work studies, this course provides students with an opportunity to study these issues in greater depth than may be provided in other courses.

### **Social Work Practice with Individuals (SOW 4300) 3 credits**

*Prerequisites: SOW 3232 and 3302 or permission of instructor; minimum FAU GPA of 2.5 to enroll*

*Prerequisites or Corequisites: SOW 4101 and 4102*

Introduction to methods and practice. Basic principles, values, ethics, interviewing skills, problem assessment, solving, intervention, and evaluation (at the micro level).

### **Social Work Practice with Families (SOW 4304) 3 credits**

*Prerequisites: SOW 4300 and minimum FAU GPA of 2.5 to enroll*

This course explores the Generalist Intervention Model (GIM) as it relates to social work with families. This exploration is set upon the foundation of contemporary social work values as well as the historic mission of social work as a profession. This is an Academic Service Learning (ASL) course.

### **Social Work Practice with Groups (SOW 4322) 3 credits**

*Prerequisites: SOW 4300 and minimum FAU GPA of 2.5 to enroll*

This course explores the Generalist Intervention Model (GIM) as it relates to generalist social work with small groups. This exploration is set upon the foundation of contemporary social work values as well as the historic mission of social work as a profession.

### **Social Work Practice with Communities and Organizations (SOW 4343) 3 credits**

*Prerequisite: SOW 4300 and minimum FAU GPA of 2.5 to enroll*

Delineation and study of intervention and change strategies, with groups and communities. Focus on

social action, social planning, community development, political social work and legislative processes (macro level). This is an Academic Service Learning (ASL) course.

### **Inclusive Social Work Practice (SOW 4346) 3 credits**

This course provides students with knowledge, skills and strategies required to promote social change from an agency and community level. Students explore the experiences of people from various backgrounds in terms of color, ethnicity, culture, national origin, class, gender, age, religion, physical or mental ability, gender identity and expression, and sexuality.

### **Issues in Counseling Women (SOW 4357) 3 credits**

An in-depth analysis of treatment strategies that have particular relevance to the population of women most likely to become social work clients. Designed as an integrative learning experience, students may examine their own feelings and beliefs about women, as well as become familiar with empirical evidence and clinical interventions.

### **Research Methods in Social Work (SOW 4403) 3 credits**

*Prerequisite: SOW 3302*

Introduction to the principles and methods of basic social work research, ethical conduct of research within the context of social work purposes and values. Formulation of problems for study that address the social needs of diverse population groups.

### **Field Education in Social Work (SOW 4510) 12 credits**

*Prerequisite: Permission of instructor and minimum FAU GPA of 2.5 to enroll*

Open only to social work majors. Supervised experience in a variety of social work settings.

Application to be made to Director of Social Work Internships during previous semester. (See student manual for eligibility requirements.) *Grading: S/U*

### **Evidence Based Diversity Practice in Social Work (SOW 4620) 3 credits**

An in-depth analysis of various problems encountered by selected minority groups and social work intervention strategies aimed at prevention, solution and remediation. Groups selected for study may include African Americans, Hispanics, Haitians, Native Americans and other groups such as women, the elderly, the handicapped, gays, lesbians, transgenders and migrant workers.

### **Social Work with Aging Populations (SOW 4643) 3 credits**

The aging experience from a social work perspective, with an emphasis on biopsychosocial assessment and intervention. The student focuses on individual, family, group, community, social policy, and other environmental factors as they affect the aging experience. Special attention is directed toward aging

and social attitudes.

### **Child Welfare (SOW 4650) 3 credits**

An in-depth analysis of child welfare policy, programs and practice. Attention will be given to all areas of child welfare, with special emphasis on Florida policies and laws and family-focused practice.

### **Social Work Practice with Vulnerable Children and Families (SOW 4654) 3 credits**

*Prerequisite or Corequisite: SOW 4650*

Second of two courses for social work students who plan to work with vulnerable children.

### **Social Work and Emergency Relief (SOW 4679) 3 credits**

Examines the psychosocial effects of natural and technological disasters on individuals and families using an ecological framework and developmental theory. Emphasis on assessment skills and cultural competency in discerning appropriate interventions.

### **Substance Use Disorders in Social Work (SOW 4700) 3 credits**

An overview of prevailing thinking and theories of substance abuse. The course will explore the dominant cultural view and alternative perspectives. Special emphasis on gender roles, family systems, theory and modalities and the social worker's role.

### **Introduction to Human Trafficking in Social Work Practice (SOW 4783) 3 credits**

This course explores the topic of human trafficking. Students learn terminology, the different types of trafficking and how cultural issues and vulnerabilities can contribute to trafficking, and they understand the scope of the problem through current statistics and reports, both domestic and global.

### **Social Work and Positive Well-Being (SOW 4802) 3 credits**

Course explores recent body of scientific research regarding positive emotional states, mental wellness and optimal well-being. Students learn empirically tested interventions and how to use them with clients to cope with challenges and enhance their quality of life.

### **Spiritual Dimensions of Social Work Practice (SOW 4844) 3 credits**

Provides a framework of knowledge, values, skills, and experiences for culturally competent, ethical, and spiritually-sensitive social work practice. Practice skills of assessment and intervention at the B.S.W. level are emphasized.

### **Directed Independent Study (SOW 4905) 1-5 credits**

*Prerequisite: Permission of instructor*

### **Directed Independent Research (SOW 4915) 3 credits**

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*Prerequisites: B.S.W. students only; permission of instructor and department*

A research project designed to expand and integrate students' knowledge of issues and implementation of intervention and clinical practices related to social work.

### **Special Topics in Social Welfare (SOW 4930) 3 credits**

An in-depth analysis of current social welfare issues, such as social gerontology, legal aspects of social work practice, social work and immigration, etc. Topics vary from semester to semester.

### **Social Work Study Abroad (SOW 4957) 1-3 credits**

*Prerequisite: Permission of instructor*

Credit for enrollment in approved study abroad programs. This is an Academic Service Learning (ASL) course.

## **Social Work Graduate Courses**

### **Human Behavior and Social Environment 1 (SOW 6105) 3 credits**

Students apply social theories, including systems, social exchange, conflict and social constructionism, to historical and social problems. They analyze how macro forces shape human behavior, as well as how human behavior impacts social systems. Emphasis is given to the issues of social and economic justice.

### **Human Behavior and Social Environment 2 (SOW 6106) 3 credits**

Study of biological, psychological, social and spiritual development of individuals across the lifespan as it applies to the delivery of culturally competent, evidence-based practice with diverse and vulnerable populations.

### **Social Work and Trauma (SOW 6116) 3 credits**

*Prerequisite: SOW 6533 with minimum grade of "B-"*

This course explores and develops an understanding of trauma in its many forms and guides social workers in selecting empirically based interventions. The course informs social workers on the prevention of secondary trauma.

### **Psychopathology in Clinical Social Work Practice (SOW 6125) 3 credits**

*Prerequisite: SOW 6305 with minimum grade of "B-"*

Focuses on mental health issues with children, adolescents, adults, elders and families. Built on the identification, analysis and implementation of empirically based assessment tools that have incorporated statistically valid reliability and validity studies. Major classification systems, such as diagnostic, statistical, manual of mental disorders and other schemes for assessing and understanding

human behavior are covered.

### **Cognitive-Behavioral Theory and Techniques for Social Work (SOW 6128) 3 credits**

*Prerequisite: SOW 6533 with minimum grade of "B-"*

Advanced clinical theory course presents theory and practice applications for advanced curriculum.

### **Social Work and Human Sexuality (SOW 6153) 3 credits**

*Prerequisite: SOW 6533 with minimum grade of "B-"*

This course takes a biopsychosocial approach to addressing issues in clinical practice related to human sexuality. It is designed to increase Social Work students' comfort level and sensitivity to the diversity of sexual issues people experience.

### **Social Work and Positive Well-Being (SOW 6156) 3 credits**

*Prerequisite: Completion of M.S.W. Foundation Curriculum*

Consistent with the social work focus on the strengths and well-being of the individual, this course emphasizes mental wellness, positive emotions and optimal well-being.

### **Conflict Resolution (SOW 6158) 3 credits**

*Prerequisite: Completion of M.S.W. Foundation Curriculum*

M.S.W. practice course where students explore the theoretical basis for a conflict resolution approach and gain experience in how to put the techniques into practice.

### **Social Justice and Social Work: Issues and Responses (SOW 6214) 3 credits**

This course is designed to critically analyze social justice issues in social work and social policy.

### **Social Welfare History and Policy (SOW 6235) 3 credits**

Students develop knowledge and competencies on how social service policies and programs are designed to address specific social problems in the United States. Students examine and critically analyze historical and current state and federal social welfare policies and programs. This is an Academic Service Learning (ASL) course.

### **Ethical Issues in Contemporary Social Work Practice (SOW 6296) 3 credits**

Helps social work students become more effective in dealing with complex ethical issues in professional social work practice.

### **Generalist Social Work Practice with Individuals (SOW 6305) 3 credits**

*Corequisite: SOW 6532*

Students develop knowledge and competencies in applying the generalist practice model (engagement,

assessment, treatment planning, intervention, evaluation and termination) with individual clients. Students learn how to integrate National Association of Social Workers code of ethics and the principles of evidence-based practice through all stages of the social work process.

**Generalist Social Work Practice with Organizations and Communities (SOW 6306) 3 credits**

Students develop knowledge and competencies in applying the generalist practice model to influence macro change with institutions, policies and environments using evidence-based practice and NASW Code of Ethics. Macro social work history and theories are examined. This is an Academic Service Learning (ASL) course.

**Generalist Social Work Practice with Families and Groups (SOW 6324) 3 credits**

Covers evidence-supported theories and practice techniques when working with groups and families. Students apply the generalist social work practice model: engagement, assessment, planning, implementation, evaluation, termination and follow up, and engage in self-reflective and practice-based learning throughout the course.

**Advanced Theory and Social Work Practice with Adults and Families (SOW 6348) 3 credits**

*Prerequisites: SOW 6306 and SOW 6533, with minimum grades of "B-"*

Prepares students for advanced clinical practice with adults and families in varied settings with diverse populations.

**Case Management (SOW 6349) 3 credits**

Provides an in-depth examination of case management service modality for social work practice.

**Couple Therapy in Social Work Practice (SOW 6353) 3 credits**

*Prerequisite: SOW 6533 with minimum grade of "B-"*

This course introduces students to the theoretical foundations and practice techniques of couple therapy. The major models of couple therapy are explored. Students are encouraged to integrate theory with clinical practice with couples.

**Administration and Supervision (SOW 6377) 3 credits**

Demonstrates how management activities contribute to service effectiveness for clients and staff.

**Social Work Research (SOW 6404) 3 credits**

Students develop knowledge and competencies to identify and evaluate ethical quantitative and qualitative research methodology, especially evidence-based interventions for clinical practice.

**Field Instruction and Integrative Seminar 1 (SOW 6532) 3 credits**

*Corequisite: SOW 6305*

Seminar for integration of field experience with evidence-based coursework.

**Field Instruction and Integrative Seminar 2 (SOW 6533) 3 credits**

*Corequisite: SOW 6618*

Seminar for integration of field experience with evidence-based coursework.

**Advanced Year Field Instruction and Integrative Seminar 1 (SOW 6535) 3 credits**

Assists concentration year students to integrate theoretical models and concepts with field practice.

**Advanced Year Field Instruction and Integrative Seminar 2 (SOW 6536) 3 credits**

*Corequisite: SOW 6611*

This is the second semester seminar for concentration year field practice. The course is designed to assist students with the integration of theories with practice.

**Advanced Context of Social Work Practice within Healthcare (SOW 6605) 3 credits**

Focuses on the context (policy, organization, technology) of social work practice and explores practice decisions that structure the helping relationship across multiple settings.

**Advanced Social Work Practice and Policy in Mental Health Settings (SOW 6606) 3 credits**

*Prerequisite: Completion of Foundation Curriculum*

Course focuses on social work practice and policy issues in mental health settings at three levels of intervention: prevention/health promotion, remediation of existing mental health problems, and coping with chronic mental health problems.

**Clinical Social Work with Families (SOW 6611) 3 credits**

*Prerequisite: SOW 6535*

*Corequisite: SOW 6536*

This course enables the student to understand, analyze and apply social work knowledge, values and skills to generalist and clinical practice with families, from the family systems, developmental and clinical perspectives.

**Clinical Social Work with Groups (SOW 6618) 3 credits**

*Prerequisite: SOW 6305*

*Corequisite: SOW 6533*

This course provides students with the knowledge, skills, self-awareness and values to practice generalist and clinical social work with groups.

**Social Work and Spirituality (SOW 6626) 3 credits**

Examines issues pertaining to spiritually-sensitive social work practice regarding clients of diverse religious and philosophical ideologies.

### **Social Work with Aging Populations (SOW 6641) 3 credits**

*Prerequisite: M.S.W. majors only*

An introduction to social gerontology for graduate-level social work students. Provides a biopsychosocial introduction to social gerontology from a social work perspective.

### **Advanced Theory and Social Work Practice with Elders and Families (SOW 6646) 3 credits**

*Prerequisites: SOW 6306 and SOW 6533, with minimum grades of "B-"*

Focuses on the study of ageism, concepts of aging, physical and mental health concerns of elders, long-term care, direct practice with elders, and policy-related issues. This is an Academic Service Learning (ASL) course.

### **Social Work Practice with Vulnerable Children and Families (SOW 6653) 3 credits**

*Prerequisite or Corequisite: SOW 6656*

Provides a framework of knowledge and skills necessary to practice with children and their families.

### **Advanced Theory and Social Work Practice with Children, Adolescents and Families (SOW 6655) 3 credits**

*Prerequisites: SOW 6306 and SOW 6533, with minimum grades of "B-"*

Focuses on the application of theories, concepts, and principles in direct treatment of children and adolescents.

### **Child Welfare (SOW 6656) 3 credits**

*Prerequisite: Completion of Foundation Curriculum*

Course examines the issues of professional practice in child welfare that will enable students to bring skills and knowledge to their practice in assessing and intervening in situations of abuse and neglect involving children and families.

### **Inclusive Social Work Practice (SOW 6671) 3 credits**

This course is designed to provide students with knowledge, skills and strategies required to promote social change from an agency- and community- level using an anti-oppression framework. In this course, students explore the oppressive experiences of people from various backgrounds.

### **Animal-Assisted Therapy (SOW 6672) 1 credit**

*Prerequisite: Completion of M.S.W. Foundation Curriculum*

A seminar that explores human-animal bonding. Human-animal bond and the potential for intervention

will be discussed within therapeutic settings and across diverse populations with individuals, families, and groups.

### **Loss and Grief: Individual, Family, Cultural Perspectives (SOW 6678) 3 credits**

*Prerequisite: Completion of Foundation Curriculum*

Course gives students an opportunity to explore and understand their perceptions and beliefs on death and dying and how individual cultural differences influence that experience. The course prepares students to work with clients dealing with feelings of grief and loss.

### **Transition Course (SOW 6693) 3 credits**

*Prerequisite: Bachelor of Social Work required*

Course assists students transitioning from undergraduate-level coursework to graduate-level coursework in the M.S.W. program.

### **Intervention in the Field of Addictions (SOW 6712) 3 credits**

*Prerequisite: Completed M.S.W. Foundation Curriculum*

Course prepares students to assess and intervene with clients affected by substance and abuse.

### **Social Work Practice in Behavioral/Process Addictions (SOW 6714) 3 credits**

*Prerequisite: M.S.W. majors only*

This course provides an overview of the principles of behavior/process addictions and the processes and mechanisms that underlie addiction. Students are introduced to the epidemiology and developmental course of addiction. They are also introduced to risk and protective influences that act throughout the course of addiction resulting in adverse health consequences. Genetic and environmental underpinnings are discussed, and effective interventions and treatment modalities are identified.

### **Social Work Practice with Survivors of Human Trafficking (SOW 6786) 3 credits**

*Prerequisite: M.S.W. majors only*

This course explores the topic of human trafficking and helps students to better understand this form of modern day slavery. The readings, videos and assignments center around current events and current topics of discussion in the trafficking field, as well as where the movement originated and what the future holds. During this course, students learn terminology, the different types of trafficking and how cultural issues and vulnerabilities can contribute to trafficking. They also learn and understand the scope of the problem through current statistics and reports, both domestic and global.

### **Mindfulness and Social Work Practice (SOW 6803) 3 credits**

*Prerequisite: Completion of M.S.W. Foundation Curriculum*

Students learn and experience specific practices that enhance their ability to purposefully attend to and manage their thoughts and feelings so that they can experience more balanced, stable and peaceful lives. In addition, they transfer this knowledge into their social work practice with individuals and/or groups. During class, students learn the theoretical foundations as well as the practical elements of mindfulness, including sitting and moving meditations.

### **Directed Independent Study (SOW 6905) 1-3 credits**

This course assists the student in implementing an independent study project under the guidance of a social work faculty advisor.

### **Special Topics (SOW 6930) 3 credits**

Study relating to topics in social work. This is an Academic Service Learning (ASL) course.

### **Special Topics (SOW 6932) 1-6 credits**

*Prerequisites: Completion of M.S.W. Foundation Curriculum*

Special topic variable credit courses for M.S.W. students.

### **Study Abroad (SOW 6957) 3 credits**

*Prerequisite: Completion of M.S.W. Foundation Curriculum*

An interdisciplinary course to provide students with opportunities to experience a foreign country from within and focusing on native social services.

### **Psychopathology in Advanced Clinical Social Work (SOW 7129) 3 credits**

*Prerequisite: D.S.W. students only*

Course explores diagnostics and treatment of psychopathology in clinical social work practice. Current DSM is considered as well as evidence-informed practices used by clinical social workers in working with mental health services consumers.

### **Advanced Clinical Social Work Practices with Individuals, Groups and Families (SOW 7369) 3 credits**

*Prerequisite: D.S.W. students only*

This course focuses on evidence-based advanced clinical social work practice with individuals, groups, and families. It seeks to provide the student with a methodology for incorporating best social work clinical practices as grounded in the evidence-based research literature.

### **Behavioral Science Statistics in Advanced Clinical Social Work (SOW 7417) 3 credits**

*Prerequisite: For D.S.W. students only*

This course describes the use of quantitative methods for inquiry in the social and behavioral sciences.

The course expands on using SPSS for data analysis and introduces students to the advantages and challenges of working with secondary data. Students gain hands-on experience with the preparation and data analysis of data sets.

### **Clinical Social Work Research and Statistics (SOW 7433) 3 credits**

*Prerequisite: For D.S.W. students only*

Course examines evidence-based clinical social work research methods to improve clinical practice and clinical measurement tools and to engage in various social work research methodologies. As a result, implementation of evidence-based clinical social work interventions and therapies occur.

### **Quantitative Research in Clinical Social Work (SOW 7494) 4 credits**

*D.S.W. students*

The course provides core concepts of rigorous research methodology, inferential statistics, statistical interpretation and critical analysis of empirical studies to inform advanced clinical social work practice.

### **Qualitative Research in Clinical Social Work (SOW 7496) 3 credits**

*Prerequisite: D.S.W. students only*

This course reviews areas of research in clinical social work utilizing qualitative methods, including design methods data collection and analysis. The course also provides information relevant to publishing qualitative research for strengthening social work practice.

### **Advanced Clinical Social Work Capstone: Proposal Writing (SOW 7498) 4 credits**

*Prerequisite: D.S.W. students only*

In this seminar, students learn how to write, orally present and critique proposals. Students learn the different types and settings for various practice and research proposals, apply writing tips to their own proposal and critique samples of proposals from both the field and academia. *Grading: S/U*

### **Clinical Social Work Supervision and Administration (SOW 7619) 3 credits**

*Prerequisite: For D.S.W. students only*

This course focuses on administration and clinical supervision for social workers. Frameworks and critical tasks involved in administration and supervision of social workers are examined.

### **Interpersonal Neuroscience and Advanced Clinical Social Work (SOW 7696) 3 credits**

*Prerequisite: D.S.W. students only*

This course integrates clinical, developmental and behavioral science theories with current interpersonal neurobiology and brain science.

### **Emerging Theories and Methods in Advanced Clinical Social Work (SOW 7698) 3 credits**

*Prerequisite: D.S.W. students only*

This course focuses on gaining an understanding of the current emerging trends in clinical social work treatment environments by exploring theories and interventions that are emerging in response to new understandings of human behavior and psychopathology as well as technological advances that affect service delivery.

### **Theories and Epistemology of Advanced Clinical Social Work Practice (SOW 7757) 3 credits**

*Prerequisite: For D.S.W. student s only*

This course prepares students for subsequent courses on clinical social work theory, research and practice by providing them with a contextual understanding of social work, including the history of social work theory, research, values, ethics, alternate models of practice, the role of technology and inter-professional perspectives.

### **Social Work Pedagogy (SOW 7776) 3 credits**

*Prerequisite: For D.S.W. students only*

Students use evidence-based clinical social work practices for curriculum design, course design, course delivery and evaluations. They examine the educational standards (EPAs) of the Council on Social Work Education and learn to help B.S.W./M.S.W. students develop the competencies identified by the CSWE.

### **Advanced Clinical Social Work Capstone: Defense and Dissemination (SOW 7910) 6 credits**

*Prerequisite: SOW 7913; For D.S.W. students only*

In this seminar, students demonstrate their ability to discuss, defend and disseminate their work.

*Grading: S/U*

### **Advanced Clinical Social Work Capstone: Implementation (SOW 7913) 3 credits**

*Prerequisite: D.S.W. students only*

In this seminar, DSW candidates complete the activities associated with their proposed capstone project. Capstone Implementation should be approximately completed in a 14–16-week window from launch to wrap-up. As activities and specific timelines will vary by capstone type, the main deliverables in this course will be capstone progress reports, and a final assignment of a draft outline of the capstone paper. *Grading: S/U*

### **Special Topics (SOW 7938) 3 credits**

*Prerequisite: D.S.W. students only*

This is a special topics course in the D.S.W. program for D.S.W. students, advancing knowledge and

skills appropriate for doctoral level clinical practice scholars.

**Advanced Clinical Social Work Practicum (SOW 7940) 3 credits**

*Prerequisite: D.S.W. students only*

This course offers students the option to pursue a clinical research practicum or a pedagogical experience. A formal learning plan adopted by the D.S.W. coordinator, the student and a practicum consultant must be in place prior to enrollment in this course.

[Link to the College of Social Work and Criminal Justice Programs](#)







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Michelle Shaw, M.Ed.	Director of Student Accessibility Services
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## FACULTY

### Faculty A-B

**Aalo, Valentine;** Professor of Electrical Engineering; Ph.D., Southern Illinois University, Carbondale.

**Abaid, Teresa L.;** Associate Librarian; M.L.S., Queens College.

- Abbate, Anthony J.;** Professor of Architecture; M.Arch., Washington University; A.I.A., N.C.A.R.B.
- Abraha, Yonas;** Senior Instructor of Mathematics and Statistics; M.S., Florida Atlantic University.
- Abtahi, Homayoon (Amir);** Associate Professor of Mechanical Engineering; Ph.D., Massachusetts Institute of Technology.
- Acello, Eileen;** Instructor of Marketing; M.S., Saint Joseph's University.
- Acosta, Melanie;** Associate Professor of Curriculum and Instruction; Ph.D., University of Florida.
- Adams, Robert D.;** Professor of English; Ph.D., Washington University, St. Louis.
- Adenmosun, Elizabeth;** Visitor Instructor of Nursing; Ph.D., Florida Atlantic University.
- Afanador-Llach, Camila;** Associate Professor of Visual Arts and Art History; M.F.A., Rhode Island School of Design.
- Agapova, Anna;** Associate Professor of Finance; Ph.D., Georgia State University.
- Agarwal, Ankur;** Assistant Professor of Computer Science and Engineering; Ph.D., Florida Atlantic University.
- Akinpelu, Olufunmilayo;** Visiting Instructor of Nursing; D.N.P., Florida Atlantic University.
- Albruna Miranda, Julian Alfonso;** Assistant Professor of Medicine; M.D., University of Guadalajara.
- Alderman, Pamela;** Associate University Librarian; M.S.L.S., Case Western University.
- Alexander, William;** Associate Professor of Psychology; Ph.D., Indiana University.
- Alexandre, Pierre;** Director and Associate Professor of Health Administration; Ph.D., Florida International University.
- Alhalabi, Bassem A.;** Associate Professor of Computer Science and Engineering; Ph.D., University of Southwestern Louisiana.
- Allen, Ethan J., Jr.;** Head Campus Librarian; M.A., University of South Florida.
- Allgood, Ilene;** Senior Instructor of Curriculum and Instruction; Ed.D., Florida Atlantic University.
- Almonte, Mauricio;** Senior Instructor of Spanish; M.A., Bowling Green State University; Ph.D., Vanderbilt University in process.
- Al-Moshaigh, Abdullah;** Visiting Instructor of Accounting; Ph.D., Florida Atlantic University.
- Alter, Scott;** Associate Professor of Emergency Medicine, Associate Research Director, Emergency Medicine Core Faculty and Assistant Dean for Clinical Research; M.D., Rutgers Robert Wood Johnson Medical School.
- Altman, Sigal;** Instructor of Criminology and Criminal Justice; M.S., Florida Atlantic University.
- Amadori, Claudia;** Instructor of English; M.F.A., Florida Atlantic University.
- Amirault, Ray;** Assistant Professor of Curriculum and Instruction; Ph.D., Florida State University.
- An, Pak-Cheung Edgar;** Professor of Ocean Engineering; Ph.D., University of New Hampshire.
- Ananthakrishnan, Palaniswamy;** Associate Professor of Ocean Engineering; Ph.D., University of California, Berkeley.
- Ande, Patrick;** Lab Coordinator, Department of Chemistry and Biochemistry; M.S., University of

Tennessee, Knoxville.

**Andrew, Jan;** University School Instructor; M.Ed., Washington University.

**Antonelli, Melissa;** Visiting Instructor, Curriculum and Instruction; Ph.D., Florida Atlantic University.

**Anzures, Gizelle;** Assistant Professor of Psychology; Ph.D., University of Toronto.

**Araghi, Farshad;** Associate Professor of Sociology; Ph.D., University of Georgia.

**Archer, Andrea;** Visiting Assistant Professor of Nursing; Ed.D., Nova Southeastern University.

**Arias, Aimee K.;** Associate Dean and Associate Professor of Political Science; Ph.D., University of Miami.

**Arikan, Andac;** Associate Professor of Management Programs; Ph.D., New York University.

**Ariza, Eileen;** Professor of Curriculum and Instruction; Ed.D., University of Massachusetts.

**Arneklev, Bruce;** Associate Professor of Criminology and Criminal Justice; Ph.D., University of Oklahoma.

**Arockiasamy, M.;** Professor of Civil Engineering and Director of the Center for Infrastructure and Constructed Facilities; Ph.D., University of Wisconsin, Madison; P.E.

**Atkin-Plunk, Cassandra;** Assistant Professor of Criminology and Criminal Justice; Ph.D., Sam Houston State University.

**Atkins, Burton;** Instructor of Political Science; Ph.D., University of Wisconsin.

**Atkins, Thomas R.;** Professor of Theatre and Dance; M.F.A., Yale University.

**Attonito, Jennifer;** Instructor of Health Administration; Ph.D., Florida International University.

**Augustyn, Prisca;** Professor of German and Linguistics; Ph.D., University of California, Berkeley.

**Aurélien Buie, Louise;** Assistant Dean for the College of Nursing; Ed.D. University of Florida.

**Averkiou, Peter A.;** Associate Professor of Pediatrics; M.D., Albany Medical College.

**Axe, Barry;** Visiting Instructor, Management and International Business; Ed.D., Temple University.

**Ayyanathan, Kasirajan;** Associate Professor of Biological Sciences; Ph.D., Indian Institute of Science, Bangalore, India.

**Azarderakhsh, Reza;** Assistant Professor, Computer & Electrical Engineering and Computer Science, and I-SENSE Fellow; Ph.D., Western University.

**Babbar, Sunil;** Professor of Information Technology and Operations Management; Ph.D., Kent State University.

**Backstrom, Laura;** Assistant Professor of Sociology; Ph.D., University of Indiana-Bloomington.

**Baghbani, Mehrdad S.;** Assistant Professor of Visual Arts and Art History; M.F.A., Michigan State University.

**Bagby, Jonathan;** Associate Professor of Electrical Engineering; Ph.D., Michigan State University.

**Baganz, Nicole;** Research Assistant Professor of Biomedical Science and Director of the FAU Brain

Institute's ASCEND Program; Ph.D., University of Texas.

**Baghersad, Milad;** Assistant Professor of Information and Technology and Operations Management; Ph.D., Virginia Tech University.

**Bai, Shi;** Associate Professor of Mathematics and Statistics; Ph.D., Australian National University.

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- Morgera, Salvatore;** Professor Emeritus in Electrical Engineering; Ph.D., Brown University.
- Mullin, Ronald C.;** Professor Emeritus in Mathematical Sciences; Ph.D., University of Waterloo.
- Murtaugh, Daniel;** Professor of English; Ph.D., Yale University.
- Nash, Allan J.;** Professor Emeritus in Psychology; Ph.D., Purdue University.
- Nathan, Norman;** Professor Emeritus in English; Ph.D., New York University.
- Niederhausen, Heinrich;** Professor Emeritus of Mathematical Sciences; Dr. Techn., Technische Universität Graz.
- Orbach, Kenneth N.;** Professor Emeritus in Accounting; Ph.D., Texas A&M University; C.P.A.
- Parker, Marilyn E.;** Professor Emeritus in Nursing; Ph.D., Kansas State University.
- Peitgen, Heinz-Otto;** Professor Emeritus in Mathematical Sciences; Doctor of Natural Science and

Habilitation, University of Bonn.

**Perumareddi, Jayarama R.;** Professor Emeritus in Chemistry; Ph.D., University of Southern California.

**Petuch, Edward J.;** Professor Emeritus in Geology; Ph.D., University of Miami.

**Prusa, Carol;** Professor Emeritus in Painting and Drawing; M.F.A., Drake University.

**Purnell, Marguerite J.;** Associate Professor Emeritus in Nursing; Ph.D., University of Miami.

**Ray, Marilyn;** Professor Emeritus in Nursing; Ph.D., University of Utah.

**Restrepo, Jorge I.;** Professor Emeritus in Geology; Ph.D., Colorado State University.

**Richie, Nicholas D.;** Associate Professor Emeritus in Health Administration; Ph.D., University of Michigan.

**Richman, Fred;** Professor Emeritus in Mathematical Sciences; Ph.D., University of Chicago.

**Roberts, Charles E.;** Professor Emeritus in Geography; Ph.D., Pennsylvania State University.

**Romeo, Felicia;** Professor Emeritus in Teaching and Learning; Ed.D., University of Houston.

**Ross, Joel, E.;** Professor Emeritus in Management; D.B.A., George Washington University.

**Russo, Kathleen;** Professor Emeritus in Art History; Ph.D., Florida State University.

**Ryan, William;** Associate Professor Emeritus in Management and International Business; Ph.D., Indiana University.

**Sashi, C. M.;** Professor Emeritus in Marketing; Ph.D., Northwestern University.

**Schilit, Jeffrey;** Professor Emeritus in Education; Ph.D., Ohio State University.

**Schroeck, Franklin E.;** Professor Emeritus in Mathematical Sciences; Ph.D., University of Rochester.

**Schultz, Ronald R.;** Professor Emeritus in Geography; Ph.D., University of Washington.

**Schuster, Fred E.;** Professor Emeritus in Management; D.B.A., Harvard University.

**Schwarz, Robert;** Professor Emeritus in Philosophy; Ph.D., University of Wisconsin.

**Scroggins, Mark;** Professor Emeritus in English; Ph.D., Cornell University.

**Shaw, Eric H.;** Professor Emeritus in Marketing; Ph.D., Temple University.

**Sherman, Rose;** Professor Emeritus in Nursing; Ed.D., Columbia University.

**Smith, Jerald;** Professor Emeritus in Management; Ph.D., University of Louisville.

**Smith, Marlaine C.;** Professor Emeritus in Nursing and Former Eminent Scholar; Ph.D., New York University.

**Solomon, Martin K.;** Professor Emeritus in Computer Science and Engineering; Ph.D., Stevens Institute of Technology.

**Sperry, Len;** Professor Emeritus in Counselor Education; Ph.D., Northwestern University.

**Stephenson, Samuel;** Professor Emeritus in Information Technology and Operations Management; Eng.Sc.D., New York University.

**Stevens, Karl, K.;** Professor Emeritus in Mechanical Engineering; Ph.D., University of Illinois.

**Stinchcomb, Jeanne;** Professor Emeritus in Criminology and Criminal Justice; Ph.D., Virginia

Commonwealth University.

**Stronge, William B.;** Professor Emeritus in Economics; Ph.D., Iowa State University.

**Tappen, Ruth;** Professor Emeritus in Nursing and Christine E. Lynn Eminent Scholar; Ed.D., Columbia University.

**Tata, Robert J.;** Professor Emeritus in Geography; Ph.D., Syracuse University.

**Taylor, Robert;** Professor Emeritus in Accounting; Ph.D., University of Colorado.

**Tennant, Jeffrey S.;** Professor Emeritus in Ocean Engineering; Ph.D., Clemson University; P.E.

**Touhy, Theris A.;** Professor Emeritus in Nursing; D.N.P., Case Western Reserve University.

**Unwalla, Darab;** Professor Emeritus in Management; Ph.D., University of Bombay.

**Warren, Dwight W.;** Professor Emeritus in Biomedical Science; Ph.D., University of Southern California, Los Angeles.

**Watson, Robert;** Professor Emeritus in Printmaking; M.F.A., Ohio University.

**Weiss, Gerald;** Professor Emeritus in Anthropology; Ph.D., University of Michigan.

**Weissbach, Herbert;** Professor Emeritus in Biological Science and Chemistry; Ph.D., George Washington University.

**White, Daniel R.;** Professor of Philosophy and Humanities; Ph.D., Florida State University.

**Wiesenfeld, John R.;** Professor Emeritus in Chemistry; Ph.D., Case Institute of Technology.

**Williams, Christine;** Professor Emeritus in Nursing; D.N.S., Boston University.

**Winland-Brown, Jill E.;** Professor Emeritus in Nursing; Ed.D., Florida Atlantic University.

**Yiu, Paul;** Professor Emeritus in Mathematical Sciences; Ph.D., University of British Columbia.





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## APPENDIX A:

### ANTI-DISCRIMINATION AND ANTI-HARASSMENT

To view the University's Anti-Discrimination and Anti-Harassment Regulation, please click [here](#).

## APPENDIX B:

### A GUIDE TO BIAS-FREE COMMUNICATION

People in the University community are increasingly aware of the need to use language that recognizes our diversity and does not offend, demean or exclude people on the basis of gender, race, ethnic group, religion, age, ability/disability or sexual orientation.

Changing our language usage, however, does not come easily or automatically. Familiar ways of writing and speaking are more comfortable; substitute phrases do not always spring quickly to mind.

Several years ago, the University developed a guide to assist faculty, staff and students with these issues. FAU's guide very closely mirrors "Guide to Bias-Free Communications" prepared by the University of Wisconsin-Madison and is used here with UW's permission. FAU recognized the many hours of discussion about sensitive issues that preceded the final draft of UW's Guide.

These guidelines are meant to help you find a more encompassing word or phrase when you need it and to be more attuned to language that, whether intended or not, may offend others. The guidelines aim primarily at written material but apply as well to the spoken word.

This area is controversial and in flux. Usage that groups prefer today may change next year. The point is to try to communicate in a way that is respectful of diversity. Also, the examples we cite may not satisfy everyone.

We welcome your comments, questions and suggestions on how to make these guidelines more useful and pertinent.

## GENDER

1. Include all people in general references by substituting gender-neutral words and phrases for gender-biased words.

<b>Example</b>	<b>Recommended</b>
mankind	people, humanity, human beings
man-to-man defense	one-on-one defense
man the operation	staff the operation
manpower	labor, human resources
layman's terms	ordinary terms
man hours	staff hours, hours
man-made	manufactured, synthetic, artificial

2. Communicate to everyone including both male and female reference points. (Don't presume marital or familial relationships.)

<b>Example</b>	<b>Recommended</b>
faculty and wives	faculty, spouses and guests
you and your spouse are invited...	you and your guest are invited...
boyfriends/girlfriends	friends, guests, partners
Dear Sir	Dear Sir or Madam Dear Madam or Sir Dear Colleague, Greetings

3. Avoid gender-biased pronouns by:

- a. Dropping pronouns that signify gender and restructuring the statement.

**Example**

**Recommended**

Each student should hand in his term paper by...

Each student should hand in a term paper by...

b. Changing to plural construction.

**Example**

**Recommended**

Each student should hand in his term paper by...

Students should hand in term papers by...

A nurse cares for her patients.

Nurses care for their patients.

c. Replacing masculine or feminine pronouns with "one" or "you."

**Example**

**Recommended**

Each student should hand in his term paper by...

You should hand in your term paper by...

d. Avoid awkward construction such as he(she), s/he, (s)he, or him/her. Such constructions, which can be easily reworked, imply that women are considered to be the subject only as an afterthought.

**Example**

**Recommended**

As a professor emeritus, s/he is entitled to a reduced parking fee in Lot 60.

A professor emeritus is entitled to a reduced parking fee in Lot 60.

When welcoming a new teaching assistant, ask him/her to provide a permanent address

When welcoming new teaching assistants, ask them to provide permanent addresses.

4. Use parallelism to refer to women and men equally and to make references consistent.

**Example**

**Recommended**

Danny Jones, a strong basketball

Jones, a strong player, and Favor, a powerful runner, are...

athlete, and Suzy Favor, an attractive young runner, are...

10 men students and 16 female students...

10 male students and 16 female students...

Prof. Brown and Julia Smith were recently promoted.

Prof. Brown and Prof. Smith were recently promoted.

5. "Women" is often used, incorrectly or inappropriately, as an adjective. Consider using "female" or eliminating the adjective if it's unnecessary.

**Example**

**Recommended**

Geraldine Ferraro was the first woman vice-presidential candidate.

Geraldine Ferraro was the first female vice-presidential candidate.

Dr. Helen Popovich became the first woman president of FAU on Sept. 1, 1983.

Dr. Helen Popovich became the first female president of FAU on Sept. 1, 1983.

6. If a direct quote (derived from research or an interview) offends or inappropriately excludes women or men and is not essential to your document, consider eliminating, paraphrasing or replacing the quote.

7. Use neutral words for "man" and "woman" in job titles or descriptions.

**Example**

**Recommended**

chairman

chair

policemen

police officers

sales girl

sales clerk

spokesman

spokesperson

lady lawyer

lawyer

founding fathers

founders

8. Base communication on relevant qualities, not on sex. Avoid sexual stereotyping.

Example	Recommended
She's a good basketball player. She shoots like a man.	She's a good basketball player. She shoots well.
A brilliant female researcher...	A brilliant researcher...

9. Avoid any reference to marital status, parental status or affectional status unless it is directly relevant.
10. When choosing photographs or illustrations, consider the balance of women and men. Also, be conscious of the relative positions of women and men and their actions. Non-verbal messages conveyed by portraying men standing/women sitting, men gesturing at smiling women, men pointing to or working with lab and other equipment while women passively observe imply status differences. Such implications, whether subtle or direct, are unrealistic in the modern workplace or university. Work with artists and photographers to update graphic content.

## DISABILITIES

1. The terms impairment, disability and handicap are not synonymous. Be sensitive to the meaning of each.

An **impairment** is a physiological condition. Example: Arthritis is an impairment in which tissues of the joints are damaged.

A **disability** is the consequence of an impairment. A disability may or may not be handicapping. Example: Disabilities resulting from arthritis include difficulty in bending the spine or limbs, and thus difficulty in walking or performing tasks.

A **handicap** is the social implication of a disability; a condition or barrier imposed by society, the environment or oneself. The term should not be used to describe a disability. Example: People

with arthritic knees and hips may be handicapped by the absence of elevators in older buildings.

2. Disabilities may be the result of either injury or disease, often a disease long past. Disabled people should not automatically be viewed as sick or having a disease.
3. Put people first, not their disabilities.

<b>Example</b>	<b>Preferred</b>
The visually impaired students used a special keyboard.	The students with visual impairments used a special keyboard.

4. Do not focus on a disability unless it is relevant to your communication.

**Irrelevant**

The new instructor, whose bout with polio left him on crutches, will teach two sections of African history.

**Relevant**

The author of the text on legal rights for the disabled writes from experience. She has had paraplegia since childhood.

5. In photos and illustrations, depict disabled people in everyday situations—work, home, play—and show them interacting with people who are not disabled. Do not focus on wheelchairs, crutches or other adaptive equipment.
6. When the context calls for discussion of people with and without disabilities, use that term—"people without disabilities"—rather than "normal" or "able-bodied." ("Normal" implies that by comparison disabled people are abnormal; "able-bodied" suggests that all people with disabilities have physical disabilities or are unable to compensate for their disabilities.) "Non-disabled" is another useful term.
7. Avoid language that portrays people with disabilities as either unfortunate, helpless victims or, at the other extreme, as courageous superhumans.

## RACE AND ETHNICITY

1. Avoid identifying people by race or ethnic group unless it is relevant. We don't usually point out that an individual is white or of Anglo-Saxon heritage. The same rule should apply to other groups.

<b>Inappropriate</b>	<b>Recommended</b>
Andrew Young, the black mayor of Atlanta, cast his vote.	Andrew Young, mayor of Atlanta, cast his vote.
Maria Duran, a Hispanic professor of physics, has been promoted to associate professor.	Maria Duran, a professor of physics, has been promoted to associate professor.
Alpha Beta Gamma, the black fraternity, wants to re-roof its building.	Alpha Beta Gamma wants to re-roof its building.

2. Avoid the term "non-white," which sets up white culture as the standard by which all other cultures should be judged. Also avoid "culturally disadvantaged" and "culturally deprived." These terms imply that the dominate culture is superior to other cultures or that other groups lack a culture.
3. Refer to individuals as "members of a minority group" or specify the minority group (e.g., Latino) when minority group identity is pertinent. ("Minority" refers to a group and serves as a modifier in the term "minority group.")

<b>Example</b>	<b>Preferred</b>
Women and minorities are encouraged to apply.	Women and members of minority groups are encouraged to apply.
Minorities attended the meeting.	Members of the Hmong and Korean communities attended the meeting.

4. Avoid words, images or situations that reinforce stereotypes and that imply all people of a

particular race or ethnic group are the same.

### **Example**

Not surprisingly, the Asian-American students did best in the math contest.

### **The Problem**

Assuming it is relevant to point out that this group excelled, the phrase "not surprisingly" may reinforce the stereotype that all Asian-Americans have superior aptitude in math.

Stereotypical phrases occur much more commonly in spoken than in written communications. Be conscious of what you say as well as what you write.

5. Stay attuned to the current terminology by which racial and ethnic groups refer to themselves. Usage changes (e.g., from "Negro" to "African American," from "Oriental" to "Asian American"). National newspaper and television news are good indicators of current usage. Also, ask people what term they prefer.

People who trace their ancestry through the Caribbean or Central and South America may identify themselves as coming from any one of a number of different cultures and ethnic groups. For instance, the terms Hispanic, Latino/a, Chicano/a and Puertorriqueno/a all have different meanings. Many people whom the U.S. Census would describe as "Hispanic" prefer the term "Latino or Latina." Some people with Spanish-sounding surnames may have indigenous Indian, German or Asian ancestry or prefer to be referred to by their nationality, e.g., Colombian, Nicaraguan, Guatemalan. Others may prefer that no reference be made to their nationality or ancestry.

People whose ancestors originally populated North America may want to be identified with specific communities, such as Seminole or Miccosukee, or they may prefer to be referred to as "American Indian" or "Native American" rather than "Indian." If in doubt, ask.

Also, attention must be paid to the punctuation used in referring to racial and ethnic groups. The terms "African American," "Asian American" and so forth are nouns and should not be hyphenated. However, when these terms are used as modifiers (e.g., "the Asian-American students" in example number 4), they should be hyphenated.

6. Be sensitive to religion when referring to various ethnic groups. Don't make assumptions. For

instance, just as not all Arabs are Muslims, most nationalities and ethnicities will embody different religious practices. Avoid stereotyping a race, nationality or ethnic group with a specific religion.

7. Be sure your communications do not patronize or give token attention to members of racial or ethnic groups. Exaggerated focus on people's accomplishments or insincere and gratuitous references to their concerns imply that these people are not normally successful or accomplished or are not considered to be in the mainstream of society.
8. Review written communications and visual materials to ensure that, where appropriate, all groups—women, men, minority and ethnic group members, older people and disabled people—are represented.

This does not mean that every publication, video or similar material must include all groups at all times or that participation of particular groups should be exaggerated or overstated. But generic campus publications, such as college bulletins or communications that are part of a continuing series (such as newspapers or annual reports), should aim for reasonable representation of all groups involved.

## SEXUAL ORIENTATION

1. "Gender orientation" and "sexual orientation" are preferred to "sexual preference," a term that implies that being homosexual, bisexual or heterosexual is a matter of choice.
2. Most gay people prefer the term "gay" to the somewhat clinical "homosexual." The term "gay" may be used to refer to both men and women, but "lesbian" is the term preferred by gay women. Keep in mind also that people of a bisexual orientation may not consider themselves to be part of either the gay or heterosexual community. As a matter of principle, refer to societal groups in the way that members of each group prefer. Ask people what term they prefer.
3. Avoid using "gay lifestyle" or "lesbian lifestyle." Being gay or lesbian is not a lifestyle; it is a fundamental orientation. In addition, gays' lives and relationships are as diverse as those of the rest of the population.
4. "Gay community" is an umbrella term used in the same manner that a name such as "the Italian-American community" is used to describe a group whose members have similar, but not identical,

backgrounds and social agendas. The term may be used to refer to both men and women but again, "lesbian and gay community" is preferred.

5. Include the viewpoint of somebody who is gay when reporting on a gay topic. Better yet, solicit more than one gay viewpoint, since the gay, lesbian and bisexual community is not monolithic.
6. Avoid classroom or extracurricular activities or exercises that assume all students are heterosexual or that otherwise invade students' privacy.

## AGE

1. Refer to a person's age only when it is relevant to the medium or the message. For example, communications that follow newspaper style are generally expected to state a subject's age. However, in most internal University communications, age is not pertinent and its mention may even be distracting.

### **Irrelevant**

The researchers, ages 56 and 60, won a grant from NIH.

### **Relevant**

Patricia Schmidt, 12, will study at FAU this spring. She is the youngest student ever to enroll at the University.

2. If you use a generic age description, ask your subjects what wording they prefer. Do they refer to themselves as older persons or senior citizens? As youths, teenagers or young people?
3. Avoid cliches such as "precocious," "spry" or "chipper," and avoid generalizations that reinforce stereotypes about age. Middle school children are not necessarily troublemakers, and not everyone over 80 lives in a nursing home.
4. Don't assume older people are less intellectually, physically or emotionally able than other age groups. Also don't underestimate the capabilities of younger people simply on the basis of their age.

### **Inappropriate**

Carl Elliot, 12, feeds his dog every day without having to be reminded.

Darleen Hampton, 62, still puts in a full day in the admissions office.

5. Don't use patronizing language.

Example	Recommended
The sweet little old lady beamed as she entered the classroom.	The older woman smiled as she entered the classroom.

6. In communications meant to represent a range of experiences or viewpoints, include people of diverse ages.

7. Newspaper style dictates that females 18 years or older are women, not girls; males 18 years or older are men, not boys. In a university setting, however, it may be more appropriate to refer to all students, whether 17 or 60, as men and women.

## APPENDIX C:

### FLORIDA'S STATEWIDE COURSE NUMBERING SYSTEM

Courses in this catalog are identified by prefixes and numbers that were assigned by Florida's Statewide Course Numbering System (SCNS). This numbering system is used by all public postsecondary institutions in Florida and participating nonpublic institutions. The major purpose of this system is to facilitate the transfer of courses between participating institutions. Students and administrators can use the online SCNS to obtain course descriptions and specific information about course transfer between participating Florida institutions. This information is on the SCNS [website](#).

Each participating institution controls the title, credit and content of its own courses and recommends the first digit of the course number to indicate the level at which students normally take the course. Course prefixes and the last three digits of the course numbers are assigned by members of faculty discipline committees appointed for that purpose by the Florida Department of Education in Tallahassee. Individuals nominated to serve on these committees are selected to maintain a representative balance as to type of institution and discipline field or specialization.

The course prefix and each digit in the course number have a meaning in the SCNS. The listing of prefixes and associated courses is referred to as the "SCNS taxonomy." Descriptions of the content of

courses are referred to as "statewide course profiles."

### EXAMPLE OF COURSE IDENTIFIER

<b>Prefix</b>	ENC	English Composition
<b>Level Code</b> (first digit)	1	Lower (Freshman) Level at this institution
<b>Century Digit</b> (second digit)	1	Freshman Composition
<b>Decade Digit</b> (third digit)	0	Freshman Composition Skills
<b>Unit Digit</b> (fourth digit)	1	Freshman Composition Skills I
<b>Lab Code</b>		No laboratory component in this course

### GENERAL RULE FOR COURSE EQUIVALENCIES

Equivalent courses at different institutions are identified by the same prefixes and same last three digits of the course number and are guaranteed to be transferable between participating institutions that offer the course, with a few exceptions, as listed below in *Exceptions to the General Rule for Equivalency*.

For example, a freshman composition skills course is offered by 84 different public and nonpublic postsecondary institutions. Each institution uses "ENC\_101" to identify its freshman composition skills course. The level code is the first digit and represents the year in which students normally take the course at a specific institution. In the SCNS taxonomy, "ENC" means "English Composition," the century digit "1" represents "Freshman Composition," the decade digit "0" represents "Freshman Composition Skills" and the unit digit "1" represents "Freshman Composition Skills I."

In the sciences and certain other areas, a "C" or "L" after the course number is known as a lab indicator. The "C" represents a combined lecture and laboratory course that meets in the same place at the same time. The "L" represents a laboratory course or the laboratory part of a course that has the same prefix and course number but meets at a different time or place.

Transfer of any successfully completed course from one participating institution to another is guaranteed in cases where the course to be transferred is equivalent to one offered by the receiving institution. Equivalencies are established by the same prefix and last three digits and comparable faculty credentials at both institutions. For example, ENC 1101 is offered at a community college. The same course is offered at a state university as ENC 2101. A student who has successfully completed ENC 1101 at a Florida College System institution is guaranteed to receive transfer credit for ENC 2101 at the state university if the student transfers. The student cannot be required to take ENC 2101 again since ENC 1101 is equivalent to ENC 2101. Transfer credit must be awarded for successfully completed equivalent courses and used by the receiving institution to determine satisfaction of requirements by transfer students on the same basis as credit awarded to the native students. It is the prerogative of the receiving institution, however, to offer transfer credit for courses successfully completed that have not been designated as equivalent.

**Note:** Credit generated at institutions on the quarter-term system may not transfer the equivalent number of credits to institutions on the semester-term system. For example, 4.0 quarter hours often transfers as 2.67 semester hours.

## THE COURSE PREFIX

The course prefix is a three-letter designator for a major division of an academic discipline, subject matter area or subcategory of knowledge. The prefix is not intended to identify the department in which a course is offered. Rather, the content of a course determines the assigned prefix to identify the course.

## AUTHORITY FOR ACCEPTANCE OF EQUIVALENT COURSES

Section 1007.24(7), Florida Statutes, states:

Any student who transfers among postsecondary institutions that are fully accredited by a regional or national accrediting agency recognized by the United States Department of Education and that participate in the statewide course numbering system shall be awarded credit by the receiving institution for courses satisfactorily completed by the student at the previous institutions. Credit shall be awarded if the courses are judged by the appropriate statewide course numbering system faculty committees representing school districts, public postsecondary educational institutions, and participating nonpublic postsecondary educational institutions to be academically equivalent to courses offered at the receiving institution, including equivalency of faculty credentials, regardless of the public or nonpublic control of the previous institution. The Department of Education shall ensure that credits

to be accepted by a receiving institution are generated in courses for which the faculty possess credentials that are comparable to those required by the accrediting association of the receiving institution. The award of credit may be limited to courses that are entered in the statewide course numbering system. Credits awarded pursuant to this subsection shall satisfy institutional requirements on the same basis as credits awarded to native students.

## EXCEPTIONS TO THE GENERAL RULE FOR EQUIVALENCY

Since the initial implementation of the SCNS, specific disciplines or types of courses have been excepted from the guarantee of transfer for equivalent courses. These include courses that must be evaluated individually or courses in which the student must be evaluated for mastery of skill and technique. The following courses are exceptions to the general rule for course equivalencies and may not transfer. Transferability is at the discretion of the receiving institution.

1. Courses not offered by the receiving institution.
2. For courses at nonregionally accredited institutions, courses offered prior to the established transfer date of the course in question.
3. Courses in the \_900-999 series are not automatically transferable and must be evaluated individually. These include such courses as special topics, internships, apprenticeships, practica, study abroad, theses and dissertations.
4. Applied academics for adult education courses.
5. Graduate courses.
6. Internships, apprenticeships, practica, clinical experiences and study abroad courses with numbers other than those ranging from 900-999.
7. Applied courses in the performing arts (art, dance, interior design, music and theatre) and skills courses in criminal justice (academy certificate courses) are not guaranteed as transferable. These courses need evidence of achievement (e.g., portfolio, audition, interview, etc.).

## COURSES AT NONREGIONALLY ACCREDITED INSTITUTIONS

The SCNS makes available on its [website](#) a report entitled "Courses at Nonregionally Accredited Institutions" that contains a comprehensive listing of all nonpublic institution courses in the SCNS inventory, as well as each course's transfer level and transfer effective date. This report is updated monthly.

Questions about the SCNS and appeals regarding course credit transfer decisions should be directed to

Maria Jennings at [mjennings@fau.edu](mailto:mjennings@fau.edu) in the Office of the Registrar at FAU, or to the Florida Department of Education, Office of Articulation, 1401 Turlington Building, Tallahassee, Florida 32399-0400. Special reports and technical information may be requested by calling the SCNS office at 850-245-0427 or by visiting its [website](#).

## APPENDIX D:

### FLORIDA ATLANTIC UNIVERSITY INTEREST GROUP

#### **Discussion List**

FAU-L is an unmoderated discussion list dealing with issues, concerns and news related to Florida Atlantic University, its alumni, students, faculty, visitors and friends. The discussion list intends to exchange ideas, answer questions and share experiences between and among members. This discussion list is open to all interested individuals and organizations.

#### *To subscribe or unsubscribe:*

1. Log into FAU's Sympa website at <https://lists.fau.edu>.
2. Enter **fau-l** in the search for list(s) field and click search links. Click on the fau-l link.
3. On the left side of the page, click **Subscribe or Unsubscribe** and follow the prompts.
4. A confirmation email will be sent.

#### *To post a message to the list members:*

Send a message to the mailing list's address through email by addressing it to [fau-l@lists.fau.edu](mailto:fau-l@lists.fau.edu). Or, messages can be sent from within FAU's Sympa website:

1. Log into FAU's Sympa website at <https://lists.fau.edu>.
2. Click the link for **fau-l**.
3. Click **Post**.
4. In the mail form, fill in the subject line.
5. Write in the message body.
6. Click **Send to selected recipient**.

## APPENDIX E:

### FLORIDA ATLANTIC UNIVERSITY ON THE INTERNET

## **FAU Website**

An interesting and always growing body of current information about FAU is available at [www.fau.edu](http://www.fau.edu).

## **Course Schedule**

FAU's course schedule has information about current class sizes and is updated regularly with details about cancelled, closed and held classes. Any changes of time, day or location are also available in the course schedule at [myfau.fau.edu](http://myfau.fau.edu).

