Bachelor of Science in Civil Engineering engineering-advising@fau.edu • 561.297.2780 • dessa.fau.edu • cege.fau.edu **COLLEGE OF ENGINEERING** & COMPUTER SCIENCE Florida Atlantic University Prerequisites of CGN4804C CEGE Design 2 CoRequisites of CGN4804C CEGE Design 2 Reinforced Transportation Civil Water & CEGE Structural Steel Foundation Hydrologic Concrete Design Engineering Planning & Engineering Wastewater Design 2 Design Engineering CES 4702 Technical Logistics CEG 4012 Treatment CGN4804C **CES 4605** CWR4202 TTE 4005C (3) Elective (3) (3) ENV4514(3) (WAC) (3) (3) (3)(3)Prerequisites of CGN4803C CEGE Design 1 Civil Civil Soil Introduction to Applied Environmental CEGE Analysis of Engineering Mechanics Transportation Engineering Science & Design 1 **Hvdraulics** Structures Technical Materials **CEG 3011C** Engineering CGN4803C **CWR 3201C** Engineering CES 3102C CGN 3501C (3) TTE 3004C (3) (WAC) (3) Elective (3) (3)ENV 3001C (3) (3) (3) Proof of FBPE FE Exam Eligibility Strengths **Technical Elective Course Options** Undergraduate **Dynamics** of Materials CCE 4031 Construction Project Mgmt - PreReq: Senior & Permission of Dept. Research I EGN3321 EGN 3331 CEG 4126 Pavement Design - PreReg: CEG 3011C Soil Mechanics CGN3910 (3) CGN4321 GIS Application in Civil Engineering - PreReq: Permission of instructor (3)(1) CWR4223 Advanced Hydraulic Systems - PreReg: Senior & permission of Dept. TTE 4105 Trans Ops & Logistics Mgmt PreReq: TTE4005C or URP3000 or permission of instructor CWR 4307 Stormwater Mod and Mgmt PreReq: Hydrology or permission of Dept. Engineering Physics for Eng II Chemistry I **Prob & Stats** Calculus w/Analytic **Statics** PHY 2044 (3) Mathematics I **OTHER REQUIREMENTS:** Analysis for CHM 2045 (3) Geometry III **EGN 3311** Requirements to Declare Civil Engineering Major MAP 3305 (3) Engineers Gen. Physics II Lab MAC 2313 Chemistry I w/Lab Must obtain a minimum grade of "C" and in MAC2311 & PHY2048 (3)Diff. Eq. MAP 2302 (3) STA 4032 (3) PHY 2049L (1) (4) (transfer only) CHM 2045L (1) Grade of C or Better Required in all Coursework 4-year & Transfer Students: At least 128 credits; At least 45 credits in the Upper-Division Transfer Students: At least 32 credits from FAU Gen. Physics I Fund. of Surveying College Writing Calc w/Analytic Computer **Fundamentals** Fundamentals of Physical Geology PHY 2048 (3) **ENC 1102** SUR 2101 (2) Applications in of AutoCAD Geometry II Engineering GLY2010C (WAC) MAC 2312 CGN 2327 Engineering Gen. Physics I Lab **EGN 1002** Fund, of Surv. Lab (4) (3) (4) EGN 2213 (3) (3) PHY 2048L (1) (3) SUR 2101L (1) OR BSC1010 + 1010L PreReg: MAC1114 **Biological Principles** Calc w/Analytic Foundations of Foundations of Foundations of College Writing Foundations of Foundations of Foundations of Geometry I Society and Society and Global Citizenship **ENC 1101** Global Citizenship Humanities Humanities MAC 2311 **Human Behavior Human Behavior** (3) (3) (WAC) (3) (3) (3) (4) (3) (3)

IFP Requirements

LEGEND:

Pre-Requisite

Fall/Spring

Pre- or Co-

Science & Math

Core Courses

Engineering Fund. Courses

This flowchart is reviewed periodically and is subject to change as new requirements become

a degree audit conducted with an academic advisor.

necessary to educate engineers. The information is intended to inform and is not a replacement for

FLORIDA ATLANTIC UNIVERSITY - INTELLECTUAL FOUNDATION PROGRAM 2015 - 2016

All courses are three (3) credits unless otherwise indicated. Course selections should be made in consultation with an academic advisor.

PRE-PROFESSIONAL ENGINEERING PROGRAM (2015-2016)

College of Engineering and Computer Science

FOUNDATIONS OF WRITTEN COMMUNICATION (6 credit hours required – Writing Across the Curriculum - WAC) Grade of "C" or higher is required in each course ENC 1101 College Writing I (REQUIRED) ENC 1102 College Writing II +	FOUNDATIONS OF MATHEMATICS & QUANTITATIVE REASONING (6 credit hours required – Grade of "C" or higher is required) Student must take two of the following courses, one must be from group A. The second course may be from group A or group B. PRETEST IS REQUIRED BEFORE TAKING YOUR FIRST MATH COURSE
THE FOLLOWING COURSES BELOW MAY BE SUBSTITUTED FOR ENC 1102:	Group A
English Department ENC 1930+ University Honors Seminar in Writing (Permit Only) ENC 1939+ Special Topic: College Writing ENC 2452+ Honors Composition for Science	MGF 1106 Math for Liberal Arts 1MGF 1107 Math for Liberal Arts 2MAC 1105 College AlgebraSTA 2023 Introductory StatisticsMAC 2311 Calc. w/Analytic Geometry 1 (4 credits) (REQUIRED)
Anthropology Department ANT 1471+ Cultural Difference in a Globalized Society	or any mathematics course for which one of the above courses is the direct prerequisite
History Department HIS 2050+ Writing History: The American Revolution	Group B MAC 1140 Precalculus Algebra MAC 1114 Trigonometry
Nursing Department (Department Permission Required) NSP 1195+ Being Cared For: Reflections from Other Side of Bed	MAC 1147 Precalculus Algebra & Trigonometry (5 credits) MAC 2233 Methods of Calculus
Note: Students must take four Writing-Across-the-Curriculum (WAC) courses, two of which must be taken from Foundations of Written Communication.	MAC 2312 Calc. w/Analytic Geometry 2 (4 credits) (REQUIRED) Philosophy Department
FOUNDATIONS OF SCIENCE & THE NATURAL WORLD	PHI 2102 Logic
(6 credit hours required - One of the courses must have a lab)	Note: Students must take at least one course with the prefix MAC or MGF.
Student must take two of the following courses, one must be from group A. The second course may be from group A or group B. Grade of "C" or higher is required *** SEE SCIENCE REQUIREMENTS BY MAJOR ON PAGE 3 *** Group A	FOUNDATIONS OF SOCIETY & HUMAN BEHAVIOR (6 credit hours required) Student must take two of the following courses, one must be from group A. The second course may be from group A or group B. Group A
Biology Department	History Department
BSC 1005 & LLife Science (3 credits including Lab) BSC 1010 & L & D. Biological Principles (4 credits including Lab & Dis) BSC 2085 & LAnatomy & Physiology 1 (4 credits including Lab) *	AMH 2010 United States History Since 1877 (P/F) Anthropology Department ANT 2000 Introduction to Anthropology
Chemistry Department CHM 1020C Contemporary Chemical Issues CHM 2045 & L General Chemistry 1 (4 cr. w/Lab) ‡ (REQUIRED)	Economics Department ECO 2013 Macroeconomic Principles §
Geosciences Department ESC 2000Blue Planet (online course)	Political Science Department POS 2041 Government of the United States
Physics Department AST 2002Introduction to Astronomy (P/F) PHY 2048 & L	Psychology Department PSY 1012 Introduction to Psychology Sociology Department SYG 1000 Sociological Perspectives
Group B Anthropology Department ANT 2511 & LIntro to Biological Anthropology (4 cr. Incl. Lab)	Group B History Department
Biology Department BSC 1011 & L & D Biodiversity (4 cr. including Lab & Discussion)	AMH 2020 United States History to 1877 (P/F) Economics Department ECO 2023 Microeconomic Principles §
Chemistry Department CHM 2032 & LChem. for Health Sciences (4 cr. including Lab)	ECP 2002
CHM 2083Chemistry in Modern Life (P/F)	EEX 2091 Disability and Society
Engineering Dean Department ETG 2831Nature: Inter. of Sci., Eng., & the Humanities	Geosciences Department EVR 2017 Environment and Society
Geosciences Department GLY 2010CPhysical Geology (4 cr. including Lab) GLY 2100History of Earth and Life	Public Administration Department PAD 2258 Changing Environment of Soc., Bus., & Gov't
MET 2010 & D Weather and Climate	Sociology Department
Physics Department PHY 2049 & LGeneral Physics 2 (5 cr. w/ Lab) (REQUIRED)	SYD 2790 Race, Class, Gender, and Sexuality SYG 2010 Social Problems
PSC 2121Physical Science	Urban & Regional Planning Department URP 2051 Designing the City

URP 2051 Designing the City

FOUNDATIONS IN GLOBAL CITIZENSHIP (6 credit hours required) Student must choose two (2) courses from among the following: **Anthropology Department** __ ANT 2410...... Culture and Society **Curriculum, Culture & Education Department** EDF 2854 Educated Citizen in Global Context **Geosciences Department** GEA 2000 World Geography **Political Science Department** INR 2002..... Introduction to World Politics Languages, Linguistics, & Comparative Literature Department LAS 2000...... Intro to Caribbean & Latin American Studies __ LIN 2607 Global Perspectives on Language (online course) **Sociology Department** _ SYP 2450...... Global Society **Social Work Department** ____ SOW 1005...... Global Perspectives of Social Services

STUDENTS ASSUME RESPONSIBILITY FOR MEETING ALL GRADUATION REQUIREMENTS

WOH 2012 & D..... History of Civilization 1 (WAC) ++

WOH 2022 History of Civilization 2

Course selections should be made in consultation with an academic advisor.

FOUNDATIONS OF HUMANITIES

(6 credit hours required)

Student must take two of the following courses, one must be from group A.

The second course may be from group A or group B.

Group A

Visual Art & Art History Department ARH 2000Art Appreciation (P/F)
Music Department MUL 2010Music Appreciation
Philosophy Department PHI 2010 & DIntroduction to Philosophy (WAC) ++
Theatre & Dance Department THE 2000Theatre Appreciation
Group B
Architecture Department ARC 2208Culture & Architecture
Theatre & Dance Department DAN 2100Appreciation of Dance
School of Communication & Multimedia Studies FIL 2000 & DFilm Appreciation
Languages, Linguistics, & Comparative Literature DepartmentLIT 2100Introduction to World Literature
English Department LIT 2010Interpretation of Fiction (WAC) ++ LIT 2030Interpretation of Poetry (WAC) ++ LIT 2040Interpretation of Drama (WAC) ++ LIT 2070Interpretation of Creative Nonfiction (WAC) ++

Legend

- + ENC 1101 is a prerequisite.
- ++ Two Foundations of Written Communications classes are required before taking this course.
- § Sophomore standing (30 credits earned) is a requirement to take this course.
- Nursing majors are required to take this course in their first semester.
- ** MAC 2311 is a prerequisite for this course. If a lab is needed, then take General Physics 1 Lab (PHY 2048 Lab).
- *** MAC 1105 and MAC 1114 are prerequisites for this course. If a lab is needed, then take General Physics 1 Lab (PHY 2048 Lab).
- ‡ Co-requisite of College Algebra (MAC 1105) or a prerequisite of Introductory Chemistry (CHM 1025).
- WAC (WAC) Writing across the curriculum course.

§ Writing Across the Curriculum (WAC)/Gordon Rule

Students must attain grades of "C" or higher. 12 credits of writing (WAC) and 6 credits of mathematics are required.

Please note:

History Department

Students must take four (4) WAC courses. Two (2) courses are to be taken from Foundations of Written Communication. We strongly recommend the two additional WAC courses come from these courses: PHI 2010, WOH 2012, LIT 2010, LIT 2030, LIT 2040 and LIT 2070. See advisor for additional details.

(D) = Discussion, (L) = Lab

Courses indicating a (D) or (L) are linked with a lecture, a lab, and/or a discussion. If you select one of these courses, you must register for the lecture, lab, and/or discussion. You <u>must</u> attend the lecture, lab, and/or discussion.

Elective Credits

The number of elective credits allowed varies by major. Please consult with an academic advisor to determine the number of elective credits required for your major. <u>Certain majors do not allow any electives.</u>

P/F

Certain designated undergraduate courses may be taken for a letter grade of pass (P) or fail (F). Students must indicate the grade option preferred when registering; otherwise, a letter grade will be given. The maximum credit available to any student on the P/F option is one course per term with a maximum of 12 credits during a student's entire course of study. This option is not available for courses in the student's major, for students on probation, or for **Engineering** majors.

http://myfau.fau.edu

Go to MyFAU to:

- Check e-mail
- See FAU Announcements
- ❖ FAU Self-Service:
 - Course schedules
 - Registration (drop/add classes) and withdrawals
 - Student records and financial aid
 - Tuition payments
 - The University Course Catalog

FOREIGN LANGUAGE (4-8 credits) – REQUIRED only for COMPUTER SCIENCE MAJOR

Students with more than one year of a foreign language in high school should enroll in the second half of the beginners foreign language class (ARA/CHI/FRE/GER/HBR/ITA/JPN/LAT/SPN 1121) or a higher level course. Proficiency for a first-level course can be earned by successfully completing a second-level course. For questions related to this requirement, consult an academic advisor. CLEP exam credits meet this requirement: see the catalog.

- NOTE: Native Speakers of a foreign language must consult the Languages, Linguistics, and Comparative Literature Department regarding this requirement.
- NOTE: Honors Seminars SHALL BE ACCEPTED AS MEETING THE WAC/GRW REQUIREMENT. See the University Advising Services Office for details.

FREE ELECTIVES: Engineering students DO NOT have any electives. Engineering students must stick to the core curriculum.

	MAJOR REQUIREMENTS (All required major courses must earn a "C" or better)
EGN 1002 & L	Fundamentals of Engineering [Must be taken freshman year] (NOT required for Computer Science majors
SPC 2608	Public Speaking (Required for Computer Science & Geomatics majors ONLY)
	SCIENCE REQUIREMENTS BY MAJOR (All required science courses must earn a "C" or better)
Civil, Electrical, Geomatics, Mechanical, Ocean, and Computer Engineering: CHM 2045 & LGeneral Chemistry 1 (4 cr. w/Lab) ‡ (REQUIRED) PHY 2048 & LGeneral Physics 1 (5 cr. w/ Lab) ** (REQUIRED) PHY 2049 & LGeneral Physics 2 (5 cr. w/ Lab) (REQUIRED) Civil Engineering majors must also choose 1 from: BSC 1010 & L & DBiological Principles (4 credits including Lab & Discussion) GLY 2010CPhysical Geology (4 cr. including Lab) (RECOMMENDED)	
PHY 2049 & L Computer Science CHM 2045 & L BSC 1010 & L &	General Physics 1 (5 cr. w/ Lab) ** (REQUIRED)General Physics 2 (5 cr. w/ Lab) (REQUIRED) majors must also choose 1 from:General Chemistry 1 (4 cr. w/Lab) ‡ DBiological Principles (4 credits including Lab & Discussion)Physical Geology (4 cr. including Lab)

REQUIREMENT INFORMATION

- NOTE: All Engineering and Computer Science students should take Physics I (PHY 2048 & PHY 2048L) with Calculus II (MAC 2312) in the same semester.
- NOTE: Students must receive a minimum grade of "C" and overall GPA of 2.5 or greater in a combination of the math and physics courses below. Calculation of the GPA will be based on the highest grade earned. Advance placement (AP) a score of 5 is equivalent to an "A" and a score of 4 is equivalent to a "B".
- Electrical and Computer Engineering: MAC 2311 & MAC 2312 = 2.5 GPA or MAC 2311 & PHY 2043 or PHY 2048 = 2.5 GPA.
- Ocean, Mechanical, Civil, Environmental & Geomatics Engineering: MAC 2311 & PHY 2043 or PHY 2048 = 2.5 GPA.
- Computer Science: COP 2220 & MAC 1140 & MAC 1114 = 2.5 GPA or COP 2220 & MAC 1147 = 2.5 GPA.

Incoming Freshman and students transferring with less than 30 credits contact:

College of Engineering & Computer Science

Nicole Raymond University Advising Services Phone: (561) 297-3064

Phone: (561) 297-2780
Email address: engineering-advising@fau.edu

Transfer students or students with more than 30 credits contact: