 <b>FLORIDA ATLANTIC UNIVERSITY</b>	<b>NEW/CHANGE PROGRAM REQUEST</b> <b>Graduate Programs</b>		UGPC Approval _____ UFS Approval _____ Banner _____ Catalog _____
	Department _____ College <u>Medicine</u>		
Program Name _____		<input type="checkbox"/> New Program* <input type="checkbox"/> Change Program*	<b>Effective Date</b> (TERM & YEAR) Summer 2025
Please explain the requested change(s) and offer rationale below or on an attachment.			
*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.			
Faculty Contact/Email/Phone _____		Consult and list departments that may be affected by the change(s) and attach documentation	
<b>Approved by</b> Department Chair <u>marc kantorow</u> College Curriculum Chair <u>marc kantorow</u> College Dean <u>marc kantorow</u> UGPC Chair <u>[Signature]</u> UGC Chair <u>[Signature]</u> Graduate College Dean <u>[Signature]</u> UFS President _____ Provost _____		<b>Date</b> <u>1/7/25</u> <u>1/7/25</u> <u>1/7/25</u> <u>02/05/2025</u> <u>02/05/2025</u> <u>02/05/2025</u> _____ _____	

Email this form and attachments to [UGPC@fau.edu](mailto:UGPC@fau.edu) 10 days before the UGPC meeting.

# 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~~ This is are a minimum requirements that ~~are is~~ 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 non-thesis option to the ~~non~~-thesis option must submit a letter of support from their thesis advisor to the Office of Graduate Programs, 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 Office of Graduate Programs~~Committee~~. PCB 6974 and PCB 6971 credits are non-transferable.

### Core (9 credits)

Data Interpretation and Analysis in the Age of Precision GMS 6860 Medicine		3
Advanced Molecular and Cellular Biology	PCB 5532	3
Human Genetics	PCB 6665	3

### Thesis Requirements (9 credits minimum)

Master's Thesis <i>(may be taken multiple times; 6 credits minimum; 12 credits maximum)</i>	PCB 6971	1-12
Thesis-Related Research <i>(may be taken only twice; 3 credits minimum; 6 credits maximum)</i>	PCB 6974	2-3

### Electives

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
Bioinformatics	BSC 6458C	3
Biomedical Data and Informatics	BSC 6459	3
Cognitive Neuroscience	ISC 5465	3
Biomedical Science Core Technologies Laboratory	GMS 6091C	3
Macromolecular Therapy for Human Diseases	GMS 6301	3
Molecular Basis of Disease and Therapy	GMS 6302	3
Pharmacology	GMS 6513	3
Biomedical Concepts and Translational Applications	GMS 6841	3
Host Defense and Inflammation	MCB 6208	3
Advanced Molecular Genetics of Aging	PCB 5245	3
Neurobiology of Addiction	PCB 5844	3
Advanced Cell Physiology	PCB 6207	3
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
<u>Proteins in Health and Disease</u>	<u>PCB 6208</u>	<u>3</u>
<u>Multi-omics health and disease</u>	<u>PCB 6818</u>	<u>3</u>
Physiology of the Heart	PCB 6885	3
<u>Neural Plasticity</u>	<u>GMS 6021</u>	<u>3</u>
<u>Integrating Genomics and Predictive Health</u>	<u>PCB 6667</u>	<u>3</u>
<u>Advanced Pharmacology</u>	<u>GMS 6551</u>	<u>3</u>
<u>Molecular Mechanism of Aging and Age-Related Diseases</u>	<u>PCB 6817</u>	<u>3</u>
Directed Independent Study (maximum of 6 credits allowed)	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









# MED #1

Final Audit Report

2025-02-05

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