

 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Graduate Programs		UGPC Approval _____ UFS Approval _____ Banner _____ Catalog _____
	Department _____ College _____		
Program Name _____		New Program* Change Program*	Effective Date (TERM & YEAR)
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	
Approved by Department Chair <u>marc kantorow</u> College Curriculum Chair <u>marc kantorow</u> College Dean <u>marc kantorow</u> UGPC Chair _____ UGC Chair _____ Graduate College Dean _____ UFS President _____ Provost _____			Date <u>8/6/2025</u> <u>8/6/2025</u> <u>8/6/2025</u> _____ _____ _____ _____ _____

Email this form and attachments to UGPC@fau.edu 10 days before the UGPC meeting.

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. Admission to this certificate program is open to students currently enrolled in graduate programs at Florida Atlantic University as well as to non-degree seeking students. For degree-seeking students, credits earned for graduate degree programs may also count for the certificate if approved by advisors in both programs. Applications for the Graduate Certificate should be submitted to the Office of Graduate Programs Charles E. Schmidt College of Medicine upon successful completion of the required courses with a minimum grade of "B" in each course.

*Students may need permission to enroll in courses outside of their stipulated curriculum. Please check with your departmental graduate advisor as well as the departmental coordinator or instructor for the desired course.
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
Multi-omic applications towards understanding health and disease (Special Topics)	PCB 6933	3

Complete one of the following Graduate Biomedical Science elective courses (3 credits)

Integrated Morphology 1	BMS 6102C	4
Integrated Morphology 2	BMS 6104C	4
Advanced Molecular and Cellular Biology	PCB 5532	3
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
Physiology of the Heart	PCB 6885	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