

 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Graduate Programs		UGPC Approval _____ UFS Approval _____ Banner _____ Catalog _____
Department Biological Sciences College Charles E. Schmidt College of Science		☐ New Program* ☒ Change Program* Effective Date (TERM & YEAR) Spring 2024	
Program Name Business Biotechnology Professional Science Master (P.S.M.)			
Please explain the requested change(s) and offer rationale below or on an attachment. Update Departmental Admission Requirements: Remove the GRE requirement			
Faculty Contact/Email/Phone William Brooks (wbrooks@fau.edu) 561-297-3888		Consult and list departments that may be affected by the change(s) and attach documentation	
Approved by Department Chair <u>Sarah L. Patton</u> College Curriculum Chair <u>[Signature]</u> College Dean <u>[Signature]</u> UGPC Chair _____ UGC Chair _____ Graduate College Dean _____ UFS President _____ Provost _____			Date <u>7-20-23</u> <u>8/28/2023</u> <u>08/28/2023</u> _____ _____ _____ _____ _____

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

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. ~~Minimum scores of 151 (verbal) and 148 (quantitative) on the GRE. GRE scores more than five years old will not be accepted;~~
4. Personal statement of career goals and how the applicant feels this training will help achieve those goals;
5. Three letters of recommendation with at least one from a former professor;
6. [Graduate Student Biology Faculty Advisor Verification](#) form;
7. 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
Biotechnology Business Development	ENT 6196

Professional Science Master's (P.S.M.) in Business Biotechnology - Scientific Internship	BSC 6946
Profession a Science Master's (P.S.M.) in Business Biotechnology - Business Internship	MAN 6946

* 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
Advanced Biochemistry	BCH 6740
Laboratory Methods in Biotechnology	BSC 6408L
Practical Cell Neuroscience	BSC 6417C
Computer Graphics for Biologists	BSC 6455
Bioinformatics	BSC 6458C
Scientific Communication (Note: Priority enrollment given to Integrative Biology Ph.D. students)	BSC 6846
Special Topics	BSC 6936
Advanced Molecular Genetics of Aging	PCB 5245
Advanced Genetics Lab	PCB 5064L
Genes and Development	PCB 6595
Advanced Cell Physiology	PCB 6207
Advanced Immunology	PCB 6236
Climate Change: Ecosystems to Human Health	PCB 6409
RNS Biology and Disease	PCB 6525
Reproductive Endocrinology	PCB 6804
Advanced Neurophysiology Lab	PCB 6837L
Cellular Neuroscience and Disease	PCB 6849
Special Topics, including Macromolecular Structure and Function and Protein Misfolding and Disease (3 credits each)	PCB 6933
Principles of Neuroscience	PSB 6037
Developmental Neurobiology	PSB 6515
Human Neuroanatomy	ZOO 6748
Structural Biochemistry	CHM 6351

Instrumentation	CHM 6157
Macromolecules and Human Disease	GMS 6301
Host Defense and Inflammation	MCB 6208
Advanced Molecular and Cell Biology	PCB 5532
Human Genetics	PCB 6665
Autonomic Function and Diseases	BMS 6523
Molecular Basis of Disease and Therapy	GMS 6302
Neurobiology of Addiction	PCB 5844
Molecular Basis of Human Cancer	PCB 6235
Problem-Based Immunology	PCB 6238
Tumor Immunology	PCB 6239
Adult Neurogenesis	PCB 6846
Advanced Topics in Biochemistry	BCH 6930
Brain Diseases: Mechanism and Therapy	BMS 6736
Advanced Plant Biotechnology	BOT 6735C
Advanced Drug Development	CHM 6277C
Drug Design	CHM 6278
Advanced Topics in Organic Chemistry	CHM 6380
Advanced Drug Formulation	CHM 6279C
Pharmacology	GMS 6513
Special Topics	ISC 6930
Neurophysiology	PCB 6835C
Special Topics	PCB 6933

** 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.

Business Courses - 9 credits required

Choose from list below.

Financial Accounting Concepts	ACG 6027
Technology Commercialization Strategies	ENT 6186
Developing and Marketing Innovations	MAR 6837
Advanced Marketing Management	MAR 6815
Marketing Functions/Processes	MAR 6055
Entrepreneurship and Venture Capital	ENT 6428
Leadership and Organizations	MAN 6296

Human Resources Management	MAN 6156
Advanced Business Plan Development	ENT 6116
Project Management	MAN 6581
Cross-Cultural Managment and Human Resources	MAN 6609

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.