FAU

FLORIDA ATLANTIC UNIVERSITY

NEW/CHANGE PROGRAM REQUEST
Graduate Programs

Department CESCOS

College Science

UGPC Approval _____
UFS Approval _____
Banner _____
Catalog _____

Program Name

Integrative Biology

☐ **New Program***

☑ **Change Program***

Effective Date
(TERM & YEAR)

Fall 2021

Please explain the requested change(s) and offer rationale below or on an attachment.

We are requesting to update the names listed for two existing courses in our program who titles have recently been changed. Please see updated catalog entry attached

*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

Xing-Hai Zhang xhzhabg@fau.edu 561-297-1011

Consult and list departments that may be affected by the change(s) and attach documentation

Approved by	***Date***
Department Chair Sarah L. Datta	3-5-2021
College Curriculum Chair Christopher Beetle Date: 2021.03.15 11:57:05 -04'00'	
College Dean William David Kalie	03/15/21
UGPC Chair	
UGC Chair	
Graduate College Dean	
UFS President	
Provost	

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

Integrative Biology Degree Requirements
Doctoral degrees at FAU require at least 80 credits beyond the baccalaureate degree. The following are specific requirements of the program in Integrative Biology.

1. The Integrative Biology Ph.D. program is research-intensive. The 80 minimum post-baccalaureate credits required to complete the program will include a minimum of 18 credits of coursework with a cumulative grade point average of 3.0 or higher with the following requirements:

a. Of the 18 required coursework credits, 9-to-10 credits (three courses) will be in courses designated as core courses; the core requirements include:

Integrative Biology 1, BSC 6390, 3 credits

Scientific Communication, BSC 6846, 3 credits

One course in statistics (students may fulfill the statistics core requirements by completing:
Experimental Design and Biometry (PCB 6456), 3 credits
Experimental Design 1, PSY 6206, 3 credits

b. The remainder of the 18 credits will include elective courses that support the student's research plan. The student's Ph.D. supervisor and the supervisory committee must approve all elective courses;

c. The elective courses must be 5000-, 6000- or 7000-level courses in biology, biomedical science, psychology, complex systems and brain sciences, geoscience, urban and regional planning, chemistry or approved cognates. 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 the IBNS and IBES). *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 the student's advisory committee.*

d. Courses designated as proficiency or remedial (4000-level and below) may not be used to satisfy the course requirement.

2. Students must enroll in three seminar/journal club courses offered by the program prior to graduation. A seminar course is considered to be one based on student participation in activities, such as student presentations or student/faculty-led discussions of relevant topics.

3. Dissertation research under the direction of the student's dissertation research committee.

4. A minimum of 25 credits of doctoral dissertation.

5. Admission to candidacy follows successful defense of a dissertation research proposal. The defense of the dissertation will be held with the student's dissertation research committee.

6. Public presentation of the dissertation research.

The degree requirements listed above apply to all Integrative Biology program participants. Concentration-specific requirements are described below.

Neuroscience Concentration (IBNS) Prerequisites and Electives
IBNS Prerequisites
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 9-credit Integrative Biology elective requirement.

Cellular and Molecular Neuroscience ~~Neuroscience 1~~	PSB 6345	3
Systems and Integrative Neuroscience ~~Neuroscience 2~~	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 that are relevant to the field of neuroscience. When these courses are completed, they may be used toward fulfillment of the 9-credit Integrative Biology elective requirement. See the electives table below.

General Neuroscience		
Cellular and Molecular Neuroscience ~~Neuroscience 1~~	PSB 6345	3
Systems and Integrative Neuroscience ~~Neuroscience 2~~	PSB 6346	3
Molecular and Cellular Neuroscience		
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
Behavioral Neuroscience		
Seminar in Behavioral Neuroscience	PSB 6058	3
Developmental Neuropsychology	PSB 6516	4
Principles of Neuroscience	PSB 6037	3
Cognitive Neuroscience		
Cognitive Neuroscience	ISC 5465	3
Seminar in Cognition	EXP 6609	3
Seminar in Human Perception	EXP 6208	3
Theoretical and Dynamical Neuroscience		
Computational Neuroscience 1	ISC 6460	3
Bioinformatics	BSC 6458C	4
Bioinformatics: Engineering Perspectives	BME 6762	3