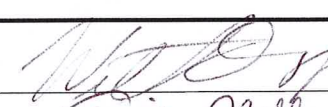
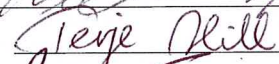
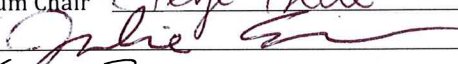
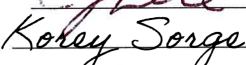
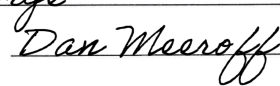
 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Undergraduate Programs		UUPC Approval <u>9-9-24</u> UFS Approval _____ Banner _____ Catalog _____
	Department <u>N/A</u> College <u>Wilkes Honors College</u>		
Program Name Concentration in Biology Concentration in Neuroscience	<input type="checkbox"/> New Program* <input checked="" type="checkbox"/> Change Program*	Effective Date (TERM & YEAR) Spring 2025	
<p>Please explain the requested change(s) and offer rationale below or on an attachment.</p> <p>Add PHY 2053 Honors College Physics 1 to the Neuroscience Concentration as an alternative to PHY 2048 Honors General Physics 1.</p> <p>Add PHY 2053 Honors College Physics 1 to the Biology Concentration as an alternative to PHY 2048 Honors General Physics 1.</p> <p>Rationale: Most students in those concentrations do not need PHY 2048.</p>			
<small>*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.</small>			
Faculty Contact/Email/Phone Yaouen Fily / yfily@fau.edu / 561-299-0879		Consult and list departments that may be affected by the change(s) and attach documentation	
Approved by Department Chair <u></u> College Curriculum Chair <u></u> College Dean <u></u> UUPC Chair <u></u> Undergraduate Studies Dean <u></u> UFS President _____ Provost _____		Date <u>9/4/2024</u> <u>9-4-2024</u> <u>9-5-2024</u> <u>9-9-24</u> <u>9-9-24</u> _____ _____	

Email this form and attachments to mjenning@fau.edu seven business days before the UUPC meeting.

Concentration in Biology

Students must earn a "C" or better in each course taken to fulfill a concentration requirement.

The biology concentration is designed for those students who wish to go on to graduate school, medical school, or who desire to work for biotech firms, government agencies or environmental organizations. Our interdisciplinary curriculum will benefit students who choose to pursue graduate studies in biology, oceanography or environmental science.

Required Courses

Concentration in Biology

Course #	Course Name	Credits
BSC 1010, 1010L	Honors Biological Principles with Lab	4
BSC 1011, 1011L	Honors Biodiversity with Lab	4
CHM 2045, 2045L	Honors General Chemistry I with Lab	4
CHM 2046, 2046L	Honors General Chemistry II with Lab	4
MAC 2311	Honors Calculus I with Analytic Geometry	4
STA 2023	Honors Introductory Statistics	3
PHY 2048 or PHY 2053	Honors General Physics I or Honors College Physics I	4
PHY 2048L	Honors General Physics I Lab	1
CHM 2210, 2204L	Honors Organic Chemistry I with Lab	4
CHM 2211, 2205L	Honors Organic Chemistry II with Lab	4
BCH 3033	Honors Biochemistry	3
PCB 3063	Honors Genetics	4
	Biology Electives	18

IDS 4970	Honors Thesis (two semesters)	6
	Total Credits	67

Electives:

Biology Electives are given below. Other FAU courses may be used only with the prior approval of the Concentration Advisor. Students are reminded that they need 45 upper-level (3000 or 4000-level) credits to graduate.

Biology Electives

Course #	Course Name	Credits
BSC 1933	Honors Freshman Seminar	3
BSC 2085, 2085L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Lab	4
BSC 3452	Honors Experimental Design and Data Analysis*	3
BSC 4403L	Honors Biotechnology Lab	2
BSC 4442C	Honors Molecular Ecology	3
BSC 4905	Honors Directed Independent Study in Biology	1-3
BSC 4915	Honors Dir Ind Res in Biology	1-3
BSC 4930	Honors Environmental Field Ecology with Lab	5
BSC 4930	Honors Genomes Biology	3
BSC 4930	Honors System Neuroscience	3
BSC 4930	Honors Eukaryotic Genomes	3
BSC 4930	Honors Environmental Field Ecology	3

BSC 4930	Honors Special Topics in Biology	1-3
PSB 4243	Honors Neuroscience of Addiction	3
BSC 4930	Honors Molecular Pharmacology	3
BSC 4930	Honors Intro to Structural Molecular Biology	2
BSC 4930	Honors Biology of Fishes with Lab	4
BSC 4930	Honors Florida Ecosystem	3
BOT 3501, 3501L	Honors Introduction to Plant Biology with Lab	4
EVR 4420	Honors Marine Conservation	3
EVS 4414	Honors Conservation Biology	3
MCB 3020 (w/3020L)	Honors Microbiology (with Lab)	3 (4)
OCB 3012, 3012L	Honors Marine Biology and Oceanography with Lab	4
GLY 4105	Honors Evolution of Life on Earth	3
PCB 3352	Honors Issues in Human Ecology	3
PCB 3411	Honors Animal Behavior	3
PCB 3703, PCB 3703L	Honors Human Morphology and Function I with Lab	4
PCB 3704, PCB 3704L	Honors Human Morphology and Function II with Lab	4
PCB 4102	Honors Molecular Cell Biology	3
PCB 4043	Honors Principles of Ecology	3
PCB 4102	Honors Cell Biology	4
PCB 4233	Immunology	3
PCB 4234	Honors Biology of Cancer	3

PCB 4253	Honors Developmental Biology	3
PCB 4414	Honors Behavioral Ecology	4
PCB 4673	Honors Evolution	3
PCB 4832C	RI: Neurophysiology	3
PCB 4841	Honors Cellular Neuroscience	3
ZOO 2303, 2303L	Honors Vertebrate Zoology with Lab	4
ZOO 4556	Honors Coral Reef Ecology	3
ZOO 4742	Honors Principles of Human Neuroanatomy	3

**BSC 3452 is highly recommended for students planning to attend graduate school.*

Note: Students in the Max Planck Honors Program may count Introduction to Neuroscience Research (PSB 4003, 1 credit) and two distinct MPHP Enrichment courses (1 credit each) as their 3 credit, Biology elective.

Concentration in Neuroscience

Students must earn a "C" or better in each course taken to fulfill a concentration requirement.

Neuroscience students study the molecular, cellular, structural, and functional aspects of the nervous system. Neuroscience is an interdisciplinary field of study that combines biology, psychology, chemistry, and other fields in an attempt to understand how the nervous system works. The neuroscience concentration will lead students through the fundamentals of the field, spanning the breadth from molecular signaling to human cognition and behavior. The core curriculum will give students the base knowledge necessary to explore the interdisciplinary field. The concentration is composed of two tracks—(1) Cellular Neuroscience and (2) Neuroscience, Cognition, and Behavior--each designed to meet the needs of students with diverse interests while providing rigorous, multidisciplinary preparation for medical school and graduate programs in areas such as neuroscience, biology, psychology, and behavioral medicine.

There are two tracks:

[Track one: Cellular Neuroscience](#)

[Track Two: Neuroscience, Cognition, and Behavior](#)

Courses

Track one

Neuroscience - Cellular Neuroscience

Course#	Course Title	Credits
NEURO CORE		
PSY 1012	Honors General Psychology	3
BSC 1010	Honors Biological Principles	3
BSC 1010L	Honors Biological Principles Lab	1
BSC 1011	Honors Biodiversity	3
BSC 1011L	Honors Biodiversity Lab	1
PCB 3703	Honors Human Morphology 1	3
PCB 3703L	Honors Morphology and Function 1 Lab	1
CHM 2045	Honors General Chemistry 1	3
CHM 2045L	Honors General Chemistry 1 Lab	1

CHM 2046	Honors General Chemistry 2	3
CHM 2046L	Honors General Chemistry 2 Lab	1
STA 2023	Honors Statistics	3
IDS 4970	Honors Thesis (two semesters)	6

Additional required courses

Course#	Course Title	Credits
MAC 2311	Honors Calculus 1	4
MAC 2312*	Honors Calculus 2	4
CHM 2210	Honors Organic Chemistry 1	3
CHM 2210L	Honors Organic Chemistry 1 Lab	1
CHM 2211	Honors Organic Chemistry 2	3
CHM 2211L	Honors Organic Chemistry 2 Lab	1
PHY 2048		
or PHY 2053	Honors General Physics 1 or Honors College Physics 1	4
PHY 2048L	Honors General Physics 1 Lab	1
PHY 2049*	Honors General Physics 2	
or PHY 2054	or College Physics 2	4
PHY 2049L	Honors General Physics 2 Lab	1
BCH 3033	Honors Biochemistry	3
PCB 3063	Honors Genetics	4
PCB 4102	Honors Cell Biology	4
	Cellular Neuroscience Electives (selected from list below)	9
	TOTAL	74-78

*Students may substitute College Physics II (PHY 2054), in which case MAC 2312 would not be required. But Calculus-based Physics is highly recommended.

Cellular Neuroscience Electives (select 3)

Course#	Course Title	Credits
PCB 4843C	Practical Cell Neuroscience	3
ZOO 4742	Honors Principles of Human Neuroanatomy	3
BSC 4905	Honors Neuroscience Journal Club	3
BSC 4930	Honors CRISPR Tech Lab	3
BSC 4930	Honors Developmental Neurobiology	3
BSC 4930	Honors Neurophysiology	3
BSC 4930	Honors Sensory Systems	3
BSC 4930	Honors Systems Neuroscience	3
MCB 3020/L	Honors Microbiology and Lab	4
PCB 4024	Honors Molecular Cell Biology	3
PCB 4233	Immunology	3
PCB 4253	Honors Developmental Biology	3
PCB 4832C	Neurophysiology	3
PSB 3340	Honors Behavioral Neuroscience	3
PSB 3441	Honors Drugs and Behavior (psychopharmacology)	3
PSB 4243	Honors Neuroscience of Addiction	3
PCB 4841	Honors Cellular Neuroscience	3
BSC 4915	Honors Directed Independent Research in Biology	1-3
Other electives approved by your neuroscience faculty advisor		

Note: Students in the Max Planck Honors Program may count Introduction to Neuroscience Research (PSB 4003, 1 credit) and two distinct MPHP Enrichment courses (1 credit each) as their 3 credit, Neuroscience elective.

Track Two

Neuroscience - Neuroscience, Cognition, and Behavior

Course#	Course Title	Credits
NEURO CORE		
PSY 1012	Honors General Psychology	3
BSC 1010	Honors Biological Principles	3

BSC 1010L	Honors Biological Principles Lab	1
CHM 2045	Honors General Chemistry 1	3
CHM 2045L	Honors General Chemistry 1 Lab	1
CHM 2046	Honors General Chemistry 2	3
CHM 2046L	Honors General Chemistry 2 Lab	1
STA 2023	Honors Statistics	3
IDS 4970	Honors Thesis (two semesters)	6

Additional required courses

PSB 3340	Honors Behavioral Neuroscience	3
CLP 4143	Honors Psychopathology (Abnormal Psychology)	3
EXP 3604	Honors Cognition	3
PSY 3213	Honors Research Methods in Psychology	3
PSY 3213L	Honors Research Methods in Psychology Lab	1
PSY 4933	Honors Advanced Writing in Psychology	1
or ISC 3933	or Honors Math and Science Seminar	
PSB 3441	Honors Drugs and Behavior (Psychopharmacology)	3
	Neuroscience Electives (see list below)	6
	Psychology Electives (see list below)	6
	Biology Electives (see list below)	6-8
	TOTAL	59-61

Neuroscience Electives (select 2)

Course#	Course Title	Credits
PCB 4843C	Practical Cell Neuroscience	3
BSC 4905	Honors Neuroscience Journal Club	3
BSC 4930	Honors Neurophysiology	3
BSC 4930	Honors CRISPR Tech Lab	3
BSC 4930	Honors Developmental Neurobiology	3
BSC 4930	Honors Sensory Systems	3
BSC 4930	Honors Systems Neuroscience	3
EXP 3202	Honors Sensation and Perception	3
PCB 4841	Honors Cellular Neuroscience	3
PSB 4243	Honors Neuroscience of Addiction	3

PSB 4810 Neurobiology of Learning and Memory 3
Other electives approved by your neuroscience faculty advisor

Note: Students in the Max Planck Honors Program may count Introduction to Neuroscience Research (PSB 4003, 1 credit) and two distinct MPHP Enrichment courses (1 credit each) as their 3 credit, Neuroscience elective.

Psychology Electives (select 2)

Course#	Course Title	Credits
CLP 4314	Honors Health Psychology	3
SOP 3004	Honors Principles of Social Psychology	3
DEP 3053	Honors Psychology of Human Development	3
DEP 4463C	Honors Lab in Cognitive Aging	3
DEP 4464	Honors Psychology of Aging	3
PPE 3003	Honors Personality	3
PSY 4604	Honors History and Systems of Psychology	3
Other electives approved by your neuroscience faculty advisor		

Biology Electives (select 2)

Course#	Course Title	Credits
BSC 1011/L	Honors Biodiversity and Lab	4
BSC 2085/L	Anatomy and Physiology and Lab	4
MCB 3020/L	Honors Microbiology and Lab	4
PCB 3063	Honors Genetics	4
PCB 3703/L	Honors Human Morphology and Function and Lab	4
PCB 4024	Honors Molecular Cell Biology	3
PCB 4102	Honors Cell Biology	4
PCB 4253	Honors Developmental Biology	3
ZOO 4742	Honors Principles of Human Neuroanatomy	3