FAU

FLORIDA ATLANTIC UNIVERSITY

NEW/CHANGE PROGRAM REQUEST
Undergraduate Programs

UUPC Approval 2/24/25
UFS Approval _____
Banner _____
Catalog _____

Department N/A

College Wilkes Honors College

Program Name
Concentration in Neuroscience

☐ **New Program***

☑ **Change Program***

Effective Date
(TERM & YEAR)
Spring 2025

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

1. For the Cellular Neuroscience Track, allow students the option of taking BSC 2085/L Honors Anatomy and Physiology 1 and Lab instead of PCB 3703/L Honors Human Morphology 1 and Lab.

2. For the Cellular Neuroscience Track, allow students the option of taking PHY 2053/L Honors College Physics 1 and Lab instead of PHY 2048/L Honors General Physics 1 and Lab.

*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
Julie Earles / jearles@fau.edu / 6-8673

Consult and list departments that may be affected by the change(s) and attach documentation
No department will be affected by these changes

Approved by		***Date***
Department Chair		11/25/24
College Curriculum Chair	Terje Hill	11-25-2024
College Dean		11/25/24
UUPC Chair	Korey Sorge	2/24/25
Undergraduate Studies Dean	Dan Moerchoff	2/24/25
UFS President		
Provost		

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

FLORIDA ATLANTIC UNIVERSITY

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February 11, 2025

Addendum to the Neuroscience Concentration Program Change

This is to inform you that the Wilkes Honors College Curriculum Committee and Faculty Assembly have approved the following special topics courses to be added to the **Neuroscience Concentration**, effective Spring 2025:

1. Cellular Neuroscience Track, Cellular Neuroscience Electives
   Add:
   - BSC 4930 Honors Drosophila Genes and Behavior (CURE)
   - BSC 4930 Honors Exp Neurobehavior
   - BSC 4930 Honors Neurobiology of Mental Illness
   - BSC 4930 Honors Microscopy
   - BSC 4930 Honors Introduction to Neuroscience

2. Neuroscience, Cognition, and Behavior Track, Neuroscience electives
   Add:
   - BSC 4930 Honors Neurobiology of Mental Illness
   - BSC 4930 Honors Introduction to Neuroscience

3. Neuroscience, Cognition, and Behavior Track, Biology electives
   Add:
   - BSC 4930 Honors Microscopy

The corresponding changes are highlighted in green on the attached concentration page below.

Terje Hill

Dr. Terje Hill
Curriculum Committee Chair

CONCENTRATION IN NEUROSCIENCE

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

Advisory Board:

Dr. Lucia Carvelli | Dr. Erik Duboue | Dr. Julie Earles | Dr. Kevin Lanning | Dr. Laura Vernon

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

Advising sheet

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 or BSC 2085	Honors Human Morphology 1 or Honors Anatomy and Physiology 1	3
PCB 3703L or BSC 2085L	Honors Morphology and Function 1 Lab or Honors Anatomy and Physiology 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

Course#	Course Title	Credits
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 or PHY 2053L	Honors General Physics 1 Lab or Honors College Physics 1 Lab	1
PHY 2049*	Honors General Physics 2	4
or PHY 2054	or College Physics 2	
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~~ 1
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
BSC 4930	Honors Drosophila Genes and Behavior (CURE)	3
BSC 4930	Honors Exp Neurobehavior	3
BSC 4930	Honors Neurobiology of Mental Illness	3
BSC 4930	Honors Microscopy	3
BSC 4930	Honors Introduction to Neuroscience	3

Course#	Course Title	Credits

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

Advising Sheet

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

Course#	Course Title	Credits
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	Credit
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
BSC 4930	Honors Neurobiology of Mental Illness	3
BSC 4930	Honors Introduction to Neuroscience	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

Course#	Course Title	Credits
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
BSC 4930	Honors Microscopy	3