

 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Undergraduate Programs		UUPC Approval <u>3/25/24</u> UFS Approval _____ Banner _____ Catalog _____
	Department ^{N/A} College Honors College		
Program Name 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 the new course, PCB 4841 Honors Cellular Neuroscience, as a Cellular Neuroscience Elective in Track 1. Also add it as an elective in Track 2, Neuroscience Electives.</p> <p>Remove PCB 4842, Cellular Neuroscience and Disease, as an elective in tracks 1 and 2.</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 William O'Brien/wobrien@fau.edu/6-8033		Consult and list departments that may be affected by the change(s) and attach documentation N/A	
Approved by Department Chair <u>[Signature]</u> College Curriculum Chair <u>Rachel Corr</u> College Dean <u>[Signature]</u> UUPC Chair <u>Korey Sorge</u> Undergraduate Studies Dean <u>Dan Meeroff</u> UFS President _____ Provost _____		Date <u>2/29/24</u> <div style="border: 1px solid red; padding: 2px;">2/23/24</div> <u>2/29/24</u> <u>3/25/24</u> <u>3/25/24</u> _____ _____	

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

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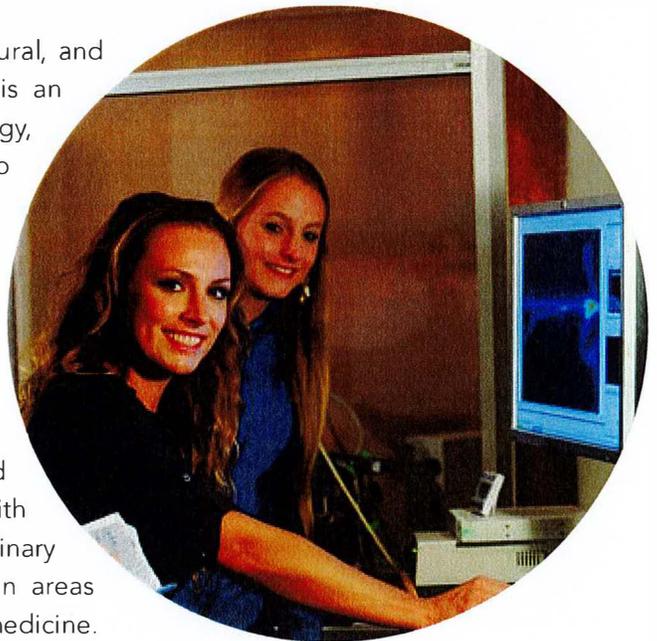
CONCENTRATION IN NEUROSCIENCE

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

Advisory Board:

Dr. Lucia Carvelli (<mailto:lcarvelli@fau.edu?subject=Neuroscience%20Concentration>) | Dr. Erik Duboue (<mailto:eduboue@fau.edu?subject=Neuroscience%20Concentration>) | Dr. Julie Earles (<mailto:jearles@fau.edu?subject=Neuroscience>) | Dr. Kevin Lanning (<mailto:lanning@fau.edu?subject=>) | Dr. Greg Macleod (<mailto:macleodg@fau.edu?subject=Neuroscience%20concentration>) | Dr. Laura Vernon (<mailto:lvernon@fau.edu?subject=Neuroscience%20concentration>)

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 (<http://www.fau.edu/honors/academics/documents/neuro-advisingsheet-cellular.pdf>)

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

Course#	Course Title	Credits
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	Honors General Physics 1	4
PHY 2048L	Honors General 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
BSC 4930	Honors CRISPR Tech Lab	3

Course#	Course Title	Credits
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 4842 (old) Add PCB 4841 (new)	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

Advising Sheet (/honors/documents/neuroadvisinggridcogbehrev20231.xlsx)

Course#	Course Title	Credits
NEURO CORE		

Course#	Course Title	Credits
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 or ISC 3933	Honors Advanced Writing in Psychology or Honors Math and Science Seminar	1
PSB 3441	Honors Drugs and Behavior (Psychopharmacology)	3
	Neuroscience Electives (see list below)	6
	Psychology Electives (see list below)	6

Course#	Course Title	Credits
	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 4842 (old)	PCB 4841 (new) 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

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

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Florida Atlantic University
777 Glades Road
Boca Raton, FL 33431

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Florida Atlantic University embodies a culture of strategic and collaborative community engagement that results in mutual benefit to the institution and the diverse internal and external communities that it serves.

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