FLORIDA ATLANTIC UNIVERSITY

NEW/CHANGE PROGRAM REQUEST
Undergraduate Programs

UUPC Approval _____
UFS Approval _____
Banner Posted _____
Catalog _____

Department N/A

College Wilkes Honors College

Program Name
Concentration in Neuroscience

☐ **New Program**

☑ **Change Program**

Effective Date
(TERM & YEAR)
Fall 2021

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

Cellular Neuroscience track (Track 1):

1) Add BSC 1011/L H Biodiversity + Lab (4 cr) to the required courses

2) Replace BSC 4915 (3 cr) and BSC 4970 (3 cr) with IDS 4970 Honors Thesis (6 cr total)

3) Say "PHY 2049 or PHY 2054" to give students an option to take College Physics 2 without taking Calculus 2.

4) Make MAC 2312 Honors Calculus 2 optional (needed only if taking PHY 2049)

5) Add the following courses to the Cellular Neuroscience Electives:
BSC 4905 H Neuroscience Journal Club, PCB 4253 H Developmental Biology, PCB 4024 H Molecular Cell Biology, PCB 4832C Neurophysiology, MCB 3020/L H Microbiology, PCB 4233 Immunology, PSB 4243 H Neuroscience of Addiction, BSC 4915 H DIR in Biology

6) New total number of credits for the Cellular Neuroscience track (track 1) is 74-78 (depending on if students take Calculus 2 or not)

Continues on the next page.

Faculty Contact/Email/Phone

Dr. Gregory Macleod
macleodg@fau.edu
561-799-8205

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

Approved by		***Date***
Department Chair	William O'Brien Digitally signed by William O'Brien DN: cn=William O'Brien, o=Florida Atlantic University, ou=Wilkes Honors College, email=wobrien@fau.edu, c=US Date: 2021.04.20 16:30:09 -04'00'	4/20/21
College Curriculum Chair	Carmen Canete Quesada	4/19/21
College Dean	Terje Hill	4/20/21
UUPC Chair		
Undergraduate Studies Dean		
UFS President		
Provost		

Email this form and attachments to mjenning@fau.edu one week before the UUPC meeting so that materials may be viewed on the UUPC website prior to the meeting.

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Program Name
Concentration in Neuroscience

☐ **New Program**

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Effective Date
(TERM & YEAR)
Fall 2021

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

Cognitive and Behavioral Neuroscience track (Track 2):

1) Replace PSY 4971 (6 cr) by IDS 4970 Honors Thesis (6 cr)
2) Remove PCB 3703/L H Human Morphology and Function 1 + Lab from the required courses
3) Change CLP 4144 to CLP 4143 (new number by the state)
4) Say "PSY 4933 or ISC 4933" to add Math and Science Seminar (1 cr) as an altenative to PSY 4933
5) Add the following courses to the Neuroscience Electives: PSB 4243 H Neuroscience of Addiction, PSB 4810 Neurobio of Learn and Memory, EXP 3202 H Sensation and Perception, BSC 4905 H Neuroscience Journal Club
6) Remove the follwong courses from the Neuroscience Electives: PCB 3063 H Genetics, PCB 4102 H Cell Biology, ZOO 4742 H Princ of Human Neuroanatomy
7) Add the following courses to the Psychology Electives: DEP 4464 H Psychology of Aging, DEP 4463C H Lab in Cognitive Aging
8) Create a new category of electives called "Biology Electives 6-8 cr" that includes the following courses: BSC1011/L H Biodiversity & Lab, PCB 3063 H Genetics, PCB 4102 H Cell Biology, PCB 4024 H Molecular Cell Biology, MCB 3020/L H Microbiology & Lab, PCB 4253 H Developmental Biology, PCB 3703/L Human Morph 1 & Lab, BSC 2085/L Anatomy and Physiology 1 & Lab, ZOO 4742 H Princ of Human Neuroanatomy
9) Require students to choose 2 courses from each of the 3 categories (Neuroscience, Psychology and Biology)
10) The new total of credits for Cognitive and Behavioral Neuroscience track (Track 2) is 59-61.

Faculty Contact/Email/Phone

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

Approved by		***Date***
Department Chair	William O'Brien — Digitally signed by William O'Brien DN: cn=William O'Brien, o=Florida Atlantic University, ou=Wilkes Honors College, email=wobrien@fau.edu, c=US Date: 2021.04.20 16:30:09 -04'00'	4/20/21
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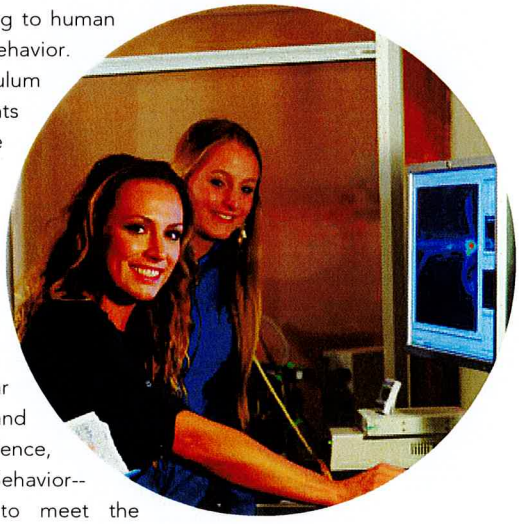
CONCENTRATION IN NEUROSCIENCE

Advisory Board:

Lucia Carvelli (mailto:lcarvelli@fau.edu?subject=Neuroscience%20Concentration)
Erik Duboue (mailto:eduboue@fau.edu?subject=Neuroscience%20Concentration)
Julie Earles (mailto:jearles@fau.edu?subject=Neuroscience)

Johanna Kowalko (mailto:jkowalko@fau.edu?subject=)
Greg Macleod (mailto:macleodg@fau.edu?subject=Neuroscience%20concentration)
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,



(/honors/academics/pathways/)

Prestige Scholarships (/honors/academics/prestige-scholarships/)

Publications External (/honors/undergraduate-research/external-publications/)

Publications Internal (/honors/undergraduate-research/internal-publications/)

Research Day (/honors/undergraduate-research/research-symposium/)

Student Awards (/honors/current-students/student-awards/)

Study Abroad (/honors/current-students/study-abroad/)

Undergraduate Research (/honors/undergraduate-research/)

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
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
~~BSC 4915*~~	~~Honors Research in Biology~~	~~3~~
~~BSC 4970*~~ IDS 4970	Honors Thesis	~~3~~ 6

~~*With permission of the advisory board, other thesis numbers (e.g. CHM, PSY, PHY) may be substituted.~~

ADD:
BSC 1011 Honors Biodiversity (3 cr)
BSC 1011L H Biodiversity Lab (1 cr)

Additional required courses

Course#	Course Title	Credits
MAC 2311	Honors Calculus 1	4
MAC 2312*	Honors Calculus 2	4
CHM 2204	Honors Organic Chemistry 1	3
CHM 2204L	Honors Organic Chemistry 1 Lab	1
CHM 2205	Honors Organic Chemistry 2	3
CHM 2205L	Honors Organic Chemistry 2 Lab	1
PHY 2048	Honors General Physics 1	4
PHY 2048L	Honors General Physics 1 Lab	1
PHY 2049* or PHY 2054	Honors General Physics 2 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) and College Physics II Lab (PHY 2054L) for PHY 2049/L, 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 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 Science of Addiction~~	~~3~~
BSC 4930	Honors Systems Neuroscience	3
PSB 3340	Honors Behavioral Neuroscience	3
PSB 3441	Honors Drugs and Behavior (psychopharmacology)	3
PCB 4842	Cellular Neuroscience	3

Other electives approved by your neuroscience faculty advisor

ADD to Cellular Neuroscience Electives:

BSC 4905 H Neuroscience Journal Club

PCB 4253 H Developmental Biology (3cr)

PCB 4024 H Molecular Cell Biology (3 cr)

PCB 4832C Neurophysiology (3 cr)

MCB 3020/L H Microbiology (4cr +Lab

PCB 4233 Immunology (3cr

PSB 4243 H Neuroscience of Addiction (3 cr)

BSC 4915 H DIR in Biology (1-3cr)

Track Two

Neuroscience - Neuroscience, Cognition, and behavior

Advising sheet (http://www.fau.edu/honors/academics/documents/neuro-advisingsheet-cognitive.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
~~PCB 3703~~ Remove	~~Honors Human Morphology~~ I	~~3~~
~~PCB 3703L~~ Remove	~~Honors Human Morphology and Function I~~ Lab	~~1~~
CHM 2045	Honors General Chemistry 1	3

~~Chemistry 1~~		
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
~~PSY 4971*~~ IDS 4970	Honors Thesis	6

*With permission of the advisory board, other thesis numbers (e.g. CHM, BIO, PHY) may be substituted.

Additional required courses

PSB 3340	Honors Behavioral Neuroscience	3
CLP ~~4144~~ 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 4933	Honors Advanced Writing in Psychology OR H Math and Science Seminar	1
PSB 3441	Honors Drugs and Behavior (Psychopharmacology)	3
	Psychology Electives (see list below)	**6**
	Neuroscience Electives (see list below) Biology Electives 6-8	~~9-11~~ 6
	TOTAL	~~60-62~~ 59-61

Neuroscience Electives ~~(select 3)~~ (select 2)

Course#	Course Title	Credit
~~PCB 3063~~	~~Honors Genetics~~	~~4~~
~~PCB 4102~~	~~Honors Cell Biology~~	~~4~~

PCB 4843C	Practical Cell Neuroscience	3
BSC 4930	Honors Neurophysiology	3
~~BSC 4930~~	~~Honors Science of Addiction~~	~~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
PCB 4842	Cellular Neuroscience	3
~~ZOO 4742~~	~~Honors Principles of Human Neuroanatomy~~	~~3~~

ADD to Neuroscience Electives:

PSB 4243 H Neuroscience of Addiction (3cr)

PSB 4810 Neurobiology of Learning and Memory (3cr

EXP 3202 H Sensation and Perception (3 cr)

BSC 4905 H Neuroscience Journal Club

Other electives approved by your neuroscience faculty advisor

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
~~PSY 4930~~	~~Honors Psychology of Adult Development and Aging~~	~~3~~
PPE 3083	Honors Personality	3
PSY 4604	Honors History and Systems of Psychology	3

ADD to ~~Psychology~~ Electives:

DEP 4464 H Psychology of Aging (3 cr)

DEP 4463C H Lab in Cognitive Aging (3 cr)

Other electives approved by your neuroscience faculty advisor

Biology Electives (select 2)

BSC 1011/L # Biodiversity + Lab (4 cr)
PCB 3063 # Genetics (4 cr)
PCB 4102 # Cell Biology (4 cr)
PCB 4024 # Molecular Cell Biology (3 cr)
MCB 3020/L # Microbiology + Lab (4 cr)
PCB 4253 # Developmental Biology (3 cr)
PCB 3703/L # Human Morphology and Func + Lab (4 cr)
BSC 2085/L Anatomy and Physiology I + Lab (4 cr)
ZOO 4742 # Principles of Human Neuroanatomy (3 cr)