Neuroscience Structured Concentration
Multidisciplinary Studies, BA

Program Director: Tuan Tran (225 Rawl Building; 252-328-6445; trant@ecu.edu)

The Multidisciplinary Studies, BA offers a structured concentration in neuroscience. Students fulfilling the BA degree requirements are awarded a Multidisciplinary Studies, BA.

Neuroscience is an interdisciplinary field under the umbrella of biomedical sciences that offers diverse coursework across academic disciplines that span STEM and the social sciences. The objective of the neuroscience major is to provide students with foundational and specialized knowledge of the nervous system at various structural and functional levels of analysis, including molecular, cellular, chemical, integrative, cognitive, and behavioral. In this program students acquire technical skills, advance critical thinking, and refine communication skills through faculty-mentored research experience opportunities and scholarly deliverables in the form of thesis projects.

In order to declare a major in neuroscience undergraduate students must have at least 30 s.h. of completed coursework, a minimum cumulative GPA of 2.3, and at least a grade of "C" in PSYC 1000 or PSYC 1060. For more information about the neuroscience, please contact the program director or visit the program website.

The degree requires a minimum of 120 s.h. as follows:

1. General education requirements including those listed below - 40 s.h.

(For information about courses that carry general education credit view the *General Education Program* section.)

- MATH 1065 - College Algebra or higher approved general education math course

- MATH 2228 - Elementary Statistical Methods I or
- MATH 2283 - Statistics for Business or
- PSYC 2101 - Psychological Statistics

- PSYC 1000 - Introductory Psychology or
- PSYC 1060 - Honors Introduction to Psychology

Note:

The required statistics course counts toward the 3 s.h. general education elective.

2. Demonstrated foreign language proficiency through level 2004 - 12 s.h.

(For information about the foreign language requirement view *Special Requirements for the BA Degree* in the Academic Advisement, Progression and Support Services section and *Placement Testing, Foreign Language* in the Admission and Readmission section.)

3. Neuroscience structured concentration core - 30 s.h.

A minimum of 24 s.h. in sections III and IV must be above 2999.

a. Research and seminar courses (5-6 s.h.)

All courses in this section require a faculty mentor and approval of the program director. Choose 5-6 s.h. from the following courses:

- NEUR 2201 - Neuroscience Research
- NEUR 4200 - Literature in Neurosciences
- PSYC 4312 - Laboratory Methods in Behavioral Neuroscience
- PSYC 4315 - Neuroscience: Literature and Laboratory Experience

b. Approved courses in the neuroscience structured concentration (minimum of 24 s.h.)

- NEUR 3310 - Introduction to Neuroscience or
- PSYC 3310 - Introduction to Neuroscience

- NEUR 4900 - Cellular and Molecular Neuroscience or
- PSYC 4250 - Advanced Topics Seminar *

- NEUR 4901 - Behavioral and Integrative Neuroscience
- NEUR 4950 - Neuroscience Senior Thesis I **
- NEUR 4951 - Neuroscience Senior Thesis II **
- PSYC 2210 - Research Methods in Psychology
- PSYC 3225 - Psychology of Learning
- PSYC 4340 - Neuropsychopharmacology

Notes:

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*Course section must be designated “neurobiology of learning and memory”.
** Course requires a faculty mentor and approval of the program director.

4. Minor or approved structured electives - 18 s.h.

A minimum of 24 s.h. in sections III and IV must be above 2999. Structured electives are required in this program instead of a minor. Choose 18 s.h. from the following:

- PHIL 1262 - Introduction to Philosophical Issues in Biology
- PHIL 2261 - Introduction to Philosophy of Science
- PHIL 3255 - Philosophy of Mind
- PSYC 3226 - Cognitive Psychology
- PSYC 3227 - Learning Theories and Applications
- PSYC 3311 - Neuropsychology
- PSYC 3312 - Sensation and Perception
- PSYC 3375 - Abnormal Psychology

5. Electives to complete requirements for graduation.