NEUROSCIENCE - BS, BEHAVIORAL AND COGNITIVE NEUROSCIENCE

Neuroscience is the study of the nervous system and its impact on behavior and cognitive functions. This interdisciplinary field integrates several disciplines, including psychology, psychiatry, biology, chemistry, and physics. Because the study is interdisciplinary, the Neuroscience major involves multiple units, including the Department of Psychological and Brain Sciences, the Department of Biology, and the College of Veterinary Medicine and Biomedical Sciences in collaboration with School of Medicine’s Department of Neuroscience and Experimental Therapeutics (NExT) in addition to the Texas A&M Institute for Neuroscience (TAMIN). The concentration of this degree that focuses on Behavioral and Cognitive Neuroscience is housed within the Department of Psychological and Brain Sciences.

Students will develop competency in foundational coursework in the life and physical sciences, including biology, chemistry, and physics. Based on their individual career aspirations and interests, students will complete coursework in neuroscience that involves psychological and biological processes, as well as translational issues relevant to medical science and/or pharmacology, neural engineering, and biochemistry. Nationwide, there is increasing interest in neuroscience programs and training. In part, this interest is driven by changes in the employment market that focus on technical and medical support jobs. Students completing a BS in Neuroscience will be well prepared for graduate study, as well as to enter entry-level healthcare and technical occupations.

Program Requirements

First Year
Fall
BIOL 111 Introductory Biology I 4
CHEM 119 Fundamentals of Chemistry I 4
NRSC 101 Neuroscience Overview 1
NRSC 277/ VIBS 277 Essential Neuroscience - From Molecules to Nervous Systems 3
PBSI 107 Introduction to Psychology 3
Semester Credit Hours 15

Spring
BIOL 112 Introductory Biology II 4
CHEM 120 Fundamentals of Chemistry II 4
PBSI 235 Introduction to Behavioral and Cognitive Neuroscience 3
Select one of the following: 4
MATH 147 Calculus I for Biological Sciences
MATH 151 Engineering Mathematics I
MATH 171 Calculus I
General elective 2
Semester Credit Hours 16

Second Year
Fall
PHYS 201 College Physics 4
Select one of the following: 4
MATH 148 Calculus II for Biological Sciences
MATH 152 Engineering Mathematics II
MATH 172 Calculus II
STAT 201 Elementary Statistical Inference
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) 3
Prescribed elective 3
Semester Credit Hours 14

Spring
PHYS 202 College Physics 4
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) 3
Concentration elective 4
Prescribed elective 3
Prescribed elective 3
Semester Credit Hours 16

Third Year
Fall
ENGL 104 Composition and Rhetoric 1 3
STAT 302 or STAT 312 Statistical Methods or Statistics for Biology 3
Concentration elective 4
Prescribed elective 3
General elective 2
Semester Credit Hours 15

Spring
Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication) 3
Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science) 3
Concentration elective 4
Prescribed elective 3
Semester Credit Hours 15

Fourth Year
Fall
Government/Political science (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#government-political-science) 3
Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) 3
Concentration elective 4
Concentration elective 4
Concentration elective 4
Semester Credit Hours 16
### Spring
Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) 3

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**Semester Credit Hours** 13

**Total Semester Credit Hours** 120

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1. Must make a grade of C or better.
2. A minor field of study may fulfill this requirement, but a minor is not required. Only one KINE 199 allowed.
4. Select from BICH 410; BIOL 213, BIOL 413; CHEM 227, CHEM 237, CHEM 228, CHEM 238; NRSC 300-499 (http://catalog.tamu.edu/undergraduate/course-descriptions/nrsc/); PBSI 471, PBSI 475, PBSI 484, PBSI 485, PBSI 491.