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 the College 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		**Semester Credit Hours**
BIOL 111	Introductory Biology I	4
CHEM 119	Fundamentals of Chemistry I	4
NRSC 277/ VIBS 277	Essential Neuroscience - From Molecules to Nervous Systems [1]	3
PBSI 105	Psychology as a Major and Profession [1]	1
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 [1]	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]		1
	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]		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]		3
Prescribed elective [3]		3
Prescribed elective [3]		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]		3
Prescribed elective [3]		3
General elective [2]		3
	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]		3
Prescribed elective [3]		3
General elective [2]		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]		3
Concentration elective [4]		3
Concentration elective [4]		4
	Semester Credit Hours	**16**

Spring	
Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts)	3
Concentration elective [4]	3
Concentration elective [4]	3
Concentration elective [4]	4
Semester Credit Hours	**13**
Total Semester Credit Hours	**120**

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.
3. Select from PBSI 311, PBSI 320, PBSI 332, PBSI 333, PBSI 336, PBSI 340, PBSI 350, PBSI 360, PBSI 440.
4. Select from BICH 410; BIOL 213, BIOL 413; CHEM 227, CHEM 237, CHEM 228, CHEM 238, CHEM 257, CHEM 258; NRSC 300-499 (http://catalog.tamu.edu/undergraduate/course-descriptions/nrsc/); PBSI 301, PBSI 302, PBSI 311, PBSI 320, PBSI 332, PBSI 333, PBSI 336, PBSI 340, PBSI 350, PBSI 360, PBSI 440, PBSI 471, PBSI 475, PBSI 483, PBSI 484, PBSI 485, PBSI 491; VIBS 401/NRSC 401.