

NEUROSCIENCE MAJOR

A major in Neuroscience allows a student to pursue an interdepartmental curriculum that focuses on the role of the nervous system in regulating physiological and behavioral functions. Neuroscience combines many traditional fields of study including Psychology, Biology, Chemistry, Physics, Anatomy, Pharmacology, Linguistics and Physiology. The field of Neuroscience encompasses a broad domain that ranges from the cellular and molecular control of brain cells to the regulation of responses in whole organisms. The student majoring in Neuroscience fulfills the standard requirements of a premedical curriculum, which is recommended or required for admission to graduate study in Neuroscience or related graduate programs. This curriculum also enables the student to pursue medical training, possibly specializing in an area related to Neuroscience. A Bachelor of Science in Neuroscience requires nine credits of core courses, nine credits of elective lecture courses, three credits of laboratory courses, and 33 credits of co-requisite courses in biology, psychology, chemistry, and physics totaling 54 credits. At least six of the elective lecture credits and one of the laboratory credits must be taken from the list of Neuroscience courses. Students also must fulfill the B.S. mathematics requirement. A student majoring in Neuroscience is strongly encouraged to pursue research in laboratories on the Main Campus or at the Health Sciences Center as an independent study and/or honors thesis. An independent study or honors thesis may fulfill one of the three required laboratory courses.

Requirements

Course ID	Title	Credits
Required Core Courses		9
NSCI/PSYC 3300	Brain and Behavior	
NSCI/CELL 3310	Cellular Neuroscience	
NSCI/CELL 3320	Systems Neuroscience	
Elective Neuroscience Courses		
Select a minimum of six credits of the following:		6
NSCI/PSYC 3770	Sensation & Perception	
NSCI/PSYC 4060	Behavioral Endocrinology	
NSCI/LING 4110	Brain and Language	
NSCI 4200	General Endocrinology	
NSCI 4130	Sport Rel Brain Injury	
NSCI/PSYC 4330	Neurobiol Learn & Memory	
NSCI/CELL 4340	Neurobiology of Disease	
NSCI/CELL 4350	Developmental Neurobiol	
NSCI/CELL 4370	Molecular Neurobiology	
NSCI/PSYC 4510	Biological Psychology	
NSCI/PSYC 4513	Music and Brain	
NSCI/PSYC 4530	Psychopharmacology	
NSCI 6150	Methods in Neuroscience	
CELL 6550	Syn Org of the Brain	
Elective Laboratory Courses		
Select a minimum of three labs, at least one in Neuroscience area: ^{1,2}		3-11
CELL 2115	General Biology Lab	
CELL 3035	Molecular Biology Lab	
CELL 3215	Physiology Lab	
CELL 3755	Cell Biology Laboratory	
CELL 4111	Human Histology Lab	
CELL 4130	Embryology	
CELL 4491	Anatomy Lab	
NSCI/CELL 3315	Cellular Neuroscience Lab ¹	
NSCI 3325	Neuroanatomy Lab ¹	
NSCI 3360	Neuroanatomy & CNS Dissection ¹	
NSCI/PSYC 3775	Sensation & Percptn Lab ¹	
NSCI/PSYC 4065	Behavioral Endocrinology Lab ¹	
NSCI/PSYC 4515	Biological Psyc Lab ¹	
NSCI/PSYC 4535	Psychopharmacology Lab ¹	

PSYC 3130	Experimental Psychology & Lab
SCEN 3030	Anatomy & Physiology I
SCEN 3035	Anatomy & Physiology I Lab
SCEN 3040	Anatomy & Physiology II
SCEN 3045	Anatomy & Physiology Lab II

Elective Lecture Courses

Select a minimum of three credits of the following: 3

CELL 3030	Molecular Biology
CELL 3050	Foundations of Pharmacology
CELL 3210	Physiology
CELL 3560	Pathophysiology
CELL 3750	Cell Biology
CELL 4010	Cellular Biochemistry
CELL 4160	Developmental Biology
EBIO 1010 & EBIO 1015	Diversity of Life and Diversity of Life Lab
EBIO 4080	Biostat & Experi Design
PSYC 3090	Univariate I & Lab
PSYC 3330	Abnormal Psychology
PSYC 3680	Comp Animal Behavior
PSYC 4090	Univariate II
SCEN 4110	Basic Medical Biochemistry

Corequisite Courses 33

CELL 1010	Intro to Cell & Molec Biology
CELL 2050	Genetics
CHEM 1070 & CHEM 1075	General Chemistry I and General Chemistry Lab I
CHEM 1080 & CHEM 1085	General Chemistry II and General Chemistry Lab II
CHEM 2410 & CHEM 2415	Organic Chemistry I and Organic Chemistry Lab I
CHEM 2420 & CHEM 2425	Organic Chemistry II and Organic Chemistry Lab II
PHYS 1210	Introductory Physics I
PHYS 1220	Introductory Physics II
PHYS 1310	General Physics I
PHYS 1320	General Physics II
PSYC 1000	Introductory Psych

Total Credit Hours

54-62

¹ Neuroscience area

² Independent Study or Honors Thesis may count as one lab course.