Neuroscience B.S. Degree Requirements

Non Course Mentoring Requirements
First-Year Mentoring (this session meets in the spring semester of first year)

Courses in Neuroscience (10 credit hours)
NEUR 3400 (3) Introduction to Neuroscience 1
NEUR 3500 (3) Introduction to Neuroscience 2
NEUR 3550 (1) Neuroscience Laboratory
NEUR 4900 (3) Neuroscience Seminar

Courses in Biology (14 credit hours)
BIOL 1240 (3) Principles of Biology I
BIOL 1245 (1) Principles of Biology I Laboratory
BIOL 1260 (3) Principles of Biology II
BIOL 1265 (1) Principles of Biology II Laboratory
BIOL 3020 (3) Cellular Biochemistry & Molecular Biology
BIOL 3040 (3) Cellular Structure & Function

Courses in Psychology (10 credit hours)
PSY 1010 (3) General Psychology
PSY 2050 (4) Foundations of Research Methods & Statistics w/ Lab
PSY 3100 (3) Brain, Mind, & Society

Neuroscience Elective Courses (19 credit hours must include a minimum of 7CR Biology, 6CR Psychology, and one lab course; lab courses are indicated in italic)
BIOL 3010 (3) Evolution
BIOL 3030 (3) Principles of Genetics
BIOL 3060 (1) Cell Structure & Function Laboratory
BIOL 3100 (1) Experiments in Genetics Lab
BIOL 3420 (5) Comparative Anatomy of the Vertebrates
BIOL 3470 (2) General Physiology Laboratory
BIOL 3480 (3) Exercise Physiology
BIOL 4010 (3) Sex, Evolution, and Behavior
BIOL 4030 (3) Introduction to Genomics
BIOL 4050 (2) Molecular Technique Lab
BIOL 4070 (3) Advanced Biological Chemistry
BIOL 4080 (3) Advanced Cell Biology
BIOL 4150 (3) Nerve Cell Mechanisms in Behavior
BIOL 4250 (3) Neurobiology of Disease
BIOL 4360 (3) Animal Behavior
BIOL 4370 (1) Animal Behavior Lab
BIOL 4410 (3) Comparative Animal Physiology
BIOL 4440 (4) Vertebrate Histology: Structure and Function of Tissues
BIOL 4500 (3) Introductory Endocrinology
BIOL 4510 (3) Behavioral Endocrinology
BIOL 4540 (3) Human Systemic Physiology
BIOL 4600 (3) Developmental Biology
BIOL 4610 (2) Developmental Biology Lab
BIOL 4630 (3) Foundations of Immunobiology
BIOL 4700 (3) Molecular Biology

PSY 3120 (3) Cognitive Psychology
PSY 3160 (3) Learning & Memory
PSY 3210 (3) Developmental Psychology: Child
PSY 3230 (3) Developmental Psychology: Adolescence
PSY 3300 (3) Social Psychology
PSY 3310 (3) Personality Theory
PSY 4140 (3) Psychopharmacology
PSY 4150 (3) Science of Sleep
PSY 4350 (3) Health Psychology
PSY 4390 (3) Abnormal Psychology

Courses in Chemistry (8 credit hours)
CHEM 1110 (3) General Chemistry 1 Lecture
CHEM 1115 (1) General Chemistry 1 Laboratory
CHEM 1120 (3) General Chemistry 2 Lecture
CHEM 1125 (1) General Chemistry 2 Laboratory

Courses in Mathematics (4 credit hours)
MATH 1510 (4) Calculus I

Courses in Philosophy (3 credit hours)
PHIL 4280 (3) Biology and Mind

Courses in Physics (4 credit hours)
PHYS 1310 (3) Physics I
PHYS 1320 (1) Physics I Laboratory

Capstone/Inquiry/Honors Project (1-3 credit hours):
All neuroscience majors must complete a capstone or equivalent project (e.g., Psychology Capstone course, Biology Senior Inquiry, Honors Thesis, etc.). The rationale for this requirement is to provide the opportunity to integrate coursework with an active learning experience, such as research. Courses that meet this requirement include, but are not limited to, the following:

BIOL 4890 Senior Inquiry: Comprehensive Examination
BIOL 4970 Library Project
BIOL 4980 Advanced Independent Research
PSY 4960 Advanced Research Methods and Statistics
PSY 4965 Capstone Practicum Project
PSY 4967 Capstone Research Project
PSY 4969 Critical Thinking about Psych

Note: Many biology courses are offered only in one semester or in alternating years. Please consult with Neuroscience mentors.

Note: Students taking a Pre-Professional Health curriculum will be required to complete additional course requirements for medical or other professional schools as outlined by SLU's Pre-Professional Health Studies Program.