

# NEUROSCIENCE (NEUR)

## NEUR 1500 - Self, Community and Neuroscience

1 Credit

This course helps first-year students successfully transition to college life at Saint Louis University. It introduces them to the diverse options within the Neuroscience program and provides an opportunity to explore the unique paths available to Neuroscience graduates. Through interactive activities, students will explore the Jesuit mission, Saint Louis history, academic and time management strategies, career opportunities, and the contributions of marginalized scientists to our understanding of neurological disease.

### Restrictions:

Enrollment is limited to students with a major in Neuroscience.

**Attributes:** UUC:Self in Community

## NEUR 2980 - Independent Study

1 or 3 Credits (Repeatable for credit)

## NEUR 3400 - Introduction to Neuroscience 1: Cellular, Molecular and Systemic

3 Credits

This course teaches the fundamental anatomy and physiology of the nervous system. Clinical cases and neuroscience technologies will be discussed. The course covers cellular, molecular and organ-systemic aspects of the nervous system and relevant neuronal disorders.

**Prerequisite(s):** BIOL 3040\*

\* Concurrent enrollment allowed.

## NEUR 3500 - Introduction to Neuroscience 2: Cognitive and Behavioral

3 Credits

This course introduces fundamentals of the neural bases of cognition and behavior. Areas of study include: methods of Cognitive Neuroscience, sensation and perception, movement, attention, learning and memory, and social and emotional behavior.

**Prerequisite(s):** PSY 1010; (NEUR 3400 or PSY 3130)

**Attributes:** Psychology BA Elective, Psychology BS Elective, PSY Cog Neuro Cluster

## NEUR 3550 - Neuroscience Laboratory

1 Credit

This course introduces to students basic neuroanatomy, as well as cellular and molecular neuroscience through hands-on laboratory exercises using a variety of techniques such as electrophysiology, computational neuroscience, immunohistochemistry, pharmacology, and cell culture. Students will design and conduct their own group projects.

**Prerequisite(s):** (NEUR 3400, BIOL 3400, or BIOL 3400X)

## NEUR 4865 - Capstone Neurophysiology Laboratory

1 Credit

This is a one credit neurophysiology lab course that is designed to provide authentic hands-on experience for undergraduate students to conduct electrophysiology experiments and complete a capstone project toward the neuroscience major requirement. Specifically, student will learn electrophysiological techniques and carry out experiments on model cells and live nervous tissues to test research hypothesis and conduct data analysis as well as present research findings. Students will work in a group of 3-4 students and present and submit a research poster as a group work.

**Attributes:** Cellular/Molecular Lab, Neuroscience - Capstone

## NEUR 4869 - Critical Thinking about Neuroscience

3 Credits

This course is designed to allow students to integrate and apply their knowledge of neuroscience to understanding the brain bases of critical thinking. Working in teams, students will review the literature on the neuroscience of critical thinking to propose critically informed and empirically grounded recommendations addressing biases in critical thinking. May be used to satisfy capstone requirement. Majors only, permission of instructor required. 3 Credit hours.

**Prerequisite(s):** NEUR 3400; NEUR 3500; NEUR 3550

**Attributes:** Neuroscience - Capstone

## NEUR 4900 - Neuroscience Seminar

1 Credit

The Neuroscience Seminar focuses on synthesis and integration of concepts across the interdisciplinary field of neuroscience, drawing on a wide range of scientific disciplines to understand how the brain functions. The course aims to foster intellectual engagement, critical thinking, and communication skills to develop advanced-level understanding of neuroscience topics. (Offered in Fall and Spring)

**Prerequisite(s):** NEUR 3500; Minimum Earned Credits of 90

### Restrictions:

Enrollment limited to students with a classification of Senior.

Enrollment is limited to students with a major in Neuroscience.

## NEUR 4910 - Internship

1-6 Credits (Repeatable for credit)

**Prerequisite(s):** (CORE 1000 or UUC Ignite Seminar Waiver with a minimum score of S); (CORE 1500\*, SLU Math Placement with a minimum score of 0000, SLU English Placement with a minimum score of 0000, or ACT Composite with a minimum score of 01)

\* Concurrent enrollment allowed.

**Attributes:** UUC:Reflection-in-Action

## NEUR 4930 - Special Topics

1-3 Credits (Repeatable for credit)

### Restrictions:

Enrollment limited to students with a classification of Senior.

Enrollment is limited to students with a major in Neuroscience.

## NEUR 4939 - Collaborative Inquiry

1-3 Credits (Repeatable for credit)

Collaborative Inquiry Special Topics.

**Prerequisite(s):** (CORE 1500\*, SLU Math Placement with a minimum score of 0000, SLU English Placement with a minimum score of 0000, or ACT Composite with a minimum score of 01); (CORE 1000 or UUC Ignite Seminar Waiver with a minimum score of S); Minimum Earned Credits of 60

\* Concurrent enrollment allowed.

**Attributes:** UUC:Collaborative Inquiry