

# NEUROSCIENCE (NEUR)

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## **NEUR 175 Neuroscience Seminar 1 1 Hour**

Transition to university experience for Neuroscience majors. Topics include learning skills, campus resources, research tools, exploration of major, specializations within the discipline, career trends, and professional development.

*Recent Term(s) Offered: None*

## **NEUR 310 Research Techniques of Neuroscience 3 Hours**

Introduction to the many different research techniques used in the field of neuroscience. This begins by surveying the different approaches, and moves on to discuss how effective research entails the use of different methods whose advantages and disadvantages are complementary.

**Prerequisite(s):** (PSYS 160 with a minimum grade of C or BIOL 120 with a minimum grade of C or CHEM 120 with a minimum grade of C) and PSYS 210 with a minimum grade of C

*Recent Term(s) Offered: None*

## **NEUR 401 Cellular and Molecular Neuroscience 3 Hours**

This course explores the major principles and techniques of cellular and molecular neuroscience. Topics include excitable cells and membranes, ion channels and receptors, synaptic transmission, cell-type determination, axon guidance, neuronal cell biology, synapse formation and neural plasticity, growth factors in signaling, development and regeneration, neuronal stem cells, and sensory signal transduction.

**Prerequisite(s):** (BIOL 120 with a minimum grade of C and BIOL 121 with a minimum grade of C) and (BIOL 335 with a minimum grade of C or PSYS 360 with a minimum grade of C)

*Recent Term(s) Offered: None*

## **NEUR 402 Systems Neuroscience 3 Hours**

The goal of this course is to explore how single cells contribute to neural networks and how those neural networks ultimately drive behavior. This course will compare neural systems across the animal kingdom with a particular focus on anatomy and physiology of sensory and motor systems.

**Prerequisite(s):** BIOL 335 with a minimum grade of C or PSYS 360 with a minimum grade of C

*Recent Term(s) Offered: None*

## **NEUR 498 Neuroscience Seminar 2 1 Hour (repeatable max of 2 hrs)**

Developing skills for reading, understanding and presenting scientific information within the neuroscience discipline. Students will read, discuss, summarize and present neuroscience research.

**Restriction(s):** Enrollment limited to students with a semester level of Junior or Senior.

Enrollment is limited to students in Biology (617) or Psychological Science (747)

*Recent Term(s) Offered: None*