

# NEUROSCIENCE (NEUR)

---

Discover, search, courses (<https://catalog.luc.edu/course-search/>)!

## NEUR 101 Introduction to Neuroscience (3 Credit Hours)

*Pre-requisites:* None; Recommended: BIOL 101 and PSYC 101

This course will introduce students to basic concepts and the variety of topics in the field of neuroscience, including neuroanatomy (gross and cellular), physiology, neural basis of behavior, malfunctions due to disease and injury, and methods used to study these areas laying a foundation for advanced coursework in neuroscience.

*Interdisciplinary Option:* Neuroscience

*Course equivalencies:* X-BIOL 202/PSYC202/NEUR 101

*Outcomes:*

Knowledge of the organization of the nervous system, cellular events that underlie emotions, learning, and behavior, and awareness of classical and modern methods for advancing the field

## NEUR 300 Seminar in Neuroscience (1 Credit Hour)

*Pre-requisites:* NEUR 101 with grade of C- or better

The seminar introduces students to the interdisciplinary nature of modern neuroscience with an emphasis on the various neuroscience research activities that take place at Loyola University Chicago, and reviews current neuroscience research topics. NEUR 300 is cross-listed with BIOL 303.

*Interdisciplinary Option:* Neuroscience

*Course equivalencies:* X-BIOL303/NEUR300

*Outcomes:*

Students will demonstrate understanding of the interdisciplinary and multidisciplinary nature of modern neuroscience, and the research questions and experimental approaches used at the Lakeshore and Medical Center campuses; Students will complete one midterm essay and one final essay exam that will reflect their understanding of the topics discussed in the seminars

## NEUR 301 Laboratory in Neuroscience I (4 Credit Hours)

*Pre-requisites:* NEUR 101, BIOL 251; and students must be either a Molecular/Cellular Neuroscience Major, a Cognitive/Behavioral Neuroscience major, or a Neuroscience Minor

Students will be trained in various anatomical, physiological, behavioral, and neurobiological modeling techniques used to study the nervous system and the brain in the laboratory. This course is cross-listed as NEUR 301 & PSYC 388.

*Interdisciplinary Option:* Neuroscience

*Course equivalencies:* X-NEUR301/PSYC388/BIOL373

*Outcomes:*

Students will demonstrate understanding of several research designs and methodologies of use in neuroscience research and will gain experience with basic neuroscience laboratory techniques

## NEUR 302 Laboratory in Neuroscience II (3 Credit Hours)

*Pre-requisites:* NEUR 301

Students will receive additional training and experience in specialized laboratory methods and techniques used by Loyola faculty in their Neuroscience research. This experience will help prepare them to contribute creatively to neuroscience research. Students will be assessed as to the quality of 3 items: 1) a written proposal for the independent research project; 2) a 'meeting quality' scientific poster; and 3) a written 'publication quality' scientific paper summarizing the work done for the independent research project.

*Interdisciplinary Option:* Neuroscience

*Course equivalencies:* X-BIOL374/NEUR302/PSYC389

*Outcomes:*

Students will have the opportunity to conduct independent research projects in faculty and student laboratories