

Neuroscience (PhD)

Neuroscience encompasses behavioral, systems, cellular, molecular, and computational approaches to understanding the nervous system. The faculty use a wide variety of state-of-the-art techniques for their studies, including functional magnetic and optical imaging, various behavioral analyses of animals and humans, transmission and scanning electron microscopy, molecular and cellular biophysics, cellular- and systems-level neurophysiology, biochemistry, molecular genetics, and various types of computer modeling. The research-intensive environment emphasizes multidisciplinary investigations. The program offers students both a sound education in neuroscience and a broad research experience.

Graduate Handbook

Graduate handbook information is updated and maintained by each program. Graduate handbooks are available within each program's office and [online](#). Please contact the program with concerns or questions.

Admission Requirements

The requirements of the Office of Graduate and Postdoctoral Studies for admission into a Doctor of Philosophy degree program must be met. However, the qualifications of most admitted applicants exceed these minimum requirements. All applicants must hold a bachelor's degree from an accredited college or university, usually in a biological science, chemistry, computer science, experimental psychology, pharmacy, or engineering. Undergraduate preparation should include one year of chemistry, one year of biology, mathematics through calculus, and courses in psychology and physics. However, students without some of these prerequisites may be admitted on the condition that they make up any deficiencies during their first two years of study.

Total Hours Required: 81 Requirements

The Doctor of Philosophy in Neuroscience requires a minimum of 81 credit hours of coursework. At the beginning of the second year, students take a qualifying exam that involves writing a literature review on a gap in knowledge within a relevant topic and defending it before an examining committee. This committee is composed of faculty members from the program who are experts in the pertinent scientific fields. All eligible students must submit a predoctoral fellowship application by the end of their third year of study, and all students must serve as a teaching assistant for at least one undergraduate or graduate course.

Code	Title	Hours
NEU 382T	Principles of Neuroscience I	3
NEU 383T	Principles of Neuroscience II	3
statistics course		3
graduate seminar in Neuroscience		3
Three graduate electives in Neuroscience		9
ethics course		3
grant writing course		3
<u>Graduate Natural Sciences Requirements</u>		
<u>Graduate University Requirements</u>		
Total Hours		27