NEUROSCIENCE - DOCTOR OF PHILOSOPHY (PHD)

The doctoral program in neuroscience is a second major that students earn in conjunction with a PhD in another discipline offered by a participating department.

The neuroscience community at CU Boulder is made up of over 80 faculty and research associates rostered in 13 departments and institutes. Neuroscience activities on the campus are coordinated by the Center for Neuroscience.

The graduate PhD program in neuroscience is an interdepartmental program currently consisting of eight tracks to a PhD:

- Behavioral, Psychiatric and Statistical Genetics (Integrative Physiology, Psychology & Neuroscience)
- · Behavioral Neuroscience (Psychology & Neuroscience)
- Clinical Neuroscience (Psychology & Neuroscience)
- Cognitive Neuroscience (Psychology & Neuroscience)
- · Social Neuroscience (Psychology & Neuroscience)
- Integrative Physiological Neuroscience (Integrative Physiology)
- Molecular, Cellular and Developmental Neuroscience (Molecular, Cellular and Developmental Biology)
- Speech, Language and Hearing Neurosciences (Speech, Language and Hearing Sciences)

The neuroscience curriculum includes a year-long intensive core course, graduate seminar courses linked to an invited speaker series and wide-ranging neuroscience courses offered by many departments and institutes across campus.

Interested students are encouraged to visit the Center for Neuroscience (https://www.colorado.edu/neuroscience/) website, which provides detailed information on the program, application process, courses, faculty and current trainees.

Requirements Admission Requirements

Students apply for admission to one of the participating departments, which determines whether to admit the student to CU Boulder and provide financial support. Once in residence, students enter the neuroscience PhD program while still maintaining their "home" in the department to which they were admitted. They receive a PhD that lists both their home department and neuroscience. All students are admitted with the expectation that they will work toward the PhD degree. Many students receive a Master of Arts degree in the course of working toward the PhD. Students who receive the PhD degree must demonstrate that they are proficient in some broad subject of learning and that they can critically evaluate work in this field; furthermore, they must show the ability to work independently in their chosen field and must make an original contribution of significance to the advancement of knowledge.

Code Required Neuroscie	Title nce Core Courses	Credit Hours
NRSC 5100	Introduction to Neuroscience I	3

01	Total Credit Hours		30-32
ulty	Choose a sequence of courses that provides an advanced graduate-level specialization in a discipline that contributes to the field of neuroscience.		11
	Neuroscience-Related Discipline Specialization		
n	Choose a minimum of 3 additional neuroscience-related courses (2-3 credit hours per course). ¹		7-9
	Required Fundamentals of Neuroscience Depth Courses		
	NRSC 6100	Advances in Neuroscience Seminar (three semesters, 2 credits per semester)	6
	NRSC 5110	Introduction to Neuroscience II	3

For a list of approved neuroscience courses, visit the Neuroscience PhD Program (https://www.colorado.edu/neuroscience/graduateeducation-neuroscience/) webpage.

Before admission to candidacy for the PhD degree, the student must pass a comprehensive examination in the field of concentration and related fields. This examination tests the student mastery of a broad field of knowledge, not merely the formal coursework completed.

A variety of advanced research seminars are taught on a regular basis. Students are required to be enrolled in at least one substantive course in the department each semester until the comprehensive examinations have been successfully completed. Upon completing the comprehensives, students engage in the dissertation research, culminating in a public oral defense.

Potential applicants are encouraged to visit the Center for Neuroscience website, which provides detailed information on the program, application process, courses, faculty and current trainees.

Learning Outcomes

By the completion of the program, students will be able to:

- · Demonstrate broad mastery (breadth) of knowledge in neuroscience.
- Demonstrate depth of knowledge in one of the following neuroscience subdisciplines: behavioral, cognitive, social or clinical neuroscience; integrative physiology; molecular, cellular and developmental biology; behavioral, psychiatric and statistical genetics; speech, language and hearing sciences.
- Demonstrate proficiency in their ability to independently perform empirical research with multiple neuroscience techniques.
- Communicate scholarly knowledge in neuroscience through effective writing (peer-reviewed manuscripts, grant proposals, reviews and opinions).
- Communicate knowledge in neuroscience through effective oral presentation.
- Prepare and demonstrate awareness of relevant career options, job search networks and interview skills for neuroscience-related job markets.