

# NEUROSCIENCE - DOCTOR OF PHILOSOPHY (PHD)

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 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)

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.

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.

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

## Requirements

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.

## Required Courses and Semester Credit Hours

Code	Title	Credit Hours
<b>Required Neuroscience Core Courses</b>		
NRSC 5100	Introduction to Neuroscience I	3
NRSC 5110	Introduction to Neuroscience II	3
NRSC 6100	Advances in Neuroscience Seminar (three semesters, 2 credits per semester)	6

### Required Fundamentals of Neuroscience Depth Courses

Choose a minimum of 3 additional neuroscience-related courses (2-3 credit hours per course). <sup>1</sup>	6-9
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### Neuroscience-Related Discipline Specialization

Choose a sequence of courses that provides an advanced graduate-level specialization in a discipline that contributes to the field of neuroscience.	11
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<b>Total Credit Hours</b>	<b>29-32</b>
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<sup>1</sup> For a list of approved neuroscience courses, visit the Neuroscience PhD Program (<https://www.colorado.edu/neuroscience/graduate-education-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 course work 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.

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