



Twin Cities Campus

Neuroscience Minor

Neuroscience

Medical School

Link to a [list of faculty](#) for this program.

Contact Information:

Department of Neuroscience, 6-145 Jackson Hall, 321 Church Street S.E., Minneapolis, MN 55455 (612-626-6474; fax: 612-626-6460)

Email: neurosci@umn.edu

Website: <http://www.neuroscience.umn.edu>

- Program Type: Graduate minor related to major
- Requirements for this program are current for Spring 2022
- Length of program in credits (Masters): 12
- Length of program in credits (Doctorate): 12
- This program does not require summer semesters for timely completion.

Along with the program-specific requirements listed below, please read the [General Information](#) section of the catalog website for requirements that apply to all major fields.

Neuroscience is an interdisciplinary field of inquiry. The objects of this inquiry, the brain and nervous system, are sufficiently complex and unique among biological systems to require experimental and analytical approaches that cross the traditional boundaries of molecular and cell biology, behavioral biology, biochemistry, genetics, pharmacology, physiology, and psychology. In some instances, neuroscientific inquiry may also encompass computer science, information processing, engineering, physics, and mathematics.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Prerequisites for Admission

For an online application or for more information about graduate education admissions, see the [General Information](#) section of the catalog website.

Program Requirements

Use of 4xxx courses toward program requirements is permitted under certain conditions with adviser approval.

Required Coursework (4 credits)

All students pursuing the minor must take one of the following courses:

[NSC 5461](#) - Cellular and Molecular Neuroscience (3.0 cr)

[NSC 5561](#) - Systems Neuroscience (4.0 cr)

Electives (8 credits)

All students pursuing the minor must take at least eight elective credits, selected in consultation with the Neuroscience director of graduate studies.

[NSC 5203](#) - Basic and Clinical Vision Science (3.0 cr)

[NSC 5461](#) - Cellular and Molecular Neuroscience (3.0 cr)

[NSC 5462](#) - Neuroscience Principles of Drug Abuse (2.0 cr)

[NSC 5561](#) - Systems Neuroscience (4.0 cr)

[NSC 5661](#) - Behavioral Neuroscience (2.0 cr)

[NSC 8026](#) - Neuro-Immune Interactions (3.0 cr)

[NSC 8111](#) - Quantitative Neuroscience (3.0 cr)

[NSC 8208](#) - Neuropsychopharmacology (3.0 cr)

[NSC 8211](#) - Developmental Neurobiology (2.0 - 4.0 cr)

[NSC 8320](#) - Readings in Neurobiology (1.0 - 4.0 cr)

[NSC 8411](#) - Teaching in Neuroscience (1.0 cr)

[NSC 8481](#) - Advanced Neuropharmacology (4.0 cr)

[NSCI 4101](#) - Development of the Nervous System: Cellular and Molecular Mechanisms (3.0 cr)

[NSCI 4105](#) - Neurobiology Laboratory I (3.0 cr)



[NSCI 4201](#) - Neuroscience of Drug Abuse (3.0 cr)
[NSCI 4501](#) - Neurodegenerative Diseases, Mechanisms to Therapies (3.0 cr)
[NSCI 5101](#) - Neurobiology I: Molecules, Cells, and Systems (3.0 cr)
[NSCI 5501](#) - Neurodegenerative Diseases, Mechanisms to Therapies (3.0 cr)
[NSCI 6110](#) - Neuroscience for Dental Students (2.0 cr)
[NSCI 6112](#) - Medical Neuroscience for Professional Students (5.0 cr)

Program Sub-plans

Students are required to complete one of the following sub-plans.
Students may not complete the program with more than one sub-plan.

Doctoral

Masters