

# NEUROSCIENCE B.S. - COGNITIVE NEUROSCIENCE

The University of Montana Neuroscience Program also offers a combined Bachelor of Science and Master of Science degree in Neuroscience with an emphasis on Cellular & Molecular Neuroscience. This five-year ("4 + 1") accelerated program is specifically designed for students who have demonstrated academic excellence and are deeply interested in pursuing intensive research training in preparation for graduate/professional schools, or who wish to enter the biomedical/biotech sector with advanced standing. The first 3 years of study are aligned with the existing Cellular & Molecular track of the B.S. in Neuroscience. Some students in the Cognitive & Behavioral track may also be eligible, depending upon their course selections. In the 4th year, students will take graduate neuroscience courses and complete their B.S. degree. This will allow students to enter the Neuroscience Graduate Program with advanced standing and, pending completion and defense of an M.S. thesis project, earn an M.S. in 5 years. See the Neuroscience website (<https://www.umt.edu/neuroscience/default.php>) for details on the curriculum and regulations in the Neuroscience B.S./M.S. Program.

## General Degree Requirements

To earn a baccalaureate degree, all students must complete successfully, in addition to any other requirements, the University of Montana General Education Requirements. Please refer to the General Education Requirements page (<https://catalog.umt.edu/academics/general-education-requirements/>) for more information.

Additional requirements for graduation can be found on the Degree/Certificate Requirements for Graduation page (<https://catalog.umt.edu/academics/graduation-requirements/>).

Unless otherwise noted in individual program requirements, a minimum grade point average of 2.00 in all work attempted at the University of Montana-Missoula is required for graduation. Please see the Academic Policies and Procedures page (<https://catalog.umt.edu/academics/policies-procedures/>) for information on how your GPA is calculated.

Courses taken to satisfy the requirements of a major, minor, or certificate program must be completed with a grade of C- or better unless a higher grade is noted in the program requirements.

## BACHELOR OF SCIENCE - NEUROSCIENCE; COGNITIVE NEUROSCIENCE CONCENTRATION

### Course Requirements

Code	Title	Hours
<b>Neuroscience Core Courses</b>		
Complete all of the following courses:		
BIOB 160 & BIOB 161N	Principles of Living Systems and Principles of Living Systems Lab	4
BIOB 260	Cellular and Molecular Biology	4
BIOB 272	Genetics and Evolution	4
NEUR 280	Fundamental Neuroscience	3
NEUR 281	Fundamentals of Neuroscience II: Cognition	3
NEUR 380	Molecular Neuroscience	3

NEUR 458	Neuroscience Research Techniques Lab	4
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### Mathematics and Physics

Complete all of the following courses:

M 162	Applied Calculus	4
PHSX 205N	College Physics I	4
PHSX 206N	College Physics I Laboratory	1
PHSX 207N	College Physics II	4
PHSX 208N	College Physics II Laboratory	1
STAT 216 or PSYX 222	Introduction to Statistics Psychological Statistics	4

### Chemistry

Complete one of the following Chemistry sequences: 9-15

Introductory Chemistry (9 Credits)		
CHMY 121N	Introduction to General Chemistry	
CHMY 123	Introduction to Organic and Biochemistry	
CHMY 124	Introduction to Organic and Biochemistry Lab	
College Chemistry (15 Credits)		
CHMY 141N	College Chemistry I	
CHMY 142N	College Chemistry I Lab	
CHMY 143N	College Chemistry II	
CHMY 144N	College Chemistry II Lab	
CHMY 221	Organic Chemistry I	
CHMY 222	Organic Chemistry I Lab	

### Additional Major Courses

Complete all of the following courses:

BCH 380	Biochemistry	4
PSYX 270	Fundamentals of Psychology of Learning	3
PSYX 280	Fundamentals of Memory and Cognition	3
PSYX 356	Human Neuropsychology	3

Complete two of the following courses: 6-7

BIOB 301	Developmental Biology	
BIOH 365	Human Anatomy and Physiology for Health Professions I	
KIN 330	Motor Learning and Control	
NEUR 441	CNS Diseases	
NEUR 475	Neuropharmacology	
NEUR 481	Systems Neuroscience of Behavior and Cognition	
PSYX 352	Comparative Psychology	

### Intersection Courses

Complete one of the following courses 1-9

BIOE 406	Behavior & Evolution	
DANC 345	New Visions Dance	
HTH 430	Health and Mind/Body/Spirit	
PSYX 233	Fundamentals of Psychology of Aging	

**Total Hours 72-87**