

NEUROSCIENCE B.S. - CELLULAR AND MOLECULAR 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 those 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; CELLULAR AND MOLECULAR CONCENTRATION

Course Requirements

Code	Title	Hours
Neuroscience Core Courses		
Complete all of the following courses:		
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
Complete one of the following courses:		4
BIOB 160 & BIOB 161N	Principles of Living Systems and Principles of Living Systems Lab	
BCH 110 & BCH 111	Introductory Biology for Biochemists and Introductory Biology for Biochemists Lab	

Other Required Courses

Complete all of the following courses:

CHMY 141N & CHMY 142N	College Chemistry I and College Chemistry I Lab	5
CHMY 143N & CHMY 144N	College Chemistry II and College Chemistry II Lab	5
CHMY 221	Organic Chemistry I	3
CHMY 222	Organic Chemistry I Lab	2
CHMY 223	Organic Chemistry II	3
M 162	Applied Calculus	4
PHSX 205N & PHSX 206N	College Physics I and College Physics I Laboratory	5
PHSX 207N & PHSX 208N	College Physics II and College Physics II Laboratory	5

Complete one of the following courses:

STAT 216	Introduction to Statistics	3-4
or PSYX 222	Psychological Statistics	

Upper-Division Major Courses

Complete all of the following courses:

BCH 480	Advanced Biochemistry I	3
BCH 482	Advanced Biochemistry II	3
BIOB 425	Advanced Cellular & Molecular Biology	3

Complete 3 credits of the following courses:

BIOB 301	Developmental Biology	
BIOB 435	Comparative Animal Physiology	
BIOH 365	Human Anatomy and Physiology for Health Professions I	

Complete one of the following courses:

BIOB 375	General Genetics	3
BIOB 468	Endocrinology	
KIN 330	Motor Learning and Control	
NEUR 441	CNS Diseases	
NEUR 491	Special Topics	
PSYX 356	Human Neuropsychology	

Intersection Courses

Complete one of the following courses:

BIOE 406	Behavior & Evolution	1-9
DANC 345	New Visions Dance	
HTH 430	Health and Mind/Body/Spirit	
PSYX 233	Fundamentals of Psychology of Aging	

Total Hours **76-85**