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.

Bachelor of Science - Neuroscience; Cognitive Neuroscience Concentration

College of Humanities & Sciences

Catalog Year: 2022-23

General Education Requirements

Information regarding these requirements can be found in the General Education Section (http://catalog.umt.edu/academics/general-education-requirements/) of the catalog.

Summary

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>Neuroscience Core Courses</td>
<td>25</td>
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<tr>
<td></td>
<td>Other Required Courses</td>
<td>26-33</td>
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<tr>
<td></td>
<td>Additional Major Courses</td>
<td>19-20</td>
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<tr>
<td></td>
<td>Intersection Courses</td>
<td>1-9</td>
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<tr>
<td></td>
<td>Total Hours</td>
<td>71-87</td>
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Degree Specific Credits: 71-87

Required Cumulative GPA: 2.0

Neuroscience Core Courses

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<tr>
<th>Code</th>
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<th>Hours</th>
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<tr>
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<td>Complete all of the following courses:</td>
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<tr>
<td>BIOB 160N &amp; BIOB 161N</td>
<td>Principles of Living Systems and Principles of Living Systems Lab</td>
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<tr>
<td>BIOB 260</td>
<td>Cellular and Molecular Biology</td>
<td>4</td>
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<tr>
<td>BIOB 272</td>
<td>Genetics and Evolution</td>
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<tr>
<td>NEUR 280</td>
<td>Fundamental Neuroscience</td>
<td>3</td>
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<tr>
<td>NEUR 281</td>
<td>Fundamentals of Neuroscience II: Cognition</td>
<td>3</td>
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<tr>
<td>NEUR 380</td>
<td>Molecular Neuroscience</td>
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<td>NEUR 458</td>
<td>Neuroscience Research Techniques Lab</td>
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Minimum Required Grade: C-

Other Required Courses

Mathematics and Physics

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<tr>
<td>M 162</td>
<td>Applied Calculus</td>
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<tr>
<td>PHSX 205N &amp; PHSX 206N</td>
<td>College Physics I and College Physics I Laboratory</td>
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</tr>
<tr>
<td>PHSX 207N &amp; PHSX 208N</td>
<td>College Physics II and College Physics II Laboratory</td>
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<td>Complete one of the following courses:</td>
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<tr>
<td>STAT 216</td>
<td>Introduction to Statistics</td>
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<td>or PSYX 222</td>
<td>Psychological Statistics</td>
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Minimum Required Grade: C-

Chemistry

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<td>Complete one of the following Chemistry sequences:</td>
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<tr>
<td>CHMY 121N</td>
<td>Introduction to General Chemistry</td>
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<tr>
<td>CHMY 123</td>
<td>Introduction to Organic and Biochemistry</td>
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<tr>
<td>CHMY 124</td>
<td>Introduction to Organic and Biochemistry Lab</td>
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<td>OR</td>
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<tr>
<td>CHMY 141N &amp; CHMY 142N</td>
<td>College Chemistry I and College Chemistry I Lab</td>
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<td>CHMY 143N &amp; CHMY 144N</td>
<td>College Chemistry II and College Chemistry II Lab</td>
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<tr>
<td>CHMY 221  &amp; CHMY 222</td>
<td>Organic Chemistry I and Organic Chemistry I Lab</td>
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<td>Minimum Required Grade: C-</td>
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Additional Major Courses

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<tr>
<td>BCH 380</td>
<td>Biochemistry</td>
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<td>PSYX 270</td>
<td>Fundamentals of Psychology of Learning</td>
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<td>PSYX 280</td>
<td>Fundamentals of Memory and Cognition</td>
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<td>PSYX 356</td>
<td>Human Neuropsychology</td>
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Minimum Required Grade: C-

<table>
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<tr>
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<td>Complete two of the following courses:</td>
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<tr>
<td>BIOB 301</td>
<td>Developmental Biology</td>
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<tr>
<td>BIOH 365</td>
<td>Human Anatomy and Physiology for Health Professions I</td>
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<tr>
<td>Code</td>
<td>Title</td>
<td>Hours</td>
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<tr>
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<tr>
<td>KIN 330</td>
<td>Motor Learning and Control</td>
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<tr>
<td>NEUR 441</td>
<td>CNS Diseases</td>
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<tr>
<td>NEUR 475</td>
<td>Neuropharmacology</td>
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<tr>
<td>NEUR 481</td>
<td>Systems Neuroscience of Behavior and Cognition</td>
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<tr>
<td>NEUR 491</td>
<td>Special Topics (Neuroanatomy)</td>
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<tr>
<td>PSYX 352</td>
<td>Comparative Psychology</td>
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<td><strong>Total Hours</strong></td>
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Minimum Required Grade: C-

### Intersection Courses

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<tr>
<th>Code</th>
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<tbody>
<tr>
<td></td>
<td>Complete one of the following courses</td>
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<tr>
<td>BIOE 406</td>
<td>Behavior &amp; Evolution</td>
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<td>DANC 345</td>
<td>New Visions Dance</td>
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<tr>
<td>ECNS 491</td>
<td>Special Topics (Behavioral/Experimental Economics)</td>
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<tr>
<td>HTH 430</td>
<td>Health and Mind/Body/Spirit</td>
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<tr>
<td>PSYX 233</td>
<td>Fundamentals of Psychology of Aging</td>
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Minimum Required Grade: C-