PHYSICS MINOR

Minor - Physics

College of Humanities & Sciences

Degree Specific Credits: 24
Required Cumulative GPA: 2.0
Catalog Year: 2018-2019

Note: Mathematics prerequisites for the physics minor are M 171, M 172, M 273, (and M 221 if needed).

Summary

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required Lower-Division Courses</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Upper-Division Core Course</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Elective Courses</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>24</td>
</tr>
</tbody>
</table>

Required Lower-Division Courses

Note: The Physics with Calculus series (PHSX 215N - PHSX 218N) is strongly recommended.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Complete one of the following Physics sequences:</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Algebra- and Trigonometry-based Physics:</td>
<td></td>
</tr>
<tr>
<td>PHSX 205N</td>
<td>College Physics I</td>
<td></td>
</tr>
<tr>
<td>&amp; PHSX 206N</td>
<td>and College Physics I Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHSX 207N</td>
<td>College Physics II</td>
<td></td>
</tr>
<tr>
<td>&amp; PHSX 208N</td>
<td>and College Physics II Laboratory</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Calculus-based Physics (strongly recommended):</td>
<td></td>
</tr>
<tr>
<td>PHSX 215N</td>
<td>Fund of Physics w/Calc I</td>
<td></td>
</tr>
<tr>
<td>&amp; PHSX 216N</td>
<td>and Physics Laboratory I w/Calc</td>
<td></td>
</tr>
<tr>
<td>PHSX 217N</td>
<td>Fund of Physics w/Calc II</td>
<td></td>
</tr>
<tr>
<td>&amp; PHSX 218N</td>
<td>and Physics Laboratory II w/Calc</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Minimum Required Grade: C-</td>
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</table>

Upper-Division Core Course

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Complete the following course:</td>
<td>3</td>
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<tr>
<td>PHSX 301</td>
<td>Intro Theoretical Physics</td>
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</tr>
<tr>
<td></td>
<td>Total Hours</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Minimum Required Grade: C-</td>
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</tbody>
</table>

Elective Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete 11 credits of the following courses, 8 of which must be upper-division:</td>
<td>11</td>
</tr>
</tbody>
</table>

Teaching Physics Track

The term ‘minor’ for this teaching option refers to courses that need to be completed. To sign up for this option, you need to contact the Teaching and Learning Department. Do not fill out a minor form for graduation or the minor section of the major change form. Approvals for this option must come from the Teaching and Learning Department.

A teaching minor is an academic minor which may contain different course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete a teaching major in a content area plus the teacher preparation program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of either a teaching major or a teaching minor in that content area.

• Secondary Education Licensure Program (http://www.coehs.umt.edu/departments/currist/undergradprograms/seced/default.php)
• Licensure Degree Requirements (http://catalog.umt.edu/colleges-schools-programs/education-human-sciences/teaching-learning/lic-secondary-licensure)

Teaching Licensure Requirements

Note: Students must be formally admitted to the Teacher Education Program and complete all of the professional education licensure requirements. See the Department of Teaching and Learning (http://catalog.umt.edu/colleges-schools-programs/education-human-sciences/teaching-learning) in the College of Education and Human Sciences for more information. A minor GPA of 2.75 is required to be eligible for student teaching. Individuals completing a teaching minor must also complete a teaching major in another content area.

Teaching Licensure Course

Rule: Must complete the following course

Note: The EDU 497 course number is used for multiple courses. Students should register for EDU 497 Methods: 5-12 Science.
Physics Minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 497</td>
<td>Teaching and Assessing</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Hours 4

Minimum Required Grade: C-