CHEMISTRY MINOR

Minor - Chemistry (Minor)

College Humanities & Sciences

Degree Specific Credits: 31

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

Summary

<table>
<thead>
<tr>
<th>Course Type</th>
<th>Credits</th>
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<tr>
<td>Lower Core Courses</td>
<td>18</td>
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<tr>
<td>Upper Core Courses</td>
<td>7-8</td>
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<td>Physical Chemistry Requirement</td>
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<tr>
<td>Upper Division Electives</td>
<td>6-8</td>
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<td>Total Hours</td>
<td>34-38</td>
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Lower Core Courses

**Rule:** Must complete all of the following:

- 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

Total Hours: 18

Minimum Required Grade: C-

Upper Core Courses

**Rule:** Must complete the following:

- CHMY 311
  Analytical Chem-Quant Analysis
  4

Total Hours: 4

Minimum Required Grade: C-

Physical Chemistry Requirement

**Rule:** Must complete one of the following:

- CHMY 360
  Applied Physical Chemistry
  or CHMY 373
  Phys Chem-Kntcs & Thrmodynamcs
  3-4

Total Hours: 3-4

Minimum Required Grade: C-

Upper Division Electives

**Rule:** Must complete two of the following:

**Note:** If the student’s major requires biochemistry, BCH 380 or BCH 480 and BCH 482 may not be used to satisfy this requirement.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BCH 380</td>
<td>Biochemistry</td>
<td></td>
</tr>
<tr>
<td>BCH 480</td>
<td>Advanced Biochemistry I</td>
<td></td>
</tr>
<tr>
<td>BCH 482</td>
<td>Advanced Biochemistry II</td>
<td></td>
</tr>
<tr>
<td>CHMY 371</td>
<td>Phys Chem-Qntm Chm &amp; Spectroscopy</td>
<td></td>
</tr>
<tr>
<td>CHMY 401</td>
<td>Advanced Inorganic Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHMY 403</td>
<td>Descriptive Inorganic Chem</td>
<td></td>
</tr>
<tr>
<td>CHMY 442</td>
<td>Aquatic Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHMY 465</td>
<td>Organic Spectroscopy</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours: 6-8

Minimum Required Grade: C-

Teaching Chemistry Concentration

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 Curriculum and Instruction. 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/currinst/undergradprograms/seced/default.php)
- Licensure Degree Requirements (http://catalog.umt.edu/colleges-schools-programs/education-human-sciences/teaching-learning/lic-secendary-licensure)

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 Curriculum and Instruction 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 Curriculum and Instruction Department.

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 Curriculum & Instruction (http://catalog.umt.edu/colleges-schools-programs/education-human-sciences/teaching-learning) in the College of Education and Human Sciences (http://catalog.umt.edu/colleges-schools-programs/education-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 Preparation Requirements

**Rule:** Must complete all of the following:

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

<table>
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<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>EDU 497</td>
<td>Teaching and Assessing</td>
<td>4</td>
</tr>
<tr>
<td>ENST 472</td>
<td>Gen Sci: Conservation Education</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Hours: 7

Minimum Required Grade: C-