

# CHEMISTRY EDUCATION MINOR

- This minor contains course requirements designed to meet state standards. Those interested in teaching in K-12 schools must complete the education/teaching concentration of a major in a teaching content area plus the Teacher Education Program through the Department of Teaching and Learning. Additional teaching areas can be added through completion of the education/teaching concentration of a major or education/teaching minor in that content area.
  - Secondary Education Licensure Program (<https://www.umt.edu/education/departments/teaching-and-learning/tep/default.php>)
  - Licensure Degree Requirements (<https://catalog.umt.edu/colleges-schools-programs/education/teaching-learning/lic-secondary-licensure/>)
- To complete this minor, you need to contact the Teaching and Learning Department. Approvals for this track must come from the Teaching and Learning Department.

## 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.

## Minor - Chemistry Education Course Requirements

| Code                                   | Title   | Hours |
|--|---|-------|
| <b>Lower-Division Core Courses</b>     |   |       |
| 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     |
| <b>Upper-Division Core Courses</b>     |   |       |
| Complete all of the following courses: |   |       |
| CHMY 311                               | Analytical Chemistry-Quantitative Analysis        | 4     |

|   |  |           |
|---|--|-----------|
| CHMY 373                                  | Physical Chemistry-Kinetics & Thermodynamics | 4         |
| CHMY 485                                  | Laboratory Safety                            | 1         |
| BCH 380                                   | Biochemistry                                 | 4         |
| or BCH 480                                | Advanced Biochemistry I                      |           |
| <b>Required Courses Outside the Minor</b> |  |           |
| Complete all of the following courses:    |  |           |
| CSCI 150                                  | Introduction to Computer Science             | 3         |
| EDU 497                                   | Teaching and Assessing                       | 3         |
| ENST 472                                  | General Science: Conservation Education      | 3         |
| M 162                                     | Applied Calculus                             | 4         |
| or M 171                                  | Calculus I                                   |           |
| 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                                  | Introduction to Statistics                   | 4         |
| <b>Total Hours</b>                        |  | <b>58</b> |

## Secondary Teaching Licensure

For endorsement to teach this subject, a student also must gain admission to the Teacher Education Program and meet all the requirements for secondary teaching licensure (<https://catalog.umt.edu/colleges-schools-programs/education/teaching-learning/lic-secondary-licensure/>). For more information, see the Teaching and Learning Department webpage (<https://www.umt.edu/education/departments/currinst/default.php>).