

BIOLOGICAL EDUCATION MINOR

This minor contains additional 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/>)
- 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 concentration must come from the Teaching and Learning Department.

Individuals completing this minor must also complete the education/teaching concentration of a major in another teaching content area.

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 - Biological Education Course Requirements

The lower-division core should be completed before attempting most upper division BIO- courses. AP Biology credit with a score of 3 may be substituted for either BIOB 160/BIOB 161N or BIOB 170N/BIOB 171N.

Code	Title	Hours
Biology/Microbiology Lower-Division Core		
Complete all of the following courses:		
BIOB 160	Principles of Living Systems	3
BIOB 161N	Principles of Living Systems Lab	1
BIOB 170N	Principles of Biological Diversity	3
BIOB 171N	Principles of Biological Diversity Lab	2
BIOB 260	Cellular and Molecular Biology	4

BIOB 272	Genetics and Evolution	4
----------	------------------------	---

Upper-Division Core Courses

Complete all of the following courses:

BIOM 360	General Microbiology	3
----------	----------------------	---

BIOB 361	General Microbiology Lab	2
----------	--------------------------	---

Mathematics

Complete all of the following courses:

M 162	Applied Calculus ¹	4
-------	-------------------------------	---

or M 171 Calculus I

STAT 216	Introduction to Statistics	4
----------	----------------------------	---

Chemistry

Complete all of the following courses:

CHMY 121N	Introduction to General Chemistry	4
-----------	-----------------------------------	---

CHMY 123	Introduction to Organic and Biochemistry	4
----------	--	---

CHMY 485	Laboratory Safety	1
----------	-------------------	---

Environmental Geosciences

Complete one of the following courses: 3

ERTH 101N Earth Systems Science

GEO 105N Oceanography

Education Course

Complete the following course:

EDU 497	Teaching and Assessing (Methods: 5 - 12 Science)	4
---------	--	---

Total Hours 46

¹ Choose M 171, if you plan to take additional calculus courses, or if you plan a double major or minor in a field that requires more calculus (e.g. math, physics, biochemistry, computer science).

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>).