

EARTH SCIENCE EDUCATION

Individuals interested in teaching in K-12 schools must complete a degree in the content area they want to teach plus the teacher preparation program through the Department of Teaching and Learning. Individuals must complete the teaching major/teaching track within that degree program, which may contain different course requirements than the academic major since the sequence of courses is designed to meet state standards. Upon completion of the degree program with the teaching track and the secondary licensure program, one will be eligible for a standard Montana teaching license in this content area.

- Secondary Education Licensure Program (<http://www.coehs.umt.edu/departments/currinst/undergradprograms/seced/default.php>)
- Licensure Degree Requirements (<http://catalog.umt.edu/past-catalogs/2017-2018/colleges-schools-programs/education-human-sciences/teaching-learning/lic-secondary-licensure>)

Bachelor of Science - Geosciences; Earth Science Education Option

College Humanities & Sciences

Degree Specific Credits: 70

Required Cumulative GPA: 2.0

Catalog Year: 2017-2018

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/past-catalogs/2017-2018/colleges-schools-programs/education-human-sciences/teaching-learning>) in the College of Education and Human Sciences for more information. A major GPA of 2.75 is required to be eligible for student teaching. This major does not qualify as a single field endorsement. Individuals must complete a second teaching major or minor in another content area.

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

Lower Division Core	17
Geosciences Core	
Environmental Geoscience Course	
Upper Division Geosciences	17
Physics	10
Chemistry	7
Math	8
Astronomy	3
Teaching Methods Course	4
Languages	4
Total Hours	70

Lower Division Core

Rule: Must complete all of the following courses

Minimum Required Grade: C-

17 Total Credits Required

Geosciences Core

Rule: Must complete all of the following courses.

GEO 101N	Introduction to Physical Geology	3
GEO 102N	Introduction to Physical Geology Lab	1
GEO 211	Earth's History and Evolution	4
GEO 225	Earth Materials	4
Total Hours		12

Minimum Required Grade: C-

Environmental Geoscience Course

Rule: Must complete one of the following.

GEO 105N	Oceanography	3
Total Hours		3

Minimum Required Grade: C-

Upper Division Geosciences

Minimum Required Grade: C-

17 Total Credits Required

Required Upper Division Geoscience

Rule: Complete all of the following.

GEO 304E	Science and Society	3
GEO 311	Paleobiology	3
GEO 315	Structural Geology	4
GEO 318	Climate System Dynamics	4
Total Hours		14

Minimum Required Grade: C-

Elective Upper Division Geoscience

Rule: Complete one additional GEO course at the 300- or 400-level

Note: GEO 320 is recommended to complete the upper division writing requirement in Geosciences but students may also select from the university-approved list of upper division writing courses to fulfill this requirement.

Physics

Rule: Must complete 1 of the following sequences

10 Total Credits Required

Physics

Rule: May complete the following sequence

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
Total Hours		10

Minimum Required Grade: C-

Physics with Calculus

Rule: May complete the following sequence

PHSX 215N	Fund of Physics w/Calc I	4
PHSX 216N	Physics Laboratory I w/Calc	1
PHSX 217N	Fund of Physics w/Calc II	4
PHSX 218N	Physics Laboratory II w/Calc	1
Total Hours		10

Minimum Required Grade: C-

Chemistry

Rule: Must complete the following courses

CHMY 121N	Introduction to General Chemistry	3
CHMY 123	Introduction to Organic and Biochemistry	3
CHMY 485	Laboratory Safety	1
Total Hours		7

Minimum Required Grade: C-

Math

Rule: Must complete one math and one statistics course

M 162	Applied Calculus	4
or M 171	Calculus I	
STAT 216	Introduction to Statistics	4
Total Hours		8

Minimum Required Grade: C-

Astronomy

Rule: Must complete the following course

ASTR 131N	Planetary Astronomy	3
Total Hours		3

Minimum Required Grade: C-

Teaching Methods 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.

EDU 497	Teaching and Assessing	4
Total Hours		4

Minimum Required Grade: C-

Languages

Rule: Must complete 1 of the following courses

Note: Students graduating in Geosciences may substitute one of these courses in place of the Modern and Classical Language requirement.

M 162	Applied Calculus	4
or M 171	Calculus I	
Total Hours		4

Minimum Required Grade: C-