

# INTERNATIONAL FIELD GEOSCIENCES JOINT

## Bachelor of Science - International Field Geos Joint

### College Humanities & Sciences

Degree Specific Credits: 108

Required Cumulative GPA: 2.0

### Catalog Year: 2017-2018

**Note:** This degree is designed specifically for students who seek to combine a rigorous education in the Geosciences with a yearlong international Geosciences experience and an emphasis on field-based learning. It requires attending classes and living overseas. Most of the course work completed during the year abroad will take place at University College Cork (UCC) in Ireland. For students who satisfy all degree requirements, a joint B.S. degree in International Field Geosciences will be awarded by The University of Montana and the University College Cork.

## 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	12
Upper Division Core	12
Degree Electives	15
Physics	10
Chemistry	8-10
Math	7-8
Computer Science	3-4
Upper Division Writing	4
Languages	8
German	
Irish	
Overseas Coursework	33-36
Total Hours	112-119

## Lower Division 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-

## Upper Division Core

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

Minimum Required Grade: C-

12 Total Credits Required

### Subcategory 1

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

GEO 315	Structural Geology	4
GEO 318	Climate System Dynamics	4
Total Hours		8

Minimum Required Grade: C-

### Subcategory 2

**Rule:** Must complete 1 of the following courses

GEO 309	Sedimentation/Stratigraphy	4
or GEO 443	Principles of Sedimentary Petrology	
Total Hours		4

Minimum Required Grade: C-

## Degree Electives

Select 15 credits from the following: 15

GEO 305	Igneous & Metamorph Petrology	
GEO 309	Sedimentation/Stratigraphy	
GEO 311	Paleobiology	
GEO 320	Global Water	
GEO 327	Geochemistry	
GEO 420	Hydrogeology	
GEO 433	Global Tectonics	
GEO 443	Principles of Sedimentary Petrology	
GEO 460	Process Geomorphology	
GEO 491	Special Topics	
Total Hours		15

Minimum Required Grade: C-

## Physics

10 Total Credits Required

Select one of the following sequences: 10

Option 1:		
PHSX 205N	College Physics I	
PHSX 206N	College Physics I Laboratory	
PHSX 207N	College Physics II	
PHSX 208N	College Physics II Laboratory	
Option 2 with Calculus:		
PHSX 215N	Fund of Physics w/Calc I	
PHSX 216N	Physics Laboratory I w/Calc	
PHSX 217N	Fund of Physics w/Calc II	

PHSX 218N	Physics Laboratory II w/Calc	
Total Hours		10

Minimum Required Grade: C-

## Chemistry

**Rule:** Must complete 1 of the following subcategories

8-10 Total Credits Required

Chemistry Option 1		8
CHMY 121N	Introduction to General Chemistry	
CHMY 123 & CHMY 124	Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Lab	
Chemistry Option 2		10
CHMY 141N & CHMY 142N	College Chemistry I and College Chemistry I Lab	
CHMY 143N & CHMY 144N	College Chemistry II and College Chemistry II Lab	

Minimum Required Grade: C-

## Math

**Rule:** Must complete 1 of the following subcategories

7-8 Total Credits Required

Math Option 1		7
M 162	Applied Calculus	
M 263	Applied Differential Equations (Applied Differential Equations)	
Math Option 2		8
M 171	Calculus I	
M 172	Calculus II	

Minimum Required Grade: C-

## Computer Science

Select one of the following:		3-4
CSCI 250	Computer Mdlng/Science Majors	
GPHY 284	Intro to GIS and Cartography	
STAT 216	Introduction to Statistics	
Total Hours		3-4

Minimum Required Grade: C-

## Upper Division Writing

**Rule:** Must complete the following course

**Note:** This course 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.

GEO 320	Global Water	4
Total Hours		4

Minimum Required Grade: C-

## Languages

**Rule:** Must complete 1 of the following subcategories (the "test out provision" applies as administered by the Department of Modern and Classical Languages and Literatures).

6-10 Total Credits Required

### German

**Rule:** May complete the following language sequence

GRMN 101	Elementary German I	4
GRMN 102	Elementary German II	4
Total Hours		8

Minimum Required Grade: C-

### Irish

**Rule:** May complete the following language sequence

IRSH 101	Elementary Irish	4
IRSH 102	Elementary Irish II	4
Total Hours		8

Minimum Required Grade: C-

## Overseas Coursework

**Rule:** Must complete the following courses and field work at University College of Cork and Potsdam University

**Note:** In addition to Geosciences coursework completed at UM students must complete the following:

- 1 formal field course module run by University College Cork, selected from
  - GL 2016 (Easter Field Course - Dingle Peninsula)
  - GL 3019 (Easter Field Course - Western Scotland)
  - ER 3002 (Easter Field Course - North Clare)
  - GL 4008 (Easter Field Course - Central Greece)
  - another equivalent-level field course run by UCC and approved apriori by their UCC and UM advisors
- While in residence at Cork, students must complete any 9 of the following courses in consultation with their UCC and UM advisors
  - Sed Processes and Petrology
  - Igneous and MM Petrology
  - Invertebrate Paleontology & Evolution
  - Plate Tectonics & Global Geophysics
  - Igneous Petrogenesis & Geochemistry
  - Metamorphism & Geochronology
  - Advanced Structural Geology
  - Sedimentary Environments
  - Stratigraphy & Geologic Maps
  - Environmental Geology

- k. Terr Ecosystems Through Time
  - l. Micropaleontology & Palynology
  - m. Petroleum Geology & Basin Analysis
  - n. Applied Geophysics & Computer Applications
  - o. Advanced Igneous Petrology
  - p. Hydrogeology
3. 1 formal upper-level Geosciences course at Potsdam University.  
Recommended are courses that focus on computer-based visualization or geoscience data using GIS or other visualization platforms

Minimum Required Grade: C-

33-36 Total Credits Required