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:

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:

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
- 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
- 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
- M 162  Applied Calculus

Math Option 2
- 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.

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
- GRMN 102  Elementary German II

Total Hours  8
Minimum Required Grade: C-

Irish

Rule: May complete the following language sequence
- IRSH 101  Elementary Irish
- IRSH 102  Elementary Irish II

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. 1 formal field course module run by University College Cork, selected from
   a. GL 2016 (Easter Field Course - Dingle Peninsula)
   b. GL 3019 (Easter Field Course - Western Scotland)
   c. ER 3002 (Easter Field Course - North Clare)
   d. GL 4008 (Easter Field Course - Central Greece)
   e. another equivalent-level field course run by UCC and approved apriori by their UCC and UM advisors

2. While in residence at Cork, students must complete any 9 of the following courses in consultation with their UCC and UM advisors
   a. Sed Processes and Petrology
   b. Igneous and MM Petrology
   c. Invertebrate Paleontology & Evolution
   d. Plate Tectonics & Global Geophysics
   e. Igneous Petrogenesis & Geochemistry
   f. Metamorphism & Geochronology
   g. Advanced Structural Geology
   h. Sedimentary Environments
   i. Stratigraphy & Geologic Maps
   j. 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