INTERNATIONAL FIELD GEOSCIENCES JOINT

Bachelor of Science - International Field Geosciences Joint

College of Humanities & Sciences

Degree Specific Credits: 108-115

Required Cumulative GPA: 2.0

Catalog Year: 2018-2019

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

Code	Title	Hours
Lower-Division Core		12
Upper-Division Core		12
Degree Electives		15
Physics		10
Chemistry		8-10
Math		7-8
Computer Science		3-4
Language Requirement		8
German		
Irish		
Overseas Coursework		33-36
Total Hours		108-115

Lower-Division Core

Code	Title	Hours
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: Complete all of the following subcategories. 12 total credits required.

Subcategory 1

Code	Title	Hours
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

Code	Title	Hours
Complete one of the following courses:		4
GEO 309	Sedimentation/Stratigraphy	
GEO 443	Principles of Sedimentary Petrology	
Total Hours		4

Minimum Required Grade: C-

Degree Electives

Code	Title	Hours
Complete 15 credits of the following courses:		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

Code	Title	Hours
Complete one of the following Physics sequences:		10
Algebra- and Trigonometry-based Physics:		
PHSX 205N & PHSX 206N	College Physics I and College Physics I Laboratory	
PHSX 207N & PHSX 208N	College Physics II and College Physics II Laboratory	
Calculus-based Physics:		
PHSX 215N & PHSX 216N	Fund of Physics w/Calc I and Physics Laboratory I w/Calc	

PHSX 217N & PHSX 218N	Fund of Physics w/Calc II and Physics Laboratory II w/Calc	
Total Hours		10

Minimum Required Grade: C-

Chemistry

Code	Title	Hours
Complete one of the following Chemistry sequences:		8-10
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	
Total Hours		8-10

Minimum Required Grade: C-

Math

Code	Title	Hours
Complete one of the following Math sequences:		7-8
Math Option 1		
M 162	Applied Calculus	
M 263	Applied Differential Equations (Applied Differential Equations)	
Math Option 2		
M 171	Calculus I	
M 172	Calculus II	
Total Hours		7-8

Minimum Required Grade: C-

Computer Science

Code	Title	Hours
Complete one of the following courses:		3-4
GPHY 284	Intro to GIS and Cartography	
STAT 216	Introduction to Statistics	
Total Hours		3-4

Minimum Required Grade: C-

Language Requirement

Note: The "test out provision" applies as administered by the Department of Modern and Classical Languages and Literature.

Code	Title	Hours
Complete one of the following language sequences:		8
German		
GRMN 101	Elementary German I	
GRMN 102	Elementary German II	
Irish		
IRSH 101	Elementary Irish	
IRSH 102	Elementary Irish II	
Total Hours		8

Minimum Required Grade: C-

Overseas Coursework

Code	Title	Hours
In addition to Geosciences coursework completed at UM, complete the following courses and field work at University College of Cork and the University of Potsdam:		33-36
Complete 1 of the following formal field course modules run by University College Cork:		
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, complete any 9 of the following courses in consultation with 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		
Terr Ecosystems Through Time		
Micropaleontology & Palynology		
Petroleum Geology & Basin Analysis		
Applied Geophysics & Computer Applications		
Advanced Igneous Petrology		
Hydrogeology		
Complete 1 formal upper-level Geosciences course at the University of Potsdam. Recommended are courses that focus on computer-based visualization or geoscience data using GIS or other visualization platforms.		
Total Hours		33-36

Minimum Required Grade: C-