INTERNATIONAL FIELD GEOSCIENCES DUAL

Bachelor of Science - International Field Geos Dual

College Humanities & Sciences

Degree Specific Credits: 100

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. For students who satisfy all degree requirements, a B.S. degree in International Field Geosciences will be awarded by The University of Montana and a second B.S. degree in International Field Geosciences will be awarded by the Potsdam University. The degree requirements specified below pertain both to UM-based and Potsdam-based students seeking their UM diploma. Potsdam-based students are eligible to satisfy any of the following specific requirements through credits that are transferred from Potsdam and approved as equivalent by the UM Geosciences undergraduate advisors.

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 8
Degree Electives 17
Physics 10
Chemistry 8-10
Math 7-8
Computer Science 3-4
Upper Division Writing 4
Languages 8
Overseas Coursework 27-30
Total Hours 104-111

Lower Division Core

Rule: Must complete all of the following courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 101N</td>
<td>Introduction to Physical Geology</td>
<td>3</td>
</tr>
<tr>
<td>GEO 102N</td>
<td>Introduction to Physical Geology Lab</td>
<td>1</td>
</tr>
<tr>
<td>GEO 211</td>
<td>Earth's History and Evolution</td>
<td>4</td>
</tr>
<tr>
<td>GEO 225</td>
<td>Earth Materials</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

Upper Division Core

Rule: Must complete all of the following courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 315</td>
<td>Structural Geology</td>
<td>4</td>
</tr>
<tr>
<td>GEO 318</td>
<td>Climate System Dynamics</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

Minimum Required Grade: C-

Degree Electives

Select 17 credits from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 305</td>
<td>Igneous &amp; Metamorph Petrology</td>
<td></td>
</tr>
<tr>
<td>GEO 309</td>
<td>Sedimentation/Stratigraphy</td>
<td></td>
</tr>
<tr>
<td>GEO 311</td>
<td>Paleobiology</td>
<td></td>
</tr>
<tr>
<td>GEO 320</td>
<td>Global Water</td>
<td></td>
</tr>
<tr>
<td>GEO 327</td>
<td>Geochemistry</td>
<td></td>
</tr>
<tr>
<td>GEO 420</td>
<td>Hydrogeology</td>
<td></td>
</tr>
<tr>
<td>GEO 433</td>
<td>Global Tectonics</td>
<td></td>
</tr>
<tr>
<td>GEO 460</td>
<td>ProcessGeomorphology</td>
<td></td>
</tr>
<tr>
<td>GEO 491</td>
<td>Special Topics</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

Minimum Required Grade: C-

Physics

Rule: Must complete 1 of the following sequences

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:

| 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHMY 121N</td>
<td>Introduction to General Chemistry</td>
<td>8</td>
</tr>
</tbody>
</table>

Minimum Required Grade: C-
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

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

Total Hours: 4
Minimum Required Grade: C-

Languages
Rule: UM outgoing students must complete the following language sequence (the "test out provision" applies as administered by the Department of Modern and Classical Languages and Literatures).

GRMN 101: Elementary German I 4
GRMN 102: Elementary German II 4
Total Hours: 8
Minimum Required Grade: C-

Overseas Coursework
Rule: Must complete the following courses and field work at Potsdam University

Note: In addition to Geosciences coursework completed at UM students must complete the following:
1. Selection of one field course run by Potsdam University listed below
   a. BP 15 (Field Course - France)
   b. BW01 (Field Course - Norway)
   c. BW02 (field Course - Alps)
2. Any 4 of the following courses offered by Potsdam University
   a. Regional Geology
   b. Paleoclimate @ Quaternary Geology
   c. Analysis of Geologic Maps
   d. Analytic Geochemistry
   e. Natural Hazards
   f. Tectonophysics & Rheology
   g. Seismology
   h. Seismics
   i. Geoelectrics
   j. Sedimentary Systems & Stratigraphic Geomorphology
   k. Tectonics and Geodynamics
3. 2 additional cognate science courses to be taken at Potsdam University

Minimum Required Grade: C-

27-30 Total Credits Required