**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**

<table>
<thead>
<tr>
<th>Component</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Division Core</td>
<td>12</td>
</tr>
<tr>
<td>Upper Division Core</td>
<td>8</td>
</tr>
<tr>
<td>Degree Electives</td>
<td>17</td>
</tr>
<tr>
<td>Physics</td>
<td>10</td>
</tr>
<tr>
<td>Chemistry</td>
<td>8-10</td>
</tr>
<tr>
<td>Math</td>
<td>7-8</td>
</tr>
<tr>
<td>Computer Science</td>
<td>3-4</td>
</tr>
<tr>
<td>Upper Division Writing</td>
<td>4</td>
</tr>
<tr>
<td>Languages</td>
<td>8</td>
</tr>
<tr>
<td>Overseas Coursework</td>
<td>27-30</td>
</tr>
<tr>
<td>Total Hours</td>
<td>104-111</td>
</tr>
</tbody>
</table>

**Lower Division Core**

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</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 Hours</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 Code</th>
<th>Course Title</th>
<th>Credits</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 Hours</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 Code</th>
<th>Course Title</th>
<th>Credits</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>Process Geomorphology</td>
<td></td>
</tr>
<tr>
<td>GEO 491</td>
<td>Special Topics</td>
<td></td>
</tr>
<tr>
<td>Total Hours</td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

**Minimum Required Grade:** C-

**Chemistry**

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

8-10 Total Credits Required

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

Minimum Required Grade: C-
International Field Geosciences Dual

Chemistry Option 2
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHMY 141N</td>
<td>College Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHMY 142N</td>
<td>College Chemistry I Lab</td>
<td>2</td>
</tr>
<tr>
<td>CHMY 143N</td>
<td>College Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>CHMY 144N</td>
<td>College Chemistry II Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

Minimum Required Grade: C-  

Math
Rule: Must complete 1 of the following subcategories

7-8 Total Credits Required

Math Option 1  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>M 162</td>
<td>Applied Calculus</td>
<td>3</td>
</tr>
<tr>
<td>M 263</td>
<td>Applied Differential Equations</td>
<td>2</td>
</tr>
</tbody>
</table>

Math Option 2  
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>M 171</td>
<td>Calculus I</td>
<td>3</td>
</tr>
<tr>
<td>M 172</td>
<td>Calculus II</td>
<td>2</td>
</tr>
</tbody>
</table>

Minimum Required Grade: C-  

Computer Science
Select one of the following:  
3-4 Total Credits Required

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 250</td>
<td>Computer Mdlng/Science Majors</td>
<td>3</td>
</tr>
<tr>
<td>GPHY 284</td>
<td>Intro to GIS and Cartography</td>
<td>1</td>
</tr>
<tr>
<td>STAT 216</td>
<td>Introduction to Statistics</td>
<td>1</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 320</td>
<td>Global Water</td>
<td>4</td>
</tr>
</tbody>
</table>

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).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRMN 101</td>
<td>Elementary German I</td>
<td>4</td>
</tr>
<tr>
<td>GRMN 102</td>
<td>Elementary German II</td>
<td>4</td>
</tr>
</tbody>
</table>

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