B.Sc. Honours Program: Major in Environmental Geoscience and Geomatics

Name: ___________________________________________ Student # _________________________

About the Program

Students in this degree program combine two exciting and dynamic fields of study; geoscience and geomatics. Geoscience is concerned with the natural and human-induced forces shaping the surface of our planet. Geomatics, the science involving spatial analysis using Geographic Information Systems (GIS) and satellite imagery, is a core component of the rapidly growing information sector worldwide. Graduates of this program will apply their expertise to environmental problems in agriculture, forestry, transportation, fisheries, mining, and environmental consulting.

Check-list [based on 2017-18 calendar]

Bring this list with you when you come for counselling and leave it with your counsellor in your semester of graduation. A list of counsellors is posted in the first floor corridor of the Hutt Building during registration period. At other times check with the secretary in Hutt 119

Semester 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG*1350</td>
<td>0.50</td>
<td>Earth: Hazards and Global Change</td>
</tr>
<tr>
<td>BIOL*1070</td>
<td>0.50</td>
<td>Discovering Biodiversity</td>
</tr>
<tr>
<td>CHEM*1040</td>
<td>0.50</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>PHYS*1080</td>
<td>0.50</td>
<td>Physics for Life Science</td>
</tr>
<tr>
<td>One of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH*1080</td>
<td>0.50</td>
<td>Elements of Calculus I</td>
</tr>
<tr>
<td>MATH*1200</td>
<td>0.50</td>
<td>Calculus I</td>
</tr>
</tbody>
</table>

Students who are lacking one 4U/grade 12 course in Biology, Chemistry or Physics must take the equivalent intro course in first semester. The required first-year science courses in that subject should be completed according to the revised schedule of studies available at bsc.uoguelphy.ca/revisedss.

Semester 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1090</td>
<td>0.50</td>
<td>Introduction to Molecular and Cellular Biology</td>
</tr>
<tr>
<td>CHEM*1050</td>
<td>0.50</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>GEOG*1300</td>
<td>0.50</td>
<td>Introduction to the Biophysical Environment</td>
</tr>
<tr>
<td>PHYS*1130</td>
<td>0.50</td>
<td>Physics with Applications</td>
</tr>
<tr>
<td></td>
<td>0.50</td>
<td>Arts or Social Science electives * (GEOG*1220 is recommended)</td>
</tr>
</tbody>
</table>

Semester 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG*2000</td>
<td>0.50</td>
<td>Geomorphology</td>
</tr>
<tr>
<td>GEOG*2420</td>
<td>0.50</td>
<td>The Earth from Space</td>
</tr>
<tr>
<td>GEOG*2480</td>
<td>0.50</td>
<td>Mapping and GIS</td>
</tr>
<tr>
<td>ENVS*2240</td>
<td>0.50</td>
<td>Fundamentals of Environmental Geology</td>
</tr>
<tr>
<td></td>
<td>0.50</td>
<td>Arts or Social Science electives</td>
</tr>
</tbody>
</table>
Semester 4
____ GEOG*2110 [0.50] Climate and the Biophysical Environment
____ GEOG*2210 [0.50] Environment and Resources
____ STAT*2040 [0.50] Statistics I
One of:
____ CIS*1200 [0.50] Introduction to Computing
____ CIS*1500 [0.50] Introduction to Programming
____ MATH*1210 [0.50] Calculus II
____ MATH*2080 [0.50] Elements of Calculus II
1.00 approved Science electives

Semester 5
____ GEOG*3000 [0.50] Fluvial Processes
____ GEOG*3110 [0.50] Biotic and Natural Resources
One of:
____ GEOG*3020 [0.50] Global Environmental Change
____ GEOG*3090 [0.50] Gender and Environment
____ GEOG*3210 [0.50] Management of the Biophysical Environment
1.00 electives, at least 0.50 from approved Science electives

Semester 6
____ GEOG*3420 [0.50] Remote Sensing of the Environment
____ GEOG*3480 [0.50] GIS and Spatial Analysis
____ GEOG*3610 [0.50] Environmental Hydrology
1.00 electives, at least 0.50 from approved Science electives

Semester 7
____ GEOG*4110 [1.00] Environmental Systems Analysis
1.50 electives, at least 1.00 from approved Science electives (GEOG*4690 is recommended)

Semester 8
____ GEOG*4150 [0.50] Catchment Processes
____ GEOG*4480 [1.00] Applied Geomatics
1.00 approved Science electives

Credit Summary
4.50 First year Science credits
3.00 Approved Science electives
8.00 Required Science courses semesters 3–8
1.00 Arts and/or Social Science electives
1.00 Required Social Science courses semesters 3–8
2.00 Free electives

Course Substitutions
Required course
Course substituted
Date
Signature

Date of entry to program: ________________

November 16, 2015