

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

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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

<b>GEOG*1350</b>	<b>[0.50]</b>	<b>Earth: Hazards and Global Change</b>
BIOL*1070	[0.50]	Discovering Biodiversity
CHEM*1040	[0.50]	General Chemistry I
PHYS*1080	[0.50]	Physics for Life Science
One of:		
MATH*1080	[0.50]	Elements of Calculus I
MATH*1200	[0.50]	Calculus I

*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.uoguelph.ca/revisedss](http://bsc.uoguelph.ca/revisedss).*

### Semester 2

BIOL*1090	[0.50]	Introduction to Molecular and Cellular Biology
CHEM*1050	[0.50]	General Chemistry II
<b>GEOG*1300</b>	<b>[0.50]</b>	<b>Introduction to the Biophysical Environment</b>
PHYS*1130	[0.50]	Physics with Applications

0.50 Arts or Social Science electives \* (**GEOG\*1220** is recommended)

### Semester 3

<b>GEOG*2000</b>	<b>[0.50]</b>	<b>Geomorphology</b>
<b>GEOG*2420</b>	<b>[0.50]</b>	<b>The Earth from Space</b>
<b>GEOG*2480</b>	<b>[0.50]</b>	<b>Mapping and GIS</b>
ENVS*2240	[0.50]	Fundamentals of Environmental Geology

0.50 Arts or Social Science electives

## 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

8.00 Required Science courses semesters 3–8

1.00 Required Social Science courses semesters 3–8

3.00 Approved Science electives

1.00 Arts and/or Social Science electives

2.00 Free electives

## Course Substitutions

Required course \_\_\_\_\_

Course substituted \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Date of entry to program: \_\_\_\_\_