



# GEOMATICS

BACHELOR OF ENVIRONMENTAL STUDIES

CO-OP AVAILABLE

## 8 COMPUTER SCIENCE COURSES

to add a Computing Option to your degree

## *Map your future*

Harness the power of computer science and geographic data to understand our changing world.

In Geomatics you'll gain a strong foundation in software development, technology, and environmental analysis. You'll learn how to apply these skills to a range of industries, using tools you'll find in industry, such as unmanned aerial vehicles, remote sensing, computer mapping, geographic information systems (GIS), and GPS. You'll also learn the fundamentals of software design in Waterloo's world-class Cheriton School of Computer Science.

### YOUR FIRST YEAR

#### SEPTEMBER TO DECEMBER

- › GEOG 181 Designing Effective Maps
- › GEOG 187 Problem Solving in Geomatics
- › ENVS 178 Environmental Applications of Data Management and Statistics

#### Choose one of:

- › ENGL 109 Introduction to Academic Writing
- › ENGL 129R/EMLS 129R Written Academic English

#### Choose one of:

- › CS 115 Introduction to Computer Science 1
- › CS 135 Designing Functional Programs

#### JANUARY TO APRIL

- › GEOG 101 - Human Geographies: People, Space and Change
- › GEOG 281 - Geographic Information Systems (GIS)
- › ENVS 278 - Applied Statistics for Environmental Research

#### Choose one of:

- › CS 116 Introduction to Computer Science 2
- › CS 136 Elementary Algorithm Design and Data Abstraction

#### Choose one of:

- › MATH 106 Applied Linear Algebra 1
- › MATH 114 Linear Algebra for Science

AUJAS

GEOMATICS

Co-op allows you to apply your skills in the field and try out different industries before graduating. Aujas spent his work terms with both public and private sector companies, including Statistics Canada as a remote sensing and geospatial analyst – he worked with data grabbed from space satellites! A recent graduate, Aujas now works for the City of Oshawa as an Asset Management Data Analyst.

\*This is a sample schedule only. Timing of courses is subject to change.



UNIVERSITY OF  
**WATERLOO**

## CAREERS IN GEOMATICS

You'll gain the technical expertise and hands-on experience to get a head start on building a career in this exciting field. Apply your degree to a range of industries:

- > **Insurance:** collect and analyze data to understand the costs and risk of extreme weather
- > **Government:** track crime rates or the incidence of disease across the population
- > **Retailers:** map demographics to identify new clients or locations for expansion
- > **Municipalities:** plan efficient transportation routes, how land will be used, or community services to provide

## GRADS AT WORK

- > GIS Technician, Pelmorex Media Inc.
- > Java Developer, Genworth Canada
- > Senior Application Analyst, Accenture Inc. (US)
- > Analyst, Department of National Defence
- > Applications Support Engineer, exactEarth Ltd.

## CAREER INFO

[uwaterloo.ca/future/careers/environment-sustainability](http://uwaterloo.ca/future/careers/environment-sustainability)

# CHART YOUR COURSE

You have the option to apply to the five-year co-op program or fast-track in the four-year regular option. In co-op, you'll alternate study and paid work terms.

## 20 MONTHS

of paid work experience before you graduate

## EARN \$6,600-\$15,650

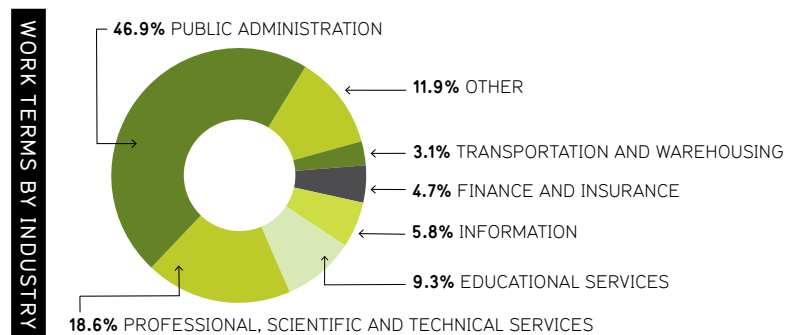
per co-op term

## WORK AND STUDY SCHEDULE

YEAR	TERM	STUDY/WORK
1	Fall	Study
	Winter	Study
	Spring	Off
2	Fall	Study
	Winter	Work
	Spring	Study
3	Fall	Work
	Winter	Study
	Spring	Work
4	Fall	Study
	Winter	Work
	Spring	Study
5	Fall	Work
	Winter	Study
	Spring	Off

## SAMPLE CO-OP JOBS

- > Geomatics Technician, Agriculture and Agri-Food Canada
- > Distribution & Geospatial Intelligence Analyst, TD Bank Group
- > Full Stack Developer, 360insights
- > Process Engineering GIS, Purolator Inc



## ADMISSIONS

- > **Required courses:** Six Grade 12 U or M courses, including any Grade 12 U English (minimum final grade of 70% is required) and any Grade 12 U Mathematics (minimum final grade of 70% is required)
- > **Admissions average:** Low 80s

FACULTY OF ENVIRONMENT  
UNDERGRADUATE ADMISSIONS  
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