ENVIRONMENT

#BEOYONDIDEAS
When Cai was applying to university, what stood out to him about Waterloo was that his chosen program was part of an entire faculty dedicated to the environment, which meant he would be surrounded by people who share his passion for sustainability.

Active in the campus community, Cai has a leadership role in the Environmental Student Society and is a co-founder of the Waterloo Geospatial Club.

Join a global movement advocating for a greener, more sustainable world — because #earthgoals. And do it your way. Get outdoors and protect vulnerable ecosystems. Command a boardroom and make environmentally responsible business decisions. Design liveable communities close to home. Or work toward economic equality overseas. How do you want to leave your (carbon-free) mark on the world?
LOCALLY GROWN. GLOBAL IMPACT.

Innovative features make Environment 3 the greenest building on campus, and one of only 150 buildings in Canada with LEED Platinum certification.

Sustainability isn’t just a side-gig at Waterloo. We have an entire faculty dedicated to environmental studies, which means you’ll be surrounded by a whole community that shares your passion for environmental and social change.

THE WORLD IS YOUR CLASSROOM

In Environment, you won’t just sit in the classroom learning how to make the world better: you’ll take real action. Test water quality in a local creek with help from our Ecology Lab. Study disaster tourism in Indonesia on a field course. Design efficient transit routes in Toronto on a co-op term. You’ll have countless opportunities to gain hands-on experience in the field, and in communities and organizations around the world.

CAREER-READY BY GRADUATION

Choose a 5-year co-op program to try out different jobs and industries, and make valuable career contacts. Or, in a 4-year regular (non-co-op) program, use flexible summer terms to work, volunteer, travel, or take classes to fast-track to graduation. Whichever you choose, there are plenty of resources to help launch your career.

CO-OP:
Alternate study terms with paid work terms and gain 20 months of work experience by the time you graduate. We’ll guide you through the process of landing a job with one of our 6,700 employers.

EDGE CERTIFICATE
Waterloo’s experiential education certificate for students in non-co-op programs helps you develop professional skills, explore career options, and market yourself to employers.

ST. PAUL’S GREENHOUSE
Have a great idea to change the world? Put your passion for social innovation to work in the GreenHouse social-impact incubator.

2-storey indoor BIOWALL

460 m² green rooftop garden patio

67,000 kwh generated by solar panels annually (enough to power 5 homes for a year)
A DAY IN THE LIFE AT ENV

We asked upper-year student Brodie to document a typical day as a Waterloo Environment student. These are the moments Brodie captured.

Get the full story at: uwaterloo.ca/env/day-in-the-life
To influence organizations big and small, you have to speak the language of both the CEO and community activist. With a degree in Environment and Business, you’ll stand out to future employers with your business acumen and understanding of environmental issues. You’ll gain expertise in stakeholder engagement, industrial ecology, and environmental decision-making while developing core business skills in finance, project management, accounting, marketing, and law.

Sample course topics: environmental management systems, ecological economics, social marketing, industrial ecology, microeconomics, accounting for managers.

APPLY THESE SKILLS

- Develop business plans for green energy firms
- Analyze the environmental records of a Fortune 500 company
- Help businesses reduce their ecological impact

#BEYONDIDEAS

Environment and Business prepares you for the workplace with 20 months of co-op education and a final capstone project. Working in small groups, you’ll be matched with an industry partner and help them integrate sustainability into their organization. Tristan’s capstone involved an environmental audit for a large retailer. “Our client trusted that we were the experts and let us run with what we saw as the best way forward.”
Complex problems need to be looked at from different angles. In Environment, Resources and Sustainability, you'll use insights from the natural and social sciences to help solve some of the world's biggest environmental challenges, from water and food to energy and biodiversity. Explore the interactions between people and nature that lie at the heart of socio-ecological challenges and learn to change society's perspective on the environment.

Sample course topics: applied ecology and restoration, environmental governance, research methods, economics and sustainability

26 ELECTIVES
Add a double-major, minor, or option

WORK ONE-ON-ONE
with a professor on an 8-month capstone research project

EARN DIPLOMAS
in Environmental Assessment and Ecological Restoration and Rehabilitation

APPLY THESE SKILLS
Bring your knowledge to a growing number of fields:
- Green technology
- Ecological restoration
- Environmental law and governance

Bailey was part of a group of 7 Waterloo students who travelled to Marrakesh, Morocco, for COP22, the United Nations' global conference on climate change. She joined representatives from more than 196 countries working together to fight global warming. “COP22 confirmed my decision to be part of the bigger picture. I want to pursue environmental policy as a career.”

With flexible requirements and room for plenty of electives, Bailey was able to add a Philosophy minor to her degree, and was also part of the GreenHouse social innovation incubator, where she developed an app to help people find environmental alternatives when renovating a house. “I could take my degree in any direction I wanted.”
GEOGRAPHY AND AVIATION

Let’s fly

Explore aviation as both a geographer and a pilot. You’ll earn a degree while completing flight training to acquire your commercial pilot licence, which includes your multi-engine and multi-instrument ratings. Gain a deep understanding of landforms, weather patterns, and the computer technology behind tools such as geographic information systems (GIS) and remote sensing.

Sample course topics: geography and human habitat, human factors in aviation, physical climatology, principles of GIScience

STUDY AND FLIGHT TRAINING SEQUENCE

You’ll take your flight training at the Waterloo Wellington Flight Centre, one of the five largest flight schools in Canada.

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<thead>
<tr>
<th>YEAR</th>
<th>FALL TERM</th>
<th>WINTER TERM</th>
<th>SPRING TERM</th>
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<tbody>
<tr>
<td>1</td>
<td>Study</td>
<td>Study + Flight (20 hours)</td>
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<td>2</td>
<td>Study + Flight (20 hours)</td>
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SPECIALIZATIONS AVAILABLE

- Climate Change
- Earth Systems Science
- Geomatics
- Development and Environment

CHELSEA ANNE
FACULTY OF ENVIRONMENT
GEOGRAPHY AND AVIATION

Chelsea Anne recalls her mixture of excitement and nerves before taking off on her first solo flight. “I got in the air and realized, I’ve done this a million times. I can do it. It was amazing.”

#BEYONDIDEAS

In partnership with the University of Waterloo and Waterloo Wellington Flight Centre, Sunwing Airlines launched a cadet program to recruit the most promising young pilots in Canada. Chelsea Anne was one of four Waterloo Aviation graduates to be hired immediately after graduation and complete the rigorous cadet program. All 4 recruits are now flying as First Officers.
Explore the world

Geographers have a long tradition of exploring how the Earth’s human and physical environments are constantly changing. You’ll learn the advanced technical skills required to help solve many of the most pressing issues of our time, such as climate change; the impact of environment on health; water and land resource management; global population growth; urban development; and more.

Sample course topics: population dynamics, water and soil systems, transportation, food systems, geographic information systems, tourism, statistics, economic inequality, climate change and research methods.

SPECIALIZATIONS AVAILABLE
- Climate Change
- Development and Environment
- Earth Systems Science
- Geomatics

TOP 5 in Canada for Geography – QS World University Rankings

TRAVEL to Nepal, Indonesia, China, or the UK for field studies

22 ELECTIVES
Add a double-major, minor, or option

#BEYONDIDEAS
Use your co-op terms to explore different fields and apply your technical skills. Conduct spatial analysis to help a national retailer decide where to open new stores, test equipment for a major GPS company, or test soil and water quality in a lab. Whether you’re passionate about physical sciences, social sciences, or technology, concentrate in one area or try them all.

TINA
FACULTY OF ENVIRONMENT
GEOGRAPHY AND ENVIRONMENTAL MANAGEMENT

Gain hands-on experience with real-world applications: collect and analyze water samples, use advanced mapping software, and see the impacts of cities changing over time. You’ll also develop essential skills in research methods, policy analysis, and data analysis.
More than 80% of the world’s information has a location component to it. Geomatics combines computer science with geographic data analysis. You’ll learn to use tools, such as remote sensing, computer mapping, geographic information systems (GIS), and global positioning systems (GPS), to analyze a wide variety of information and make informed decisions.

Sample course topics: spatial analysis, computer programming, statistics, surveying, database development, unmanned aerial vehicle (UAV) use, enterprise information technology, web development, satellite imagery.

**Specializations Available**
- Climate Change
- Development and Environment
- Earth Systems Science

**Apply These Skills**
- Business: help businesses determine where to expand
- Public health: track the incidence of disease
- Urban planning: plan land use and transportation routes

**Access Cool Technology**
such as UAVs, satellite data, and high-end software

**Develop**
software apps in class and pitch them to real businesses

**#BeyondIdeas**
Learn the fundamentals of software design in one of the world’s top computer science schools. Geomatics includes 4 computer science courses at the David R. Cheriton School of Computer Science. Take additional courses to add a computing option to your degree.

**Geomatics**

**Co-op Available**

Geomatics students can expect a mix of fieldwork, classwork and lab time, plus paid work experience in the co-op stream. Geomatics has applications across many industries: you might develop mapping software, support disaster recovery efforts, or inform economic and environmental policy.
INTERNATIONAL DEVELOPMENT

Be a catalyst for change

Assist communities by tackling problems of economic inequality, social injustice, and environmental change. On campus, you’ll strengthen your adaptability, critical-thinking skills, and entrepreneurial savvy through courses in international development, environmental studies, social sciences, languages, and more business courses than in any other international development program in Canada. Then apply everything you’ve learned on an 8-month overseas placement, or select the research specialization to work on a thesis.

Sample course topics: economics, culture and ethics, cities and development, environmental research methods, planning, geography

Apply for one of four St. Paul’s International Development Continuing Scholarships valued at $10,000

If you choose to participate in the 8-month overseas placement, your placement is guaranteed. Our field placement coordinator will help you find the right experience.

OVERSEAS PLACEMENT

» Centre for the Study and Promotion of Development (DESCO), Lima, Peru
» Fair Trade Group Nepal, Kathmandu, Nepal
» Solidarité et entraide mutuelle au Sahel (SEMUS), Yako, Burkina Faso
» Centre for Sustainable Rural Development, Hanoi, Vietnam

STUDY SCHEDULE

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<tr>
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<td>4</td>
<td>Overseas Placement*</td>
<td>Overseas Placement and capstone*</td>
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*Students return to campus from their field placement for a 1-week capstone session in April.
We built this city

Tackle the environmental and social challenges facing our cities and rural areas. In this accredited professional program, you’ll learn to manage the sustainable growth of communities. As a planner, you’ll learn to guide residential development, design efficient transportation routes, create programs that make communities healthier, or advise governments and private companies on environmental issues.

Sample course topics: economics, law, design and communication, public health, issues in housing, transportation planning and analysis.

SPECIALIZATIONS AVAILABLE

- Urban Design
- Environmental Planning and Management
- Decision Support and Geographic Information Systems
- Land Development Planning

APPLY THESE SKILLS

- Design urban spaces
- Preserve natural spaces and parks
- Develop transportation networks
- Create economic capacity in communities

As a transit planner with the Toronto Transit Commission (TTC), Eric is part of a team that moves more than 1.8 million people every day as efficiently as possible. While at Waterloo, he worked with the TTC on co-op terms, then was hired after graduation.
ENVIRONMENT AT WORK

We checked in with recent grads within 5 years of graduating, and they’re employed in a wide range of jobs and industries. When it comes to working for a more sustainable future, the opportunities are endless.

<table>
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<tr>
<th>Field</th>
<th>Employment Percentage</th>
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<tbody>
<tr>
<td>Agriculture, Utilities, Mining, and Construction: Oil and gas</td>
<td>10%</td>
</tr>
<tr>
<td>Forestry</td>
<td>10%</td>
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<tr>
<td>Green energy</td>
<td>10%</td>
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<tr>
<td>Real estate development</td>
<td>10%</td>
</tr>
<tr>
<td>Manufacturing, Distribution, and Retail: Corporate offices of large retailers</td>
<td>10%</td>
</tr>
<tr>
<td>Manufacturing and supply chain operations</td>
<td>10%</td>
</tr>
</tbody>
</table>

| Environment and Business | 33% |
| Public Administration: Municipal governments | 17% |
| Provincial and federal ministries and services | 9% |
| Leisure and Hospitality: National and provincial parks | 4% |
| Outdoor recreation | 3% |
| Education: Secondary schools | 5% |
| Universities and colleges | 2% |
| Transportation: Airports | 5% |
| Airlines | 3% |
| Professional, Scientific, and Technical Services: Consulting firms | 8% |
| Engineering firms | 7% |
| High tech and telecommunications | 5% |
| Finance and Insurance: Banks | 10% |
| Insurance companies | 5% |
| Investment firms | 4% |
| Health Care and Social Assistance: Hospitals | 2% |
| Public health research centres | 1% |

ENVIRONMENT SUBPLANS

Add additional areas of study through minors, options and diplomas. Find out more in the undergraduate calendar.

uwaterloo.ca/env/scholarships

SCHOLARSHIPS

Dean of Environment’s Scholarship for Excellence: $7,500

In addition to Waterloo’s President’s Scholarship program, the Faculty of Environment offers additional automatic entrance scholarships to incoming Environment students who meet certain criteria. Learn more at uwaterloo.ca/env/environment-at-work