



# ENVIRONMENTAL SCIENCE AND STUDIES

- 1 ENVIRONMENTAL SCIENCE
- 2 ENVIRONMENTAL STUDIES



University  
of Windsor

If you are curious or concerned about climate change, pollution, resource depletion and degradation, loss of biodiversity, invasive species, or conservation of natural habitats, our Environmental programs offer you exciting study and career opportunities.

Environmental Science students apply tools and principles from biology, chemistry, physics, geology, geography, hydrology, climatology, and geographic information systems (GIS), among others, to characterize and analyze how the physical and living environment functions and how it is affected by human activities.

Environmental Studies students connect the tools and principles of environmental science with principles from social science, arts, and humanities to characterize and analyze complex human-environment interactions and formulate effective ethical, political, and social strategies to address human impacts.

Our comprehensive, integrated, systems-based approach combines classroom, laboratory, and field studies to provide you with the knowledge and skills necessary to guide sustainable development and use of precious Earth resources, and to mitigate human-induced environmental impact and change.





## 1 ENVIRONMENTAL SCIENCE

The Great Lakes watershed hosts the largest freshwater resource in the world. The University of Windsor is located at its heart—an unequalled natural laboratory to study the environment and develop solutions to important environmental issues, on both global and local levels.

Our classes provide you with a comprehensive learning experience, incorporating all major components of the physical and living environment—geosphere, hydrosphere, atmosphere and biosphere.

During your first two years of study, you will receive grounding in scientific principles pertaining to environmental systems and natural processes, as well as human influences and interactions. This includes hands-on experience in fieldwork, laboratories, and computer visualization.

Third- and fourth-year courses focus on such complex and evolving issues as environmental impact and assessment, sustainable resource use and management, climate change mitigation, and ecosystem health.

The flexibility of our curriculum allows you to specialize in aspects of the environment that might be of particular interest to you, such as environmental chemistry, hydrogeology, and climatology.

Required courses in scientific writing and field methods provide you with practical knowledge and essential skills.

In addition, with appropriate course selection, you can obtain knowledge requirements for various professional certifications or accreditations, such as ECO Canada and APGO (Association of Professional Geoscientists of Ontario).

Options for obtaining program minors in Earth Science or Geography, as well as a geography teachable subject, are also available. If you are interested in graduate study, we encourage you to undertake a thesis project during the fourth year of the program.

Our faculty members include internationally renowned scientists with active research programs in a variety of natural resource and environmental areas. Many faculty members also maintain appointment in the Great Lakes Institute for Environmental Research (GLIER). Students are often invited by faculty to become directly involved in these research programs through Outstanding Scholar placements, employment, internships, volunteer opportunities, or thesis studies.

In addition to a rewarding career as a scientist, an Environmental Science degree can provide appropriate background training for professions such as law, medicine, or business—combinations that are extremely attractive to employers, such as consulting companies, regulators, and litigators.

To see a sample first-year schedule, visit the online Guide to Registration website ([www.uwindsor.ca/courseselection](http://www.uwindsor.ca/courseselection)), click on the

“Science Programs” link on the left, and select the specific program(s) in which you are interested.

## STUDENT RESOURCES

State-of-the-art laboratory, field, and computer equipment are used throughout the Environmental Science program. Dedicated classrooms and laboratories provide students with opportunities for training in GIS, remote sensing, assessment and analysis, environmental chemistry, and environmental physics.

The Resource Centre, open to all of our students, is staffed by graduate and senior undergraduate students who can provide assistance with course-related questions.

## CAREER PATHS

- Resource and manufacturing industries (permitting, monitoring, compliance, remediation)
- Government sector (regulation, monitoring, enforcement)
- Consulting companies
- Management and conservation
- Education (with additional studies)
- Law (with additional studies)
- Research

## ADMISSION REQUIREMENTS

The OSS Diploma and six Grade 12 U or M courses, including ENG4U, are required. MHF4U, SCH4U and SBI4U required. SPH4U and MCV4U are recommended.



## 2 ENVIRONMENTAL STUDIES

The Environmental Studies program at the University of Windsor provides an integrated, multidisciplinary, and systems-based approach to understanding human interactions with and influences on the natural, built, social, and organizational environments.

Earth's environment is everything surrounding us – living and non-living. This includes not only the natural environment, but also built, social, and organizational human environments, as well as the relationships and interactions between these environments.

Incorporating aspects of science, social science, humanities, and arts, the program characterizes and analyzes complex human environment interactions and formulates effective ethical, political, and social strategies to address human impacts.

Our Bachelor of Environmental Studies program blends diverse academic disciplines to create a one-of-a-kind learning experience. The program introduces you to the range of social, cultural, economic, political, legal, and ethical factors influencing human interaction with the environment. At the same time, you will gain literacy

in aspects of the physical and biological sciences in order to better understand natural environmental processes.

You will learn techniques for obtaining, analyzing, and interpreting environmental information, such as academic literature and public reports, statistics, case studies, and map data. You will get practice with many methods of environmental analysis, data visualization, and presentation, such as geographic information systems (GIS), remote sensing, aerial photography, cartography, cost-benefit analyses, environmental impact assessment, questionnaire design, and field measurement.

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## EXPERIENTIAL LEARNING

Independent research projects are available in the fourth year of the program, which are supervised by University faculty or external organizations. Example external partners include the Great Lakes Institute for Environmental Research (GLIER), Essex-Windsor Solid Waste Authority, and the Essex Region Conservation Authority. An optional field course is available to third-year students and other international field course experiences can be arranged in consultation with a program counsellor.

## CAREER PATHS

- Auditing
- Impact and quality assessment
- Planning and resource management
- Sustainability policy and practice
- Conservation and restoration
- Law, regulation, and policy (with additional studies)
- Recreation and eco-tourism

## ADMISSION REQUIREMENTS

Minimum 70% average. Ontario Secondary School graduates require six Grade 12 U or M courses, including ENG4U.

## FINANCIAL AID

For entrance and in-course award opportunities, please visit our Award Search at [my.uwindsor.ca](http://my.uwindsor.ca). Click on the Financial Matters heading and then Search for Awards in the sidebar.

In addition to entrance awards, the **Outstanding Scholars Program** attracts top high school students entering any first-year honours undergraduate program at the University of Windsor. Approximately 100 high-achieving, first-year

students will be offered status as an Outstanding Scholars Candidate in Year 1 of their studies. The goal of this program is to challenge and stimulate students by providing them with the unique opportunity of holding an undergraduate academic appointment in their second year of studies and beyond where students will work closely with faculty on academic research projects.

For more information, please visit: [uwindsor.ca/outstandingscholars.ca](http://uwindsor.ca/outstandingscholars.ca)

### STUDENT RECRUITMENT OFFICE

Phone: 519-973-7014  
Toll-Free (Canada/US): 1-800-864-2860  
Email: [info@uwindsor.ca](mailto:info@uwindsor.ca)  
[uwindsor.ca/future](http://uwindsor.ca/future)

### DEPARTMENT OF EARTH AND ENVIRONMENTAL SCIENCES

Phone: 519-253-3000, Ext. 2528  
Email: [earth@uwindsor.ca](mailto:earth@uwindsor.ca)  
[uwindsor.ca/ees](http://uwindsor.ca/ees)