

Geography and Environmental Management

Undergraduate Degree Programs

General B.A., 3-Year, Geography and Environmental Management

Honours B.A., Geography and Environmental Management

**Honours B.A., Geography and Environmental Management, Arts
and Business Regular**

Joint Honours with Geography and Environmental Management

Minor in Geography and Environmental Management

The structure of the geography and environmental management programs at the University of Waterloo have three main characteristics. The Department of Geography and Environmental Management attempts to strike a balance between the theoretical and methodological aspects of the discipline, on the one hand, and the practical application of geographical concepts to contemporary economic, social, and political problems, on the other hand. The geography and environmental management program is designed not only to integrate the various sub-fields of geography, but also to enable students to incorporate the study of other related disciplines into their programs. The program is flexible enough to allow students to design courses of study which enable them to specialize in any one of a number of the sub-fields of geography. A wide variety of courses is available in the following areas:

Earth Systems Science

(climate change, geomorphology, hydrology, wetlands)

Geomatics

(geographic information systems, remote sensing, G.P.S.)

Development and Environment

(urban form, resource management, natural hazards, field ecology, retail location, location of economic activity)

Geography and Environmental Management is available in both the Faculty of Arts (leading to a B.A.) and the Faculty of Environment (leading to a B.E.S.).

The Department of Geography and Environmental Management offers both Master's (MA and MES) and Doctoral (PhD) graduate programs as part of the joint Waterloo-Wilfrid Laurier Graduate Program in Geography. At the graduate level, course work and research are concentrated on a specific subfield of geography and environmental management. Areas of research specialization include: Physical Geography; Spatial Data Handling; Urban and Economic Geography; Resources Management; Tourism and Regional Geography.

Courses in the Major

Advanced Remote Sensing Techniques Field Research
Approaches to Research in Human Geography
Approaches to Research in Physical Geography
China: Diverse and Dynamic
Computer Cartography: Principles and Design
Conservation/Resource Management of the Built Environment
Earth From Space Using Remote Sensing
Economic Analyses for Regional Planning
Energy Balance Climatology
Environment and Behaviour
Environment and Development in a Global Perspective
Environmental Hydrology
Field Research in Regional Geography
Field Studies in: Britain/Dominican Republic/Chile
Fluvial Geomorphology
Geodesy and Surveying
Geographical Study of Canada
Geographies of Development
Geography and Human Habitat
Geography and Our Planetary Environment
Geography of the Global Economy
Geography of Tourism
Geography of Transportation
Geomorphology and the Southern Ontario Environment
Global and Local Dimensions of Industrial Restructuring
Global Food Systems
Health, Environment and Planning
Human Dimensions of Global Climate Change
Human Dimensions of Natural Hazards
Hydroclimatology
Image Interpretation and Photogrammetry
Introduction to Geographic Information Systems (GIS)
Japan and the Pacific Rim
Local Development in a Global Context
Multivariate Statistics
On Becoming a Geographer
Perspective on International Tourism
Physical Climatology
Physical Hydrology
Recreation Geography
Resources Management
Retail Location
Settlements of Rural Canada
Soil in the Environment
Spatial Analysis
Spatial Databases
Study Abroad – Lausanne, Switzerland
Study Abroad – Leeds, England
The United States
Tourism Lecture Series
Urban and Economic Systems: Inter-City and Global Connection
Urban Form and Internal Spatial Structure
Wetlands

Careers

Here is a sample of positions held by our graduates:

Administrator, *Habitat for Humanity - National Office*
Business Systems Analyst, *North American Life*
Climate Researcher, *Meteorological Services Canada*
Director Planning & Economic Development, *Town of Canmore*
Environmental Manager, *Goodyear Tire & Rubber Co.*
Senior Aggregate Specialist, *Golder Associates Ltd.*
Policy Co-ordinator, *Grand River Conservation Authority*
Project Geologist, *Gorrell Resources Investigations*
Senior Policy Researcher, *Ontario Federation of Agriculture*

Careers in Earth Systems Science

Arborist, *City of Kitchener*
Environmental Geologist, *Intermap Technologies Inc.*
Environmental Scientist, *AGRA Earth & Environmental Ltd.*
Field Researcher, *A & L Laboratories Canada East Inc.*
Fire & Vegetation Specialist, *Parks Canada*
Geologist, *Petro-Canada Inc.*
Geomorphologist, *Klohn Leonoff Ltd.*
Hydrographer, *Fisheries & Oceans Canada*
Project Scientist, *Jacques Whitford Environment Ltd.*
Senior Resource Technician, *Ministry of Natural Resources Ontario*
Water Efficiency Inspector, *Regional Municipality of Waterloo*
Wildlife Biologist, *Government of Alberta*

Careers in Development and Environment

Approval Officer, *Alberta Environmental Protection*
Caucus Assistant, *Canadian Environmental Network*
Community Education Ranger, *Queensland National Parks & Wildlife Service*
Environmental Officer, *Industry Canada*
Environmental Technician, *Lakefield Research Ltd.*
Naturalist, Children's Programmer, *Ministry of Natural Resources, Ontario*
President, *Envires Consulting Inc.*
Program Coordinator, *Clean Calgary Association*
Recycling Auditor, *Resource Integration Systems Ltd.*
Research Assistant, *Environment Canada*
Resource Inventory Specialist, *Ministry of Forests, British Columbia*
Resources Programmer, *Ministry of Natural Resources, Ontario*
Senior Environmental Officer, *Ministry of Environment, Ontario*
Student Exchange Co-ordinator, *Simon Fraser University*
Teacher, *Durham Board of Education*
Technical Writer in Education, *Radarsat International Inc.*
Water Resources Officer, *Indian & Northern Affairs, Canada*

Careers in Geomatics

Cartographer, *Simon Fraser University*
Cartographic Assistant, *Dun-Map*
Geographic Information Systems Analyst, *Geomatics International Inc.*
Geographic Information Systems Technician, *Gispro Inc.*
GIS Analyst, *Durham Regional Police*
GIS Co-ordinator, *University of Windsor*
GIS Specialist, *Abenaki Computer Enterprises Ltd.*
Owner, *Spatial Mapping Technologies*
Remote Sensing Technician, *Environment Canada*
Remote Sensing Analyst, *Geomatics International Inc.*
Research Assistant, *Intermap Technologies Inc.*
Urban Planner, *Marin County Board of Commissioners*

Courses (cont'd)

Changing Form and Structure of Metropolitan Canada
Energy and Sustainability
Geographic Information Systems Project
Honours Thesis Completion
Honours Thesis Preparation
Independent Study of Selected Topics
Management Issues in Geographic Information Systems
Remote Sensing Project
Resource Management Project
Spatial Analysis Using Geographic Information Systems
Special Topics in Geography
Urban Stormwater Management

For more information about Geography and Environmental Management, please visit:

www.geography.uwaterloo.ca

For admission information, questions about your application, or to arrange a campus visit please call:

Student Recruitment Office
Faculty of Arts
University of Waterloo
200 University Avenue West
Waterloo, ON N2L 3G1
(519) 888-4567, ext. 32259
arts@uwaterloo.ca