



FACULTY OF SCIENCE

## ENVIRONMENTAL SCIENCES (BSc)

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The Department of Environmental Studies and Sciences provides interdisciplinary programs that have a holistic view of the environment. Following the general principles of sustainability, the courses provide an integrated approach to understanding the environment, examining human impact, and providing a framework to develop solutions to environmental problems.

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Students in the BSc program choose from four different streams:

**Forest Ecology** - study of forest ecology, biology, and sustainable forest management and the role our forests play within the overall management of other natural resources

**Forest Policy and Management** – study of forest ecology and biology, with a focus on the administrative and cultural practices and the role of stakeholders in forest policy and management

**Chemistry** - study of the fundamental chemical nature of the environment with a focus on organic and inorganic chemistry and biochemistry

**Global Environmental Systems** - study of biogeochemical systems, environmental/ land management techniques, and human impact on the environment

This program leads to a **Bachelor of Science degree (4-year or Honours)**.

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### SAMPLE CAREERS

Graduates have found employment in ecology, parks management, natural resource management, Geographic Information Systems land evaluation, trace contaminant and hazardous waste management, and global environment issues. Primary employers are private consultants, multinationals, government departments, and crown corporations.

### SAMPLE COURSES

**Human-Environmental Interactions** illustrates the complexity and diversity of environmental issues. Topics include global warming, overexploitation, wildlife management, and urban issues.

**Forest Field Skills Camp** is an intensive two-week course for students in the Forest Ecology program and is designed to give students field survival and basic forestry skills.

**Forest Policy & Management** addresses the principles and practices of sustainable forestry in Canada. Topics include the evolution and role of the forest industry in Canada.

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## MORE SAMPLE COURSES

- Forest Wildlife Management
- Law and the Environment
- Forest Ecosystems Field Course
- Environmental Toxicology
- Principles of Ecology
- Environmental Impact Assessment

## SAMPLE FIRST YEAR

ENV-1600(3) Human-Environmental Interactions  
BIOL-1115(3) Cells and Cellular Processes  
BIOL-1116(3) Evolution, Ecology, and Biodiversity  
CHEM-1111(3) Introduction to the Chemical Properties of Matter  
CHEM-1112(3) Basic Principles of Chemical Reactivity  
ECON-1104(3) Introduction to Economic Theory  
GEOG-1201(3) Introductory Atmospheric Science  
GEOG-1202(3) Introductory Earth Science  
RHET-1103(3) Academic Writing: Science or any other section of Academic Writing (**The Department recommends that students take RHET-1103 in their first year of studies.**)  
PHIL-2233(3) Environmental Ethics (counts both as a Humanities course and a core course)

**NOTE:** This sample first year is representative of the courses you may take. For many of our programs, you may choose another set of courses and still be well on your way to a degree. Also, for most programs you do not have to take 30 credit hours (five full courses) in your first year.

**NATIONAL ACCREDITATION:** BSc degrees in Environmental Science at UWinnipeg have been accredited by the Canadian Environmental Accreditation Commission (CEAC) and Environmental Careers Organization (ECO) Canada, demonstrating our national standard of quality. Both forestry-related streams have also been accredited by the prestigious Canadian Institute of Forestry (CIF).

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***“My experience with the Forest Ecology program was wonderful. It’s small enough that professors and students can get to know each other well, yet it also offers a lot of opportunities for students to find out what interests them and to pursue those interests. I was able to take field courses, work for two summers as a research assistant, and even participate in academic conferences.”***

- Katherine Dearborn (BSc-4yr),  
winner of the Chancellor’s Gold Medal for Highest Standing in Science (4-Yr)  
and the medal for achievement in a 4-Yr major

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## REQUIRED HIGH SCHOOL COURSES

In addition to meeting The University of Winnipeg’s general admission requirements, you must have Chemistry 40S, and either Pre-Calculus Mathematics 40S or Applied Mathematics 40S. Pre-Calculus Mathematics 40S is required for the Chemistry stream.

## HOW TO APPLY

For details on application requirements and deadlines, and to apply online, please visit:  
[uwinnipeg.ca/apply](http://uwinnipeg.ca/apply)

For more information contact a student recruitment officer at [welcome@uwinnipeg.ca](mailto:welcome@uwinnipeg.ca) or 204.786.9844. In any case where the University’s Academic Calendar and this fact sheet differ, the current Calendar takes precedence.

## CONTACT US

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