Adding Value to Your Environmental Team

The University of Guelph’s Bachelor of Science in Environmental Sciences (B.Sc. (Env.)) is a unique interdisciplinary program which integrates the sciences and social sciences and builds skills in communication, management, and decision-making. Students within the program learn and practice a well-rounded approach to addressing environmental problems. In this program, students gain the abilities and expertise needed to solve the complex environmental problems that government, industry, the private sector and society are currently addressing.

University of Guelph Advantage

To become competent environmental scientists, students follow a unique curriculum. Their common first year provides a firm foundation in science before students branch out into their chosen area of expertise or major.

As they complete their first year, students select a major to focus their studies (refer to pg. 2). Students do not begin their first work term until they have completed 1.5 years of study and have mastered the core competencies needed to be successful in their work terms. During their academic career, students build academic expertise examining the scientific, economic, political, legislative and philosophical aspects of environmental problem solving. Environmental Sciences students work in environmentally related positions in the government and private sectors. They may conduct research in a variety of disciplines, perform environmental assessments or land evaluations, or contribute to large environmental projects.

Student Strengths

- Broad-based knowledge and understanding in the sciences
- In-depth knowledge and understanding in a particular scientific area
- An understanding of various disciplines and their effect on environmental issues
- Management and decision-making skills for the application of scientific knowledge to environmental problems, and the evaluation of appropriate environmental policies
- Excellent oral and written communication experience
### Environmental Sciences [B.Sc.(Env.)] Course Sequencing

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<tr>
<th>YEAR</th>
<th>FALL (SEPT-DEC)</th>
<th>WINTER (JAN-APRIL)</th>
<th>SUMMER (MAY-AUG)</th>
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<tr>
<td>ONE</td>
<td>ACADEMIC TERM ONE</td>
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<td>TWO</td>
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### Environmental Sciences [B.Sc.(Env.)] Majors:

#### Environment & Resource Management

The Environment and Resource Management major focuses on environmental interactions and problem-solving by developing an integrated biophysical environment - human environment perspective. Students gain expertise across the natural sciences, an understanding of how they interact, the tools and techniques needed to support decision-making, and the methods of management and governance that are used in environmental decision-making. They also gain technical abilities fundamental to management of the biophysical environment, such as remote sensing and geographic information systems (GIS), effective data collection, analysis, interpretation and presentation of information - skills that are a valuable asset in the world of work.

#### Ecology

The Ecology major teaches student to put the living pieces in the puzzle of the natural world. As budding ecologists, students will investigate the relationship between organisms and their environment. They will gain an understanding of ecosystems that will assist them in resolving the conflicts that arise from the interaction between human population and our common heritage of oceans, forests, tundra, grasslands and wildlife.

#### Environmental Sciences

The Environmental Sciences major provides a foundation in the life and physical sciences, combined with economic, legal and policy aspects of environmental issues. Students learn about the scientific principles underlying the major chemical, physical and biological processes occurring at the earth's surface, the environmental impact of these processes and the effects of human intervention.

#### Environmental Economics & Policy

Students develop an understanding of the social coordination of human actions and the resulting impact on the environment through this major. They will learn to develop and evaluate good environmental policy by examining the interaction between environmental values other social values in contemporary society. Students will discover how laws, liability rules, property rights, pollution taxes, subsidies, marketable pollution permits and direct controls and standards can be used to influence environmental impacts.