



Adding Value to your Environmental Team

The Wildlife Biology and Conservation major focuses on both the ecological and evolutionary factors that influence the sustainability of species and communities, and an understanding of how these factors can be used to manage natural systems or species that are at risk or invasive. The objective of this program is to provide students with an integrated foundation in three disciplines necessary to understand the origins, interactions, and protection of plant and animal diversity: evolution, ecology, and conservation biology.

University of Guelph Advantage

This major will provide students with a unique interdisciplinary opportunity to study the causes, consequences, and conservation of plant and animal diversity. There is currently no other major in Canada that explicitly integrates ecology, evolution, and conservation into a single undergraduate degree. This major also builds on the University of Guelph's long-standing reputation in the areas of biology and natural resources management.

Students do not begin their first work term until they have completed 2 years of study and have mastered the core competencies needed to be successful in their work terms. Students are available for up to four work terms (4 or 8 months) and employers can post, interview, and hire throughout the semester.

Student Strengths

- Ability to demonstrate a broad understanding of ecology, evolution, and conservation biology and recognize the origins and current methods of protection of plant and animal diversity.
- Knowledge of ecological and evolutionary factors that influence the persistence of species and communities.
- An understanding of how to manage natural and impacted systems (e.g., invasive species, species at risk) and apply scientific approaches to adaptive management strategies in wildlife conservation.
- Ability to assess the complex interplay between science, socio-economic factors and public opinion in the forging of public policy decisions and the value of interdisciplinary and animals in a variety of ecosystems, and the ability to assemble, analyze and evaluate biological data.
- Written and oral communication skills for various stakeholders (public, private sector, policy makers, scientists).

Wildlife Biology and Conservation Course Sequencing

YEAR	FALL (SEPT-DEC)	WINTER (JAN-APRIL)	SUMMER (MAY-AUG)
ONE	<ul style="list-style-type: none"> DISCOVERING BIODIVERSITY GENERAL CHEMISTRY I ELEMENTS OF CALCULUS I PHYSICS FOR LIFE SCIENCES 1 LIBERAL EDUCATION ELECTIVE 	<ul style="list-style-type: none"> BIOLOGICAL CONCEPTS OF HEALTH INTRODUCTION TO MOLECULAR AND CELLULAR BIOLOGY GENERAL CHEMISTRY II PHYSICS FOR LIFE SCIENCES II 1 LIBERAL EDUCATION ELECTIVE 	OFF
TWO	<ul style="list-style-type: none"> INTRODUCTION TO BIOCHEMISTRY FOUNDATIONS IN MOLECULAR BIOLOGY AND GENETICS INTRODUCTION TO CO-OPERATIVE EDUCATION 3 ELECTIVES OR RESTRICTED ELECTIVES 	<ul style="list-style-type: none"> ECOLOGY EVOLUTION BIostatISTICS FOR INTEGRATIVE BIOLOGY 2 ELECTIVES OR RESTRICTED ELECTIVES 	WORK TERM ONE
THREE	WORK TERM TWO	<ul style="list-style-type: none"> METHODS IN EVOLUTIONARY BIOLOGY POPULATIONS, COMMUNITIES AND ECOSYSTEMS CONSERVATION BIOLOGY 2 ELECTIVES OR RESTRICTED ELECTIVES 	OFF
FOUR	<ul style="list-style-type: none"> BIO-INSTRUMENTATION DESIGN ENGINEERING ECONOMICS BIOREACTOR DESIGN 2 RESTRICTED ELECTIVES 	WORK TERM THREE	WORK TERM FOUR
FIVE	<ul style="list-style-type: none"> ECOLOGICAL METHODS WILDLIFE CONSERVATION AND MANAGEMENT 2 ELECTIVES OR RESTRICTED ELECTIVES 	<ul style="list-style-type: none"> NATURAL RESOURCE POLICY ANALYSIS 4 ELECTIVES OR RESTRICTED ELECTIVES 	

RESTRICTED ELECTIVES INCLUDE: A MINIMUM OF 1.00 CREDITS OF LIBERAL EDUCATION ELECTIVES, PLUS:

A MINIMUM OF 0.50 CREDITS OF THE FOLLOWING: <ul style="list-style-type: none"> LIFE STRATEGIES OF PLANTS VERTEBRATE STRUCTURE AND FUNCTION INVERTEBRAE MORPHOLOGY & EVOLUTION 	A MINIMUM OF 0.50 CREDITS OF THE FOLLOWING: <ul style="list-style-type: none"> PLANT FUNCTIONAL ECOLOGY COMPARATIVE ANIMAL PHYSIOLOGY I 	A MINIMUM OF 0.50 CREDITS OF THE FOLLOWING: <ul style="list-style-type: none"> POPULATION GENETICS EVOLUTIONARY ECOLOGY
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AS WELL AS A MINIMUM OF 3.00 CREDITS FROM THE FOLLOWING DISCIPLINES: EVOLUTION, ECOLOGY, CONSERVATION, INTEGRATIVE/CROSS-DISCIPLINARY, FIELD COURSES

PLEASE REFER TO THE UNDERGRADUATE CALENDAR FOR THE FULL LIST OF RESTRICTED ELECTIVE COURSES

BASED ON THE 2022/23 UNDERGRADUATE CALENDAR

PLEASE SEE THE CURRENT UNDERGRADUATE CALENDAR FOR MORE INFORMATION