



## Adding Value to your Environmental Team

Students in the Plant Science major learn about the many wonders of plants, exploring the intricacies of plants through the study of their diversity, growth and development, plant-environment interactions, advances in molecular biology, and the various economic uses. Students in the program study alongside one of the largest concentrations of plant scientists in Canada, and gain hands-on knowledge of plant ecology, systematics, physiology, botany, genetics, agriculture, ethnobotany, and biotechnology.

## University of Guelph Advantage

The University of Guelph is an internationally top-ranked university with both Biological Science and Agricultural colleges. The Plant Science program crosses college boundaries to bring the full range of plant science programming to students. Guelph offers access to some of the world's most respected scientists, teachers, and researchers as well as outstanding research and teaching facilities.

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, 8, or 12 months) and employers can post, interview, and hire throughout the semester.

## Student Strengths

- Understanding of different scientific disciplines and their effect on plant diversity.
- Strong problem solving and collaboration skills while working alongside one of the largest concentrations of plant sciences in Canada.
- In depth knowledge in the role of ecological interactions of plants and their impact on global, cultural, and societal issues in a professional working environment.
- Hands on experience with advanced technology to explore plant ecology, systematics, physiology, botany, genetics, agriculture, ethnobotany and biotechnology.
- Excellent written and verbal communication skills.

# Plant Science Course Sequencing

YEAR	FALL (SEPT-DEC)	WINTER (JAN-APRIL)	SUMMER (MAY-AUG)
<b>ONE</b>	<ul style="list-style-type: none"> <li>DISCOVERING BIODIVERSITY</li> <li>GENERAL CHEMISTRY I</li> <li>EFFECTIVE WRITING</li> <li>ELEMENTS OF CALCULUS I</li> <li>PHYSICS FOR LIFE SCIENCES</li> </ul>	<ul style="list-style-type: none"> <li>INTRODUCTION TO MOLECULAR AND CELLULAR BIOLOGY</li> <li>GENERAL CHEMISTRY II</li> <li>PHYSICS FOR LIFE SCIENCES II</li> <li>1 LIBERAL EDUCATION ELECTIVE</li> <li><b>ONE OF:</b> INTRODUCTION TO COMPUTING <b>OR</b> INTRODUCTION TO PROGRAMMING <b>OR</b> ELEMENTS OF CALCULUS II</li> </ul>	<b>OFF</b>
<b>TWO</b>	<ul style="list-style-type: none"> <li>INTRODUCTION TO PLANT AGRICULTURE</li> <li>INTRODUCTION TO BIOCHEMISTRY</li> <li>LIFE STRATEGIES OF PLANTS</li> <li>INTRODUCTION TO CO-OPERATIVE EDUCATION</li> <li>FOUNDATIONS IN MOLECULAR BIOLOGY AND GENETICS</li> <li>1 LIBERAL EDUCATION ELECTIVE</li> </ul>	<ul style="list-style-type: none"> <li>MOLECULAR BIOLOGY OF THE CELL</li> <li>STATISTICS I</li> <li>3 ELECTIVES OR RESTRICTED ELECTIVES</li> </ul>	<b>WORK TERM ONE</b>
<b>THREE</b>	<ul style="list-style-type: none"> <li>PLANT ANATOMY</li> <li>PLANT FUNCTIONAL ECOLOGY</li> <li>3 ELECTIVES OR RESTRICTED ELECTIVES</li> </ul>	<ul style="list-style-type: none"> <li>PLANT GROWTH AND DEVELOPMENT</li> <li>4 ELECTIVES OR RESTRICTED ELECTIVES</li> </ul>	<b>WORK TERM TWO</b>
<b>FOUR</b>	<b>WORK TERM THREE</b>	<b>WORK TERM FOUR</b>	<b>OFF</b>
<b>FIVE</b>	<ul style="list-style-type: none"> <li>3-4 ELECTIVES OR RESTRICTED ELECTIVES</li> <li><b>ONE OF:</b> RESEARCH PROJECT I <b>OR</b> RESEARCH IN INTEGRATIVE BIOLOGY I <b>OR</b> RESEARCH PROJECT IN MOLECULAR AND CELLULAR BIOLOGY I <b>OR</b> TOPICS IN MOLECULAR AND CELLULAR BIOLOGY</li> </ul>	<ul style="list-style-type: none"> <li>METABOLISM IN THE WHOLE LIFE OF PLANTS</li> <li>4 ELECTIVES OR RESTRICTED ELECTIVES</li> </ul>	

RESTRICTED ELECTIVES INCLUDE: A MINIMUM OF 1.00 CREDITS OF LIBERAL EDUCATION ELECTIVES AND A MINIMUM OF 2.00 CREDITS OF CORE ELECTIVES FROM THE FOLLOWING DISCIPLINES:

- APPLIED PLANT SCIENCE
- PLANT BIOTECHNOLOGY AND PLANT GENETICS
- PLANT ECOLOGY AND EVOLUTION

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

**BASED ON THE 2022/23 UNDERGRADUATE CALENDAR**

**PLEASE SEE THE CURRENT UNDERGRADUATE CALENDAR FOR MORE INFORMATION**