Bachelor of Science in Agriculture

Crop Science



ABOUT THE PROGRAM

The Bachelor of Science in Agriculture – Crop Science (CRSC) major is designed for students who want to apply the latest advancements in the biological sciences to contemporary problems in the plant production industry with an emphasis on agronomy and cropping systems. This major is appropriate for students who wish to focus on the production of field crops for food, fuel or biomaterials, and breeding improved crop varieties. With a broad scope of career options, CRSC co-op students will build transferrable skills during co-op work terms contributing to their work readiness and career prospects upon graduation.

WHY CO-OP?

As a co-op student, you will gain relevant work experience, build professional networks, and develop essential transferable skills needed to succeed in the workplace, all while getting paid and earning your university degree. Guelph's co-op program is unique due to the exceptional level of support provided to students, including a job search preparatory course, a personal connection with a Co-op Coordinator to assist you during the employment process, and targeted work term reports to help you develop relevant skills.

COURSE SEQUENCING

The Crop Science program has two sample sequences that include 4-month, 8-month and 12-month options. These sequences meet the Co-operative Education and Work-Integrated Learning Canada (CEWIL) accreditation requirements.

YEAR	FALL	WINTER	SUMMER
ONE	Academic	Academic	Off
TWO	Academic	Academic	Work
THREE	Work	Academic	Off
FOUR	Academic	Work	Work
FIVE	Academic	Academic	



SAMPLE JOBS

Research Assistant

Assist with research and demonstration projects. Projects will focus on plant pathology, entomology and pest management in ginseng. The job will also involve Field work includes setting up and maintaining research plots, field scouting, pest monitoring and identification, pest management etc. The RA will assist with the collection and analysis of on-farm samples and data from research projects

Crop Root Phenomics Researcher

Work on a crop root project within the Aquatic and Crop Resource Development Research Centre. The project will utilize various phenomic approaches to capture relevant root phenotypes using both soil- and hydroponic-based systems and document root traits with custom-built 2- and 3-dimensional imaging platforms. Another element of the project involves investigating the relationship of root anchorage strength to barley lodging and standability in a field experimental setting. The student will gain valuable experience in crop phenomics and the steps required to move from phenotypes to the genotypes underlying root traits important for crop productivity.

Research Technician

This position will be focused on the care and growth of canola plants in a controlled greenhouse environment with the possibility of participating in field activities. In this role you will be involved in the planting, transplanting, cross and harvesting of the canola plants for the breeding program. You will gain valuable insights and experience with different aspects of plant breeding and the seed business.

SAMPLE EMPLOYERS*

- · Agriculture & Agri-Food Canada
- Crop Defenders Ltd.
- · Holmes Agro Limited
- · Ontario Ministry of Agriculture Food and Rural Affairs

*Sample co-op employer list only. Employers will vary depending on recruitment needs. During a job search, students are encouraged to be actively engaged and are also supported in establishing and maintaining their own personal contacts.

SALARY INFORMATION

Students receive compensation from their employer for co-op work terms. The rate of pay will vary depending on a number of factors including the industry, the student's program of study, and work term level. For your reference, a Co-operative Education Salary Guide is available on our website, which provides hourly rates (averages and ranges) for each degree program.

SKILLS & KNOWLEDGE ACQUIRED

- In depth knowledge on the production of field crops for food, fuel or biomaterials, and breeding improved crop varieties
- Management and decision-making skills for the application of scientific knowledge and industry-related data to propose solutions to production challenges and improve agronomic cropping systems
- · Excellent written and verbal communication skills