

# Engineering Co-op



## Our Program

The Bachelor of Engineering degree at the University of Guelph offers a non-departmentalized program that introduces students to the multidisciplinary nature of engineering. Students choose from a combination of engineering majors and benefit from the integration of design and teamwork throughout their program. Our program disciplines are:

- Biological Engineering
- Biomedical Engineering
- Computer Engineering
- Mechanical Engineering
- Computer Engineering
- Engineering Systems & Computing
- Environmental Engineering
- Water Resources Engineering

## University of Guelph Advantage

- Students begin their first work term after completing two years of their academic program and mastering the core skills needed to integrate into the workplace
- Co-op students successfully complete a full semester course focused on job search skills and professionalism in the workplace
- Students are available for four or eight-month work terms (see chart below for details)
- Students complete a mandatory one semester course that prepares them for their job search and work terms.

**Recruitment timelines:** Our co-op program functions on an on-going basis with job postings accepted throughout the semester. Recruitment timelines are flexible, and employers can find the right student through our efficient, streamlined employment process.

## Academic/Co-op Sequencing

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

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# Our Disciplines

## **Biological Engineering**

Biological Engineering students at the University of Guelph combine their knowledge of life sciences with engineering principles to design and control biological processes and systems. They work independently and in multidisciplinary teams, with the aim of enriching our lives and maintaining a sustainable environment.

## **Biomedical Engineering**

Biomedical Engineering students at the University of Guelph combine their knowledge of life sciences with engineering principles to the design, development, and application of electronic and biomedical devices to improve human health. Students who study biomedical engineering help meet the growing need for the application of mechanics, materials and physiology to develop devices such as prosthetics and implants and for investigative instruments and technologies.

## **Computer Engineering**

Computer Engineering fuses computer science with electrical engineering to develop systems and solutions for the technological industry. This program provides students with a strong engineering foundation and prepares them to work where hardware and software meet. Computer Engineering focuses on the science and tools behind designing, constructing, implementing and maintaining software and hardware components of modern computing systems.

## **Engineering Systems & Computing**

Engineering Systems and Computing is a multidisciplinary field that combines the fundamentals of engineering with computer hardware and software knowledge. It is the only program of its kind in Canada that focuses on designing integrated computer-based engineering systems. Students develop a unique systems perspective making them a valuable addition to any workplace where there is a need to incorporate computers and information into complex industrial processes.

## **Environmental Engineering**

Environmental Engineering draws on the traditional disciplines of chemical, civil and mechanical engineering to deliver a truly unique program. This comprehensive program equips students to understand and resolve practical problems that encompass air, water soil and waste. Students also develop technical strengths in design and the ability to communicate effectively to stakeholders at all levels.

## **Mechanical Engineering**

Mechanical Engineering at the University of Guelph offers a unique knowledge combination in the most fundamental of engineering disciplines. The focus on design, teamwork and communication produces specialists who incorporate engineering into in the fields of sustainable energy, mechatronics, manufacturing system design and biomechanics. The program is built around concepts of sustainability and sustainable design to equip students to tackle these issues in the workplace.

## **Water Resources Engineering**

Water Resources Engineering students learn approaches to manage our water and land resources to ensure adequate clean water is available. They also design solutions to mitigate the effects of human activities on our water resources and to protect communities from floods and droughts. In the classroom and in the field our co-op students learn to identify and evaluate watershed management options to protect and restore our groundwater, rivers and lakes.