

Bachelor of Engineering

Engineering Systems & Computing



ABOUT THE PROGRAM

Engineering Systems and Computing at the University of Guelph is a unique program offering a combination of computer, electrical and mechanical systems engineering. The focus on design, teamwork and communication produces specialists who incorporate computers into engineered systems and products. In addition to basic engineering skills, you will have the ability to identify application areas where computer technology represents the optimal solution, specify appropriate software for process control, and integrate computers into the overall application of these complex systems.

WHY CO-OP?

As a co-op student, you will gain relevant work experience, build professional networks and develop essential interpersonal 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, including an in-class preparatory course, a personal connection with a Co-op Co-ordinator to assist you during the employment process, and access to senior student mentors.

COURSE SEQUENCING

In the Engineering Systems & Computing co-op program, you will participate in five co-op work terms in addition to eight academic semesters throughout your five years at the University of Guelph. This sequencing is viewable below:

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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SAMPLE JOBS

Below are some examples of past Engineering Systems & Computing co-op positions.

Control Systems Engineering Student

You will contribute to all aspects of automation projects from concept, design and detailing, through manufacturing, building and commissioning. You will have the opportunity to communicate with other departments and with customers to fully understand the system's needs including function, performance, durability and maintainability.

Software Developer Co-op

You will be designing and developing software used for the backup and restore of applications and databases such as D2B, Linux, Oracle, SAP, Sybase and Informix. This includes designing and coding software modules, debugging, and participating in design reviews and code walk-throughs.

Firmware Student

This unique position involves working with a fire and security solutions organization addressing system design, production and monitoring. In this role, you will work closely with firmware designers and assist in the development of software based diagnostics and testing embedded firmware designs.

Additional Sample Jobs: Robotics Intern, Automation Engineering Student, Embedded Software Engineering Co-op, Developer/Technical Support Specialist, Hardware & Systems Developer, IT Service Desk Technician, Web Accessibility Project Manager, Research Assistant, and more.

SAMPLE EMPLOYERS*

- ATS Automation
- Laborie Medical Technologies
- IBM Canada Ltd.
- Rockwell Automation

*This shows a sample of recent co-op employers, and will vary depending on employer recruitment needs. During a job search, students are encouraged to be actively engaged and are supported in establishing and maintaining their own personal contacts.

SALARY INFORMATION Average Weekly Salary Range: \$650 - \$800*

*Salary ranges are shown as rates before deductions. Statistics are based on jobs held by co-op students in 2017/2018. These ranges may fluctuate on an annual basis in response to economic conditions.

SKILLS & KNOWLEDGE ACQUIRED

- Ability to design, document, implement and manage projects
- Solid knowledge of structure and application of computers, systems and program development, as well as systems interfacing and data structures
- Strong research, analytical, and report writing skills
- Advanced technical programming skills

