

Bachelor of Engineering

Computer Engineering



ABOUT THE PROGRAM

Computer Engineering at the University of Guelph fuses computer science with electrical engineering. Focusing on design, teamwork and communication abilities produces specialists who incorporate computing into engineered systems and products. In addition to basic engineering skills, you will work where hardware and software meet. Upon graduating from this program, you may be involved in circuit design and development, firmware development, software development, hardware integration and system level design and integration as a problem solver for today's challenges.

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 throughout the co-op experience. Students will complete a comprehensive course preparing them for the co-op employment process, and will receive guidance from a knowledgeable team of staff dedicated to their development and success.

COURSE SEQUENCING

In the Computer Engineering 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	

SAMPLE JOBS

Below are some examples of past Computer Engineering co-op positions.

Test Engineering Student

You will define, implement, execute, and maintain test plans, test cases and test automation tools/scripts to ensure software is delivered with high quality. You will likely be exposed to agile methodologies and program in common languages, such as JAVA, C++ or Perl.

Software Designer

You will work within a fast-paced team environment to design and develop software that is used in leading television broadcast and production facilities. You will participate in all aspects of the development process on a variety of projects such as: real-time embedded applications, multimedia players and control systems. You will develop in depth knowledge of digital hardware, data structures, operating systems and apply your programming and problem-solving skills.

Hardware Engineering Co-op

You will be involved in research, design and development of computer equipment such as routers, circuit board, and chips. Your role could involve testing completed models, analyzing the results and modifying the design as needed.

Additional Sample Jobs: Software Developer Co-op, Technical Specialist, Rapid Prototype Developer, Co-op Firmware Student, Programmer, IT Management Student, Co-op Web Developer, Web Accessibility Project Manager, Junior Project Coordinator, Embedded Systems Engineer, and more.

SAMPLE EMPLOYERS*

- Evertz Microsystems Ltd
- eSentire
- Curtis-Wright Corporation
- IBM Canada Ltd.

*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

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

- Ability to design, document, implement and manage large-scale technology projects
- Solid knowledge of structure and application of computing systems, from algorithms and chip-level design through systems interfacing and data structures
- Strong research, analytical, and report writing skills
- Advanced technical and programming skills