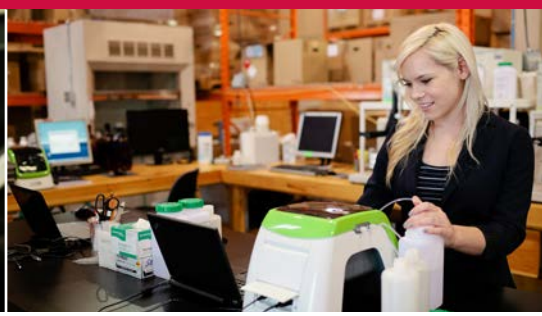
Bachelor of Computing

Computer Science & Software Engineering





ABOUT THE PROGRAM

The Bachelor of Computing Degree, with majors in Computer Science and Software Engineering, teaches software development, data structures, algorithms, teamwork, and professional standards. The Computer Science major has a greater emphasis on algorithm design & analysis, theory of computation, and math. The Software Engineering major focuses more on design methodologies, team development, and project management. Both majors take courses in system analysis & design and software engineering, along with electives in testing, networking, HCI, computational intelligence, graphics, game programming, security, and parallel programming. At Guelph, computing students have the unique opportunity to study an "area of application". These elective courses, drawn from another academic discipline, allow for both specialization and diversity. As such, a student can combine their degree with a variety of disciplines (music, psychology, business, math, etc.).

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 Bachelor of Computing co-op program, you will participate in five co-op work terms and eight academic semesters throughout your five years at the University of Guelph. The sequencing is viewable below:

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

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SAMPLE JOBS

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

Client Support

With a large focus on responsiveness and communication, this role supports an entire organization through providing assistance with training, problem-solving, new equipment and software performance. You'll learn to depend on your team and to interact well with non-technical personnel. Prioritizing, multi-tasking and reporting are very important to this work process.

Web Developer

You will create and deploy web-interfaces that follow good models and good design practices, to enable delivery of content and the receipt of user input. Expect to learn various software platforms and begin interacting with database environments.

Software Developer

In this role, you are part of the development team and will be involved from inception to shipping of a new product, including requirements gathering and automated testing.You will get a deeper appreciation for the development cycle, including sprints, scrums and stand ups. You will also be involved in business meetings and will learn many different software languages.

Additional Sample Jobs: Web Developer/Editor, Quality Assurance, Information Technology Manager, Help Desk Technician, and more.

SAMPLE EMPLOYERS*

- Camis Inc.
- Magnet Forensics
- TD Innovation
- Tulip Retail
- The Co-operators

*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

- Programming skills in Java, C, SQL, Python, and more
- Strong technical knowledge of data structures, object-oriented programming, and database management
- Excellent knowledge of computer organization, operating systems and high-level software engineering
- Ability to communicate, prioritize, and multi-task efficiently