

Computer Engineering Technology (Advanced Diploma)



Meet our students

Our students work throughout their studies in labs designed to imitate the real-world workplace. During this program, these students learn how to design, build, test, implement and maintain embedded devices, computer applications, and network systems. Upon graduation, these students will have completed all academic requirements for professional certification with the Ontario Association of Certified Engineering Technicians and Technologists.

Learn more about the classes these students take by visiting [the program webpage](#).

Core competencies and skills

- Analyzing, developing, and maintaining robust computing system solutions through validation testing and industry best practices.
- Diagnosing, troubleshooting, documenting, and monitoring technical problems using appropriate methodologies and tools.
- Integrating multiple software and hardware components using appropriate protocols and methodologies.
- Using project management tools and software to manage a project.
- Programming languages: Java, C, C++, VHDL, Python, Perl/Unix shell script, Assembler.
- Operating systems: Linux, Unix, and Windows.
- Using mathematics such as algebra, trigonometry, calculus, functions and relations, discrete math, management science etc.

Work term availability

- Winter (January – April)
- Summer (May – August)
- Fall (September – December)

Work term capabilities

- Setting up a small functional network using wired LAN and WLAN devices such as routers and switches.
- Applying concepts related to chip level hardware and software operation.
- Designing, developing, debugging, deploying object-oriented programs.
- Operating, maintaining, troubleshooting, designing, and prototyping embedded systems with microcontrollers and peripheral.
- Conducting signal sampling, direct digital synthesis, and digital filter implementation.
- Charting and diagraming computer systems both logically and physically.
- Designing, reading, and producing circuit schematic diagrams (Multisim and Eagle).
- Querying and maintaining relational databases using advanced SQ L and embedded SQL.
- Using the OSI model for networking and troubleshooting on layer 1, 2, 3, and 4.
- Creating 2D mechanical designs using AutoCAD.

Employer resources

- [Employer webpage](#)
- [Program information](#)
- [Program course schedule](#)

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