COMPUTER ENGINEERING

What is Computer Engineering?

Digital electronic systems are essential components of technologies such as: smart phones, other mobile communication devices, automotive, aerospace, and robotic systems and medical devices. Western Computer engineering students integrate principles and methods from electrical and software engineering in order to design and implement digital electronic systems. Computer engineers also develop integrated circuit hardware and the software that controls it.

Design the next digital phenomenon

OPTIONS

Electronic Devices for Ubiquitous Computing

Software Systems for Ubiquitous Computing

CAREER POSSIBILITIES

Engineering and Scientific Consulting

Telecommunications

Computer Design and Manufacturing

Smart Devices

eng.uwo.ca/electrical

ecedept@uwo.ca

ALUMNI

GREGORY EVANS BESc. '18
Senior Analyst of Engineering & Projects, **NRStor Inc.**

- **Undergraduate Engineering Society**
- **Summer Co-op Program**

> " While at Western, I was enrolled in Computer Engineering with the Electronic Devices for Ubiquitous Computing option. Throughout my four years, I was involved in the UES, and completed a Summer Engineering Co-op at IO Industries, a local machine vision camera and DVR manufacturer in London. After graduating, I have started a full time position at the company, where I work in quality assurance, FPGA development, and product testing for IO Industries. "

WESTERN'S
COMPUTER ENGINEERING

All Western Engineering students must complete a common first year. Courses include: Applied Mathematics — Calculus, Applied Mathematics — Linear Algebra, Business for Engineers, Chemistry, Computer Programming Fundamentals, Foundations of Engineering Practice, Physics, Properties of Materials and Statics. Upon completing first year, students may apply to the Computer Engineering program in one of the following options:

Electronic Devices for Ubiquitous Computing Option

Students in this option focus on the design of electronic hardware systems with an emphasis on applications including or similar to mobile communications. This option provides students with a systems-level perspective on digital electronics, including: fundamental principles of computer architecture; integration of hardware and software design considerations; and opportunities to specialize in applications such as microelectronic devices, artificial intelligence, digital control systems, and digital signal and image processing.

Software Systems for Ubiquitous Computing Option

This option is intended for students who wish to specialize in the development of low-level software (i.e., software that interacts directly with its hardware platform), particularly the operating software for smart phones and similar mobile networked devices. This option provides students with a systems-level perspective on embedded software systems, emphasizing software engineering fundamentals, integration of hardware and software design considerations, and opportunities to specialize in applications such as information security, digital control systems, and digital signal and image processing.

Western
Engineering