Graduate Studies in Electrical and Computer Engineering

Why study Electrical and Computer Engineering at Western?

Electrical and Computer Engineering (ECE) graduate students have access to outstanding research experiences and facilities across campus, including: Robarts Research Institute, the Canadian Surgical Technologies and Advanced Robotics (CSTAR) research centre, the Lawson Health Research Institute, the Department of Medical Biophysics, the Schulich School of Medicine & Dentistry, Nanofabrication Facility, and Western Institute for Nanomaterials Science.

ECE graduate students also have access to Power Systems Real Time Digital Simulator, a Real Time Nuclear Power Plant Simulator, and several state-of-the-art industrial grade distributed control systems made possible through special industrial and government support.

Numerous industry-sponsored innovation laboratories have also been established, including the EK3 Innovation Lab, Schweitzer Engineering Power System Protection Lab, the GE Innovations Lab, and Communications and Data Networking Labs. Students have the opportunity to work on several industry sponsored projects making our graduate program unique in Canada.

Degree Options

- Master of Engineering (MEng)
- Master of Engineering Science (MESc)
- Doctor of Philosophy (PhD)
Areas of specialization

**Applied Electrostatics and Electromagnetics**
Research in the Applied Electrostatics Research Centre specializes in the application of electrostatics to interdisciplinary problems. Researchers also focus on radio-wave propagation, radars, electromagnetic interference and stochastic electromagnetics.

**Biomedical Systems**
Research in this area focuses on modeling of biomedical systems through the development of software systems, computer hardware and specialized devices.

**Communication Systems and Data Networking**
Research in this area focuses on information engineering to develop new communications and data networking technologies.

**Microsystems and Digital Signal Processing**
Researchers in this area have expertise in high-speed and low-power VLSI circuits; analog and mixed-signal integrated circuits; cryptographic hardware and computer arithmetic; industrial applications of FPGA; speech and audio signal processing; and photonic crystal integrated micro and nano sensors.

**Power Systems Engineering**
Research in this area focuses on power electronic (ac-dc) conditioning technologies, control systems and protection and automation technologies.

**Robotics and Control**
Researchers focus on the design, control and application of advanced robotic systems; the use of smart materials and intelligent control techniques for the design and control of human-friendly robot manipulators; applications of modern control strategies in welding processes; and design and applications of mobile robotic systems, including underwater robots.

**Software Engineering**
Research in this area includes software evolution; service-oriented architecture; cloud computing; security; e-learning technologies; software estimation; predictive models; and human aspects of software engineering.

**Electrical and Computer Engineering**
Thompson Engineering Building, Room 279
London, ON N6A 5B9
T: 519.661.2111 (88310)  E: ecegrad@uwo.ca  eng.uwo.ca/electrical

---

**Degree options**

**Master of Engineering (MEng)**
- Admission average: Minimum 70%
- Course based: 10 graduate courses
- Project based: Eight graduate courses and a research project
- Time to complete: Minimum one year (three terms)

**Master of Engineering Science (MESc)**
- Admission average: Minimum 78%
- Funded program (supervisor required)
- Four graduate courses and a thesis
- Time to complete: Two years (six terms)

**Doctor of Philosophy (PhD)**
- Admission Average: Minimum 78%
- Funded program (supervisor required)
- Eight graduate courses and a thesis
- Time to complete: Four years (12 terms)

**How to Apply**
1. Complete the online application
2. Submit letters of reference
3. Submit any supplementary documents
   - Academic records/transcripts
   - English Language Proficiency (if applicable)
4. Pay the application fee ($100 CAD)

Check with the department’s Graduate Office at ecegrad@uwo.ca for application deadlines.