

# COMPUTER ENGINEERING AT **McGILL**

## Bachelor of Engineering in Computer Engineering

### ► **What is computer engineering?**

It's almost impossible to imagine our contemporary world without computer technology. Almost every facet of our society, whether in industry, health care, or domestic life, is dependent on computers in some form or another, and computer engineers make it all possible. They design and develop the hardware and software systems that have made computers so central to contemporary life. They research, design, develop, test, and oversee the installation of computer hardware and software and supervise its manufacture.

### ► **Is this the program for me?**

Computer engineers are good in math and physics, have an aptitude for working with computers and enjoy applying their creativity to problem solving. They are also reliable and responsible team players and effective communicators, since they're working as part of a group much of the time.

### ► **What can I do when I graduate?**

Computer engineers can work in an impressive variety of occupations in the high-technology sector, including hardware and software development, telecommunications, robotics, medical technology, aerospace and the automotive industry, to name only a few.

### ► **Why McGill?**

Computer Engineering accepts students from all over the world. The program provides students with great depth and breadth of knowledge in the hardware and software aspects of computers. Students are exposed to both theoretical and practical issues of hardware and software in well-equipped laboratories. Although the program is designed to meet the growing demands of industry for engineers with a strong background in modern computer technology, it also provides the underlying depth for graduate studies in all fields of Computer Engineering. Many of the graduates of the Department of Electrical and Computer Engineering have become internationally known leaders and pioneers in their careers such as Julie Payette (astronaut) and Lorne Trottier (Co-founder and CEO of Matrox Company).

The Computer Engineering degree is recognized by the Canadian Engineering Accreditation Board (CEAB) of the Canadian Council of Professional Engineers (CCPE) and, through international agreements, is equally recognized by professional bodies in Australia, France, Hong Kong, Ireland, New Zealand, South Africa, the U.K. and the U.S.

#### **Faculty of Engineering**

[www.mcgill.ca/engineering](http://www.mcgill.ca/engineering)

#### **Department of Electrical and Computer Engineering**

[www.mcgill.ca/ece](http://www.mcgill.ca/ece)

#### **Electrical, Computer & Software Engineering Student Society (ExCESS)**

[www.excess.ece.mcgill.ca](http://www.excess.ece.mcgill.ca)

#### **McGill Student Chapter of the Institute of Electrical and Electronics Engineers (IEEE)**

[www.sb-ieee.ece.mcgill.ca](http://www.sb-ieee.ece.mcgill.ca)

#### **Engineering Undergraduate Society (EUS)**

[www.mcgilleus.ca](http://www.mcgilleus.ca)

#### **Engineers Without Borders – McGill Chapter**

[www.mcgill.ca/engineering/student/life/ewb](http://www.mcgill.ca/engineering/student/life/ewb)

#### **How do I apply?**

#### **Admissions information**

[www.mcgill.ca/applying](http://www.mcgill.ca/applying)



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## COMPUTER ENGINEERING AT MCGILL

### What is student life like?

The Computer Engineering program accepts students from all over the world, so there are many opportunities to get together with others in a diverse community. There are several student organizations to help ensure that school life maintains a good mix of work and pleasure, such as the Electrical, Computer & Software Engineering Student Society (ExCESS), the Engineering Undergraduate Society (EUS), and the McGill Student Branch of the Institute of Electrical and Electronics Engineers (IEEE). McGill also has a student chapter of Engineers Without Borders, which works to improve the quality of life for people in developing regions and nations.

### ► What kinds of courses do students take?

Students in Computer Engineering take a mix of lecture classes and smaller laboratory courses. The first year includes general sciences courses in math, chemistry and physics. Quebec CEGEP students typically receive one-year advanced standing. Then students take courses in computer and electrical engineering, with a strong focus on computer hardware design and computer software. Students can also apply to take paid internships with industry, and can choose from a range of complementary courses in other areas of study, such as management, arts, science, and biotechnology.

### ► What our graduates are saying...

"My undergraduate work at McGill inspired me to continue my studies in Electrical and Computer Engineering and, later, to go on to become a professor in the department. The courses that I took provided me with a strong base in a wide variety of topics. In particular, the math background provided me with the tools I needed to pursue my graduate studies in computer vision and robotics."

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