

Humber College - Engineering

Humber College is excited to launch three new engineering degrees this fall, 2021. These degree programs have a common platform of first year courses, project-based learning, hands-on and practical training, applied research opportunities, and work-integrated learning. Students will solve real-world problems in small classes and learn in our living labs including Humber's new Barrett Centre for Technology Innovation and gain hands-on experience with industry-standard advanced technology. In the third year, each degree program branches out to two specializations with eight courses in each.

Bachelor of Engineering – Information Systems Engineering

Specializations: **Internet of Things (IoT)** and **Data Network & Security**

Length: 8 terms + Mandatory 12-month co-op work placement

This program prepares students for an interdisciplinary field of study that encompasses rapidly changing, evolving and converging areas of computer, software, networking, telecommunications, mobile applications, internet and cyber security. Following the first year, the curriculum covers core courses such as digital systems, operating systems, embedded systems, communication engineering, software engineering, mobile applications and systems, and more.

Help your students find their future career in:

- Computer programmers and software developers
- Cybersecurity engineering
- Embedded systems designers
- Information systems consultants
- IoT hardware and product developers
- IoT system designers and programmers
- Network designer
- Network systems engineering
- Software engineering
- Wireless data network engineering

Bachelor of Engineering – Mechatronics

Specializations: **Robotics** and **Embedded Systems**

Length: 8 terms + Mandatory 12-month co-op work placement

In this program, students solve real industry and community problems and gain knowledge and skills in mechanical, electrical, electronics and computer engineering. Students use emerging and cutting-edge technologies in robotics, control, electronics, Programmable Logic Controllers (PLC), motors, mechanical components, digital and analog circuits, Artificial Intelligence (AI), Virtual Reality (VR), machine learning, embedded systems, and advanced manufacturing.

Help your students find their future career in:

- Automation engineering
- Control & robotics engineering
- Engineering consulting (transportation, renewable energy, health care)
- Mechatronics designer
- Mechatronics engineering (electric vehicles)
- Product designer
- Robotics engineering

Bachelor of Engineering – The Built Environment

Specializations: **Sustainable Building** and **Built Environment Information Systems**

Length: 8 terms + Mandatory 12-month co-op work placement

In this program, students solve real industry and community problems and gain knowledge and skills in civil, architectural, structural, and environmental engineering. Students use digital design applications and data capture technologies such as 3D scanning and mapping to integrate new and sustainable elements of the built environment into existing buildings, communities and cities. Virtual and augmented reality complement a design thinking approach to solving real world problems.

Help your students find their future career in:

- Architecture and urban designers
- BIM designers and co-ordinators
- Construction engineering
- Consultants
- Estimators
- Geomatics and infrastructure specialists

humber.ca/engineering



Faculty of Applied Sciences & Technology

Engineer your dream career.

3 New Engineering Degrees
+ 2 Specializations Each
+ 1 Common Platform
= **Dream Career**

Humber's Bachelor of Engineering programs begin with a common first year of courses which provide foundational engineering knowledge and skills. Following the first year, the curriculum branches into three different discipline areas: Information Systems Engineering, Mechatronics, and The Built Environment.

► Apply for Fall 2021
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Bachelor of Engineering – Information Systems Engineering



Bachelor of Engineering – Mechatronics



Bachelor of Engineering – The Built Environment