

Print Friendly Version - Humber College

[Skip to content](#)

[Back to Program Page](#)

[Print](#)

[Print/PDF Help](#)

[Share](#)

Engineering - Sustainable Building Engineering, Bachelor of
Honours Degree

Program Code: BE411

Campus: North

Length: 8 semesters

Humber's Bachelor of Engineering program begins with a common platform of first year courses which provide foundational engineering knowledge.

The Bachelor of Engineering – Sustainable Building Engineering discipline gives you hands-on experience with industry-standard practices.

Students use digital design applications and data capture technologies such as 3D scanning and mapping to integrate new and sustainable design solutions.

A co-operative education placement (three consecutive work terms, 420 hours each) ensures that work-integrated learning experience is a key component of the program.

Courses

Semester 1

ALGB 1100: Linear Algebra

CALC 1100: Calculus 1

ENGI 1000: Physics 1

ENGI 1010: Introduction to Engineering

ENGI 1020: Engineering in Society

ENGI 1021: Technical Communication and Critical Thinking for Engineers

Semester 2

CALC 1500: Calculus 2

ENGI 1500: Physics 2

ENGI 1510: Engineering Design

ENGI 1511: Engineering Materials

ENGI 1512: Teamwork and Leadership for Engineers

ENGI 1515: Introduction to Programming

Semester 3

BENG 2000: Infrastructure and Building Science

BENG 2010: Environmental Chemistry

BENG 2020: Sustainable Building Design Principles

BENG 2030: Statics

BENG 2040: Engaging with Diverse Communities

DIFF 2200: Differential Equations & Numerical Methods

Semester 4

BENG 2500: Thermodynamics and Heat Transfer

BENG 2510: Digital Design 1

BENG 2520: Data Management

BENG 2530: Building Structures

BENG 2540: Fluid Mechanics

Select 1 from the following courses

DEGE: Degree Breadth Elective

Semester 5

BENG 3000: Building Mechanical and Electrical Systems

BENG 3010: Digital Design 2

BENG 3015: Energy Systems

BENG 3016: Energy Modelling

BENG 3030: Building Energy Loads

ENGI 3000: Engineering Economics and Entrepreneurship

WORK 3590: Work Preparation

Semester 6

BENG 3500: Sustainable Communities Design

BENG 3510: Project Management

BENG 3515: HVAC System Design

BENG 3516: Energy Auditing

BENG 3520: Codes and Standards

ENGI 3500: Law, Ethics and Professional Practice

Work Experience - SEM 6A

ENGI 3591: Co-operative Education 1 - Faculty of Applied Science & Technology

Work Experience - SEM 6B