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[Back to Program Page](#)

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Electrical Engineering Technology - Control Systems

Advanced Diploma

Program Code: 30101

Campus: North

Length: 6 semesters

Humber's Electrical Engineering Technology – Control Systems advanced diploma program is designed in collaboration with an industry partner.

During the third year of this program, you'll learn advanced skills to design, operate and maintain electrical equipment and instrumentation.

Our curriculum focuses on programming software, feed-back control systems, motor control, instrumentation, programmable logic controllers and PLC's.

The program builds upon the solid technical foundation of our diploma program, providing broader career options. The skills learned in this program will be highly valued by employers.

This program offers an optional co-operative education placement opportunity. Optional co-operative education placements enable students to gain valuable work experience while completing their program.

For students who are accepted into the program, three optional co-operative education placements will take place. The first four-month placement occurs during the second year of the program.

Courses

Semester 1

ELEC 107: Logic Fundamentals

ELEC 108: Introduction to Robotics

TECH 101: Electric Circuits

TECH 104: Programming Fundamentals

TMTM 104: Technical Mathematics 1

WRIT 120: Technical Reading and Writing Skills

Semester 2

TECH 150: Electronic Devices and Circuits

TECH 155: Electrical CADD

TECH 156: AC Circuits

TECH 157: Process Instruments

TMTM 204: Technical Mathematics 2

WRIT 220: Technical Workplace Writing Skills

Semester 3

CALC 103: Introduction to Calculus

ELEC 206: DC Equipment and Controls

ELEC 209: Programmable Logic Controllers: Introduction

ELEC 211: Power Systems 1

ELEC 254: Industrial Electronics

GNED 101: An Introduction to Arts and Sciences

Semester 4

ELEC 200: Canadian Electrical Code

ELEC 250: Electrical Circuit Analysis

ELEC 251: Automatic Controls: Introduction

ELEC 252: Fundamentals of Power Distribution and Circuit Analysis

ELEC 253: Advanced Programmable Logic Controllers

ELEC 255: Sensors and Actuators

Select 1 from the following courses

GNED: General Elective

Semester 5

CALC 203: Applied Calculus

ELEC 300: Power Systems 2

ELEC 323: Communications and PLC Network Systems

ELEC 324: Power Electronics

ELEC 325: Operator Interface, Design and Control

ELEC 330: Technical Project 1

Semester 6

ELEC 350: Control Systems (Electrical Control Systems)

ELEC 351: Technical Project 2

ELEC 352: Control Applications Using PLC's

ELEC 354: Power Distribution, Protection and Control

ELEC 355: Variable Frequency Drives and Motor Controls

TSTA 301: Applied Statistics

Select 1 from the following courses