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Computer Engineering Technology

Advanced Diploma

Program Code: 03501

Campus: North

Length: 6 semesters

Humber's Computer Engineering Technology advanced diploma program trains you to develop and design the cutting-edge technology of the future.

Industry experts will teach you skills in hardware and software, electronics, and networking, plus a variety of systems. As well, you will learn how to apply these skills in a real-world setting.

The curriculum is designed with industry collaboration, ensuring you are learning the skills that companies require. The program features a variety of hands-on learning experiences.

In your final year, you will focus on integrating all of your skills by examining the inner workings of networks using different applications and protocols.

This program offers an optional co-operative education placement. Optional co-operative education placements enable you to apply your skills in a real-world setting.

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 semester, the second during the fourth semester, and the third during the sixth semester.

Courses

Semester 1

TECH 101: Electric Circuits

TECH 103: Digital Fundamentals

TECH 104: Programming Fundamentals

TECH 113: Computer Hardware and Operating Systems

TMTM 104: Technical Mathematics 1

WRIT 120: Technical Reading and Writing Skills

Semester 2

CENG 150: Electronic Circuits

CENG 151: Unix Scripting and The Internet

CENG 152: Computing in Industry

CENG 153: Programming in C

TECH 152: Telecommunication Networks

TMTM 204: Technical Mathematics 2

WRIT 220: Technical Workplace Writing Skills

Semester 3

CALC 103: Introduction to Calculus

CENG 209: Micro Assembly Language Programming

CENG 213: Digital Systems

CENG 214: Windows Scripting

CENG 216: Introduction to Software Engineering

CENG 217: Object Oriented Programming I using Java

GNED 101: An Introduction to Arts and Sciences

Semester 4

CENG 251: UNIX Internals

CENG 254: Database with Java

CENG 256: Internet Programming

CENG 257: Object Oriented Programming II using Java

CENG 258: Mobile Programming

CENG 259: Networking Technologies

CENG 260: Smart Embedded Systems

Semester 5

CENG 317: Hardware Production Technology

CENG 318: Algorithms and Data Structures in Java

CENG 320: Network Programming

CENG 321: Network Security

CENG 322: Software Project

CENG 323: Real-Time Systems

Select 1 from the following courses

CENG: Computer Eng Elective

Semester 6

CENG 355: Computer Systems Project

CENG 356: Computer Systems Architecture

CENG 358: Computer Systems Administration

CENG 359: Emerging Technologies