



**CREDENTIAL**

Ontario College  
Advanced Diploma

**PROGRAM CODE**

Fall: 0396 | Winter: 0348

**AREA OF INTEREST**

Engineering Technology

**LOCATION**

Thunder Bay

**DURATION**

3 -year

## Overview

Our world is becoming more automated all of the time. Building control systems, manufacturing processes, industrial robotics, power generation and distribution, and thousands of other processes.

They all rely on electrical equipment and digital processes to keep them operating properly and communicating to each other. But it still takes a person to design, program, install and maintain all of that equipment. Could that person be you?

Confederation College's Electrical Engineering Technology advanced three-year diploma program is an advanced program of study that places special emphasis on computerized electronic control applications using state-of-the-art DCS, PLCs, drive systems, as well as today's leading panel and PC-based SCADA/HMI packages. You'll learn about electronics and computer fundamentals, applied mathematics, telecommunications, networks, automation control systems, process control systems and power systems.



### Top Highlights

- Learn about electric machines and drives, PLCs, computer networks, wireless technology, power systems, embedded control systems, process control systems
- Two optional co-op work placements give you experience in the field
- Recognized by the Ontario Association of Certified Engineering Technicians and Technologists (OACETT)
- Continue on to a university engineering degree and a career path as a professional engineer through Lakehead University's transfer program



### Employment Opportunities

Graduates of the technology program have been successful in positions working with electrical power generation, electrical power distribution, industrial automation and controls, telecommunications, computer networking, engineering firms, electrical and electronic design, electronics repair and maintenance, and the electrical trades, to name a few. See [confederationcollege.ca/program/electrical-engineering-technology/employers](http://confederationcollege.ca/program/electrical-engineering-technology/employers) for a list of companies that hire our graduates.

Graduates of the three-year program often have the advantage in hiring situations and go on to advanced positions including design and managerial positions and tend to earn a higher salary.



### Experiential Learning

Optional Co-op



### Steve Cormier, P.Eng, C.E.T. Program Coordinator

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# Electrical Engineering Technology

## Admission Requirements

- Ontario Secondary School Diploma (or equivalent) with courses from the College (C), University (U), University/College (U/C), or Open (O) preparation levels with Grade 12 English (C/U) Level.
- or successful completion of the Mature Student Assessment.
- or successful completion of the General Education Development Test (GED).
- or appropriate credits from the Academic and Career Entrance program (ACE).

## Additional Required Courses

- Grade 11 MCF3M Functions and Applications, or MCR3U Functions, or Grade 12 MAP4C Foundations for College Math or MCT4C Mathematics for College Technology or University Preparation.

## Alternative Pathways

If you do not meet the entrance requirements, we encourage you to apply for the Pre-Technology-Technology/Aviation program to facilitate success in your technology path.

## Articulation Agreements

Confederation College has agreements in place that permit credits earned throughout this program to be transferred to programs at other colleges and universities.

Graduates of this program have the opportunity to finish their Electrical Engineering degree with Lakehead University, through Lakehead's college transition program.

Visit: [confederationcollege.ca/articulation-agreements](https://confederationcollege.ca/articulation-agreements) for more information.

## First Semester

CS 050 College Writing  
EL 161 Electrical I  
EL 165 Digital I  
EL 166 Computer Systems  
EL 167 Electronics I  
GE General Elective  
MA 133 Mathematics I  
MC 165 Microsoft Office

## Second Semester

CS 219 Communications for Technology  
EL 261 Electrical II  
EL 267 Electronics II  
EL 268 Health and Safety Regulations  
EL 269 Introduction to CAD  
MA 231 Mathematics II  
PH 210 Physics

Select one of the following:

LV 100 History of Indigenous Canadian Relations  
SY 066 Sociology of Community:  
The Indigenous Context

## Third Semester

EL 305 Industrial Electronics I  
EL 306 Telecommunications  
EL 360 Electrical Code  
EL 361 Industrial Controls I  
EL 362 Computer Software I  
EL 365 Digital II  
EL 506 Industrial Power Systems  
MA 331 Mathematics III

## Fourth Semester

EL 307 Industrial Data Networks  
EL 405 Industrial Electronics II  
EL 406 Embedded Control Systems I  
EL 407 Wide Area Networks  
EL 431 Automation Control Systems I  
EL 460 Computer Networks  
EL 461 Machines and Drives  
MA 431 Mathematics IV

## Fifth Semester

EL 505 Windows Applications with Hardware  
EL 507 Embedded Control Systems II Lab  
EL 508 Embedded Control Systems II Theory  
EL 509 Automation Control Systems II  
EL 610 HMI/SCADA Systems  
GE General Elective  
MA 531 Mathematics V

## Sixth Semester

EL 605 Automation Control Systems III  
EL 606 Automation Control Systems III Lab  
EL 608 System Integration  
EL 612 Quality Assurance  
EL 616 Power Systems II  
EN 015 Professional Practice  
MA 631 Mathematics VI



## Have questions? Want to apply?

Contact [recruitment@confederationcollege.ca](mailto:recruitment@confederationcollege.ca)

