

# ELECTRICAL ENGINEERING TECHNICIAN - INDUSTRIAL (EETN)

## Ontario College Diploma | 4 semesters | Barrydowne

Our program is modelled after the in-school portions of the Basic Electrician Apprenticeship. It includes practical, hands-on experience and in-class theoretical learning. You will gain theoretical knowledge in the areas of installation, troubleshooting, repair, and maintenance of complex electrical machinery. You will also apply electrical safety code and print reading knowledge to commercial and industrial installations. In addition, you will be introduced to Programmable Logic Controllers (PLC), power electronics, and instrumentation fundamentals.

### Program Highlights

- 2 years – 4 semesters
- Co-op diploma apprenticeship option
- Electrical lab features industry-standard 600 volt equipment
- Hands-on experience using AutoCAD, PLCs, and instrumentation tools
- Graduates are eligible to apply for the final year of Cambrian's Electrical Engineering Technology program

### Co-op Diploma Apprenticeship Program Option

The Co-op Diploma Apprenticeship program combines a college diploma and apprenticeship training. The placement for this program is an optional co-op and is not required for you to graduate. You can choose to complete your postsecondary program and graduate with a certificate or diploma without participating in the co-op option. However, if you choose, and qualify, to participate in this optional Co-op Diploma Apprenticeship program, you may become a registered apprentice sponsored by your co-op employer. Through your participation in this program, you will have the opportunity to participate in paid co-op placements while earning a college certificate or diploma. Your academic curriculum, which enables you to receive Level 1, Level 2, or Level 3 Trade School completion from the Ministry of Advanced Education and Skills Development after each successful year of schooling, will be enhanced by the experiences from your co-op placements.

### Capped Enrolment

### Quick Links

How to Apply (<http://cambriancollege.ca/apply>)

Engineering Technology (<http://cambriancollege.ca/field-of-study/engineering-technology>)

### Admission Requirements

For graduates of the new curriculum (OSS): Ontario Secondary School Diploma (30 credits) or equivalent or mature student status, including:

- Any grade 12 English (C), (U) or (M)
- Any grade 12 mathematics (C) or (U) (MCT4C is highly recommended)

Recommended:

- Any grade 11 or 12 physics (C) or (U)

### Advanced Standing

Graduates of Cambrian's Electrical Techniques (EETQ) program or its equivalent may apply to enter directly into Semester 3 of the Electrical Engineering Technician - Industrial (EETN) program. This is a competitive process.

**APPLY NOW!** (<http://ontariocolleges.ca/apply>)

### Program Delivery

#### 2019-2020

This program will be delivered in the following terms:

#### Fall Term Start

1. **SEMESTER 1** Fall 2019
2. **SEMESTER 2** Winter 2020
3. **SEMESTER 3** Fall 2020
4. **SEMESTER 4** Winter 2021

For specific term start/end dates and other key dates/deadlines, please see the Academic Schedule (<http://cambriancollege.ca/apply/how-to-apply/academic-schedule>) on our website.

### Program of Study

*Students are required to successfully complete an online Lab Safety course (in Moodle) when starting their program at Cambrian. This course must be completed prior to entering the labs (as identified in the table below) in the Schools of Skills Training, Engineering Technology and Environmental Studies.*

Semester 1		Credits
CAD 1002	Electrical CAD	2
ELC 1004	Prints & Electrical Code I	3
ELC 1009	Electrical Workplace Safety	2
ELC 1125	Electrical Installation I <sup>1</sup>	5
ELR 1121	Electrical Fundamentals <sup>1</sup>	6
ENG 1002	College Communications	3
MTH 1152	Electrical Math I	3
	Credits	24

Semester 2		Credits
ELC 1211	Electrical Installation II <sup>1</sup>	5
ELC 1215	Motor Control Fundamentals	4
ELC 1226	Digital Electronics Theory <sup>1</sup>	3
ELC 2308	Prints & Electrical Code II	3
INT 1008	Instrumentation Fundamentals	3
MTH 1252	Electrical Math II	3

The following General Education course:		3
BUS 1015	Negotiation & Labour Relations	
	Credits	24

Semester 3		Credits
ELC 1011	Prints and Electrical Code III	3
ELC 2315	Electrical Systems <sup>1</sup>	7
ELN 2320	Power Electronics I <sup>1</sup>	5
ENG 1754	Technical Communication	3
INT 1006	Instrumentation I <sup>1</sup>	4
MTH 2352	Electrical Math III	3
One of the following General Education courses:		3

CET 1003	Cybernation	
SSC 1000	Media and Current Events	
MUS 1009	Rock Music, Culture & Technology	
PSY 1001	Psychology of Evil	
SCI 1000	Issues and Ethics in Science	
Credits		28
<b>Semester 4</b>		
ELC 1012	Prints and Electrical Code IV	3
ELC 2403	AC & DC Machines <sup>1</sup>	7
ELC 2425	PLC Basic Programming <sup>1</sup>	4
ELN 2419	Power Electronics II <sup>1</sup>	4
INT 1007	Instrumentation II <sup>1</sup>	4
One of the following General Education courses:		3
CET 1003	Cybernation	
SSC 1000	Media and Current Events	
MUS 1009	Rock Music, Culture & Technology	
PSY 1001	Psychology of Evil	
SCI 1000	Issues and Ethics in Science	
Credits		25
Total Credits		101

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<sup>1</sup> Course with Lab Component

## Fees

### Tuition and Ancillary Fees

Please see our fees page (<http://cambriancollege.ca/fees>) for the breakdown of tuition and mandatory ancillary fees by program and semester for both domestic and international students

### Books & Supplies

The cost of books and supplies for Year 1 is approximately \$800. This is the best information available at the time of publishing to the website and is subject to change.

## Graduate Options

### Employment Opportunities

Graduates will have completed the equivalent of the intermediate in-school training for an Industrial Electrician. Their competencies will not only make them desirable candidates as Apprentice Electricians, but they will also be capable of performing the functions of an Electrical Engineering Technician in an engineering environment.

### Furthering Your Studies

Graduates of Cambrian's EETN program may apply to enter directly into Semester 5 of Electrical Engineering Technology - Industrial (EETY) program. This is a competitive process.

## Contacts

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