

# Electrical Engineering Technician



<b>Program Locations:</b>	Peterborough
<b>Program Code:</b>	EE
<b>Co-ordinator:</b>	Craig Elliott
<b>Credential:</b>	Ontario College Diploma
<b>Start Dates:</b>	September 04, 2012 - January 07, 2013
<b>Tuition Fees:</b>	\$1,864.70 per semester. Tuition and fees subject to change.

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**Our Electrical Engineering Technician program will equip you with electrical and electronic theory and practice - the tools you need to take on entry level positions or an apprenticeship in the electrical industry.**

## Program Highlights

The four-semester Electrical Engineering Technician program will provide you with a solid foundation. You will learn about programmable logic controls (PLCs), electrical and electronic circuits and systems, instrumentation, cabling, network engineering, and electrical machines and controls. Extensive practice labs will provide you with ample opportunity to develop skills required to assume entry level positions or an apprenticeship.

A technical skills shortage is looming both regionally and nationally in Canada. This program has been designed to help fill these technical positions as the manufacturing sector becomes more specialized, the construction industry flourishes, and retirement rates increase.

## Is this You?

You will need these abilities and skills to succeed:

- an interest in skilled trades and technology
- enjoyment of problem-solving and troubleshooting
- manual dexterity
- a degree of mathematical savvy in order to conduct the calculations necessary (assistance for those not yet proficient with Math has been factored into the program curriculum).

## Career Opportunities

Electrical Engineering Technicians are required to:

- develop and test power equipment and systems
- troubleshoot industrial process control systems
- set up micro-electronic systems and circuits
- install and commission electrical and electronic equipment and systems
- analyze the performance of electrical and electronic components

A very broad spectrum of career opportunities exists within the electrical industry. Graduates can be employed by electrical utility and power companies, industrial plants, communications companies, and manufacturers of electrical equipment. Consulting firms, construction sites, mining, and transportation industries all hire technicians to design and maintain electrical and electronic systems for use in residential, commercial, institutional, and

Graduates of this program may also choose to apply for apprenticeship and write the Basic Exemption Test for Electrical Apprentice and receive credit for some of the in-school portions of the apprenticeship program. Following graduation, you could seek employment as an industrial, maintenance, or construction electrician apprentice.

## Minimum Admission Requirements

Ontario Secondary School Diploma (OSSD) with the majority of credits at the College (C) and Open (O) levels, including one Grade 11 or 12 College (C) Mathematics.\*

**\*Note:** Workplace (E) level English meets admission requirements.

When (C) is the minimum course level for admission, (U) and (U/C) level courses are also accepted.

## Mature Students

If you are 19 years of age or older before classes start, and you do not possess an OSSD, you can write the Canadian Adult Achievement Test to assess your eligibility for admission. Additional testing or academic upgrading may be necessary to meet specific course requirements for this program.

## Related Programs

There is a pathway for students enrolled in Electrical Techniques to enter into third semester of Electrical Engineering Technician (subject to enrolment capacity). The student must successfully complete all Electrical Techniques courses and obtain credits in Applied Mathematics for Technology (MATH18), Technical Communications (COMM32) and Electronic Circuits (ELCT105) prior to the start of third semester.

## Curriculum for Electrical Engineering Technician

### Semester 1

Code	Course Name	Hours
ELCT 90	Drafting Applications and AutoCAD	45
ELCT 84	Electricity	60
ELCT 107	Installation Practices	75
COMP 345	Introductory Computing	45
MATH 122	Mathematics I	45
COMM 32	Technical Communications	37
ORGB 2	Career Essentials	45

## Semester 2

<b>Code</b>	<b>Course Name</b>	<b>Hours</b>
ELCT 87	Alternating Current Theory	60
ELCT 105	Electronic Circuits	45
ELCT 101	Instrumentation I	60
MATH 123	Mathematics II	30
ELCT 116	Measurements	45
ELCT 77	Safety, Prints and Electrical Code	60
ORGB 13	Developing Effective Teams	45

## Semester 3

<b>Code</b>	<b>Course Name</b>	<b>Hours</b>
ELCT 117	Code Calculations	45
ELCT 92	Energy Generation and Distribution	45
ELCT 75	Fluid Power and Controls	45
ELCT 89	Law and Ethics in the Electrical Sector	30
MATH 124	Mathematics III	30
ELCT 93	Motors and Controls	45
ELCT 88	Power Electronics and Theory	60
COMP 460	Technical Programming	45

## Semester 4

<b>Code</b>	<b>Course Name</b>	<b>Hours</b>
ELCT 108	Alternative Energy	45
ELCT 94	Building Systems Automation and Integration	45
ELCT 20	Managing Technical Projects	45
ELCT 95	Programmable Logic Controllers	75
ELCT 109	Testing and Drives	45
GENED	General Education Elective	

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