

# PRE-APPRENTICESHIP ELECTRICAL AND INSTRUMENTATION

**Program:** PAEI

**Credential:** Recognition of Achievement

**Delivery:** Full-time

**Work Integrated Learning:** 1 Work Placement

**Length:** 1 Year

**Effective:** Fall 2027

**Location:** Owen Sound

## Description

This is a 22-week fully-funded pre-apprenticeship program, providing learners with the skills and knowledge to become successful construction and maintenance electrician apprentices. It combines 13-weeks of in-class training and 9-weeks of paid work placement to ensure participants gain both foundational knowledge and practical on-the-job experience.

In addition to completing the required Level 1 in-school portion of their electrician apprenticeship, pre-apprentices participate in additional theoretical and hands on training in instrumentation. They also acquire safety training and focus on gaining the experience required to enter an apprenticeship with the Canadian Union of Skilled Workers (CUSW).

## Career Opportunities

This program provides graduates with a potential pathway as a construction and maintenance electrical apprentice.

## Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

1. interpret drawings and blueprints and produce basic graphics as required by industry;
2. perform work competently, safely, and in compliance with the Occupational Health and Safety Act and all employer safety policies and procedures;
3. assist in the preparation and maintenance of records and documentation;
4. communicate effectively and professionally using appropriate trades-related language and terminology in an industrial workplace;
5. perform tasks in accordance with relevant legislation, policies, procedures, standards, regulations, and ethical principles;
6. use and maintain test and instrumentation equipment;
7. assist in the installation and troubleshooting of basic electrical equipment and associated control systems under the supervision of a qualified person;
8. determine appropriate mathematical formulas and calculations and apply to trade tasks, as needed;
9. use computer software applications to complete workplace documentation in a trades environment;
10. identify the locking and tagging procedures for equipment according to legislation, policies, and procedures.

## Admission Requirements

Applicants must meet the following criteria:

- Ontario Secondary School Diploma (OSSD) or equivalent
- Be 18 years of age or older
- Not be currently registered as an apprentice in Ontario
- Be a Canadian citizen or Permanent Resident of Canada

External partner (CUSW) requirements - if not attained at entry, must be completed by the end of the work placement:

- Grade 12 Math
- Grade 12 English or French
- Grade 11 (or higher) Physics
- Grade 11 (or higher) Senior Science (for example Chemistry or Biology)

## Selection Process

Applicants must meet the following admission requirements:

- Submit an OSSD transcript and a current resume
- Attend an interview
- Undergo a Bruce Power Security Clearance check
- Demonstrate a commitment to working in the electrical industry

Selection Process:

- Review of applications by committee (Georgian College, Bruce Power, CUSW, Indigenous Community Member)
- Interview by committee above and assessment of academic requirements

## Graduation Requirements

12 Program Courses

1 Work Placement

### Graduation Eligibility

Students must successfully complete all required courses as noted below. Further details, if applicable, are noted under "Additional Information" above.

Program Courses		Hours
Level 1 Electrical Apprenticeship		
EATA 1000	Communication and Documentation	27
EATA 1001	Introduction to the Canadian Electrical Code	36
EATA 1002	Trade Practices	36
EATA 1003	Installation and Maintenance Methods	54
EATA 1004	Electrical Fundamentals	81
EATA 1005	Drawings, Specifications, and Standards Fundamentals	36
Program Courses		
ELAB 1004	Instrumentation	24
MATC 0007	Trades Math Preparation	24
TECH 0366	Job Search Skills	24
TECH 0551	Working At Heights	8.5
TECH 0604	First Aid / CPR / AED Level C	16
TECH 0657	Safety for the Trades	40
Work Placement		

PAMT 0001	Pre-Apprenticeship Work Placement	340
	<b>Hours</b>	<b>746.5</b>
	<b>Total Hours</b>	<b>746.5</b>

**Disclaimer:** *The information in this document is correct at the time of publication. Academic content of programs and courses is revised on an ongoing basis to ensure relevance to changing educational objectives and employment market needs.*

*Program outlines may be subject to change in response to emerging situations, in order to facilitate student achievement of the learning outcomes required for graduation. Components such as courses, progression, coop work terms, placements, internships and other requirements may be delivered differently than published.*