

PRE-APPRENTICESHIP- ELECTRICAL

Program: PAEL

Credential: Recognition of Achievement

Delivery: Full-time

Work Integrated Learning: 1 Work Placement

Length: 2 Semesters

Duration: 1 Year

Effective: Summer 2024

Location: Owen Sound

Description

This is a 34 week, fully-funded pre-apprenticeship program, providing students with the skills and knowledge to become successful construction and maintenance electrician apprentices. Students participate in hands-on and theoretical training in welding, as well as upgrading, including an AACE Math credit, and safety training required to enter an apprenticeship with the Canadian Union of Skilled Workers. A paid 12-week work placement is incorporated into the program. Graduates will have completed the required Level 1 in-school portion of their electrician apprenticeship.

Career Opportunities

This program provides graduates with a pathway to a range of occupations in fields such as:

- Construction & Maintenance Electrician Apprentice
- Welder
- Maintenance Technician

Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

1. lay out, assemble, install, repair, maintain, connect and/or test electrical systems;
2. plan installations from blueprints, sketches and specifications, and install all electrical and electronic devices;
3. systematically diagnose faults in electrical and electronic components as needed;
4. measure, cut, thread, bend, assemble and install conduits and other electrical conductor raceways;
5. splice and terminate electrical conductors;
6. test electrical and electronic equipment to ensure that they are functioning properly;
7. perform work competently, safely and in compliance with the Occupational Health and Safety Act and all employer safety policies and procedures;
8. interpret engineering drawings and blueprints and produce basic graphics as required by industry;
9. recognize and understand use of welding symbols;
10. perform basic welding in one position using the Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW) and Gas Tungsten Arc Welding (GTAW) processes;
11. perform basic cutting and brazing using oxy-acetylene equipment;

12. perform trade calculations accurately for Electrician and Welder trades;
13. understand and communicate effectively using trades-related language and terminology in an industrial environment;
14. determine appropriate mathematical formulas and calculations and apply to trade tasks as needed;
15. use computer software to support working in a trades environment, including communications software, spreadsheets and computer generated documents.

Admission Requirements

Applicants must meet the following criteria:

- OSSD or equivalent
- over 18
- not currently registered as an apprentice in Ontario
- citizen or Permanent Resident of Canada

Selection Process

1. Application including resume
2. Review of applications by committee (Georgian, Bruce Power, CUSW, Indigenous Community Member)
3. Interview by panel of above and academic assessment by Upgrading department (math, communications, document use)
4. Bruce Power Security Clearance check

Additional Information

Bruce Power administers CSIS Security screening. All students must pass the screening in order to do a placement at Bruce Power site.

Graduation Requirements

- 11 Program Courses
- 2 Upgrading 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 Tracking

Program Courses		Hours
Upgrading Courses		
AACE 1003	Academic and Career Entrance Core Mathematics	84
AACE 1005	Academic and Career Entrance Apprenticeship Mathematics	84
Program Courses		
LABS 5004	Communications Preparation	150
LABS 5006	Computer Preparation	42
TECH 0617	Safety for the Trades	60
TECH 0633	Pre-Apprenticeship Industrial Installation Methods and Multimeters	60
WELD 0043	Pre-Apprenticeship Basic Welding Techniques	60
Level 1 Electrician Apprenticeship		
ELAB 1000	Canadian Electrical Code	33
ELAB 1001	Prints	30
ELAB 1002	Electrical Theory	63

ELAB 1003	Installation Methods	48
ELAB 1004	Instrumentation	24
ELAB 1005	Electronics	42
Work Placement		
PAMT 0001	Pre-Apprenticeship Work Placement	340
Hours		1120
Total Hours		1120

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.