

APPRENTICESHIP IN CONSTRUCTION ELECTRICIAN

At a Glance

Faculty

kpu.ca/trades (<http://kpu.ca/trades/>)

Area of Study:

kpu.ca/trades/electrical (<http://kpu.ca/trades/electrical/>)

Academic Level:

Vocational

Credential Granted:

Intake Type:

- Open

Description

In BC, an individual can become certified as a Construction Electrician by completing the Electrical apprentice program. Apprenticeship programs are designed to provide students the full scope of knowledge and applied skills necessary to perform the occupation. Apprentices have an employer to sponsor them and are registered with the Industry Training Authority (<https://www.itabc.ca/>) (ITA).

KPU delivers in-school technical training for Electrical apprenticeship levels 1, 2, 3 and 4. The in-school technical training for each level is 10 weeks in duration and includes an end of level examination. Additional information is available at: kpu.ca/trades/electrical/

The pathway to becoming a certified Construction Electrician generally takes 4 years to complete the in-school technical training and work-based training hours. Electrical apprentices will be eligible to write the Red Seal Inter-provincial Examination upon completion of all in-school technical training. Red Seal endorsement will be awarded upon completion of 6000 work-based training hours and is recognized in all jurisdictions across Canada; additional information is at: [red-seal.ca](http://www.red-seal.ca/w.2lc.4m.2-eng.html) (<http://www.red-seal.ca/w.2lc.4m.2-eng.html>).

Training Schedules

KPU apprentice training schedules and waitlists are published on Kwantlen Course Search (<http://kpu.ca/registration/timetables/>). Additional apprenticeship training opportunities are listed on Trades Training BC (<https://www.tradestrainingbc.ca/>); this is the hub for BC's Public Trades Training Programs & Services.

Financial Supports for Apprentices

Apprentices may be eligible for financial support for the in-class portion of their training through the EPBC Apprentice Program Financial Supports. Application to this program must be made four to six weeks prior to the start of technical training. Information is available through WorkBC (<https://www.workbc.ca/Employment-Services/Apprenticeship-Training-Supports/Apprenticeship-Training-Supports.aspx>).

Apprentices must apply separately for Employment Insurance (EI) Benefits no later than the last week of work, or during the first week of training, or they will not be eligible to receive EPBC Apprentice Program

Financial Supports. EI information can be obtained by visiting Service Canada (<https://www1.canada.ca/en/esdc/service-canada.html>).

The Canada Apprentice Loan is an initiative of the Government of Canada. As of January 2015, apprentices can apply for up to \$4,000 in interest-free loans per period of in-school technical training. Information is available at the Canada Apprentice Loan Service Centre (<https://www.pca-cal.ca/en/Home/>).

Requirements

General Prerequisites

The following requirements apply:

- Completed KPU Apprentice Registration (<http://kpu.ca/trades/apprenticeship-registration/>)
- Active apprentice registration in the BC Apprenticeship system.
- Valid Trade Worker Identification number from the Industry Training Authority (ITA-ID). If you do not have an ITA-ID, you will need to complete an apprenticeship registration form through the ITA (www.itabc.ca) (<https://www.itabc.ca/>) prior to enrolling (Level 1 through to 4). To determine your eligibility please consult with the Industry Training Authority.

Note: International student enrollment requires approval of the Dean.

Curricular Requirements

Note: KPU Tech does not permit students to register in Apprenticeship Levels out of sequence.

Code	Title	Credits
AELC 1010	Construction Electrical Level 1	0
AELC 1020	Construction Electrical Level 2	0
AELC 1030	Construction Electrical Level 3	0
AELC 1040	Construction Electrical Level 4	0

Other Information

Special Equipment

Students will require appropriate tools and safety wear in conformance with WorkSafeBC regulations that includes safety glasses, hard hat and steel toed boots.

Credential Awarded

KPU will report your in-school technical training completion information to the Industry Training Authority (ITA) in order for the ITA to determine credit towards your designated apprenticeship.

Courses

AELC 1010 0 credits

Construction Electrical Level 1

In this level, apprentices will complete the learning objectives as defined in the Industry Training Authority Program Outline (January 2013) for Construction Electrician. Topics include: AC Fundamentals, Meters & Test Equipment, Single Phase AC Circuits, Circuit Protector Devices, Single Phase Transformers, AC Motor Controls, Lighting, Industrial Power Electronics, and Electric Codes & Wiring. Employment Insurance (EI) Eligibility: Provincial program financial supports must be applied for online through the Apprentice Online Portal at apprenticeonline.gov.bc.ca. It is recommended that apprentices apply for these supports four weeks in advance of the start of their technical training and application must be made no later than the first day of technical training.

Level: VO

Prerequisite(s): 1. Valid Trade Worker ID Number (ITA ID #) 2. Active apprentice registration in the BC Apprenticeship system 3. Additional requirements mandated by the Industry Training Authority may be required, contact Apprenticeship Services for information

AELC 1020 0 credits

Construction Electrical Level 2

In this level, apprentices will complete the learning objectives as defined in the Industry Training Authority Program Outline (January 2013) for Construction Electrician. Topics include: AC Fundamentals, Meters & Test Equipment, Single Phase AC Circuits, Circuit Protector Devices, Single Phase Transformers, AC Motor Controls, Lighting, Industrial Power Electronics, and Electric Codes & Wiring. Employment Insurance (EI) Eligibility: Provincial program financial supports must be applied for online through the Apprentice Online Portal at apprenticeonline.gov.bc.ca. It is recommended that apprentices apply for these supports four weeks in advance of the start of their technical training and application must be made no later than the first day of technical training.

Level: VO

Prerequisite(s): 1. Valid Trade Worker ID Number (ITA ID #) 2. Active apprentice registration in the BC Apprenticeship system 3. Electrical Foundation or Level 1 Technical Training 4. Additional requirements mandated by the Industry Training Authority may be required, contact Apprenticeship Services for information

AELC 1030 0 credits

Construction Electrical Level 3

In this level, apprentices will complete the learning objectives as defined in the Industry Training Authority Program Outline (January 2013) for Construction Electrician. Topics include: Three-phase Circuits, Electronic Circuits, Power Quality Analyzers, Applying the CEC to installations, Installing Service Equipment, Grounding and Bonding, Distribution Centres, Conductors and Cables, Installing Devices, Three-phase Transformers, DC Motors and Generators, AC Motors and Alternators, Magnetic Motor Controls, and Electronic Motor Controls.

Level: VO

Prerequisite(s): 1. Valid Trade Worker ID Number (ITA ID #) 2. Active apprentice registration in the BC Apprenticeship system 3. Electrical Foundation or Level 1 Technical Training and Level 2 Technical Training 4. Additional requirements mandated by the Industry Training Authority may be required, contact Apprenticeship Services for information

AELC 1040 0 credits

Construction Electrical Level 4

In this level, apprentices will complete the learning objectives as defined in the Industry Training Authority Program Outline (January 2013) for Construction Electrician. Topics include: DC, AC, Three Phase and Electronic Circuits, Cable Testing and Reporting, Drawings and Specifications, Codes, Regulations and Standards, Service Equipment, Grounding and Bonding, Distribution Centres, Raceways, Boxes and Fittings, Conductors and Cables, Utilization Equipment and Devices, Protective Devices, HVAC, Emergency and Alternative Power Systems, Magnetic Motor Controls, PLCs, Automated Controls, Fire Alarm and Suppression Systems, Cabling Systems, Nurse Call Systems, Building Integrated Control Systems, Sound and Entertainment Systems, CATV and Security Alarm Systems, and High Voltage Safety Procedures, Cabling, Switch Gear and Test Equipment Employment Insurance (EI) Eligibility: Provincial program financial supports must be applied for online through the Apprentice Online Portal at apprenticeonline.gov.bc.ca. It is recommended that apprentices apply for these supports four weeks in advance of the start of their technical training and application must be made no later than the first day of technical training.

Level: VO

Prerequisite(s): 1. Valid Trade Worker ID Number (ITA ID #) 2. Active apprentice registration in the BC Apprenticeship system 3. Electrical Foundation or Level 1, 2 & 3 Technical Training