

Area of Interest: Construction and Skilled Trades

Powerline Technician - Apprenticeship

College Certificate

Program Code: 1689X01FWO

8 Weeks

Ottawa Campus

Our Program

The Powerline Technician - Apprenticeship Algonquin College Certificate program is delivered in collaboration with Hydro Ottawa and provides powerline technician apprentices with the theory and trade skills necessary to construct, maintain, and repair overhead and underground electrical power transmission and distribution systems and communication networks.

Prior to enrolling in this program, students must be working in the field as a registered apprentice with the Ontario College of Trades.

Apprentices are employed as Powerline Technicians with electric power generation, transmission and distribution companies, electrical contractors and public utility commissions.

To learn more about apprenticeships, visit <https://www.ontario.ca/page/skilled-trades> for detailed information.

For Registered Apprentices:

In this program, you develop essential safety skills and knowledge and learn to install, maintain, troubleshoot and repair power system poles, overhead and underground power systems; handle energized lines; and select, operate, and maintain appropriate tools and equipment.

This program is 383 hours of in-class instruction and must be supplemented by 7,617 hours of on-the-job work experience.

SUCCESS FACTORS:

This program is well suited to apprentices who:

- Prefer a hands-on, physical approach to learning.
- Enjoy analyzing and solving problems.
- Work well in a team environment.
- Enjoy the challenge of working outdoors and in all weather conditions.
- Are at ease climbing to and working at heights for power distribution.
- Can work in confined spaces.

Employment

Apprentices are employed as Powerline Technicians with electric power generation, transmission and distribution companies, electrical contractors and public utility commissions.

Program of Study

Level: 01	Courses	Hours
ELE1711	Powerline Installation Practices 1	40.0
SAF1710	Powerline Safety and Maintenance 1	40.0
Level: 02	Courses	Hours
ELE1720	Powerline Installation Practices 2	40.0
SAF1721	Powerline Safety and Maintenance 2	40.0
Level: 03	Courses	Hours
ELE1730	Powerline Installation Practices 3	40.0
SAF1730	Powerline Safety and Maintenance 3	40.0
Level: 04	Courses	Hours
ELE1741	Powerline Installation Practices 4	40.0
SAF1741	Powerline Safety and Maintenance 4	40.0

Fees for the 2023/2024 Academic Year

Tuition Fees: \$3,989.04 per level.

Information Technology Fee: \$10.96 per level.

Admission Requirements for the 2024/2025 Academic Year

Program Eligibility

- Eligibility is determined by the Ministry of Labour, Training and Skills Development.
- Applicants must be formally registered as apprentices and be released by their sponsor to attend the College.

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Application Information

POWERLINE TECHNICIAN - APPRENTICESHIP Program Code 1689X01FWO

Registration for Apprenticeship programs takes place through the Ministry of Labour, Training, and Skills Development.

For further information, contact:

Ministry of Labour, Training, and Skills Development
347 Preston Street, 3rd Floor, Suite 310
Ottawa, ON K1S 3H8

<http://www.ontario.ca/page/start-apprenticeship>
Telephone: 613-731-7100

Toll-free: 1-877-221-1220

Additional Information

Please note that all courses are delivered at Hydro Ottawa. Students are responsible for supplying their own personal hand tools and protective equipment (such as CSA approved safety footwear, non-tinted protective eyewear, hearing protection, gloves, hard hat) as required in each lab environment. Students are responsible for parking and locker fees, if applicable.

For more information, please contact the Algonquin Centre for Construction Excellence (ACCE), <https://www.algonquincollege.com/ACCE> , at 613-727-4723 ext. 7650 or <mailto:ACCE@algonquincollege.com> .

Contact Information

Program Coordinator(s)

- Kathryn Reilander, <mailto:reilank@algonquincollege.com> , 613-727-4723, ext. 3431

Course Descriptions

ELE1711 Powerline Installation Practices 1

Apprentices learn how to climb poles and ladders and raise/lower material with running handlines and perform pole top rescues safely.

Prerequisite(s): none
Corerequisite(s):none

ELE1720 Powerline Installation Practices 2

Apprentices prepare job plans, practice installing transformers and operating RBDs. Apprentices perform both a bucket rescue and bucket evacuation.

Prerequisite(s): none
Corerequisite(s):none

ELE1730 Powerline Installation Practices 3

Apprentices practice installing, splicing, connecting and terminating underground cables. Student practice installing overhead transformers.

Prerequisite(s): none
Corerequisite(s):none

ELE1741 Powerline Installation Practices 4

Apprentices practice properly using and maintaining live line tools and protective equipment and to safely perform tasks such as changing insulators, etc.

Prerequisite(s): none
Corerequisite(s):none

SAF1710 Powerline Safety and Maintenance 1

Apprentices learn pole line construction techniques through the safe operation and proper use of equipment and tools. They discuss tailboard sessions and all relevant safety legislations. Apprentices are introduced to basic electrical and transformer theory, the Radial Boom Derrick (RBD) and rescue procedures. Apprentices will calculate conductor weights and tensions.

Prerequisite(s): none
Corerequisite(s):none

SAF1721 Powerline Safety and Maintenance 2

Apprentices continue to learn about work safety and discuss preparing job plans. They learn about the proper use of equipment and tools to handle energized lines and how to troubleshoot transformer problems. Apprentices also learn about selecting and maintaining rigging equipment.

Prerequisite(s): none
Corerequisite(s):none

SAF1730 Powerline Safety and Maintenance 3

Apprentices continue to learn about work safety. Apprentices discuss proper communication techniques with customers and staff and discuss basic transformer tower maintenance. Apprentices continue to learn about handling energized lines and operating rigging equipment.

Prerequisite(s): none
Corerequisite(s):none

SAF1741 Powerline Safety and Maintenance 4

Apprentices continue to learn about work safety, preparing job plans and proper communication techniques. Apprentices continue to discuss live line tool methods in handling energized lines, and how to operate rigging equipment.

Prerequisite(s): none
Corerequisite(s):none