



Industrial Electrician

About this job

Electricians provide a critical service, installing, servicing, and maintaining the safety of some of the most important systems in our communities. The trade includes a variety of types of worksites, and electricians may work independently or as part of a team.



INDUSTRIAL ELECTRICIAN FALLS UNDER NATIONAL OCCUPATION
CLASSIFICATION (NOC) CODE #7242/72201



- Four-year program
- Red Seal Certificate
- High Demand Job
- Requires out of the territory technical training
- Aurora College
- Mining
- Manufacturing

\$145,768

Estimated Average Journeyperson Salary

APPRENTICESHIP, TRADES, AND OCCUPATIONAL CERTIFICATION

Aussi disponible en français

What can I expect to do for work if I become an Industrial Electrician?

Industrial electricians install, maintain, test, troubleshoot, service and repair industrial electrical equipment and associated electrical controls. Their work includes equipment or components directly or indirectly exposed to electrical power such as motors, generators, pumps and lighting systems.

- Read and interpret drawings, blueprints, schematics and electrical code specifications to determine layout of industrial electrical equipment installations,
- Install, examine, replace or repair electrical wiring, receptacles, switch boxes, conduits, feeders, fibre-optic and coaxial cable assemblies, lighting fixtures and other components,
- Test electrical and electronic equipment and components for continuity, current, voltage and resistance,
- Maintain, repair, install and test switchgear, transformers, switchboard meters, regulators and reactors,
- Maintain, repair, test and install electrical motors, generators, alternators, industrial storage batteries and hydraulic and pneumatic electrical control systems,
- Troubleshoot, maintain and repair industrial, electrical and electronic control systems and other related devices,
- Conduct preventive maintenance programs and keep maintenance records, and
- May install, maintain and calibrate industrial instrumentation and related devices.

What kind of working conditions can I expect?

Electricians usually work a 40-hour, five-day week plus overtime when required. Some types of work may be considered seasonal work. Working conditions change dramatically from one job to another, varying from indoors in clean conditions to outdoors on scaffolding, and to confined and restricted locations. Jobs may be located in residential, commercial, institutional or industrial settings. Safe work practices are essential.

Eligibility Requirements

Entrance Exam – Pass Exam 5 with a score of 70% or higher
or

Completion of the following high school courses

- English 20-2 (pass) or Literacy 30 (pass)
- Math 10C (pass)
- Science 10 (pass)

or

All five Canadian General Educational Development (GED) tests

SCHOOLS NORTH APPRENTICESHIP PROGRAM (SNAP) - SNAP apprentices are not required to satisfy the entrance requirements prior to signing an apprenticeship contract. However, the SNAP apprentice must satisfy the entrance requirements **or** write the TEE before attending technical training.

What are some skills that are valued in this profession?

The work is most rewarding for those who enjoy learning new and emerging technologies, and doing precise work that sometimes requires creativity.

- good communication, reading skills, math, problem solving, planning, and computer skills,
- mechanical ability, strength and manual dexterity to carry out precise work,
- the ability to distinguish colours to work with colour-coded wiring,
- the ability to work at heights,
- the ability to use proper lifting techniques,
- the ability to get along well with co-workers, coach, and mentor,
- the willingness to keep up with new developments in the field.

What is the minimum requirement to become an apprentice in this trade?

Apprentices must obtain a minimum of 70% on the Trades Entrance Exam – TEE Category #2 or the equivalent education as outlined below. This must be done before signing the Apprenticeship contract and attending technical training

How long will it take to complete an Industrial Electrician apprenticeship?

An apprenticeship takes about four years to complete and includes four on the job periods and four technical training periods. You need to complete 1800 hours per period, for a total of 7200 hours.

How long is technical training?

Apprentices attend 1080 technical training hours. Apprentices usually attend the first three years of the program in Fort Smith, NT and finish in **Alberta**.

Period	Technical Training ¹	Prerequisites for technical training	Hours ²
1st	8 Weeks 240 hours	Entrance Exam and 900 hours	1800
2nd	8 Weeks 240 hours	Completed 1 st Period	3600
3rd	8 Weeks 240 hours	Completed 2 nd Period	5400
4th	12 Weeks 360 hours	Completed 3 rd Period	7200

¹Length of In-School Training

²Minimum Time Required to Complete (Includes Technical Training)

For more information:

www.gov.nt.ca/Apprenticeship