

NOC 7241 (EXCEPT INDUSTRIAL AND POWER SYSTEM) ELECTRICIANS

JOB DESCRIPTION

Electricians in this unit group lay out, assemble, install, test, troubleshoot and repair electrical wiring, fixtures, control devices and related equipment in buildings and other structures.

DUTIES

- Read and interpret drawings, circuit diagrams and electrical code specifications to determine wiring layouts for new or existing installations
- Pull wire through conduits and through holes in walls and floors
- Install brackets and hangers to support electrical equipment
- Install, replace and repair lighting fixtures and electrical control and distribution equipment, such as switches, relays and circuit breaker panels
- Splice, join and connect wire to fixtures and components to form circuits
- Test continuity of circuits using test equipment to ensure compatibility and safety of system, following installation, replacement or repair
- Troubleshoot and isolate faults in electrical and electronic systems and remove and replace faulty components
- Connect electrical power to audio and visual communication equipment, signalling devices and heating and cooling systems
- Conduct preventive maintenance programs and keep maintenance records

COMMON JOB TITLES

- apprentice electrician
- construction electrician apprentice
- construction electrician
- domestic and rural electrician
- electrician

QUALIFICATIONS, ESSENTIAL SKILLS & EMPLOYMENT REQUIREMENTS

- Completion of secondary school is usually required
- Completion of a four- to five-year apprenticeship program is usually required.
- Trade certification for construction electricians is compulsory Ontario
- Trade certification for electricians (domestic and rural) is compulsory in Ontario by Ontario College of Trades.
- Trade certification for electrical control (machine) builders is available, but voluntary, in Ontario.
- Red Seal endorsement is also available to qualified construction electricians upon successful completion of the interprovincial Red Seal examination.
- Employers usually require experience of about 1-5 years
- Specific Skills: Install, replace and repair electrical controls and panel boxes. Splice, join and connect wires. Troubleshoot and isolate faults. Test and measure voltage, loads, ground faults integrity of circuits.
- Additional Skills: Instruct apprentices. Read and interpret blueprints, drawings and specifications. Keep maintenance reports and documentation.

EDUCATIONAL PROGRAMS

- Electronics Engineering Technician:Technology- Sheridan Institute of Technology and Advanced Learning (Brampton, ON)
- Electrical Engineering Technician- Centennial College of Applied Arts and Technology (Toronto, ON)
- Electronics Engineering Technician- Humber College of Applied Arts and Technology (Toronto, ON)

WAGES (\$/hour)

- Median Wage: \$30
- Wage Range: \$15-\$45.19

TYPICAL EMPLOYERS

- electrical contractors
- maintenance departments of buildings and other establishments
- self-employed