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# CONSTRUCTION & MAINTENANCE ELECTRICIAN CERTIFICATE COURSE



**Program Length:** 158 Hours  
**Mode of Learning:** Online  
**Students:** Domestic / International  
**Credential:** Certificate  
**NOC**



# CONSTRUCTION & MAINTENANCE ELECTRICIAN

## CERTIFICATE COURSE

### Program Overview

The Construction & Maintenance Electrician Program is a modular, Red Seal-aligned course designed to train students for dynamic careers in the electrical trade. Construction and maintenance electricians are responsible for installing, maintaining, and troubleshooting electrical systems in residential, commercial, and industrial buildings. Their work powers homes, workplaces, and infrastructure across the country.

This program provides in-depth training in electrical theory, blueprint reading, power distribution, wiring methods, and safety protocols. Students also gain hands-on experience with residential and commercial electrical installations, motor controls, lighting systems, and renewable energy technologies. Emphasis is placed on understanding the Canadian Electrical Code and performing work that meets modern energy efficiency and safety standards.

Graduates of this program will be prepared to pursue Red Seal Certification in the Construction and Maintenance Electrician trade. This national designation affirms their technical skill and provides greater job mobility, recognition, and earning potential throughout Canada's growing construction and energy sectors.

# CONSTRUCTION & MAINTENANCE ELECTRICIAN CERTIFICATE COURSE



## Modules:

### Module 1: Electrical Theory & Safety Fundamentals

(39.5 hours)

- Introduction to electrical systems and circuit theory
- Series, parallel, and combination circuits
- Electrical safety, PPE, and lockout/tagout procedures
- Introduction to the Canadian Electrical Code

### Module 2: Wiring Methods & Residential Installations

(39.5 hours)

- Conductors, cables, and raceways
- Wiring for lighting, receptacles, and devices
- Installation of panels, switches, and circuit breakers
- Reading blueprints and residential schematics

### Module 3: Commercial Systems & Power Distribution

(39.5 hours)

- Three-phase systems and transformer applications
- Conduit bending and large-scale electrical layouts
- Fire alarm, communication, and security systems
- Lighting controls and energy-efficient technologies

### Module 4: Motor Controls, Maintenance & Red Seal Prep

(39.5 hours)

- Motor types, starters, and control circuits
- Troubleshooting electrical faults and using testing tools
- Maintenance procedures for commercial/industrial settings
- Red Seal exam preparation and code book navigation

## Admission Requirements

- Ontario Secondary School Diploma (OSSD) or equivalent
- Minimum age: 18 years
- English language proficiency (CLB Level 6 or IELTS 5.5 or equivalent)
- Strong interest in electrical systems, construction, or renewable energy
- Previous shop, math, or science experience is an asset



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Futures Canadian College of Business, Health, and Technology formerly Futures Academy of Health was founded in 2009 in Toronto, Ontario. Approved and accepted in November 2018 by the International Student Program, Futures Canadian College is now a Designated Learning Institution.

At FCC, we strive to provide the world-class education every student deserves. With well-crafted lesson plans, that are both informative and practical, we ensure that you learn all you need to know to jumpstart your career. Our co-op programs are relevant and supportive of your desire to land that dream job!

We are committed to providing you with a learning environment that is well-equipped to motivate you to pursue your studies and ultimately, achieve your long-term goals.