

CANADIAN ELECTRICAL SAFETY CODE (CEC) – FUNDAMENTALS

Hands-on industrial training for engineers and technicians who need a practical foundation.



PRACTICAL KNOWLEDGE



REAL-WORLD APPLICATIONS



IMPROVED EFFICIENCY AND PERFORMANCE



DURATION

8 Hours (1 day)
Lunch Included



DELIVERY

In-Person or
Online



CERTIFICATE

Certificate of
Completion Provided



WHO SHOULD ATTEND

- Apprentice and licensed electricians working in residential and commercial installations
- Electrical engineering and technologist students preparing for industry
- Junior engineers (EITs) needing practical code knowledge
- Safety officers and site supervisors responsible for compliance
- Inspectors in training or professionals preparing for certification exams
- Career changers entering the electrical field in Canada
- Professionals pursuing PEO and CPD requirements



COURSE BENEFITS

Participants will gain hands-on knowledge that can be used immediately in the field:

- Develop confidence in reading and interpreting the CEC
- Perform accurate load calculations and conductor sizing
- Apply proper grounding and bonding techniques to improve safety
- Understand wiring methods and installation best practices
- Identify and avoid the most common code violations
- Improve success in job interviews and certification exams
- Build a strong foundation for advanced electrical work

By the end of the course, participants will be able to analyze basic electrical installations and verify code compliance independently.



INDUSTRY RELEVANCE

This course covers the most frequently used and inspected parts of the Canadian Electrical Code (CEC), essential for residential and commercial projects. It aligns with inspection requirements across Ontario and Canada while addressing common field issues such as grounding, conductor sizing, and overloads. These areas account for most inspection failures, making the course highly practical and in strong demand.

SOLATRONIX | Engineering Services and Technology Training | CANADA



COURSE OUTLINE

- 1** **Module 1: Introduction to Canadian Electrical Code (Section 2)**
 - Structure and organization of the CEC, Definitions and terminology, General rules and safety principles
- 2** **Module 2: Conductors and Ampacity (Section 4)**
 - Types of conductors and insulation, Ampacity ratings and derating factors, Temperature limitations
- 3** **Module 3: Services and Distribution (Section 6)**
 - Service entrance configurations and requirements, Metering arrangements and service boxes, Main disconnect rules and placement
- 4** **Module 4: Circuit Loading and Demand Factors (Section 8)**
 - Load calculations, Demand factors, Feeder and service sizing
- 5** **Module 5: Grounding and Bonding (Section 10)**
 - Purpose of grounding vs bonding, System grounding methods, Touch voltage and step voltage concepts
- 6** **Module 6: Wiring Methods (Section 12)**
 - Types of wiring methods, Installation requirements and spacing rules, Fill capacity and derating in conduits.
- 7** **Module 7: Protection and Control Devices (Section 14)**
 - Overcurrent protection, Coordination and selectivity, Disconnecting means



WHAT YOU WILL GAIN

A practical foundation in the Canadian Electrical Code (CEC) that enables you to apply code requirements confidently in real-world installations, improve safety, ensure compliance, and advance your career in the electrical industry.



ABOUT THE INSTRUCTOR



HUSSIN HASSEN, P.Eng

Degree: Master of Applied Science in Electrical Engineering from University of Waterloo

Certificates: Professional Engineering Certificate from PEO in Ontario

Practical Experience: Over 20 years of experience in testing and commissioning of UPS systems, excitation systems for hydroelectric plants and Smart battery storage systems.

Teaching Experience: Experienced educator with more than a decade of teaching in electrical engineering, specializing in power electronics and electric machines.



COURSE DELIVERY

This course can be delivered online or in-person at our location or at the customer's location.



ADDITIONAL INFORMATION

- ✓ Course materials and practical examples included
- ✓ Certificate of completion provided
- ✓ Hands-on training where applicable
- ✓ Customized delivery available for corporate clients



VENUE & STARTING DATE

TBA
Please contact us for details on upcoming sessions.



COST

Please contact us for group pricing and corporate training packages



COURSE SCHEDULE

- Duration: 8 hours (1 day)
- Delivery: In-person / Online
- Next Session: TBA



CERTIFICATE

Certificate of attendance will be provided upon successful completion.