



Content
Community
Connection

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Canadian Electrical Code Training - 2018 Edition Code Changes and Fundamentals

Contact us Today for a FREE quotation to deliver this course at your company's location.

<https://www.electricityforum.com/onsite-training-rfq>

We are producing a series of courses across Canada by one of Canada's leading experts on the 2018 Edition of the Canadian Electrical Code to help electrical professionals on the effective application through an improved understanding of the intent of the rules. Also, our course will instruct electrical professionals on how to access and navigate through the Canadian Electrical Code Part 1 in a cost-efficient manner.

The 2018 Canadian Electrical Code Book is the basis for all provincial and territorial electrical codes across Canada. Most provinces adopt and meet the rules set out by the Code, without changes, while other provinces add their own amendments. You need to know both the national and specific provincial code differences. This course deals with a wide range of important subjects, including energy management systems, electrical vehicle charging stations, heating devices and controls, shower stalls,

We can create a unique customized course, designed for all levels of electrical professionals by one of Canada's leading experts in industrial, commercial, institutional and residential electrical installations, as well as the business of conducting electrical inspections.

Our 2018 Canadian Electrical Code Training classes not only offers updates on the latest code changes, but we also include a way to understand what the rules are and how to access each area of the code with ease. Some people spend endless time searching for the rules that they need. This education program will teach what you need to know, quickly and accurately. Our instructor will demonstrate how to find the answers you need in a few easy steps. You will find the answers easily and correctly with our training system.

You won't want to miss this learning opportunity!!

It's a Proven Fact:

Electrical Engineering, Design, Maintenance and Construction professionals who understand the most current Electrical Code standards will:

- Work more safely and provide a greater degree of electrical protection for electrical systems
- Work more productively. Make more money, save their clients' money
- Prevent system incompatibilities from holding up a job
- Experience a higher rate of passing electrical inspection

This interactive 2-Day Canadian Electrical Code Training Course will instruct industrial, commercial and institutional electrical professionals and electrical professionals on:

1. Understanding the most recent changes to the Canadian Electrical Code and individual provincial amendments.
2. Code Interpretation: How to most effectively interpret the Canadian Electrical Code in order to properly comply.
3. How to navigate and access the Code Rules accurately and time-effectively.

This course is designed to be an interactive, problem-solving, learning environment for delegates of all disciplines. Instructor-led calculations will determine minimum conductor sizes and maximum overcurrent ampacities for various loads as well as maximum overload settings for AC motors. Participants are encouraged to bring a calculator to the seminar in order to actively participate in the exercises.

The positive outcome of this training is to improve the quality of installations and to pass electrical inspection with fewer deficiencies. It means working more efficiently and productively, saving time, energy, and money, which is a great credit to everyone working in the industry.

WHO SHOULD ATTEND

- Electrical Engineers, Technicians and Technologists
- Mechanical Engineers and Technologists
- Design Consultants
- Industrial Maintenance Contractors
- Electrical Project Managers
- Electrical Inspectors
- Educators

STUDENTS RECEIVE

- 100+Page Digital Electrical Safety Handbook (Value \$20)
- An **Electricity Forum Coupon (Value \$100)** to be used against any future Electricity Forum event (restrictions apply)
- 1.4 CEU credits issued by the Engineering Institute of Canada.
- Course Materials in Paper Format

COURSE OUTLINE

CE Code Compliance Training

Instructor: Larry Cantelo, Canadian Electrical Code Training Specialist

DAY ONE

8:00 am

Welcome and introduction to the code

- Electrical code overview
- Organization of the Code
- Critical related standards
- Equipment approval requirements

Objectives and Scope

- Objectives of the Code
- Exemptions

Conductors

- Termination temperatures
- Wire and cable – specifications and conditions of use
- Conductor sizes, ampacities and temperature ratings
- Flame spread ratings
- Parallel conductors
- Underground conductors
- Sheath currents and eddy currents
- High voltage conductors

Circuit Loading and Demand Factors

- Intermittent loads
- Continuous loads
- 80% and 100% rated circuit breakers
- Car-plug panel feeder calculations

Residential Calculations

- Single dwelling service calculations
- Apartment feeder calculations
- Branch circuit calculations

Grounding and Bonding

- What is Grounding and bonding?
- Electrical system grounding
- Service equipment grounding
- Electrical equipment bonding
- Bonding other systems
- Grounding and bonding methods
- High voltage grounding, ground potential rise, step and touch voltages

Protection and Control

- Interrupting rating (IR) of overcurrent devices

- Tap conductor requirements
- Ground fault protection
- Series rated electrical equipment
- Fuse and circuit-breaker applications
- Switching and disconnection

Fire Alarm Systems and Fire Pumps

- Conductors
- Overcurrent protection

DAY TWO

Hazardous Locations

- Overview of major revisions to Section 18
- Area classifications, zones, divisions and groups
- Hazardous locations – wiring and equipment
- Sealing
- Intrinsically safe and non-incendive circuits
- Purged electrical systems

Installation of Electrical Equipment

- Capacitors and capacitor banks
- Transformers
- Panelboards

Electric Motors

- Service factor
- Overcurrent and overload protection
- Conductor ratings, service, feeders and branch circuits
- Grouped motor protection
- Motor disconnection
- Motor controls
- Power factor correction capacitors

Fire Alarm Systems and Fire Pumps

- Fire alarm systems
- Smoke and CO alarms in dwellings
- Fire pumps

High Voltage Substations and Lines

- Electrical system fault levels
- Lightning protection
- Transformer and switchgear rooms
- Sprinklered equipment
- Overcurrent protection
- Lightning protection
- Clearance – substations and lines
- Liquid-filled equipment

Emergency Power Supply

- Wiring and overcurrent protection
- Emergency power supply, unit equipment, exit signs and unit equipment

- Wiring and overcurrent protection
- Emergency power supplies
- Emergency lighting
- Exit signs
- Unit equipment

Questions and Answers

COURSE TIMETABLE

Both days:

Start: 8:00 a.m.

Coffee break: 10:00 a.m.

Lunch: 12:00 noon

Finish: 4:30 p.m.

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