

OUR VISION

*To offer the finest trades training possible,
to support national standards and ensure
a strong electrical industry.*

ELECTRICAL JOINT TRAINING COMMITTEE

FALL 2023

Journey person Upgrading Programs

Check us out @ www.ejtc.org

We are on:





ELECTRICAL CODE: 25th Ed. - 2021

Cost: \$78.75 non-refundable administration fee (includes GST)

Instructor: Mark Stevens

ONLINE VIA ZOOM

October 3 – December 12, 2023

Tuesdays & Thursdays

Time: 6:00-8:30pm

20 sessions/50 hours total

This 50 hour course is based on the New BC Electrical Code Regulation 2021 (25th Edition) and includes the changes to the 2021 BC Code. The course is designed for Electricians, Technologists, Technicians, Electrical Engineers and Electrical Contractors planning to upgrade their knowledge of the Code.

This course is also for those planning to write the Field Safety Representative A, B or C Exams. Instruction covers all sections of the Code, Amendments, Directives, Bulletins, Acts and Regulations.

***2021 Code Book is required. Please note that the EJTC does not sell code books at this time.**

CODE REFRESHER

Cost: \$78.75 non-refundable administration fee (includes GST)

Instructor: Mark Stevens

ONLINE VIA ZOOM

September 23, 2023

Saturday

Time: 8:00am – 4:30pm

1 session/8 hours total

OR

November 25, 2023

Saturday

Time: 8:00am – 4:30pm

1 session/8 hours total

British Columbia has adopted the 2021 version of the Canadian Electrical Code. The new version includes several changes to support electrical workers in the safe installation and maintenance of electrical equipment and systems. This course provides an in-depth overview of the 2021 Canadian Electrical Code and the changes to BC's Acts and Regulations. The course includes interpretations and applications of the code, as well as new definitions and tables. FSRs should renew their certification on or before the expiry date listed on their wallet cards. This course will provide Class A, B or C FSRs the 8 hours of continuing education required for certificate renewal.

This course will provide Class A, B or C FSRs the 8 hours of continuing education required for certificate renewal.

***2021 Code Book is recommended. Please note that the EJTC does not sell code books at this time.**

FIBER OPTICS

Cost: \$189.00 (\$78.75 non-refundable administration fee + \$110.25 Certification fee – includes GST)

September 18-22, 2023

Monday – Friday

Time: 9:00am – 4:00pm

5 sessions/35 hours total

Location: **ON-CAMPUS** at NETCOM (1424 Broadway Street, Port Coquitlam)

In this 5 day course, you will study basic theory and practical aspects of using fiber optic cable in different types of communications and data transmissions. Students will increase their knowledge and gain hands-on skills in fiber optics technology in preparation for earning their designation as Certified Fiber Optics Technician (CFOT). This course involves a combination of theory and hands-on training. Students will focus on the practical aspects of working with fiber optics cables, incl. connectorization, fusion splicing and testing. A wide range of topics will be covered, such as the different types of fiber and cables, how to specify fiber optic cable and sources of loss in fiber.



ELECTRIC VEHICLE INFRASTRUCTURE TRAINING PROGRAM (EVITP)

Cost: \$142.50 (\$78.75 non-refundable administration fee + \$63.75 EVITP Certification Exam fee - includes GST)

ONLINE VIA ZOOM

Monday-Thursday (over two weeks)

Instructor: Neil Normandeau

DATES:

Week 1:

Sept. 11 – 5:30pm-8:30pm
Sept. 12 – 5:30pm-8:30pm
Sept. 13 – 5:30pm-8:30pm
Sept. 14 – 5:30pm-8:30pm

Week 2:

Sept. 18 – 5:30pm-8:30pm
Sept. 19 – 5:30pm-8:30pm
Sept. 20 – 5:30pm-8:30pm
Sept. 21 – 5:30pm-8:30pm

EXAM: ON CAMPUS

Saturday, September 23 2023
9:00am – 12:00pm
EJTC Training Center
1405 Broadway Street, Port Co.

8 sessions total
(24 hours + 3 hour exam)

▶ **Prerequisite:** Must be a Journeyman Electrician (a copy of your Red Seal Certification of Qualification will be required!)

▶ **Note!** Full attendance is required to write the EVITP certification exam.

This course is an Industry driven collaborative effort. The Electric Vehicle Infrastructure Training Program (EVITP) delivers the highest standard in training and certification for the installation of Electrical Vehicle Supply Equipment (EVSE). To be included in the course:

- Automobile Manufacturer’s charging specifications
- EV battery types, charging characteristics
- Customer service/relations
- Utility interconnect policies and requirements
- Utility grid stress precautions
- Installing, commission and maintaining electrical storage devices
- Charging station fundamentals
- Service level assessments and upgrade implementation
- Canadian Electrical Code requirements
- First Responder safety and fire hazard measures
- Site Surveys

You will require a 2021 Code Book and non-programmable calculator.* →Please note: the EJTC does not sell Code Books at this time

CONDUIT BENDING

Cost: \$163.75 (\$78.75 non-refundable administration fee + \$85.00 books – includes GST)

Instructor: James McKenna

September 16 & 17, 2023

Saturday & Sunday

Time: 8:30am – 4:30pm

2 sessions/16 hours total

Location: **ON-CAMPUS** at EJTC Training Center (1405 Broadway Street, Port Coquitlam)

This course is for those electricians who would like to increase their conduit fabrication skill level. You will learn how to fabricate Offsets, Kicks, Three Bend Saddles Four Bend Saddles, Goosenecks and Rolling Offsets. You will learn the Traditional method, Push Through method and the Multiplier method for bending conduit. We will be using ½” and ¾” emt conduit. Please note that this is not a ‘power bender’ course. **Note! Safety footwear and hand tools required.**

NEW! Must have basic computer skills and ability to access a computer with Windows 8 (or later) and internet for homework assignments as required.

CONTINUED ON NEXT PAGE

FIRE ALARM INSTALLATION

Cost: \$78.75 non-refundable administration fee (includes GST)

Instructor: Frank Kurz

ON-CAMPUS

September 11 – 16, 2023

Monday – Saturday

Time: 8:00am – 4:30pm

6 sessions/48 hours total

Location: EJTC Training Center

This course offering will familiarize the journey person with fire alarm system field components and their proper installation. You will gain an in-depth understanding of circuit wiring, specifications, and the design/layout process in order to successfully install and troubleshoot data communication link circuits, indicating appliance circuits (bells, horns, strobes, egress path marker systems), and conventional fire alarm initiating circuits. Successful course graduates will be able to participate in the Commissioning and Verification processes, and assist in preparing the documentation required by the Standard for Installation of Fire Alarm Systems and the British Columbia Building Code (including the Vancouver Building By-Law).

- Building Code and Standards Requirements
- Manufacturer's installation requirements
- Conventional Fire Alarm Control Panels
- Addressable Fire Alarm Control Panels
- Field device installation and wiring requirements
- Class "A" and Class "B" Wiring Circuits
- Duct detectors
- Air aspirating systems
- Isolators:
 - Data Communication Link
 - Power Buss
 - In-suite Sounders
- Emergency Voice Communication Systems
- Networked systems
- Introduction to programming
- Terminating a fire alarm control panel
- Ancillary device circuits (door holders, smoke control systems, interconnection to the fire signal receiving centre transmitter)
- Elevator control
- Extinguishment system interconnection
- Remote annunciators (Code requirements, wiring)
- The Verification
- Fire alarm system design fundamentals
- Troubleshooting:
 - Ground faults
 - Open circuits
 - Class A Wiring
- Smoke detectors in lieu of smoke alarms
- Integrated Life Safety Systems Testing (CAN/ULC-S1001) fundamentals
- Installation do's and don'ts

HEATING, VENTILATION AND AIR CONDITIONING (HVAC) SEMINAR

Cost: FREE

Instructor: Farzan Poursoltani

ONLINE VIA ZOOM

November 8, 2023

Wednesday

Time: 5:00pm – 8:00pm

1 session/3 hours total

As electricians, we are required to provide power for HVAC equipment, and as a Controls electrician, we need to be able to wire and troubleshoot HVAC equipment in order to make it work effectively. This course will educate electricians about the function of HVAC equipment in relation to air, temperature, pressurization, humidity, etc.

In this three-hour seminar, we will go through slides and review the functionality of:

- Air-Handling units
- Variable-Air-Volume terminal boxes
- Hydronic HVAC Systems
- Heat Exchangers

HIGH VOLTAGE SAFETY TRAINING

Cost: \$78.75 non-refundable administration fee (includes GST)

ONLINE – INSTRUCTOR LED

September 21, 2023

Thursday

Time: 7:00am – 1:30pm

1 sessions/6 hours total

This course is offered through our partnership with Electricity Forum.

This 6-Hour (one day course) live online instructor led course is designed for electrical maintenance personnel responsible for Medium Voltage/High Voltage electrical systems, supervisory and health and safety professionals who are responsible for overseeing high voltage electrical work.

Dynamic and highly concentrated, this High Voltage Safety Training course places maximum emphasis on safety when working on or near energized electrical equipment.

Students will learn the damage electricity can cause to the human body and understand the basic principles of safety in normal and abnormal conditions. They will also learn how to provide assistance in determining severity of potential exposure to Medium Voltage/High Voltage arc flash hazards, planning safe work practices and selecting proper personal protective equipment.

During this High Voltage Safety Training course, you will learn to recognize and avoid electric shock in unsafe work areas. You will also learn the correct approach distances. Upon completion, you will have a better understanding of proper voltage rated tools and the use of proper personal protection equipment. By educating workers on issues central to the safe performance of their everyday jobs, loss of life or serious injuries can be reduced and eliminated from your workplace. Your safety and the safety of your coworkers depend on it!

ARC FLASH TRAINING- CSA Z462 – 2021- CERTIFIED ELECTRICAL SAFETY INSTRUCTION

Cost: \$78.75 non-refundable administration fee (includes GST)

ONLINE – INSTRUCTOR LED

October 18, 2023

Wednesday

Time: 7:00am – 1:30pm

1 session/6 hours total

This course is offered through our partnership with Electricity Forum.

This 6-Hour live online, Instructor-led certified Arc Flash and Shock online electrical safety training course incorporates recent revisions to the 2021 Edition of CSA Z462 Arc Flash Electrical Safety in the Workplace Standard. This CSA Z462-2021 Workplace Electrical Safety Training Course Exceeds Canadian Arc Flash Training Requirements

Students will learn real-life examples and have their electrical safety questions answered by a safety professional with years of electrical safety experience in the development and implementation of a z462 training safety program.

CONTINUED ON NEXT PAGE



TELC 0130: BASIC MOTOR CONTROL

Cost: \$78.75 non-refundable administration fee (includes GST)

IN-PERSON

October 14 – November 4, 2023

Saturdays

Time: 8:00am – 4:00pm

6 sessions/45 hours total

Location: BCIT (3700 Willingdon Avenue, Burnaby, Building SE-1)

Prerequisites: Familiarity with wiring methods and AC Motor operation.

Covers the basic principles of conventional motor control for those working in an industrial setting.

Upon successful completion of this course, the student will be able to:

- Describe the features of manual motor starters.
- Draw diagrams for manual AC motor starters.
- Connect and test manual motor starters.
- Identification of common symbols & their application in motor control diagrams.
- Describe the features & construction of three-phase, across-the-line magnetic motor starters.
- Draw & label schematic diagrams for basic motor control circuits.
- Convert between schematic & wiring diagrams.
- Describe features of common control devices.
- Connect & operate simple three-wire control circuits.
- Describe features of control and time delay relays.
- Describe features and applications of plugging switches.
- Develop circuit diagrams involving automatic and sequence control.
- Check fuses & perform safety isolation on a fusible disconnect switch.
- Describe simple troubleshooting procedures for magnetic starters & controls.
- Interpret CEC rules & regulation about magnetic motor starters.
- Describe features of programmable relays.
- Develop programs using relay logic.
- Connect, operate and program programmable relays.

Please note the following message posted on the BCIT website:

- BCIT reserves the right to cancel courses. In the event of cancellation, student will be notified five business days prior to the course start date. Ensure your contact information (e.g. personal email address) is current.



ACIM 5010: PROGRAMMABLE LOGIC CONTROLLERS

Cost: \$78.75 non-refundable administration fee (includes GST)

IN-PERSON

October 10 – November 23, 2023

Tuesdays & Thursdays

Time: 5:00pm – 8:15pm

14 sessions/45 hours total

Location: BCIT (3700 Willingdon Avenue, Burnaby, Building SE-1)

Prerequisites: TELC 0130 Basic Motor Control and/or successful completion of Electrical Apprenticeship Level 2 or 3 or 4 program within the last 5 years.

Two essential parts of automated control systems installations are measurement and control. This course will introduce various transducers that are encountered in automated control systems as this foundation is necessary for the installation, maintenance, and troubleshooting of analogue devices and programmable devices. Students will make power, signal, and communication connections for the programmable relay and interpret and write programs. Numerous troubleshooting exercises will be completed. Topics covered include installation, interfacing, closed loop control, trouble-shooting and testing, safety, and an introduction to monitoring.

Please note the following message posted on the BCIT website:

- BCIT reserves the right to cancel courses. In the event of cancellation, student will be notified five business days prior to the course start date. Ensure your contact information (e.g. personal email address) is current.

ACIM 5020: ELEMENTS OF DRAFTING AND RENEWABLE ENERGY SYSTEMS

Cost: \$78.75 non-refundable administration fee (includes GST)

IN-PERSON

November 4 – December 16, 2023

Saturdays

Time: 7:30am – 3:00pm

6 sessions/45 hours total

Location: BCIT (3700 Willingdon Avenue, Burnaby, Building SE-1)

No class November 11, 2023 (Remembrance Day).

Prerequisites: None

This course is an introduction to the drafting and renewable energy systems concepts. Half of the course will be interpreting and creating electrical drawings. The drafting tools used will be AutoCad and Visio. The second half of the course will examine power monitoring and protective relaying. A review of work, power, and energy concepts will allow students to convert between units for mechanical, electrical, and thermal systems. To encourage the use of online resources and teamwork a power system monitoring lab is completed. The practical activities done by the student in the course reinforce the theory studied.

Please note the following message posted on the BCIT website:

- BCIT reserves the right to cancel courses. Ensure your contact information (e.g. personal email address) is current. In the event of cancellation, student will be notified three business days prior to the course start date.

CONTINUED ON NEXT PAGE



ACIM 5040: VARIABLE FREQUENCY DRIVES & SERVOS

Cost: \$78.75 non-refundable administration fee (includes GST)

IN-PERSON

September 18- 22, 2023

Monday - Friday

Time: 7:30am – 3:30pm

5 sessions/45 hours total

Location: BCIT (3700 Willingdon Avenue, Burnaby, Building SE-1)

Prerequisites: TELC 0130 Basic Motor Control and/or successful completion of Electrical Apprenticeship Level 2 or 3 or 4 program within the last 5 years.

This course will familiarize students with installation and operational requirements for electrical machines with variable-frequency drives. Students will be introduced to applications of variable-frequency drives (VFDs), including their installation needs, classifications and harmonic considerations. The drives will be utilized on standalone and micro-processor-based systems programmable logic controllers (PLCs)/programmable automation controllers (PACs). A significant part of the course is dedicated to application activities that reinforce the theory.

Please note the following message posted on the BCIT website:

- BCIT reserves the right to cancel courses. In the event of cancellation, student will be notified five business days prior to the course start date. Ensure your contact information (e.g. personal email address) is current.