



Electrical
Safety
Authority

ELECTRICAL SAFETY & TECHNICAL TRAINING

2018 TRAINING CALENDAR





ELECTRICAL SAFETY AWARENESS I

- Learn how you can provide an electrically safe living and work environment for you, your family, friends and co-workers.
- Basic electrical terminology and definitions.
- Learn to identify and avoid common electrical hazards.
- How electrical shocks cause injuries and death.
- Learn the legal requirements for inspection and equipment approvals.

90022429	Barrie – Hampton Inn & Suites, 74 Bryne Dr	November 2, 2018 8:00 AM–12:00 PM
90022488	London – Ramada London, 817 Exeter Rd	September 20, 2018 8:00 AM–12:00 PM
90022566	Markham – Homewood Suites, 50 Bodrington Crt	November 29, 2018 1:00 PM–5:00 PM
90022540	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	April 5, 2018 1:00 PM–5:00 PM



ELECTRICAL SAFETY FOR MAINTENANCE STAFF

- Establish an awareness of the fundamentals of electricity and basic electrical terms.
- Recognize the dangers of electricity.
- Discuss the physiological effects of electricity on the body.
- Explain the importance of working safely.
- Describe the consequences of not working safely.

90022420	Barrie – Hampton Inn & Suites, 74 Bryne Dr	May 11, 2018 8:00 AM–12:00 PM
90022427	Barrie – Hampton Inn & Suites, 74 Bryne Dr	October 19, 2018 8:00 AM–12:00 PM
90022529	Hamilton – Admiral Inn, 149 Dundurn St N	October 2, 2018 8:00 AM–12:00 PM
90022482	London – Ramada London, 817 Exeter Rd	March 22, 2018 8:00 AM–12:00 PM
90022548	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	September 25, 2018 8:00 AM–12:00 PM



GROUNDING AND BONDING

- Discuss the requirements of Section 10 Grounding and Bonding of the Ontario Electrical Safety Code (OESC).
- Describe the principles of grounding and bonding.
- Describe specific grounding and bonding requirements.
- Discuss grounding requirements of Section 36 High Voltage Installations.
- Review Supplemental and Amendatory Sections and Rules.

90022428	Barrie – Hampton Inn & Suites, 74 Bryne Dr	October 19, 2018 1:00 PM–5:00 PM
90022584	Hamilton – Admiral Inn, 149 Dundurn St N	April 24, 2018 8:00 AM–12:00 PM
90022484	London – Ramada London, 817 Exeter Rd	June 7, 2018 8:00 AM–12:00 PM
90022564	Markham – Homewood Suites, 50 Bodrington Crt	October 25, 2018 1:00 PM–5:00 PM
90022542	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	May 15, 2018 1:00 PM–5:00 PM



INTRODUCTION TO CONDUCTORS

- Review the Ontario Electrical Safety Code (OESC) rules relating to conductors.
- Identify the rules that apply to selection, rating and installation of conductors.
- Describe how to use various tables and diagrams in the OESC to correctly choose and configure conductors for various installation types.

90022430	Barrie – Hampton Inn & Suites, 74 Bryne Dr	November 2, 2018 1:00 PM–5:00 PM
90022585	Hamilton – Admiral Inn, 149 Dundurn St N	April 24, 2018 1:00 PM–5:00 PM
90022490	London – Ramada London, 817 Exeter Rd	June 21, 2018 1:00 PM–5:00 PM
90022496	London – Ramada London, 817 Exeter Rd	November 15, 2018 1:00 PM–5:00 PM
90022565	Markham – Homewood Suites, 50 Bodrington Crt	November 29, 2018 8:00 AM–12:00 PM
90022539	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	April 5, 2018 8:00 AM–12:00 PM



MAINTENANCE OF ELECTRICAL SYSTEMS – INTRODUCTION (Z463)

- Describe how an electrical maintenance program contributes to workplace safety.
- Describe various strategies and their appropriate use.
- Describe guidelines for general maintenance practices to reduce hazards and risk.
- Identify the principles for establishing an effective electrical maintenance program.

90022551	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	October 16, 2018 8:00 AM–5:00 PM
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OESC 2015 – GENERAL LEVEL 1

- Describe the new and amended requirements of the General Sections of the 2015 Ontario Electrical Safety Code effective May 5, 2016.
- Apply knowledge of new and amended requirements to the design and installation of electrical equipment to ensure compliance with the 2015 OESC.

90022532	Hamilton – Admiral Inn, 149 Dundurn St N	October 18, 2018 1:00 PM–5:00 PM
90022489	London – Ramada London, 817 Exeter Rd	June 21, 2018 8:00 AM–12:00 PM
90022495	London – Ramada London, 817 Exeter Rd	November 15, 2018 8:00 AM–12:00 PM

REGISTER

Register for the course by completing the **Course Registration Form** on the back of this brochure or contact **1-877-ESA-SAFE (372-7233)**.

ON-SITE TRAINING

Private on-site training courses are available for groups up to 25 participants. Ask your Client Safety Specialist for details or contact **1-877-854-0079**.

CEUs

Participants enrolled in ESA training courses may be eligible to receive Continuing Education Units (CEUs). Ask your Client Safety Specialist for details.



POWERLINE SAFETY AWARENESS

- Identify powerlines and hazards.
- Identify safe practices for working around powerlines when operating:
 - » High reach equipment
 - » Loading and unloading of material
 - » Proper use of ladders
- Describe the requirements of the Occupational Health and Safety Act.
- Describe what to do in the event that a worker or equipment comes into contact with powerlines.

90022530	Hamilton – Admiral Inn, 149 Dundurn St N	October 2, 2018 1:00 PM–5:00 PM
90022483	London – Ramada London, 817 Exeter Rd	March 22, 2018 1:00 PM–5:00 PM
90022543	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	May 31, 2018 8:00 AM–12:00 PM



PRE-MASTER ELECTRICIAN COURSE

- This course is designed to expand the knowledge and skills of Electricians and assist Electricians and other persons, who are qualified to be licensed (P.Eng, CET, C-Tech), in preparing to write the Master Electrician Examination.
- The course is divided into 12 Modules and references specific sections of the Ontario Electrical Safety Code, other pertinent legislation, electrical calculations, and trade and business practices.

90022422	Barrie – Hampton Inn & Suites, 74 Bryne Dr	May 25 June 1, 8, 15, 22, 29, 2018 8:00 AM – 5:00 PM
90022558	Kingston – Hampton Inn & Suites by Hilton, 74 Bryne Dr	September 17, 18, 19, 20, 21, 22, 2018 8:00 AM – 5:00 PM
90022491	London – Ramada London, 817 Exeter Rd	October 20, 27 November 3, 10, 17, 24, 2018 8:00 AM – 5:00 PM
90022559	Markham – Homewood Suites, 50 Bodrington Crt	February 5, 6, 7, 8, 9, 10, 2018 8:00 AM – 5:00 PM
90022560	Markham – Homewood Suites, 50 Bodrington Crt	November 12, 13, 14, 15, 16, 17, 2018 8:00 AM – 5:00 PM
90022545	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	July 9, 10, 11, 12, 13, 14, 2018 8:00 AM – 5:00 PM
90022546	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	September 8, 15, 22, 29 October 13, 20, 2018 8:00 AM – 5:00 PM
90022569	Ottawa – Best Western Plus, 1876 Robertson Rd	April 23, 24, 25, 26, 27, 28, 2018 8:00 AM – 5:00 PM
90022423	Sudbury – ESA Northern Region Office, 2140 Regent St S Unit 15	June 8, 9, 10, 15, 16, 17, 2018 8:00 AM – 5:00 PM
90022431	Sudbury – ESA Northern Region Office, 2140 Regent St S Unit 15	November 9, 10, 11, 16, 17, 18, 2018 8:00 AM – 5:00 PM
90022518	Windsor – Holiday Inn & Suites Ambassador Bridge, 1855 Huron Church Rd	October 20, 27 November 3, 10, 17, 24, 2018 8:00 AM – 5:00 PM



PROTECTION AGAINST AVAILABLE FAULT CURRENT

- Describe the requirements in Section 154 of the current Ontario Electrical Safety Code (OESC).
- Identify the hazards presented by electrical equipment that is not rated for the available fault current.
- Perform basic fault current calculations.
- Review actual installation examples.

90022421	Barrie – Hampton Inn & Suites, 74 Bryne Dr	May 11, 2018 1:00 PM–5:00 PM
90022533	Hamilton – Admiral Inn, 149 Dundurn St N	December 6, 2018 8:00 AM–12:00 PM
90022492	London – Ramada London, 817 Exeter Rd	November 1, 2018 8:00 AM–12:00 PM



SAFETY IN A HIGH VOLTAGE ENVIRONMENT

- Discuss the current Ontario Electrical Safety Code (OESC) requirements pertaining to high voltage installations.
- Describe the unique hazards associated with a high voltage environment.
- Discuss safety measures required when working in a high voltage environment.

90022534	Hamilton – Admiral Inn, 149 Dundurn St N	December 6, 2018 1:00 PM–5:00 PM
90022493	London – Ramada London, 817 Exeter Rd	November 1, 2018 1:00 PM–5:00 PM
90022563	Markham – Homewood Suites, 50 Bodrington Crt	October 25, 2018 8:00 AM–12:00 PM
90022541	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	May 15, 2018 8:00 AM–12:00 PM



SOLAR PHOTOVOLTAIC SYSTEMS AND ONTARIO ELECTRICAL SAFETY CODE REQUIREMENTS

- Discuss scope and special terminology.
- Provide a general systems overview.
- Identify and discuss Rules regarding solar photovoltaic systems.
- Identify and discuss Rules regarding inverters.
- Identify and discuss Rules regarding grounding and bonding.
- Identify and discuss Rules regarding supply authority disconnects.
- Identify and discuss Rules regarding electricity meters.
- Identify and discuss Rules regarding AC module and micro-inverters.
- Identify and discuss Rules regarding bipolar systems.

90022514	Cambridge – Cambridge Hotel & Conference Centre, 700 Hespeler Rd	May 4, 2018 8:00 AM–5:00 PM
90022550	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	September 27, 2018 8:00 AM–5:00 PM



AN INTRODUCTION TO CSA Z462-15 WORKPLACE ELECTRICAL SAFETY (ARC FLASH AND SHOCK)

Courses delivered after May 22, 2018 are designed using the principles of the 2018 CSA Z462 Standard.

FULL-DAY COURSE

- Understand the purpose and structure of the CSA Z462-15 Standard.
- Review electrically safe work practices including:
 - » General requirements for electrically safe work practices
 - » Establishing an electrically safe work condition
 - » Work involving electrical hazards
- Understand risk assessment related to the CSA Z462-15 Standard.
- Learn selection methods for Personal Protective Equipment.
- Review a basic safe work procedure.
- Review equipment specific practices.

90022419	Barrie – Hampton Inn & Suites, 74 Bryne Dr	April 27, 2018 8:00 AM–5:00 PM
90022426	Barrie – Hampton Inn & Suites, 74 Bryne Dr	July 20, 2018 8:00 AM–5:00 PM
90022458	Barrie – Hampton Inn & Suites, 74 Bryne Dr	November 30, 2018 8:00 AM–5:00 PM
90022537	Belleville – Fairfield Inn & Suites by Marriott, 407 Front St	April 18, 2018 8:00 AM–5:00 PM
90022513	Cambridge – Cambridge Hotel & Conference Centre, 700 Hespeler Rd	April 12, 2018 8:00 AM–5:00 PM
90022515	Cambridge – Cambridge Hotel & Conference Centre, 700 Hespeler Rd	November 8, 2018 8:00 AM–5:00 PM
90022528	Hamilton – Admiral Inn, 149 Dundurn St N	April 19, 2018 8:00 AM–5:00 PM
90022557	Kingston – Ramada Kingston, 33 Benson St	September 12, 2018 8:00 AM–5:00 PM
90022481	London – Ramada London, 817 Exeter Rd	May 10, 2018 8:00 AM–5:00 PM
90022486	London – Ramada London, 817 Exeter Rd	December 13, 2018 8:00 AM–5:00 PM
90022561	Markham – Homewood Suites, 50 Bodrington Crt	April 19, 2018 8:00 AM–5:00 PM
90022562	Markham – Homewood Suites, 50 Bodrington Crt	September 13, 2018 8:00 AM–5:00 PM
90022538	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	January 18, 2018 8:00 AM–5:00 PM
90022544	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	June 7, 2018 8:00 AM–5:00 PM
90022552	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	November 8, 2018 8:00 AM–5:00 PM
90022568	Ottawa – Best Western Plus, 1876 Robertson Rd	May 16, 2018 8:00 AM–5:00 PM
90022516	Windsor – Holiday Inn & Suites Ambassador Bridge, 1855 Huron Church Rd	January 11, 2018 8:00 AM–5:00 PM
90022517	Windsor – Holiday Inn & Suites Ambassador Bridge, 1855 Huron Church Rd	June 14, 2018 8:00 AM–5:00 PM



AN OVERVIEW OF CSA Z462-15 WORKPLACE ELECTRICAL SAFETY (ARC FLASH AND SHOCK)

Courses delivered after May 22, 2018 are designed using the principles of the 2018 CSA Z462 Standard.

THIS HALF-DAY OVERVIEW COURSE IS DESIGNED AS A “REFRESHER” OF THE FULL-DAY COURSE

- Review the scope and application of the CSA Z462-15 Standard.
- Consider electrically safe work practices.
- Review risk assessment related to the CSA Z462-15 Standard.
- Assess selection methods for Personal Protective Equipment.
- Review basic criteria for implementing the CSA Z462-15 Standard.

90022417	Barrie – Hampton Inn & Suites, 74 Bryne Dr	April 6, 2018 8:00 AM–12:00 PM
90022424	Barrie – Hampton Inn & Suites, 74 Bryne Dr	July 13, 2018 8:00 AM–12:00 PM
90022432	Barrie – Hampton Inn & Suites, 74 Bryne Dr	November 16, 2018 8:00 AM–12:00 PM
90022494	London – Ramada London, 817 Exeter Rd	September 20, 2018 1:00 PM–5:00 PM
90022567	Markham – Homewood Suites, 50 Bodrington Crt	June 21, 2018 8:00 AM–12:00 PM
90022567	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	November 20, 2018 8:00 AM–12:00 PM



CONTROL OF HAZARDOUS ENERGY (LOCK-OUT AND TAG-OUT)

- Recognize why proper lock-out and tag-out is critical to saving lives and the consequences of improper lock-out and tag-out procedures.
- Describe the legal requirements of the Occupational Health & Safety Act and Regulations for disabling hazardous energy.
- Describe the requirements of the Ontario Electrical Safety Code (OESC) for disabling hazardous energy.
- Identify the basics required in a proper lock-out and tag-out procedure.

90022418	Barrie – Hampton Inn & Suites, 74 Bryne Dr	April 6, 2018 1:00 PM–5:00 PM
90022425	Barrie – Hampton Inn & Suites, 74 Bryne Dr	July 13, 2018 1:00 PM–5:00 PM
90022433	Barrie – Hampton Inn & Suites, 74 Bryne Dr	November 16, 2018 1:00 PM–5:00 PM
90022531	Hamilton – Admiral Inn, 149 Dundurn St N	October 18, 2018 8:00 AM–12:00 PM
90022485	London – Ramada London, 817 Exeter Rd	June 7, 2018 1:00 PM–5:00 PM
90022549	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	September 25, 2018 1:00 PM–5:00 PM

DISTANCE EDUCATION COURSES



OESC 2015 - ONLINE GENERAL LEVEL 1

- Describe the new and amended requirements of the General Sections of the 2015 Ontario Electrical Safety Code effective May 5, 2016.
- Apply knowledge of new and amended requirements to the design and installation of electrical equipment to ensure compliance with the 2015 OESC.

90022213 | Continuous Enrollment

OESC 2015 - ONLINE GENERAL LEVEL 2

- Discuss the new and amended requirements of the Supplementary and Amendatory Sections of the 2015 Ontario Electrical Safety Code effective May 5, 2016.
- Apply knowledge of new and amended requirements to the design and installation of electrical equipment to ensure compliance with the 2015 OESC.

90022214 | Continuous Enrollment

OESC 2015 - ONLINE HVAC INSTALLATIONS

- Describe the importance of establishing safe work practices in a workplace.
- Describe the existing, new and amended Rules in the Ontario Electrical Safety Code that are applicable to the installation and maintenance of HVAC systems.

90022215 | Continuous Enrollment

ONLINE ELECTRICAL SAFETY AWARENESS I

90022216 | Continuous Enrollment

ONLINE MAINTENANCE OF ELECTRICAL SYSTEMS - INTRODUCTION (Z463)

90022217 | Continuous Enrollment

ONLINE PRE-MASTER ELECTRICIAN COURSE

90022218 | Continuous Enrollment

SELF STUDY PRE-MASTER ELECTRICIAN COURSE

90022570 | January 12 - April 6, 2018

PAYMENT:

Payment is required at the time of registration. If your method of payment is by credit card or ESA account, please include the applicable credit information and fax or mail the completed form to the fax number/address noted in the top left corner of the form. If you are paying by cheque, please mail the completed form with your cheque (payable to Electrical Safety Authority) to the address noted on the form.

REGISTRATION FEES:

Half-day public courses:

\$164.00 + applicable taxes, per person

Full-day public courses: \$324.00 + applicable taxes, per person

An Introduction to CSA Z462-15

Workplace Electrical Safety full-day public course:

\$449.00 + applicable taxes, per person (fee includes Z462-15 Standard). On-site courses are available for **\$4,569.00** + applicable taxes for up to 25 participants + **the price of the Z462-15 Standard** for course attendees.

An Overview of CSA Z462-15 Workplace Electrical Safety

half-day public course: \$289.00 + applicable taxes, per person (fee includes Z462-15 Standard). On-site courses are available for **\$2,264.00** + applicable taxes for up to 25 participants + **the price of the Z462-15 Standard** for course attendees.

Maintenance of Electrical Systems - Introduction (Z463)

full-day public course: \$364.00 + applicable taxes, per person. On-site training courses are available for **\$4,569.00** + applicable taxes, for up to 20 participants. (fee includes course and Student Manual).

On-site training courses are available for **\$2,264.00** (half-day) and **\$4,569.00** (full-day) + applicable taxes, for up to 25 participants. Continuous Safety Services (CSS) program members receive a discount. Ask your Client Safety Specialist for details.

Pre-Master Electrician Classroom Course: \$878.00

+ applicable taxes, per person (fee includes course, Student Manual, and Master Electrician Examination Reference Material). For pricing of online and self study options visit the Safety and Technical section of www.esasafe.com.

Training is a non-regulatory service offered by the Electrical Safety Authority (ESA). For more information visit www.esasafe.com/about-esa/non-regulatory.



Electrical Safety & Technical Training REGISTRATION FORM

Mail/Fax/Email the completed form to:

ELECTRICAL SAFETY AUTHORITY

400 Sheldon Drive, Unit 1
Cambridge, Ontario N1T2H9

Tel.: 1-877-372-7233

Fax: 1-800-667-4278

Email: esa.cambridge@electricalsafety.on.ca

**TRAINING REGISTRATION CANCELLATION/
SUBSTITUTION POLICY (IF APPLICABLE) :**

Training registration cancellation requests will be subject to a refund processing fee of \$28.00 + HST (\$31.64). Attendee substitutions will be accepted until 3:00 p.m. one business day before the course.

PRIVACY STATEMENT:

By submitting personal information to the Electrical Safety Authority, or its agents and service providers, you agree that ESA may collect, use and disclose such personal information in accordance with its privacy policy, applicable laws or pursuant to our administrative agreement with the Province of Ontario. If you provide us with the personal information on behalf of another individual, you represent that you have all necessary authority and/or have obtained all necessary consents from such individual to enable us to collect, use and disclose such personal information for the purposes set forth in our Privacy Policy. A copy of our policy is located on our website at www.esasafe.com.

PART 1: EMPLOYER INFORMATION (COMPLETE THIS SECTION IF PAYMENT IS BEING MADE BY AN EMPLOYER)

Employer Name:	
ESA Account # (if applicable):	ESA ACP # (if applicable):
Address:	
City:	Postal Code:
Contact Name:	
Contact Title:	
Telephone #:	Fax #:
Email Address:	

PART 2: ATTENDEE INFORMATION (A REGISTRATION FORM IS REQUIRED FOR EACH ATTENDEE)

All training correspondence is mailed to the address provided below. Therefore, for privacy purposes, personal contact information is preferred.

Attendee Name:	
ESA Training Attendee # (If you do not have an ESA Training Attendee # one will be assigned to you):	
Home Mailing Address:	
City:	Postal Code:
Date of Birth (yyyy/mm/dd):	Email Address:
Home Telephone #:	Cellular #:
If you are a Licensed Master Electrician please provide your ME Licence #:	

PART 3: COURSE INFORMATION

Occasionally it is necessary to add or cancel a course. Please visit the "Safety & Technical Training" section of www.esasafe.com for calendar information.

Course ID #:	Course Location (city):
Course Name:	Course Date:
Course ID #:	Course Location (city):
Course Name:	Course Date:

PART 4: PAYMENT INFORMATION

For current fees please visit the 'Safety & Technical Training' section of www.esasafe.com

<input type="checkbox"/> ESA Account #:	<input type="checkbox"/> Cheque enclosed (Payable to the Electrical Safety Authority)
<input type="checkbox"/> Visa <input type="checkbox"/> Master Card <input type="checkbox"/> American Express	Card Number:
Name on Card:	
Signature:	Expiry Date:
Payment Amount:	+ HST (13%) = Total: \$ (HST Registration Number: 87391-1424-RT-0001)

PART 5: CONSENT TO RELEASE STATEMENT

If an employer requires test results for their records, such information should be obtained directly from their employee. In the rare event an employer cannot obtain this information directly from their employee, the ESA will provide a value added service of issuing a duplicate copy of the test results provided the Attendee named in Part 2 of this document signs the following "Consent to Release" statement.

The ESA's Privacy and Access Code (the "Code"), which forms part of the Administrative Agreement between the ESA and the Ministry of Government and Consumer Services, prevents ESA from releasing an individual's personal information to a third party without their written consent. The Code states that personal information shall not be used or disclosed to a third party for purposes other than those for which it was collected, except with the consent of the individual to whom the information relates. As such, personal information, including but not limited to test results, cannot be disclosed to a third party irrespective of who pays the course fee.

Signing the "Consent to Release" statement is **optional** and at the Attendee's sole discretion.