



Electrical  
Safety  
Authority

# ELECTRICAL SAFETY & TECHNICAL TRAINING

2016 TRAINING CALENDAR



## CONDUCTORS

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- Increase knowledge of the Ontario Electrical Safety Code rules relating to conductors.
- Learn the rules that apply to selection, rating and installation of conductors.
- Learn how to use various tables and diagrams in the Ontario Electrical Safety Code to correctly choose and configure conductors for various installation types.

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

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- Recognize why proper lock-out and tag-out is critical to saving lives.
- Understand the consequences of improper lock-out and tag-out procedures.
- Understand the elements required in a proper lock-out and tag-out procedure.

## ELECTRICAL SAFETY AWARENESS I **NOW AVAILABLE ONLINE!**

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- 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.

## ELECTRICAL SAFETY FOR MAINTENANCE STAFF

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- Learn the fundamentals of electricity, and basic electrical terms.
- Recognize the dangers of electricity.
- Understand the physiological effects of electricity when it interacts with our body.
- Learn the fundamentals of working safely including things we can do to be safe in the workplace.

## GROUNDING AND BONDING

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- Understand the requirements of Section 10 in the Ontario Electrical Safety Code.
- Learn the principles of grounding and bonding.
- Learn grounding and bonding rules for special applications.

## MAINTENANCE OF ELECTRICAL SYSTEMS - INTRODUCTION (Z463)

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- Understand how an Electrical Maintenance Program contributes to workplace safety.
- Learn various maintenance strategies and their appropriate use.
- Understand guidelines for general maintenance practices to reduce hazards and risk.
- Learn principles for establishing an effective Electrical Maintenance Program.

## PRE-MASTER ELECTRICIAN COURSE

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- 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.

## POWERLINE SAFETY AWARENESS

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- Identify powerlines and potential hazards.
- Gain knowledge working around powerlines when:
  - Operating high reach equipment.
  - Loading and unloading of material.
- Review Occupational Health and Safety Act requirements.
- Review what to do in the event a worker or equipment comes into contact with powerlines.

## PROTECTION AGAINST AVAILABLE FAULT CURRENT

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- Increase knowledge of the requirements in Section 14 of the Ontario Electrical Safety Code.
- Recognize hazards presented by electrical equipment that is not rated for the available fault current.
- Learn how to perform basic fault current calculations.
- Review actual installation examples.

## SOLAR PHOTOVOLTAIC SYSTEMS AND OESC REQUIREMENTS

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- Understand the Ontario Electrical Safety Code requirements for solar photovoltaic installations and equipment.
- Understand ESA Bulletins related to solar photovoltaic installations and equipment.
- Understand acceptable DC grounding options.
- Learn about ESA Regulatory directions for acceptable wiring methods within a photovoltaic array.

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

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### 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.

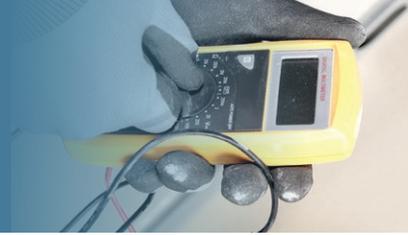
## AN OVERVIEW OF CSA Z462-15 WORKPLACE ELECTRICAL SAFETY (ARC FLASH AND SHOCK)

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### HALF-DAY COURSE *(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 CSA Z462-15.

# 2016 TRAINING CALENDAR SAFETY AND TECHNICAL TRAINING



## CONDUCTORS

90020264	<b>London</b> – Best Western Stoneridge Inn, 6675 Burtwhistle Lane	October 26, 2016 1:00 PM–5:00 PM
90020284	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	September 22, 2016 1:00 PM–5:00 PM
90020286	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	October 13, 2016 1:00 PM–5:00 PM
90020308	<b>Ottawa</b> – 111 Colonnade Rd Suite 200A	September 27, 2016 1:00 PM–5:00 PM
90020312	<b>Ottawa</b> – 111 Colonnade Rd Suite 200A	October 5, 2016 1:00 PM–5:00 PM
90020309	<b>Peterborough</b> – TBD	November 15, 2016 1:00 PM–5:00 PM
90020313	<b>Peterborough</b> – TBD	December 13, 2016 1:00 PM–5:00 PM

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

90020243	<b>Barrie</b> – Days Inn, 60 Bryne Dr	April 15, 2016 1:00 PM–5:00 PM
90020245	<b>Barrie</b> – Days Inn, 60 Bryne Dr	November 18, 2016 1:00 PM–5:00 PM
90020260	<b>London</b> – Best Western Stoneridge Inn, 6675 Burtwhistle Lane	March 31, 2016 1:00 PM–5:00 PM
90020269	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	January 21, 2016 1:00 PM–5:00 PM
90020272	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	March 3, 2016 8:00 AM–12:00 PM
90020279	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	June 1, 2016 1:00 PM–5:00 PM
90020296	<b>Ottawa</b> – 111 Colonnade Rd, Suite 200A	February 23, 2016 1:00 PM–5:00 PM
90020297	<b>Ottawa</b> – 111 Colonnade Rd, Suite 200A	November 29, 2016 1:00 PM–5:00 PM

## ELECTRICAL SAFETY AWARENESS I

90020261	<b>London</b> – Best Western Stoneridge Inn, 6675 Burtwhistle Lane	April 14, 2016 8:00 AM–12:00 PM
90020270	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	February 25, 2016 8:00 AM–12:00 PM
90020275	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	April 20, 2016 8:00 AM–12:00 PM
90020298	<b>Ottawa</b> – 111 Colonnade Rd, Suite 200A	February 10, 2016 8:00 AM–12:00 PM
90020299	<b>Ottawa</b> – 111 Colonnade Rd, Suite 200A	October 13, 2016 8:00 AM–12:00 PM

## ELECTRICAL SAFETY FOR MAINTENANCE STAFF

90020246	<b>Barrie</b> – Days Inn, 60 Bryne Dr	May 13, 2016 8:00 AM–12:00 PM
90020247	<b>Barrie</b> – Days Inn, 60 Bryne Dr	October 21, 2016 8:00 AM–12:00 PM
90020259	<b>London</b> – Best Western Stoneridge Inn, 6675 Burtwhistle Lane	March 31, 2016 8:00 AM–12:00 PM
90020268	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	January 21, 2016 8:00 AM–12:00 PM
90020278	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	June 1, 2016 8:00 AM–12:00 PM
90020288	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	November 17, 2016 8:00 AM–12:00 PM
90020294	<b>Ottawa</b> – 111 Colonnade Rd, Suite 200A	February 23, 2016 8:00 AM–12:00 PM
90020295	<b>Ottawa</b> – 111 Colonnade Rd, Suite 200A	November 29, 2016 8:00 AM–12:00 PM

## GROUNDING AND BONDING

90020263	<b>London</b> – Best Western Stoneridge Inn, 6675 Burtwhistle Lane	October 26, 2016 8:00 AM–12:00 PM
90020285	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	October 13, 2016 8:00 AM–12:00 PM
90020310	<b>Ottawa</b> – 111 Colonnade Rd, Suite 200A	October 5, 2016 8:00 AM–12:00 PM
90020311	<b>Peterborough</b> – TBD	December 13, 2016 8:00 AM–12:00 PM

## MAINTENANCE OF ELECTRICAL SYSTEMS – INTRODUCTION (Z463)

TBD	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	April 21, 2016 8:00 AM–5:00 PM
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## POWERLINE SAFETY AWARENESS

90020262	<b>London</b> – Best Western Stoneridge Inn, 6675 Burtwhistle Lane	April 14, 2016 1:00 PM–5:00 PM
90020271	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	February 25, 2016 1:00 PM–5:00 PM
90020281	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	June 15, 2016 8:00 AM–12:00 PM
90020300	<b>Ottawa</b> – 111 Colonnade Rd, Suite 200A	February 10, 2016 1:00 PM–5:00 PM
90020301	<b>Ottawa</b> – 111 Colonnade Rd, Suite 200A	October 13, 2016 1:00 PM–5:00 PM





### PRE-MASTER ELECTRICIAN COURSE

90020238	<b>Barrie</b> – Hampton Inn & Suites by Hilton, 74 Bryne Dr	September 9,16, 23, 30 October 7,14, 2016 8:00 AM – 5:00 PM
90020317	<b>Belleville</b> – TBD	August 22, 23, 24, 25, 26, 27, 2016 8:00 AM – 5:00 PM
90020253	<b>London</b> – Best Western Stoneridge Inn, 6675 Burtwhistle Lane	October 15, 22, 29 November 5, 12, 19, 2016 8:00 AM – 5:00 PM
90020248	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	January 9, 16, 23, 30 February 6, 20, 2016 8:00 AM – 5:00 PM
90020249	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	February 1, 2, 3, 4, 5, 6, 2016 8:00 AM – 5:00 PM
90020250	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	July 11, 12, 13, 14, 15, 16, 2016 8:00 AM – 5:00 PM
90020251	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	September 10, 17, 24 October 1, 15, 21, 2016 8:00 AM – 5:00 PM
90020252	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	November 28, 29, 30 December 1, 2, 3, 2016 8:00 AM – 5:00 PM
90020315	<b>Oshawa</b> – TBD	March 7, 8, 9, 10, 11, 12, 2016 8:00 AM – 5:00 PM
90020319	<b>Oshawa</b> – TBD	November 21, 22, 23, 24, 25, 26, 2016 8:00 AM – 5:00 PM
90020314	<b>Ottawa</b> – TBD	January 25, 26, 27, 28, 29, 30, 2016 8:00 AM – 5:00 PM
90020316	<b>Ottawa</b> – TBD	July 18, 19, 20, 21, 22, 23, 2016 8:00 AM – 5:00 PM
90020318	<b>Ottawa</b> – TBD	October 17, 18, 19, 20, 21, 22, 2016 8:00 AM – 5:00 PM
90020254	<b>Windsor</b> – Holiday Inn Ambassador Bridge, 1855 Huron Church Rd	October 15, 22, 29 November 5, 12, 19, 2016 8:00 AM – 5:00 PM

### PROTECTION AGAINST AVAILABLE FAULT CURRENT

90020283	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	September 22, 2016 8:00 AM-12:00 PM
90020306	<b>Ottawa</b> – 111 Colonnade Rd, Suite 200A	September 27, 2016 8:00 AM-12:00 PM
90020307	<b>Peterborough</b> – TBD	November 15, 2016 8:00 AM-12:00 PM

### SOLAR PHOTOVOLTAIC SYSTEMS AND OESC REQUIREMENTS

90020274	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	April 7, 2016 8:00 AM-5:00 PM
90020290	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	November 23, 2016 8:00 AM-5:00 PM
90020302	<b>Ottawa</b> – 111 Colonnade Rd, Suite 200A	June 14, 2016 8:00 AM-5:00 PM

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

90020265	<b>London</b> – Best Western Stoneridge Inn, 6675 Burtwhistle Lane	October 27, 2016 8:00 AM-5:00 PM
90020267	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	January 14, 2016 8:00 AM-5:00 PM
90020276	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	April 26, 2016 8:00 AM-5:00 PM
90020280	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	June 9, 2016 8:00 AM-5:00 PM
90020282	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	September 14, 2016 8:00 AM-5:00 PM
90020287	<b>Mississauga</b> – Holiday Inn & Suites, 2565 Argentia Rd	November 15, 2016 8:00 AM-5:00 PM
90020291	<b>Ottawa</b> – 111 Colonnade Rd, Suite 200A	January 19, 2016 8:00 AM-5:00 PM
90020293	<b>Ottawa</b> – 111 Colonnade Rd, Suite 200A	September 20, 2016 8:00 AM-5:00 PM
90020292	<b>Peterborough</b> – TBD	March 8, 2016 8:00 AM-5:00 PM

The 26th edition of the **Ontario Electrical Safety Code (OESC)** will come into effect **May 2016**.

**ESA's 2015 OESC Training** will be available early 2016. Visit [esasafe.com](http://esasafe.com) for courses in your area.



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

90020242	Barrie – Days Inn, 60 Bryne Dr	April 15, 2016 8:00 AM–12:00 PM
90020244	Barrie – Days Inn, 60 Bryne Dr	November 18, 2016 8:00 AM–12:00 PM
90020273	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	March 3, 2016 1:00 PM–5:00 PM
90020289	Mississauga – Holiday Inn & Suites, 2565 Argentia Rd	November 17, 2016 1:00 PM–5:00 PM
90020303	Ottawa – 111 Colonnade Rd, Suite 200A	June 8, 2016 8:00 AM–12:00 PM
90020305	Ottawa – 111 Colonnade Rd, Suite 200A	December 1, 2016 8:00 AM–12:00 PM
90020304	Peterborough – TBD	October 12, 2016 8:00 AM–12:00 PM

### DISTANCE EDUCATION COURSES

#### OESC 2015 – ONLINE GENERAL LEVEL 1

90020588 | Continuous Enrollment

#### OESC 2015 – ONLINE GENERAL LEVEL 2

90020589 | Continuous Enrollment

#### OESC 2015 – ONLINE HVAC INSTALLATIONS

90020590 | Continuous Enrollment

#### ONLINE ELECTRICAL SAFETY AWARENESS I

90019929 | Continuous Enrollment

#### ONLINE MAINTENANCE OF ELECTRICAL SYSTEMS – INTRODUCTION (Z463)

90019931 | Continuous Enrollment

#### ONLINE PRE-MASTER ELECTRICIAN COURSE

90019930 | Continuous Enrollment

#### 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.

#### 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**.



# 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](http://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](http://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](http://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.

I am the individual named in Part 2 of this document and hereby consent to the release of my personal information in relation to my academic achievement on the Electrical Safety Authority ("ESA") test for the course identified in Part 3 of this document. The afore-mentioned information is only to be released by the ESA, to the third party identified in Part 1 of this document.

I understand by signing this Consent to Release statement that I am agreeing to the release of the afore-mentioned information to the third party named in Part 1 of this document. I understand that I may revoke this consent at any time upon written notice to the ESA at: **Electrical Safety Authority** • Attention: Training Services, 400 Sheldon Drive, Unit 1, Cambridge, Ontario N1T2H9

The ESA is committed to maintaining the accuracy, security and privacy of personal information in accordance with applicable Canadian privacy laws and ESA's Privacy and Access Code.

Attendee Name (Please Print Clearly) : \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_