



2023 Provincial Skills Canada Competition



Contest Description

Edmonton Expo Centre, Edmonton

May 3 & May 4, 2023

EVENT: Electrical Installation	LEVEL: Secondary																												
WORLD SKILLS TRADE #: 18	LOCATION: Hall C, Edmonton Expo Centre, Edmonton																												
DURATION: 11 hrs (Two Days)	REGIONALIZED: No																												
COMPETITION SCHEDULE: May 3: <table border="1"> <tr><td>ORIENTATION</td><td>7:30AM-8:00AM</td></tr> <tr><td>COMPETITION</td><td>8:00AM-9:45AM</td></tr> <tr><td>BREAK</td><td>9:45AM-10:00AM</td></tr> <tr><td>COMPETITION</td><td>10:00AM-11:30AM</td></tr> <tr><td>LUNCH</td><td>11:30AM-12:30PM</td></tr> <tr><td>COMPETITION</td><td>12:30PM-2:00PM</td></tr> <tr><td>BREAK</td><td>2:00PM-2:15PM</td></tr> <tr><td>COMPETITION</td><td>2:15PM-3:30PM</td></tr> </table> May 4: <table border="1"> <tr><td>ORIENTATION</td><td>7:30AM-8:00AM</td></tr> <tr><td>COMPETITION</td><td>8:00AM-9:45AM</td></tr> <tr><td>BREAK</td><td>9:45AM-10:00AM</td></tr> <tr><td>COMPETITION</td><td>10:00AM-11:30AM</td></tr> <tr><td>LUNCH</td><td>11:30AM-12:30PM</td></tr> <tr><td>COMPETITION</td><td>12:30PM-2:15PM</td></tr> </table> <p>The times above are approximate and may change as required.</p>		ORIENTATION	7:30AM-8:00AM	COMPETITION	8:00AM-9:45AM	BREAK	9:45AM-10:00AM	COMPETITION	10:00AM-11:30AM	LUNCH	11:30AM-12:30PM	COMPETITION	12:30PM-2:00PM	BREAK	2:00PM-2:15PM	COMPETITION	2:15PM-3:30PM	ORIENTATION	7:30AM-8:00AM	COMPETITION	8:00AM-9:45AM	BREAK	9:45AM-10:00AM	COMPETITION	10:00AM-11:30AM	LUNCH	11:30AM-12:30PM	COMPETITION	12:30PM-2:15PM
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CONTEST INTRODUCTION

Assess the competitor's skills and abilities performing various installation tasks in the field of residential, commercial and industrial electrical wiring.

Given a supply of electrical equipment, competitors will build a complete electrical system according to supplied drawings and specifications incorporating a variety of wiring types and methods that may include non-metallic sheathed cable (NMSC), armored cable (AC90), EMT and PVC. Competitors will demonstrate their ability to do work in accordance with drawings and specifications, while showing general understanding of basic electrical circuits and knowledge of the current CEC (Canadian Electrical Code).

SKILLS AND KNOWLEDGE TO BE TESTED:

- Interpretation and use of basic electrical design & diagrams of a physical facility.
- Wiring (AC90 & NMSC) a sub panel and various branch circuits using standard trade practices, complying with relevant sections of the current CEC. Wiring will be fished/pulled to various circuits.





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- Basic conduit bending (EMT & PVC) including offsets, saddles, 90 degree bends and strapping.
- Basic relay operation.

PROJECT DESCRIPTION

Competitors will work in a 3-sided booth installing materials as described in the Contest Introduction. The project diagram will be provided on site.

EQUIPMENT & MATERIALS

Equipment and Materials Competitors Must Supply:

CSA Approved hard hat	Wire strippers	Magnetic torpedo level	Water pump pliers
CSA Approved steel toed work boots	Tapping tools	Linesman pliers	Side cutters
CSA Approved safety glasses or goggles	Measuring tape (metric)	Robertson screwdrivers	Claw hammer
Gloves	Flat screwdrivers	Electricians' knife (no snap off blades)	Hacksaw and blades
Pencil	Phillips screwdrivers	Drywall saw	Adjustable wrench
Long nose pliers	Control screwdriver		

NOTE: Competitors may bring tools other than those listed above. However, contestants will need approval from the committee in order to use these additional tools.

Equipment and Materials Supplied by the Committee:

Cordless Drills (Competitors must use drills provided by the Committee)	Ladders	Conduit benders
Current CEC Code Book	CSA Approved Hearing Protection	3/4" auger bit
#2 Robertson driver bit	Digital Multimeter	

JUDGING CRITERIA

- | | |
|--------------------------|-----|
| • Operation | 25% |
| • Equipment Installation | 15% |
| • Measurements | 15% |
| • Cable Installation | 10% |





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• Tubing & Conduit	10%
• Connection of Conductors	15%
• Health, Safety & Housekeeping	10%
Overall Total	100%

TIE BREAKING PROCESS

In the event of a tie between two or more competitors, the competitor with the highest mark in Operation will be declared the overall winner. If still tied, the competitor with the highest mark in Health, Safety and Housekeeping will be declared the overall winner. And, if still tied, the competitor who took the least amount of time to complete the project will be declared the overall winner.

CLOTHING REQUIREMENT

Appropriate work clothing must be worn to compete. All clothing must be neat, clean and free of rips and tears. Casual wear such as shorts and open toe footwear will not be permitted. No loose-fitting clothes or jewelry.

SAFETY

The health, safety, and welfare of all individuals involved with Skills Canada Alberta are of vital importance. Safety is a condition of participation with Skills Canada Alberta and shall not be sacrificed for the sake of expediency. At the discretion of the judges and technical committees, any competitor can be denied the right to participate should they not have the required proper safety equipment and/or act in an unsafe manner that can cause harm to themselves or others.

RELATED CAREER AND TECHNOLOGY STUDIES COURSES

ELT 1010 Electro-Assembly	ELT 1080 Control Systems 1	ELT2030: Branch Circuit Wiring
ELT1030: Conversion & Distribution	ELT 1110 Security Systems 1	ELT2130: Magnetic Control Devices
ELT3030: Power Systems and Services	Electrical Code Simplified: Residential Wiring – Alberta	ELT3400: 1 st Period Electrical Apprenticeship Modules

Descriptions of the modules listed above are located at the following website:

<https://education.alberta.ca/media/160536/elt.pdf>

ADDITIONAL INFORMATION



ECAA Electrical Contractors Association of Alberta



BOSCH



Habitat for Humanity
Edmonton





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Skills Canada Alberta Regional and Provincial Rules and Regulations

[Regional and Provincial Rules and Regulations](#)

Competitor Registration

Registration for Provincial Skills Canada Competition (PSCC) will open online on January 18, 2023 @ 8:30 AM. Please refer to this competitions event page for additional registration and competition information:

<https://skillsalberta.com/competition/>

Lunch

Lunch for accredited competitors will be provided by Skills Canada Alberta.

Parking & Venue Maps: <http://edmontonexpocentre.com/attend/parking/>

Opening Ceremonies / Competitor Registration

Opening Ceremonies for the PSCC will take place on Tuesday May 2, 2023 at 6:00 pm in Hall D of the Edmonton EXPO Centre. Admission is free, and everyone is welcome to attend. It is important to note that competitor registration will open immediately following the Opening Ceremony.

Awards Ceremony

The Awards Ceremony will take place on Thursday May 4, 2023 at 6:30 pm in Hall D of the Edmonton EXPO Centre. Admission is free and everyone is welcome to attend. The Awards Ceremony will be shown live at <http://skillsalberta.com/>

Team Alberta Information

Team Alberta will be selected at the PSCC Awards Ceremony. Gold medalists will then be eligible to participate at the Skills Canada National Competition (SCNC) on May 24- 27, 2023 in Winnipeg MB. It is recommended that competitors review the SCNC contest description to be familiar with the national contest description and project at <http://www.skillscanada.com/>.

During the PSCC Awards Ceremony on Thursday May 4, 2023 gold medalists will be given their Team Alberta information package and will confirm their participation in the SCNC. Students must be present at the Awards Ceremony to claim their position on Team Alberta. If the Gold medalist is not able to attend SCNC, the next top ranking individuals will be asked to participate. If a student is not able to attend the Awards Ceremony a letter confirming the student's interest in Team Alberta participation must be emailed to javierad@skillsalberta.com prior to the start of competition on May 3, 2023.

Please prepare your students in advance to accept a position on Team Alberta and outline how your school will support their participation. Furthermore, it is very important that all fieldtrip/travel information for potential Team AB members is organized and completed prior to the selection of Team AB.





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Questions?

Please contact Kennedy Mayer at kennedym@skillsalberta.com if you have any questions regarding the Contest Description.

COMMITTEE MEMBERS

Chuck Zylla - NAIT	Dana Alisat - Skyline Electric
Ronald Stocks – Red Deer College	David Bates - Lakeland College
Jennifer Hareuther	David Peard - SAIT
Elaine Cope - AIT	Jordan Shapka - Lethbridge College
Tim Froehler – Red Deer College	Shane Hanson – Red Deer College
Dawn Ohama – Keyano College	Michael Cope
Tristen Hatto - 1st Star Electric	

