



2025 South West Regional Skills Canada Competition

Contest Description

Lethbridge Polytechnic – 3000 College Drive South, Lethbridge, AB

March 8, 2025

EVENT: Welding	LEVEL: Secondary												
DURATION OF CONTEST: 5 HOURS	LOCATION: Lethbridge Polytechnic – TT1927												
<table border="1"> <tr> <td colspan="2">COMPETITION SCHEDULE:</td> </tr> <tr> <td>CHECK IN (FOUNDERS' SQUARE)</td> <td>7:30 A.M.</td> </tr> <tr> <td>ORIENTATION</td> <td>7:45 A.M.</td> </tr> <tr> <td>COMPETITION BEGINS</td> <td>8:15 A.M.</td> </tr> <tr> <td>LUNCH</td> <td>11:30 A.M. – 12:00 P.M.</td> </tr> <tr> <td>COMPETITION ENDS</td> <td>1:45 P.M.</td> </tr> </table>	COMPETITION SCHEDULE:		CHECK IN (FOUNDERS' SQUARE)	7:30 A.M.	ORIENTATION	7:45 A.M.	COMPETITION BEGINS	8:15 A.M.	LUNCH	11:30 A.M. – 12:00 P.M.	COMPETITION ENDS	1:45 P.M.	REGIONALIZED: YES If YES, to compete at the Provincial Skills Canada Competition students must qualify at their Regional Skills Canada Competition.
COMPETITION SCHEDULE:													
CHECK IN (FOUNDERS' SQUARE)	7:30 A.M.												
ORIENTATION	7:45 A.M.												
COMPETITION BEGINS	8:15 A.M.												
LUNCH	11:30 A.M. – 12:00 P.M.												
COMPETITION ENDS	1:45 P.M.												
AWARDS CEREMONY INFORMATION: The awards ceremony will be held at 4:00 p.m. in the Swing Space (AN1804). It is open to the public; parents are encouraged to attend.													

CONTEST INTRODUCTION

To enable competitors to demonstrate their knowledge and skills of welding principles. The competition will consist of a practical examination. Competitors will be expected to utilize their practical skills and knowledge in drawing interpretation of fitting and welding. The following processes are applicable: SMAW & GMAW. Safety procedures will also be evaluated.

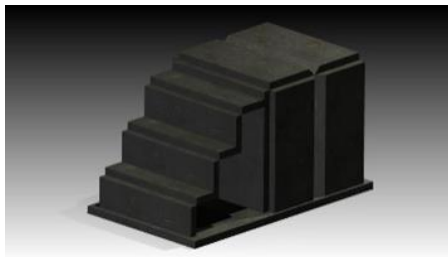
SKILLS AND KNOWLEDGE TO BE TESTED

The Regional competitors should be prepared to apply their theory knowledge in a layout and drawing interpretation to complete a 5 hour practical project which may include but not limited to the following tasks (please see the below isometric image and attached project drawing and weld procedures):

SMAW 1G, 2G, 3G Butt Weld GMAW 1G, 2G, 3G Butt Weld SMAW or GMAW, 2F & 3F Weld
 SMAW- 1G on plate. Root E6010 1/8, E4310 3.2mm. Fill and cap E7018 3/32 or 1/8, E4918 2.5mm or 3.2mm
 Fillets- 2F, 3F, E7018 -1/8" and or 3/32", E6010 1/8", E4918 3.2 mm and or 2.5mm or E4310 3.2mm.
 GMAW- 1G & 3G on plate, 2F and 3F (vertical up and down)

PROJECT DESCRIPTION

Please see the attached dimensional print and weld processes. Competitors that advance onto the Provincial Skills Canada Competition will also be provided the dimensional print with their contest description; however the competition can be changed up to 30% on the day of the competition. This percentage change however, will not be implemented at the Regional competition level.



EQUIPMENT & MATERIALS

Equipment and Materials Competitors Must Supply:

Work Boots (CSA Approved steel toe work boots)	Welding Helmet
Side shields required for prescription glasses	Safety Glasses
Appropriate clothing (100% cotton coveralls recommended)	Welding Gloves
Long Sleeve Denim Shirt or Jacket - 100% cotton	Ear Plugs

***If a competitor cannot supply the helmet, the committee will supply it (to be returned at end of competition).**

Competitors are encouraged to bring their own tools from the list below, however, the committee will have all items available for competitor usage on the day of the competition EXCEPT magnets.

Competitor's tools will be limited to the following:

Pipe liner files	Wire Brush	Vice Grips/Pliers
Magnets	Tri Square	Imperial/Metric Tape Measure
Centre Punch	Hammer	Cold Chisel
Soap Stone		

Grinders are NOT permitted.

Cell phones or ear buds are NOT permitted in the competition area due to safety concerns.

*Competitors are required to follow all industry standards during the competition.

Equipment and Materials Supplied by the Committee:

All materials and consumables needed to build the project.

WELDING ASSEMBLY (Please also reference the Regional project prints)

1. The project is to be completely assembled first (tack welded).
2. Then the project is to be placed flat on the table to perform all the welding. (The order of welds is competitor's choice.)

WELD PROCEDURES

- 1G SMAW E4310 (E6010) Root, E4918 (7018) Fill & Cap.
- 3G GMAW Root, E4918 (7018) SMAW Fill & Cap.
- 3G GMAW Root, Fill & Cap.
- 3F GMAW.
- 2F GMAW. 6mm and 9mm.
- 2F E4310 (E6010). 6mm and 9mm.
- 2F E4918 (E7018). 3.2mm and 9mm.

JUDGING CRITERIA

ASPECT	The following aspects will be reviewed during the marking:
A1	GMAW fillet size-Are the GMAW fillet sizes according to prints?
A2	Are the GMAW welds free of surface porosity?
A3	SMAW fillet size-Are the SMAW fillet sizes according to prints?



A4	Are the SMAW welds free of surface porosity?
A5	SMAW penetration-Is the SMAW groove weld completely penetrated 0 to 3mm
A6	SMAW reinforcement-Does the SMAW groove weld have excessive reinforcement 0 to 3mm
A7	GMAW penetration-Is the GMAW groove weld completely penetrated 0 to 3mm
A8	GMAW reinforcement-Does the GMAW groove weld have excessive reinforcement 0 to 3mm
A9	Weld cleaning-Is all weld spatter and slag removed?
A10	Overall appearance
A 11	Welding position – are the welds produced in the correct position and location?
NOTE: If any of the joint configurations on the projects (i.e. butt, fillet or outside corners) are welded with the incorrect process or in the incorrect position, that joint configuration shall not be visually assessed and no marks are awarded for that type of joint configuration.	

TIE BREAKING PROCESS

In the event of a tie, the competitor with the higher marks in categories A5, A7 and A11 will win.

RELATED CAREER AND TECHNOLOGY STUDIES COURSES

Descriptions of all modules are located at the following website:

https://education.alberta.ca/media/160533/fab_course_summaries_old.pdf

FAB 1040	FAB 2020	FAB 3048	101B	102A	103A
FAB 1048	FAB 2030	FAB 3050	101C	102B	103B
FAB 1050	FAB 2040	FAB 3060	101G	102C	103C
	FAB 2048	FAB 3170	101I	102D	103D
	FAB 2050		101F	103F,G&H	
	FAB 2060				
	FAB 2070				

CLOTHING REQUIREMENT

It is important that competitors present a professional image and appearance. Appropriate work clothing must be worn to compete. All clothing must be neat and clean and free of rips and tears. Casual wear such as shorts 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. Cell phones and/or ear buds are not permitted in the competition area.





PARKING INFORMATION & VENUE MAPS

Please park in Lot V – there is no charge. Overflow will also be allowed in Lot P. A printable parking map of Lethbridge Polytechnic can be found at: <https://lethpolytech.ca/document-centre/facilities-management/parking-map>

ADDITIONAL INFORMATION

Lunch will be provided for all competitors, teachers and judges. Your lunch ticket will be in the back of your name tag. Unfortunately, all allergies may not be able to be accommodated for. Please connect with the local Regional Coordinator for more information.

Regulations & Policies: A copy of the Skills Canada Alberta Regional Regulations & Policies can be found at the following link: <https://skillsalberta.com/policies-and-procedures>

EVENT SCHEDULE

7:30	Students check-in at Founders’ Square
7:45	Orientation & Safety
8:15	Competition Begins
11:30	Lunch Break – 30 minutes
12:00	Competition resumes
1:45	Competition ends – Judging Begins
2:00	Competitor debrief in TT1937 – teachers are welcome to join competitors for generic feedback. Once completed, competitors may proceed to the competitor lounge.
4:00	Awards Ceremony Swing Space (AN1804) – open to the public

COMMITTEE MEMBERS

Dave Heins	Lethbridge Polytechnic
Jeremy Lauzon	Lethbridge Polytechnic
Holly Lehbauer	Career Transitions
Judy Stolk-Ingram	Career Transitions

