

DATE Friday, April 12 2024	LOCATION NSCC Akerley Campus
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1. Schedule

Time	Task
7:30 am – 8:00 am	Orientation
8:00 am – 9:30 am	Competition
9:30 am – 9:45 am	Coffee break
9:45 am – 11:30 am	Competition
11:30 am – 12:30 pm	Lunch (provided)
12:30 pm – 2:00 pm	Competition
2:00 pm	Competition ends – final marking

2. Purpose of the Contest

Assess the contestant's ability in the field of welding. Contestants must demonstrate their knowledge reading plans and interpreting welding symbols, and mastery of the main welding and fabrication procedures used in the industry.

3. Number of Stations / Allocations

There will be twelve (12) stations.

4. Skills & Knowledge to be Tested

Based on technical drawings and welding procedures, contestants will be assessed on their welding ability on two different projects, as well as safe working practices.

5. Prerequisites

Contest-Specific Prerequisites

Contestants must be enrolled in the welding apprenticeship program as a student and/or apprentice.

SCNS Prerequisites

Post-Secondary competitors must meet the following criteria in the current school year:

- Be enrolled in a community college, university, private school OR be a registered apprentice with the Department of Labour and Advanced Education (Apprenticeship Agency);
- Be registered as a competitor with Skills Canada – Nova Scotia;
- The competitor cannot be a certified journey-person;
- Possess Canadian citizenship or Permanent Resident (Landed Immigrant) status and be a resident of Nova Scotia; or be a registered International Student. Competitors are responsible for verifying this information if requested;
- Have been earning post-secondary credits in a sector relevant to the one in which they wish to compete (i.e. to compete in carpentry, the student would be earning credits in any construction-related trade) at any time during the academic school year (September to June);
- All competitors must be able to show either current apprenticeship status and/or proof of enrollment in a post-secondary institution upon request of the Provincial Technical Committee (PTC) or Skills Canada – Nova Scotia.
- Have completed and submitted a signed release form

6. Equipment & Clothing

What Will Be Supplied

Welding processes and consumables used:

- GMAW - 035 ER702-6, 75 - 25 Shielding gas
- SMAW-E48018, 1/8" or 3/32"
- SMAW – E6010 -E6011 , 1/8" or 3/32",
- GTAW - Electrode 3/32" or 1/8" – tungsten electrodes
- GTAW - Filler Rod – ER 4043 or 1/ ER 5356 – 1/16" or 3/32". Shielding Gas Argon

What Competitors Must Supply

- Measuring tape
- Square
- Welding apron
- Soap stone
- Center punch
- Wire brush (stainless and mild steel)
- Chipping hammer
- Ball peen hammer
- Welding Shield

- Fillet gauges
- Safety glasses
- Mask, adhering to NS public health guidelines
- Welding jacket
- Welding gloves
- CSA approved steel toed boots
- Vice clamps or pliers (for picking up hot metal only)
- Coveralls (optional)

7. Evaluation & Judging Criteria

Carbon Steel Project - 60%

Aluminum Project - 40%

Only welding will be evaluated in this competition. Welds will be marked using a point scoring system. They will be evaluated on the following:

- Is there under cut present?
- Are there slag inclusions present?
- Is the weld of the correct size and location (as per weld symbol)?
- Is there cold lap present?
- Is there porosity present?
- Penetration of weld bead (open root);
- Overall quality of the weld.
- Are craters filled
- Is there penetration on GTAW Aluminum Butt welds

Competition Rules:

- CSA approved steel toed work boots and safety glasses must be worn in the shop at all times;
- Competitors are only allowed to discuss the project with the judges;
- All other people entering the shop must have safety glasses on and CSA approved steel toed boots on and address proper personnel before entering;
- No grinders or grinding of welds or of the project are allowed;
- All competitors must exit the shop on lunch and coffee breaks;
- Extra time will be given if the competitor has problems with equipment (if it is an equipment problem);
- No magnetic squares or clamping devices are to be used on the project

8. Additional Information

- There will be extra materials (already prepped) available at the competition for running practice beads;
- All materials will be inspected before the competition starts;
- Industry professionals will complete drawings and judging.

9. PTC Contact Information

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