2027 Contest Description

CNC Machining

Post-Secondary

1. Schedule

March 19th 2027	NSCC Akerley Campus
TIME	**TASK**
7:30 am -8:00am	**Orientation** Explanation of contest rules and procedures. Machine orientation and program transfer procedure.
8:00 am -11:30 am	Part 1
11:30 am -11:45 am	Clean up
11:45 am -12:15 pm	Lunch (provided)
12:15 pm -12:30 pm	Machine orientation
12:30 pm -4:00 pm	Part 2
4:00 pm -5:00 pm	Judging

The contest will start promptly at 7:30 am. Late competitors may be disqualified.

2. Purpose of the Contest

To test the CNC programming and operation skills of the competitors.

3. Criteria

The contest will take place over a one-day period. The contest will consist of a 3 ½ hour turning center project and a 3 ½ hour machining center project. The practical sections of the contest involve programming and machining two parts on CNC machine tools. Imperial or Metric units will be used. Machines will be assigned on a draw basis.

4. Number of Stations / Competitors

There will be space for four (4) competitors to participate.

5. Knowledge, Skills and Abilities to be Assessed

- CNC MasterCam programing for 2 axis Turning Centers
- CNC MasterCam programing for 3 axis Machining Centers
- CNC Turning Centers operation
- CNC Machining Centers operation

6. Prerequisites

Contest Specific Prerequisites

- Must be a student or graduate of a NSCC Machining program;
- Must have suitable experience in a machine shop environment with CNC machine tools;
- Must have equivalent to any of the above;
- The PTC chair may fill vacant seats from a waiting list.

SCNS Prerequisites

- Post-Secondary competitors must meet the following criteria in the current school year:
- Pre 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 have received their journey-person certification prior to March 1 of the competition year;
- 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

7. Required Equipment and Clothing

What Will Be Supplied

- Computers with MasterCam 2027
- Measuring Tools
- Cutting Tools
- Part Materials

What Competitors Must Supply

- CSA Approved Safety Glasses
- CSA Approved Safety Boots

The following supplies are recommended

- Scientific calculator
- Pen or pencil
- Paper
- Digital Calipers

8. Evaluation and Judging Criteria

- Overall profile and sizes of the lathe project (45%)
- Overall profile and sizes of the mill project (45%)
- Safe operation of the machine tools (10%)

Contestants will be given a point breakdown of size values at the time of the competition.

No ties are permitted. In the event of a tie, the highest score in 'overall surface finish' will be used to break the ties.

9. Additional Information

There will be judges selected from industry / educators to monitor the competition. The judges will have the final say in all aspects of the competition.

Prior to the start of the competition contestants and coaches will be provided with a comprehensive safety orientation, which will include machine operations. This orientation will be a minimum of 15 minutes for each machine.

10. PTC Contact Information

Name	**Employer**	**Email**
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