

DATE	LOCATION
Tuesday, April 27 2021	NSCC Kingstec Campus

## 1. Schedule

Time	Task
7:30 am – 8:00 am	Orientation – contest rules, draw for machines, procedures and machine operation
8:00 am – 11:30 am	Part 1
11:30 am – 12:00 pm	Lunch (provided)
12:00 pm – 3:30 pm	Part 2
3:30 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 during 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 units will be used. Machines will be assigned on a draw basis.

## 4. Number of Stations / Allocations

There will be four (4) spaces.

## 5. Skills & Knowledge to be Tested

- CNC MasterCam programming for Turning Centers;
- CNC MasterCam programming for Machining Centers;
- CNC Turning Centers operation;
- CNC Machining Centers operation.

## 6. Prerequisites

### *Contest-Specific Prerequisites*

- Must be a student or graduate of an 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*

- Enrolled in a community college, university or private school OR be registered as an apprentice with the Department of Labour and Advanced Education;
- Registered as a competitor with Skills Canada – Nova Scotia (SCNS);
- The competitor cannot be a certified journey-person;
- The competitor must possess Canadian citizenship or landed immigrant status and be a resident of Nova Scotia. Competitors are responsible for verifying this information if requested;
- Have been earning post-secondary credits 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 SCNS.

## **7. Equipment & Clothing**

### **a) What Will Be Supplied**

- One HAAS ST10Y turning center with HAAS control;
- One Mazak Nexus 100 with Fusion 640T control;
- Two Richmond 600 Machining Centers with Fanuc OMi Controls;
- Computers with MasterCam 2018;
- Measuring Tools;
- Cutting Tools;
- Part Materials.

### **b) What Competitors Must Supply**

- CSA Approved Safety Glasses;
- CSA Approved Safety Boots;
- Mask, following Public Health protocols
- USB jump drive (any capacity).

The following supplies are recommended:

- Scientific calculator;
- Pen or pencil;
- Paper.

## 8. Evaluation & 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 tie.

## 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.

## 10. PTC Contact Information

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