



## 2012 Trades and Technology Competition

Official Competition Name: **CNC Machining**  
 Competition Level (i.e. Secondary, Post-secondary, integrated): **Post-Secondary**  
 Competition Location (i.e. Campus/Institution): **NSCC Pictou Campus**  
 Competition Date: **March 22, 2012**  
 Competition Time: **7:30am – 7:00pm ( 5 hours /machine & 1 hour lunch break)**

### Purpose of Challenge:

The purpose of the CNC Machining competition is to test the CNC Programming and Operating skills of the competitors.

### Number of Stations:

4 Stations will be used for this competition.

### Specific spots allotted to Campuses and Apprentices:

School/Campus/Apprentice	Number of available spots
Akerley Campus	0
Annapolis Valley Campus	0
Burridge Campus	0
Cumberland Campus	0
Halifax Campus	0
Institute of Technology Campus	1
Kingstec Campus	1
Lunenburg Campus	0
Marconi Campus	0
Pictou Campus	1
Shelburne Campus	0
Strait Area Campus	0
Truro Campus	0
Apprentices	1
Universities	0
Private Career Colleges	0

### Skills and knowledge to be tested:

CNC Programming for Turning Centers.  
 CNC Programming for Machining Centers.  
 CNC Turning Center operations.  
 CNC Machining Center operations.

### Prerequisites:

Must be a student or graduate of an NSCC Manufacturing Engineering Technician program  
Must be a student or graduate of an NSCC Machine Shop program.  
Must have suitable experience in Machine Shop environment with CNC Machine Tools.  
Must have equivalent to any of the above.

### Equipment, tools, supplies, clothing:

One Turret FS-300 Turning Center with Fanuc Control.  
One Turret FS-20 or Romi E320 Turning Center with Fanuc Control.  
One Dahli 510 Machining Centers with Fanuc OM Controls.  
One Dahli 610 Machining Centers with Fanuc OM Controls.

The following equipment will be supplied:

- 1: Computers for typing and saving programs.
- 2: Measuring Tools.
3. Cutting Tools.
4. Part Materials.

**The following safety equipment will be required and is the responsibility of the competitors.**

- 1: CSA Approved Safety Glasses.**
- 2: CSA Approved Safety Boots.**

The following equipment is recommended:

- 1: **Scientific Calculator.**
- 2: Pen or Pencil.
- 3: Paper.

The contest will be broken down into 3 parts:

### Point Breakdown:

- 1: Overall Profile and Sizes of the Lathe Project .(45%)
  - 2: Overall Profile and Sizes of the Mill Project.(45%)
  - 3: Safe Operation of the Machine Tools (10%)
- Contestant will be given a point break down of size values at time of competition.

### Technical Committee Member and Judges:

Kimball Edwards ,Faculty,NSCC-Pictou Campus  
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Email: kimball.edwards@nsc.ca

There will be Judges selected from industry to monitor the competition. The Judges will have the **Final** say in all aspects of the competition.