



# Provincial Scope Document

## *MECHANICAL CAD (Post Secondary) 2008*

**Contest Length: 4 hrs**

**Contest Start: 8:00**

**Check in time: 7:30**

### **Purpose of the Challenge:**

To evaluate each contestant's preparation for employment in the field of Engineering Design and Drafting using CADD and to recognize outstanding students for excellence & professionalism in their field.

### **Skills & Knowledge to be Tested:**

- Demonstrate knowledge of material designations based on their function within a simple mechanical assembly
- Select fasteners and other assembly components as required (pins, keys, snap rings, etc.)
- Use CAD software to produce drawings that comply with the following standards:
  - CAN3-B78.1-M83 (R1990)
  - CAN/CSA-B78.2-M91
  - B97.3-M1982 (R1992)
  - B97.3-1970 (R1992)
- Use CAD software to produce 3D parametric models
- Use measuring instruments
- Create hand sketches
- Specify and apply dimensional tolerances to industry standard

### **Specific Requirements:**

*All software packages will be original versions  
No add-on applications will be allowed*

## Equipment / Tools / Materials

### Supplied by Committee:

#### Hardware:

- Compatible Pentium type microcomputers (IBM compatible) fitted with SUPER VGA monitors and a three-button mouse (if available).

#### Software:

- AutoCAD
- Mechanical Desktop
- Inventor

Software will be the current release at the time of the contest.

Contestants who want to use other software must apply to the Technical Chair at least two weeks before the competition date. Only diskettes submitted during the competition will be allowed on site.

### Supplied by Contestant:

- Calculator
- Measuring instruments (caliper, scales)
- Reference materials
- Pen / Pencil

Note: All other equipment must be approved by the technical committee. No competition challenge details will be released prior to the competition date.

## Judging / Distribution of Marks

#### Evaluation Criteria

- Calculations
- Presentation
- Speed

Note: a detailed evaluation will be given as the contest begins

## Technical Committee

Bill Fane      Technical Chair

Bill\_Fane@bcit.ca

**Gold medal winners at the BC Skills Competition are eligible to compete at the Canadian Skills Competition May 25-28, 2008, 2008 in Calgary, Alberta.**

**Skills Canada BC reserves the right to update contest information. Please check the web site for changes.**