



# Provincial Scope Document

## *MECHANICAL CADD (Secondary)2011*

**Contest Length: 3 1/2 hrs**

**Contest Start: 8:00**

**Check in time: 7:30**

### **Contest Sponsors:**

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

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

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

##### **Problem Solving:**

- Students may be required to solve open ended problems and interpret misleading or erroneous data. Such decision making will obviously affect the completion of the project.

##### **CAD Techniques:**

- Use of fundamental CAD techniques and commands to produce a drawing to International Drafting Standards.
- Ability to produce a CAD drawing to a defined scale using Templates and/or Borders.
- Knowledge of CAD standards for setting limits, line types and scales, layers, dimension variables, line weights and units.

##### **Mechanical Drafting Procedures:**

- Knowledge and understanding of Mechanical Drafting Standards and Symbols (ISO/ANSI)
- Ability to create and appropriately layout the necessary views and/or sections, given a mechanical component or drawing.
- Accuracy and completeness of chosen views, linetypes, hatching and mechanical drafting conventions.
- Correct and accurate dimensioning on appropriate views.
- Presence of, and positioning of, required notations, symbols, annotations and text.
- Have the ability to use CAD to generate information such as areas, angles etc.

Ability to generate Auxillary and Orthographic views.

### Specific Requirements:

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

### Equipment / Tools / Materials

**Note:** Software listed is not mandatory, only suggested as what is used at the national level.

#### Supplied by Committee:

##### Hardware:

- Pentium type microcomputers fitted with SUPER VGA monitors and a three-button mouse.

##### Software:

AutoCAD or equivalent. Should other software packages or platforms be required, the contestant and their mentors are responsible to provide systems support in order to complete the project as specified. Arrangements must be made ahead of time to bring other software to the competition. The alternate software will require prior approval of the committee to allow adequate preparation time.

Only diskettes provided by the judges will be allowed on site.

#### Supplied by Contestant:

- Metric and Imperial Scale
- Vernier Calipers
- Thread Pitch Gauges (metric and imperial)
- Calculator
- Notepad
- Pen / Pencil
- Machinery Handbook or suitable reference text (no handwritten notes or photocopies)

### Judging / Distribution of Marks

See Attached Sheet - Mech CAD Judging Criteria

### Technical Committee:

Jim Christiansen

Technical Chair

jim.c.christiansen@gmail.com

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

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