Technical Drafting and NoviceCAD

Review Technical Standards

These contests are to help evaluate each competitor's preparation for employment in any sort of industrial field of Design & Engineering. Regardless of the concentration, having knowledge of CAD software and proper GD&T techniques is incredibly beneficial and can help give those extra confidence in their abilities to design and manufacture extravagant machines and buildings.

These contests will follow the "Standards and Competencies" outlined within the SkillsUSA Technical Standards (virtual). Review the contest's technical standards prior to competing.

NoviceCAD will follow the same Technical Standards as Technical Drafting; however, this competition will not be as heavily scrutinized as Technical Drafting, due to it being a State competition ONLY, and will be more of a focus on 3D CAD software capabilities, rather than Engineered Drawing techniques.

Set Up Contest Space and Materials

- Contestants will need a computer with **any 3D CAD software of their choice**
  - (SolidWorks, Inventor, Creo Parametric, Fusion 360, etc.).
- **The participants should create a template for B size paper with the SkillsUSA title block before the start of the contest.**
  - See sketch below for exact specs. (Technical Drafting & Novice CAD all share the same title block specs.)
- Be sure the contestant knows how to print to a PDF file, locate that PDF file, and save it to a thumb drive with the appropriate contestant number and page:
  - Ie. **TD102-1** (Technical Drafting) or **NC103-1** (Novice CAD). *Misnamed files will not be printed.*
- *The judges will only open and analyze the designated number of pages of the PDF file.*
  - Ie. Assembly drawing (1), plus the # of Part Detail drawings necessary.
- 1 multi-outlet surge protector (power strip) per 2 contestants from the same school that are in the same contest.
  - Keep in mind, Technical drafting & Novice CAD are potentially in 2 different rooms/spaces.
- 1 textbook is allowed (*Machinery's Handbook* or another published reference book).
- 1 Scale (Mechanical Drafting scale).
- 1 Scientific Calculator per contestant (not a cell phone).
- Pencil(s) and erasers.

Complete the Contest

The contest topic will be provided Friday for Technical Drafting and Saturday for Novice CAD after 8 am of SLSC, and the final design submission will be due 3 hours after the contest officially begins for each competition. Pay attention to the time you work on a problem, notices for the remaining 30 minutes, and 5 minutes, of the competition will be announced, respectively.

Skill Demonstration:

Contestants will be provided with a copy of the problem they are to solve over the allotted course of time. Contestants will then provide their completed solutions to the B size layout drawing template in the adequate number of pages **(not necessarily the number of PDF files submitted)** on a flash drive.

Furthermore, if a single PDF file is submitted with several drawing pages, along with several other PDF files on their flash drive, Judges will only take into consideration the first few pages submitted *ie. If the contest asks for three (3) detailed drawings, but six (6) are submitted in various files structures, only the first three (3) drawings, not files, that the judge's print will be considered for scoring.* **Pay attention to your submitted file nomenclature, organization, & publishing.**

Submit Contest Submission

Submit the following:
- ❑ PDF files of the solution to the problem as instructed.
- ❑ One-page typed resume

OREGON SkillsUSA
TECHNICAL DRAFTING & NOVICECADD CONTESTANTS:
PLEASE HAVE THIS READY BEFORE COMPUTER SETUP- YOU DO NOT WANT TO
WASTE TIME DURING THE CONTEST CREATING THE BOARDER AND TITLE
BLOCK.
PREPARE A B SIZE SHEET BORDER AND TITLE BLOCK AS SHOWN.
USE TEXT THAT MEET CAD STANDARDS

10.25

16.00

4.25

1.50

1.00

.63

.38

Oregon SkillsUSA

	TITLE		
SCALE =			
CONTESTANT #: XXXX	DATE: XX/XX/XXXX		TD or AD