



Technical Drafting

Career Competition

Career Cluster: Manufacturing/ STEM

State Qualifying Exam: Yes

National Contest: Yes

Participation: Individual

Competition Description

This competition evaluates competitors' preparation for employment and recognizes outstanding students for excellence and professionalism in the field of technical drafting. The competition will focus on the solution of industry-developed problems by applying appropriate technical drafting skills and tools, including computer-aided drafting (CAD).

Tasks To Be Evaluated

A 3D mechanical design problem requiring a 3D drawing of multiple parts that are assembled with welds and fasteners. A multi-view drawing with dimensions, possibly a section, a parts list, possibly detailed views, and a 3D view with parts labeled are typically required. Usually, the cost and weight of the designed project have to be calculated as well.

Clothing Requirement

National Requirement:

Class E: Competition Specific: Business Casual Attire

- Official SkillsUSA white polo shirt
- Black dress slacks or black dress skirt (knee-length minimum)
- Black, closed-toe dress shoes.

State Requirement:

National Requirement OR

- White polo shirt or button-down dress shirt (other colored polo/dress shirt will be subject to deductions)
- Black dress slacks or black dress skirt (knee-length minimum)
- Black, closed-toe dress shoes.
- Any embroidered names or school patches must be covered, if applicable.

Provided by Competitor

- Computers with CAD Software
- A flash drive (USB) file storage for turning in drawing sheets as PDF's
- Maximum of 4 textbooks for reference
- Sketch Paper, Pencil, Calculator (optional)

Provided by Technical Committee

- Power Source

Additional Information

Students who use 3D Parametric Design software will be most successful since a 3D model, multi-view, parts list, and isometric drawing with part labels are required.

Students should test print a PDF from their CAD System to USB prior to competition.