PURPOSE
To evaluate each contestant’s preparation for employment and to recognize outstanding students for excellence and professionalism in the field of cabinetmaking and millwork.

ELIGIBILITY
Open to active SkillsUSA members enrolled in career and technical programs with cabinetmaking and millwork as the occupational objective.

CLOTHING REQUIREMENT
Contest Specific – Construction
- White crew neck short-sleeved T-shirt
- Work pants or jeans,
- Leather or steel toed work shoes.
- Hair must be contained.
- Safety glasses with side shields or goggles, (Prescription glasses can be used only if they are equipped with side shields approved by OSHA(Z-87). If not, they must be covered with goggles.)

Note: Contestants must wear their official contest clothing to the contest orientation meeting. Also bring #2 pencil, resume, and safety assurance form.

SAFETY REQUIREMENT
Both the instructors and the contestants certify by agreeing to enter this contest that the contestant has received instruction and has satisfactorily passed examination on the safe use of the following power equipment that may be used in the contest:

1. Router
2. Table saw
3. Jointer
4. Band saw
5. Drill press
6. Hand drill
7. Scroll saw
8. Miter/Cutoff saw
9. Disc and belt sander
10. Boring machine

Contestants will be removed from competition if proper training has not been provided and/or they are using the equipment in an unsafe manner. Contestants must bring the NYS safety sheet to orientation meeting.

EQUIPMENT AND MATERIALS
1. Supplied by the technical committee:
   a. All necessary power tools, equipment and workstations for contestants
2. Supplied by the contestants:
   a. Nail apron
   b. Claw hammer
   c. Measuring tape
   d. Combination square
   e. Two pencils
   f. 1/32", 1/16", 1/32" nail sets
   g. Block plane
   h. Utility knife
   i. Backsaw
   j. Two hand-screw clamps or two “C” clamps with a maximum opening of 8"
   k. One set 1/4”–1” wood chisels
   l. 10” or 12” mill bastard flat file
   m. One set of flat-blade and Phillips-head screwdrivers and/or handle with interchangeable bits
   n. Sanding block
   o. Hand scraper/cabinet scraper
   p. Calculator
   q. Three 8½”x11” pieces of sandpaper (80–220 grit)
   r. All competitors must create a one-page résumé and submit a hard copy to the technical committee chair at orientation. Failure to do so will result in a 10-point penalty.
“Note: Your resume may be judged as part of your contest” Check the Contest Guidelines and/or the updates page on the NYS SkillsUSA Web site: http://www.nysskillsusa.org

Note: No additional tools will be permitted.

SCOPE OF THE CONTEST

Knowledge Performance
The contest will include a written test.

Skill Performance
The contest consists of workstations that require the building of a small cabinet from the materials and drawings supplied. Contestants will demonstrate their ability to perform jobs or skills selected from the following list of competencies as determined by the SkillsUSA Championships technical committee.

Contest Guidelines
1. Read drawings, lay out and cut parts using a table saw, laminating trimmer, hand drilling, utilizing the boring machine and various hand tools are skills that will be assessed. In addition, the parts must be accurately assembled, sanded and adjusted to tolerances specified.
2. Contestant will be given all necessary information by job sheets or prints of articles to be constructed. Contestants will use joinery techniques as specified.

Standards and Competencies

CM 1.0 — Apply wood veneers and plastic laminates
1.1 Apply adhesives, edge banding and wood edges
1.2 Apply laminate to core
1.3 Cut plastic to size
1.4 Fit plastic laminate joints
1.5 Trim edges

CM 2.0 — Assemble, fasten and install components
2.1 Apply clamping devices
2.2 Assemble drawers, panel door and joint
2.3 Assemble ends, back, bracing and face frame
2.4 Attach molding/trim
2.5 Fasten parts with nails, screws and staples
2.6 Fasten top to casework
2.7 Glue boards edge to edge
2.8 Install catches, doors, drawer rail and guides, hinges, pulls and knobs, shelves and track and slide for sliding doors
2.9 Reinforce joints with block/dowel

CM 3.0 — Cut and shape components
3.1 Cut butt joint, counter top, dado/rabbet joint, doors, doweled joint, and drawer guides and runners (rails)
3.2 Cut drawer front, sides, back and bottom
3.3 Cut ends, back and interior bracing
3.4 Cut face frame, miter joints, molding trim, mortise and tenon joints, frames and panels, shelving, spline joints and tongue and groove joints
3.5 Cut out for sink
3.6 Edge (shape) counter top
3.7 Plane stock
3.8 Square solid stock

CM 4.0 — Design and lay out
4.1 Determine materials from a blueprint
4.2 Draw detailed plans
4.3 Estimate labor and material cost
4.4 Sketch shop plans

CM 5.0 — Finish surfaces
5.1 Apply lacquers, paints, stains, varnishes/polyurethanes and wood filler to nail or screw holes
5.2 Clean surfaces
5.3 Remove excess glue
5.4 Sand surfaces
5.5 Swell dents

CM 6.0 — Transport and install cabinets
6.1 Fasten cabinet to wall
6.2 Trim cabinets
6.3 Prepare cabinets for transporting

Committee Identified Academic Skills
The technical committee has identified that the following academic skills are embedded in this contest.

Math Skills
- Use fractions to solve practical problems
• Use proportions and ratios to solve practical problems
• Simplify numerical expressions
• Solve practical problems involving percentages
• Measure angles
• Find surface area and perimeter of two-dimensional objects
• Apply transformations (rotate or turn, reflect or flip, translate or slide, and dilate or scale) to geometric figures
• Construct three-dimensional models
• Apply Pythagorean Theorem
• Solve practical problems involving complementary, supplementary and congruent angles
• Use measures of interior and exterior angles of polygons to solve problems
• Find arc length and the area of a sector