

UTAH CTE SKILL CERTIFICATE PROGRAM

FURNITURE DESIGN & MANUFACTURING

STUDENT PERFORMANCE EVALUATION

TEST #522

Student Name: _____

The performance evaluation is a required component of the Skill Certification process. Each student must be evaluated on the required performance standards. Performance standards may be completed and evaluated anytime during the course.

- Students should be aware of their progress throughout the course, so that they can concentrate on the objectives that need improvement.
- Students should be encouraged to repeat the objectives until they have performed at a minimum of a number 1 or 2 on the rating scale (moderately to highly competent level).
 - 1= highly competent Successfully demonstrated without supervision
 - 2= moderately competent Successfully demonstrated with limited supervision
 - 3= limited competence Demonstrated with close supervision
 - 4= not competent Demonstration requires direct instruction and supervision
- When a standard has been achieved at a minimum of 80% (moderately to highly competent level). "Y" (Y=YES) is recorded on the last line of that standard, on the performance evaluation sheet. If a student does not achieve a 1 or a 2 (moderately to highly competent level), then "N" (N=NO) is recorded on the last line of that standard.
- All performance standards MUST be completed and evaluated prior to the written test.
- The signed performance evaluation sheet(s) MUST be kept in the teachers' file for two years.
- A copy is also kept on file with the school's CTE Skill Certification testing coordinator for two years.

Students who achieve a 1 or a 2 (moderately to highly competent) on ALL performance standards and 80% on the written test will be issued an CTE Skill Certificate.

480702-02 Students will be able to understand the design, planning, and estimation process.	1	2	3	4
Identify elements and principles of design as they apply to woodworking and cabinetmaking/millwork manufacturing.				
Identify standard furniture dimensions relating to tables, seating, bookshelves, and shelving.				
Draw the necessary views of a selected project.				
Create a material list for the selected project and determine the project cost.				
Create a procedure list for construction of a cabinet.				
Extract pertinent cabinet information and specifications from working drawings and specifications.				

The instructor must retain a copy of this Student Performance Evaluation for two years after the student has left the program.

Instructor Signature: _____ Date: _____

Student Signature: _____ Date: _____

School: _____

480702-03 Students will be able to understand and demonstrate safe practices.	1	2	3	4
Demonstrate the ability to work safely in a cabinet shop following general safety rules.				
Demonstrate safe use of woodworking tools and machines.				
Demonstrate how to handle and store materials according to the Material Safety Data Sheets (MSDS).				
Pass a written safety test with a score of 100 percent.				

480702-04 Students will be able to understand and demonstrate the safe use of hand tools.	1	2	3	4
Describe the purpose and demonstrate the proper use of the following measuring and layout tools: Measuring tape Scratch awl Combination square Try square Framing square Sliding T-bevel Tammel points Compass				
Describe the purpose and demonstrate the proper use of the following cutting and shaping tools: Utility knife Back saw Block plane Wood chisel Wood file/rasp Hand saw Jack plane Glue scraper Putty knife				
Describe the purpose and demonstrate the proper use of the following striking tools: Claw hammer Dead-blow hammer Rubber mallet Nail set				
Describe the purpose and demonstrate the proper use of the following drill bits: Twist Forstner Spade Countersink Hole saw Multi spur bit Hogging tool Driver bits: Phillips, Square, slotted				

480702-05 Students will be able to understand and demonstrate the safe use of portable power tools.	1	2	3	4
Describe the purpose and demonstrate the proper use of the following portable power tools: Pneumatic nailer Power drills Router Finish sander Belt sander Orbital sander Biscuit jointer Hand jig saw				

480702-06 Students will be able to understand and demonstrate the safe use of power machines.	1	2	3	4
Describe the purpose and demonstrate the proper use of the following sawing machines: Table saw Power Miter Saw Radial arm saw Band saw				
Describe the purpose and demonstrate the proper use of the following surfacing machines: Surface planer Jointer				
Describe the purpose and demonstrate the proper use of the following sanding machines: Disc sander Surface sander Spindle sander				
Describe the purpose and demonstrate the proper use of the following shaping machines: Router table Shaper				
Describe the purpose and demonstrate the proper use of the following drilling and turning machines: Drill press Line boring machine Lathe				

480702-07 Students will be able to understand the wood components and characteristics.				1	2	3	4
Describe the parts of a tree and the significance that it has in cabinet construction. Bark Sap wood Pith Annual (growth) rings							
Describe and know how natural defects. Warp Cracks Bark inclusions Knots							
Demonstrate a knowledge of the seasoning and drying of lumber.							
Distinguish between softwoods and hardwoods.							
Identify the difference between solid wood and manmade goods and describe the use of each.							
Identify wood species and list the species most suited for furniture construction. Alder Cherry Oak Walnut Maple Poplar Pine Mahogany Cedar							
Identify the common grades of lumber and sheet goods. FAS Select #1COM							
Properly store material.							

480702-08 Students will be able to understand the basic math and measuring concepts				1	2	3	4
Add two- and three-digit numbers.							
Subtract two-, three-, and four-digit numbers.							
Solve two-digit divisor numbers.							
Multiply a two-digit factor.							
Add, subtract, multiply, and divide fractions and mixed numbers.							
Convert fractions to decimals.							
Reduce fractions.							
Add, subtract, multiply, and divide decimal numbers.							
Calculate percentages and basic ratios.							
Add and subtract linear measurement in feet and inches.							
Use a ruler or measuring tape to measure within a sixteenth (1/16) of an inch.							
Calculate board feet and square feet.							
Demonstrate the optimization of materials.							

480702-09 Students will be able to understand and demonstrate the use of fasteners and adhesives.				1	2	3	4
Identify the various woodworking fasteners and the application of each. Nails Screws Staples Pins Bolts							
Identify the different adhesives and preferred use of each. Yellow glue Polyurethane glue Cyanoacrylate Epoxy							
Identify the different types of clamps. Bar "C" Spring Band Handscrew.							

480702-10 Students will be able to understand and demonstrate the use of joinery.				1	2	3	4
Identify the basic wood joints used in furniture making. Butt Miter Rabbet Dado Spline Mortise and tenon Dovetail Groove (plough) Lap Pocket Dowel Biscuit Blind dado							
Construct the basic wood joints used in cabinetmaking/millwork.							

480702-11 Students will be able to understand and demonstrate the use of cabinet components and hardware.				1	2	3	4
Identify the cabinet components of a face frame and cabinet box. Stile Rail Mullion Side Skin Base Shelf Web frame Kicker Drawer runner/glide Toe kick Back							
Describe the concept of a European (frameless) cabinet system and the advantages and disadvantages of that system.							
Identify the door options in cabinetmaking: Flush Overlay Lip Tambour							
Identify the components of a drawer.							
Identify and properly install common cabinet/furniture hardware such as: Shelf supports Drawer guides Pulls and knobs Hinges - offset, overlay, European, butt, lip							
Assemble a project with the proper adhesive and fasteners.							
Use frame and panel construction in a project.							
Construct a drawer.							
Install lid or door and drawer.							
Identify basic construction methods. Frame and panel Casework construction Post and rail							

480702-12 Students will be able to understand and demonstrate finishing techniques.				1	2	3	4
Understand and properly apply the basic rules of sanding.							
Select and correctly use each specified grit size.							
Properly prepare a surface for finishing.							
Properly apply stain, penetrating oil, and/or a clear finish							
Properly spray a clear coat.							

480702-20 Students will be able to understand the importance of employability and work habits.				1	2	3	4
Integrity (honesty, dependability).							
Punctuality and attendance.							
Staying on task (using time effectively).							
Productive team worker (works well with others).							
Leadership.							