

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 **teacher** will bubble in "A" on the answer sheet for item #81 for students who have achieved "Y" on **ALL** performance standards.
 - The **teacher** will bubble in "B" on the answer sheet for item #81 for students who have **ONE or more "N"s** on the performance standards.
 - 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 ATE 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 ATE 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). | | | | | | |

Revised 13 October, 2009

Productive team worker (works well with others).

Leadership.