

**Cabinetmaking 3**

One Semester (85 hours) (½ Credit)

10<sup>th</sup> – 12<sup>th</sup> grades

Prerequisites: C or better in Cabinetmaking 2

Texts: Cabinetmaking and Millwork John Feirer 1977

The student will learn advanced techniques in the field of woodworking including reading and drawing a multi-view drawing on a computer aided drafting system. The student will know how to safely operate woodworking equipment. The student will become aware of the methods, jigs, and fixtures used in the field of furniture manufacturing.

**Cabinetmaking 3**

- I. Careers
  - A. Research career choices
  - B. Explore financial expectations in the field of woodworking
  - C. Research a personal budget for your proposed lifestyle
  - D. Research four companies that are possible employers
- II. Material planning and estimation
  - A. Research and plan project
  - B. Make work order
  - C. Develop plan of procedure
  - D. Make a cutting list for job
- III. Design multi-view drawings
  - A. Sketch proposed project
  - B. Design multi-view drawing using CAD system
  - C. Design elevation drawing of cabinet
- IV. Cabinetmaking joinery
  - A. Construct a doweled wood joint including butt, edge and miter joint
  - B. Review dovetail, biscuit, pocket hole, and other woodworking joints
- V. Machine tool safety
  - A. Review hand tool safety and uses
  - B. Review and pass all machine safety tests
  - C. Sharpen and use chisels and cabinet scrapers
- VI. Saber Saw
  - A. Operate saber saw safely
  - B. Make curved and bevel cuts
  - C. Make a pocket cut
- VII. Drill Press/Portable Drill

- A. Operate drills safely
- B. Drill pilot holes and drive screws
- C. Use drill to counterbore, countersink and cut plugs
- D. Bore spaced holes for adjustable shelves
- E. Drill holes in round stock
- F. Drill holes for dowels

#### VIII. Router

- A. Shape an edge of a board
- B. Use router to cut groove, dado, and rabbet
- C. Make and use template for routing

#### IX. Sander

- A. Sand surface with finish sander
- B. Sand surface with a belt sander
- C. Set up and use various sanders including belt, wide belt, disc, and spindle sanders
- D. Make a spindle turning of specified design
- E. Make duplicate spindle turnings

#### X. Table Saw

- A. Make a cross cut with table saw
- B. Make a rip cut with table saw
- C. Make a miter cut on the table saw
- D. Install a dado head and cut a dado and groove

#### XI. Radial Arm Saw

- A. Make crosscuts with radial arm saw
- B. Cut duplicate lengths on radial arm saw
- C. Replace radial arm saw blades
- D. Lay out and cut a miter and compound miter

#### XII. Joiner/Planer

- A. Square edge of stock perpendicular to face
- B. Plane stock to specific thickness
- C. Face rough stock

#### XIII. Bandsaw

- A. Make series of cuts both freehand and straight
- B. Cut a circle and a rectangle
- C. Make bevel cuts
- D. Remove and replace a bandsaw blade and adjust guides
- E. Fold a bandsaw blade for storage

#### XIV. Miter Box Saw

- A. Cross cut to length
- B. Cut a miter joint

- C. Replace blade
- XV. Shaper
  - A. Remove and install cutting bits
  - B. Mould stock using fence
  - C. Mould stock using collars
- XVI. Air Nailers/Staplers
  - A. Fasten material using hand stapler
  - B. Fasten material with a pneumatic nailer and /or stapler
- XVII. Fasten stock
  - A. Fasten stock using glue and clamps
  - B. Fasten stock using various mechanical fasteners including nails, screws, bolts, and staples
  - C. Counterbore a hole, then cut plugs for it
  - D. Glue and clamp stock using a variety of clamps including bar, "C", spring, and miter clamps
  - E. Apply corner blocks with glue
- XVIII. Construct cabinets
  - A. Design, draw, layout and build a cabinet/fixture
  - B. Install cabinet/fixture
- XIX. Drawer construction
  - A. Make various drawers including overlay, lipped, and flush
  - B. Install drawer guides and hardware
- XX. Cabinet door construction
  - A. Make a frame and panel door
  - B. Make a solid door
  - C. Install door hardware
  - D. Hang a lipped and overlay door
  - E. Set glass in a frame
  - F. Fit and hang flush door
- XXI. Lamination
  - A. Cut laminate
  - B. Laminate a countertop
- XXII. Finish surfaces
  - A. Prepare a surface for finish
  - B. Stain and seal a surface
  - C. Finish a surface with a brush and spray
  - D. Fill a surface with wood filler

**XXIII. Employable skills**

- A. Demonstrate knowledge of job interview techniques**
- B. Identify acceptable work habits**
- C. Complete a job application form and identify documents needed for an interview**
- D. Conduct a job search and secure information about the job**