

# **Woods I**

## *Course Outline*

18 Weeks

### I. Planning

- A. Sketching
- B. Drawing
- C. Designing
- D. Computing lumber measurement.
- E. Preparing a bill of materials.

### II. Woods

- A. Wood classification.
- B. Lumbering industry.
- C. Wood defects.
- D. Grading wood.

### III. Safety (*ongoing*)

- A. General Shop.
- B. Portable Hand Tools.
- C. Stationary Machines.

### IV. Woodworking Machines

- A. Saws
  - 1. Radial arm.
  - 2. Bandsaw.
  - 3. Circular saw.
    - i. cross-cut.
    - ii. rip.
  - 4. Safety Demo's / Quiz.
- B. Planing
  - 1. Jointer.
  - 2. Surfacer.
  - 3. Safety Demo's / Quiz.

## V. Drilling

- A. Bits.
- B. Portable Drills.
- C. Drill Press.
- D. Safety Demo's.

## VI. Drawing Project.

- A. Structured Design.
- B. Construction.
- C. Design Exchange.

## VII. Sanding

- A. Abrasives
  - i. types.
  - ii. styles.
- B. Hand sanding
- C. Machine sanding.

## VIII. Finishing

- A. Filling dents / defects
- B. Wood filler.
- C. Grain raising .
- D. Thinners.
- E. Stains.
- F. Top coats.
- G. Penetrating finishes.
- H. Proper clean -up.
- I. Environmental / Health concerns.

## IX. Lathe Project

- A. Design.
- B. Video – Large group.
- C. Demo – Small group.
- D. Lab.

## X. Routing

- A. Table Router.
- B. CNC router – Master CAMM – Inventor
- C. Canned Project.

## XI. Fasteners

- A. Glues.
- B. Nails.
- C. Screws.
- D. Clamps.

- XII. Jig & Fixturing
  - A. Guiding the tool bit.
  - B. Guiding the workpiece.

- XIII. Folding Stool Project.
  - A. Reverse Engineering.
  - B. Build Prototype.
  - C. Lab.

- XIV. Student Project
  - A. Design.
  - B. *BOM/POP*
  - C. Lab.