

# Introduction to Carpentry

## Course 361: Introduction to Carpentry

Gives the new trainee a grasp of the basics of carpentry. Aims to familiarize persons who have had no carpentry experience with the tools and materials of the trade. Covers specifications, estimating procedures, codes, and how to read prints and plans.

TPC Training is accredited by IACET to offer **0.5 CEU** for this program.



### Lesson 1: Layout and Hand Tools

#### Topics

Introduction; Dressing for Carpentry Work; Safety Accessories and Equipment; Layout Tools; Straightedge; Marking Gauge; T-Bevel and Protractor; Framing Square; Testing a Framing Square; Chalk Box and Line; Work-Holding Vises and Clamps; Hand Tools; Your Toolbox

#### Objectives

- Identify the safety equipment that a carpenter should wear to protect his eyes, hands, and feet.
- List the twelve common layout tools mentioned in this lesson.
- Describe how to check the accuracy of a framing square.
- Tell how you would acquire the hand tools you need as a carpenter trainee.
- Point out the features that you'd look for when buying your own toolbox.

### Lesson 2: Carpenter's Power Tools

#### Topics

Rules for Power Tool Safety; The Circular Saw; Blades for Circular Saws; Correct Use of a Circular Saw; The Saber Saw; Reciprocating Saw; The Power Drill; The Power Plane; The Router; Belt Sander; Finishing Sander; Specialty Tools for Carpenters; Nailers and Tackers; Power Actuated Fastening Tools; The Screw Gun

#### Objectives

- List the twelve safety rules for power tools mentioned in this Lesson.
- Explain how to mount a new blade properly in a circular saw.
- Tell how to start and finish a cut with a circular saw.
- Describe how to drill wood safely with a power drill.
- Tell how to shape an edge with a router.
- Identify the three steps involved in sanding a surface with a finishing sander.

### Lesson 3: Lumber, Wood Products, and Fasteners

#### Topics

Hardwood vs. Softwood; Lumber Sizes; Lumber Grading; Lumber Defects; Moisture Content; Milling Methods; Millwork; Plywood; Plywood Grading; Working with Plywood; Hardboard; Particleboard; Proper Storage of Lumber; Standard Nails; Special Nails; Wood Screws

#### Objectives

- Describe the difference between the actual and nominal dimensions of lumber.
- Tell how defects such as checks, knots, and warping limit the value and use of lumber.
- Explain how kiln drying of lumber produces different results from air drying.
- Point out the differences between solid core and veneer core plywood.
- Describe the construction and uses of particleboard.
- Compare common nails, casing nails, and finishing nails.
- List the information you must give your supplier when ordering wood screws.

### Lesson 4: Estimating Carpentry Costs

#### Topics

Units for Ordering Material; Reducing Waste Material; Using Waste Material; Bill of Materials; Preparing a Cost Estimate; Overhead; Guides for Cost Estimating; Tips on Organizing a Task

#### Objectives

- Explain the difference between a board foot and a linear foot of lumber.
- Describe the relationship between a bundle and a square of roofing shingles.
- List the information contained in a bill of material.
- Name the factors you need to prepare a cost estimate for labor on a job.
- Point out some of the things you must do before beginning a job, so the work goes smoothly.

### Lesson 5: Plans, Specifications, and Codes

#### Topics

Architectural Drawings; Presentation Drawings; How to Read Drawings; Dimensions on Drawings; Symbols Used in Drawings; Equipment Schedules; A Full Set of Plans; Specifications for Construction; Building Codes and Zoning Laws; Building Permits; Making Your Own Drawings

#### Objectives

- Name the features of a building that you'll find in the plan and elevation views.
- Demonstrate how to use an architect's scale and a draftsman's scale.
- List at least four building features whose details are contained in the specifications.
- Explain why building codes are necessary in the construction industry.
- Describe the information you must submit to obtain a building permit.