

Passaic County Technical Institute

CARPENTRY I

JANUARY 2004

CARPENTRY I

I. DESCRIPTION

Freshman Carpentry is a 45 day (one marking period) course which places emphasis on introducing the student to the carpentry trade. Job career opportunities will be covered along with all aspects of safety requirements.

Each student will be required to demonstrate the following:

1. understand basic materials
2. good general practices and housecleaning
3. basic hand tool safety and procedures
4. basic portable power tool safety and procedures
5. limited stationary machine safety and procedures
6. basic measuring skills
7. basic math skills
8. complete two projects
9. keep an organized notebook

II. OBJECTIVES

1. Career Opportunities (9.1, 9.2)
 - a. Union vs private industry
 - b. Post Secondary trade schools
 - c. Trade specialties
2. Safety (9.2F)
 - a. General shop safety
 - b. On the job safety
 - c. Safety clothing
 - d. Safety organizations
 - e. Hand tool safety
 - f. Portable power tool safety
 - g. Limited stationary machine safety
 - h. Shop cleanliness and maintenance
3. Materials (9.1)
 - a. Basic building materials
 - b. Fasteners
 - c. Basic adhesives
 - d. Basic abrasives
 - e. Basic finishes

4. Math and measure (9.1B; 9.2,C)
 - a. Add and subtract whole and mixed numbers
 - b. Add and subtract fractions
 - c. Multiply and divide whole, mixed and fractions
 - d. Accurately measure various dimensions
5. Hand tools (9.1B; 9.2A,C)
 - a. Demonstrate safe and proper use of basic hand tool
 - b. Identify basic hand tools
 - c. Use hand tool skills to build projects
6. Portable power tools (9.1B; 9.2A,C)
 - a. Demonstrate safe and proper use of basic portable power tools
 - b. Identify basic portable power tools
 - c. Use portable tool skills to build projects
7. Finishes (9.1B; 9.2A,C)
 - a. Demonstrate safe finish handling techniques
 - b. Demonstrate proper finish applications
 - c. Demonstrate proper abrasive techniques
 - d. Identify basic abrasives
 - e. Identify basic stains
 - f. Identify basic clear finishes

III. TEXTBOOKS AND INSTRUCTIONAL MATERIALS

“Modern Carpentry” including teacher resource manual by
Willis H. Wagner/Howard Bud Smith G.W. Publishing copyright 2000
Dewalt safety video
Tauton Press: Construction Trade Videos

IV. TEACHING STRATEGIES

Various teaching methods are utilized in this course. Relevant instruction will be given using well prepared study guide sheets, lectures, exercises from the textbook and videos to reinforce the theory.

Hands-on demonstrations and close supervision will be provided in the shop environment with safety reinforced each day.

IV. OUTLINE OF COURSE

- a. Career Opportunities
 1. Introduction to the construction trade
 2. Union apprentice program
 3. Private sector of employment in the construction field
 4. Identify several specialties within the carpentry field

5. Identify post-secondary trade schools

- b. Safety
 1. List safety rules for shop and job sites
 2. Identify safety organizations
 3. Demonstrate good safety habits
 4. Work area cleanliness
 5. Define proper tool/machine maintenance

- c. Materials
 1. Identify soft and hardwoods
 2. Identify various non wood building products
 3. Identify various fasteners
 4. Identify various adhesives
 5. Identify various finishes

- d. Math and Measure
 1. Introduction to the ruler
 2. Object measuring
 3. Add and subtract fractions
 4. Introduction to basic geometry
 5. Basic blue print reading

- e. Hand Tools
 1. Introduction to smoothing tools
 2. Introduction to measuring and layout tools
 3. Introduction to cutting tools
 4. Introduction to hammering tools
 5. Introduction to drilling and boring tools

- f. Power Tools
 1. Introduction to the router
 2. Introduction to the portable drill
 3. Introduction to the drill press
 4. Introduction to the jig saw
 5. Introduction to the orbital sander
 6. Introduction to the bandsaw
 7. Introduction to the scroll saw

- g. Finishes
 1. Identify and use basic wood stains safety
 2. Identify and use basic clear finishes safety
 3. Identify the correct solvent to clean brushes, etc.
 4. Understand the MSDS information sheet

V. EVALUATION

Students are evaluated using the following criteria:

1. Class participation
2. Attendance
3. Periodic tests and quizzes
4. Pass general shop safety quiz
5. Complete 2 assigned projects

VI. PROFICIENCIES

Students will be able to:

1. demonstrate an awareness of occupational opportunities available in the carpentry trade.
2. work cooperatively, safely and effectively with others.
3. demonstrate the safe and proper use of hand tools
4. demonstrate the safe and proper use of portable tools
5. demonstrate the safe and proper use of limited stationary machines
6. demonstrate the basic math skills needed in the carpentry field
7. demonstrate the basic measuring skills
8. demonstrate work habits that assure quality, accuracy and pride
9. understand the basics of multiview drawings
10. identify the basic parts of a residential house

Key I = Introduced
 D = Developed in Depth
 R = Reinforced

CARPENTRY I
SCOPE AND SEQUENCE CHART

Suggested Grade Levels

SKILL TO BE LEARNED	9	10	11	12
Understand and follow all safety rules	D			
Identify various career opportunities in carpentry	I			
Demonstrate safe and proper hand tool techniques	D			
Demonstrate safe and proper limited power tool techniques	I			
Understand basic shop math needed for carpentry	R			
Demonstrate good work habits	R			
Understand the use of basic building materials	I			
Apply good measuring skills	ID			
Understand the use of basic blueprints and working disks	I			
Understand the basic parts of a residential house	I			