



## Introductory Carpentry Part 2

Welcome to JC012: Introductory Carpentry Part 2!

Please read the information in this syllabus before proceeding to the course materials.

**Credits** 1 credit hour

**Prerequisites** JC011

### INSTRUCTIONAL TEAM

Our Academic Advisors are also available to help you when you need it. They are trained to provide answers to your questions about the course or program.

Phone: 1-800-224-7234

Hours: 8:30AM – 8:30PM (Eastern Standard Time), Monday-Friday

### MAIL

James Madison High School  
6625 The Corners Parkway, Suite 500  
Norcross, GA 30092

### TEXTBOOK

Wagner, W, Smith, H and Huth, M (2016) *Modern Carpentry* (12th ed.). Tineley Park, IL: The Goodheart-Willcox Company, Inc.

### COURSE DESCRIPTION

The Carpentry program provides students with a basic understanding of the materials, tools and processes used by construction professionals to complete residential and light-commercial building projects. Students learn safe-work practices, hand and power tool identification and operation, basic print reading and building code applications. The program provides detailed coverage of framing techniques, interior and exterior finishing practices as well as some specialty construction elements.

### LEARNING OBJECTIVES

After completing the Carpentry program, students will be able to

- Describe the career opportunities available in the carpentry profession and identify the key work characteristics of carpentry technicians.
- Identify the basic materials and tools used for standard residential construction projects and describe how they are applied as part of the construction process.
- Understand the basic concepts and rules of construction safety and list the types of personal protective equipment used by construction technicians to stay safe on the job site.
- Identify and describe the essential steps in the framing process used for residential construction projects.
- Describe the steps in the process for transmitting building requirements and specifications from construction documents to actual building layout.
- List the materials and procedures used to install exterior building protection systems and interior building finish systems.



<b>LESSONS</b>	<b>TOPICS</b>
<b>Lesson 1: Building Layout</b>	Students will learn the steps required to layout the foundation of the structure that begins the actual building process. Instruction covers both manual techniques using steel tapes and builder's level, as well as more automated methods using transits and laser levels.
<b>Lesson 2: Footings and Foundations</b>	Lesson coverage includes the materials required to construct common building foundations and footings as well as the ways in which carpenters contribute to the completion of foundation development.
<b>Lesson 3: Framing Floors, Walls, and Ceilings</b>	Detailed review of the materials, layout and assembly techniques used for constructing walls, floors and ceilings for both single and multi-level structures. Wall framing instruction covers both wood and metal framing, as well as the selection and application of sheathing and housewrap.
<b>Lesson 4: Scaffolds and Ladders</b>	A summary of the types of ladders and scaffold assemblies students will encounter on the job site. This lesson provides coverage of safe application of both site-built and manufactured scaffolding in addition to mobile scaffolding. Students will also learn to identify, inspect, carry and store common job-site ladders.
<b>Lesson 5: Roof Framing</b>	Students will continue to expand their knowledge of the framing process by learning the configuration of different roof styles and the layout and assembly used to construct each type of roof. Instruction also includes rafter layout, truss installation and the sheathing process.
<b>Lesson 6: Stair Framing, Insulation, and Ventilation</b>	This lesson concludes student coverage of framing techniques with instruction on the methods used to construct stair systems. Students will then learn about the materials and installation techniques used to insulate buildings while providing for proper moisture transfer and ventilation.
<b>Lesson 7: Roofing</b>	Instruction on the terminology, materials, and processes necessary to protect building interiors through the proper application of common roofing materials. Students will learn about asphalt shingles and alternative roofing materials such as wood and tile, the accurate estimation of required materials, and the configurations of gutter systems
<b>Lesson 8: Windows and Exterior Doors</b>	Continued coverage of the materials and processes used to enclose residential construction projects. Students will learn about standard window and door styles and the techniques used to properly install them.
<b>Lesson 9: Exterior Finish, Porches and Decks</b>	The final lesson that covers the materials and layout used for weatherizing and customizing building exteriors. Coverage is provided for multiple forms of siding systems in addition to the materials used to construct porches and decks.
<b>Lesson 10: Interior Wall and Ceiling Finish</b>	Student understanding of the interior finish process begins with the materials, tools and installation practices used to finish interior walls and ceilings. The installation and finishing process for common wall materials such as gypsum is detailed in addition to alternative options like wood paneling and wall tile, as well as ceiling tiles and ceiling systems.
<b>Lesson 11: Interior</b>	In this lesson students learn how to complete the finish of a typical room



<b>Doors and Trim</b>	through the installation of doors, and interior moldings.
<b>Lesson 12: Finish Flooring</b>	Students will learn about the materials, tools, and applied finishes used to create finished floors.
<b>Lesson 13: Cabinets</b>	The program concludes by providing instruction on the specification, selection and installation of cabinet systems for kitchens and baths including the construction of common cabinet door and drawer assemblies.

## GRADING

The following point totals correspond to the following grades:

### POINTS      GRADE

100-90	A
89-80	B
79-70	C
65-69	D
Below 65	F

James Madison High School allows 2 attempts on exams. If a student is not satisfied with his/her score on the 1st attempt, an exam may be resubmitted. The 2nd attempt is not required as long as the final course average is above 65%. The higher of the 2 attempts will be the score that counts towards the final average.

Exams are timed and once you begin an exam, the timer runs continuously, even if you leave the course. Refer to the exam instructions for the time limit (in most cases 3 hours), but the time limit cannot be spread over multiple days.

## GRADE WEIGHT

TOPIC	ACTIVITY	PERCENTAGE
<b>Lesson 1: Building Layout</b>	MC Quiz	10%
<b>Lesson 2: Footings and Foundations</b>	MC Quiz	10%
<b>Lesson 3: Framing Floors, Walls, and Ceilings</b>	MC Quiz	10%
<b>Lesson 4: Scaffolds and Ladders</b>	MC Quiz	10%
<b>Lesson 5: Roof Framing</b>	MC Quiz	10%
<b>Lessons 6 &amp; 7: Stair Framing Insulation and Ventilation &amp; Roofing</b>	MC Quiz	10%



<b>Lessons 8 &amp; 9: Windows and Exterior Doors &amp; Exterior Finish Porches and Decks</b>	MC Quiz	10%
<b>Lessons 10 &amp; 11: Interior Wall and Ceiling Finish &amp; Interior Doors and Trim</b>	MC Quiz	10%
<b>Lessons 12 &amp; 13: Finish Flooring &amp; Cabinets</b>	MC Quiz	10%
<b>Final Exam</b>	MC Quiz	10%

## **ACADEMIC AND COURSE POLICIES**

Please see the Academic Policies section in the James Madison High School Catalog for information on Course policies, including the Exam/Assignment Retake Policy, Grading Policy, Academic Honesty Policy, and Student Conduct Policy.