



# CARPENTRY

## PROGRAM OVERVIEW



Carpenters are involved in many different kinds of construction, from the building of highways and bridges to the installation of kitchen cabinets. This course will prepare students for a career in the building trades through a combination of classroom theory and hands-on experience. Students will gain experience using hand tools,

portable power tools, and other equipment commonly used in carpentry along with using a variety of materials including lumber, panel products, roofing materials, fasteners and hardware. Students will develop the skills needed for rough framing, roof framing, and exterior and interior finish work. In addition, students will gain experience in blueprint reading, math, and estimating.



### CAREER OPPORTUNITIES

- Assembler
- Cabinetmaker
- Carpentry Foreman
- Concrete Carpenter
- Construction Superintendent
- Construction Worker
- Foreman
- Framer
- Production Worker
- Painter
- Drywall Installer



### POST-SECONDARY EDUCATION OPPORTUNITIES

- Alfred State
- Monroe Community College
- Apprenticeship Programs/  
Training in a many  
construction unions  
including Carpenters Local  
#276, Laborers Local #435,  
and Finishing Trades District  
Council #4





## PROGRAMS OF STUDY

### FOUNDATIONAL COURSES

#### **CTE Foundations: Construction**

9th Grade // 1 CTE Credit

Career Research and Exploration  
Safety, Tools, and Materials  
Basic Construction Skills

#### **Introduction to Construction & Design**

10th Grade // 2 CTE Credits

Rotation of Experiences in Carpentry  
Masonry, Electrical, and Computer Aided Design & Drawing (CADD)

### CAREER MAJOR COURSES

#### **Carpentry I**

11th Grade // 2 CTE Credits

Understand Floor Framing  
Cut and Assemble a Floor Frame  
Understand Rough wall Framing  
Identify the Components of a wall  
Understand Rough Roof Framing  
Understand Wall and Ceiling Systems

#### **Carpentry II**

12th Grade // 2 CTE Credits

Use and Maintain Hand Tools  
Use and Maintain Power Tools  
Identify Wall Framing Members  
Lay Out and Build a Wall  
Cut and Install Ceiling Joists  
Identify Roof Framing Members  
Lay Out and Cut Rafters  
Lay Out and Build Stairs  
Lay Out, Cut, and Install Drywall  
Identify Common Materials used for Sheathing Walls  
Describe the Correct Procedure for Assembling an Exterior Wall



## EMPLOYABILITY PROFILE:

The Proficient Carpentry Student will...

- Demonstrate employability skills that will help them get a job and meet employer's professional expectations.
- Demonstrate academic knowledge and skills that meet postsecondary requirements.
- Consistently demonstrate safe practices and healthy relationships.
- Properly select, use, store, and maintain all tools and equipment
- Effectively read a variety of materials and communicate in a variety of situations.
- Accurately solve mathematical calculations, and apply geometric concepts, in context.
- Accurately measure within industry-standard tolerances.
- Demonstrate grit. Persevere through challenges and not give up.
- Read and interpret blueprints.
- Construct concrete forms based on New York State building code.
- Layout and install floor joists and subfloor according to a blueprint.
- Construct a framed wall including window and door openings based on a blueprint.
- Construct a set of stairs based on New York State Building Code
- Layout, cut, and install a rafters for a specific application.
- Install and finish drywall to industry standards.