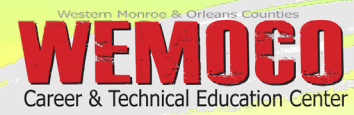


Carpentry

Build a future: a wide range of career paths start with carpentry



Students learn the fundamentals of residential carpentry and participate in the construction of a new house on site. Experience is gained in wall, ceiling and roof framing, exterior finishing, trimming, windows and doors, insulation and floor systems.

Units of Study

- Carpenters on the Job
- Safety on the Jobsite
- Hand/Power Tools, Materials and Fasteners
- Print Interpretations
- Site and Building Layout
- Footings/Foundations
- Stationary Power Tools
- Floor, Wall and Roof Framing
- Shop Projects
- Windows and Doors
- Insulation Systems
- Cabinetry
- Drywall
- Interior Trim
- Exterior Finishes
- Stair Framing
- Finished Flooring
- Interior Finishing

Integrated Academics

- English
- Math

Licensing / Industry- Based Certifications

- OSHA 10 Construction Industry
- International Brotherhood of Carpenters' and Joiners' Career Connection (IBJCJC) Curriculum

Work-Based Learning

CTE programs bring students into the workplace for real life experiences. Businesses that support our Carpentry program:

- BBT Construction
- Campus Construction
- DGA Builders
- Greater Rochester Housing Partnership
- J. Vogler Enterprise
- LeChase Construction
- Monroe County Planning & Development
- NAWIC
- P&CG Power & Construction Group
- RES Exhibits
- Rochester Colonial
- Warren Construction

Articulation Agreements

- Alfred State
- SUNY Morrisville



Career Paths

All CTE programs correlate to many career paths.

↓ Start Here

- Carpenter

Go Here ↓

with more education & experience

- Cabinetmaker
- Foreman
- Architect

Explore more:

<https://www.careerzone.ny.gov/>
<https://www.onetonline.org/find/>



WEMOCO Career & Technical Education Center
Monroe 2-Orleans Board of Cooperative Educational Services
Monroe2BOCES.org/cte 585-352-2471
3589 Big Ridge Road, Spencerport, New York 14559



Carpentry

Employability Profile

<u>Work-Related Skills</u> Productivity and Accountability _____ Follows procedures to meet expectations and deadlines _____ Displays consistent work performance and quality of work _____ Flexibility and Adaptability _____ Works effectively in varied roles and responsibilities _____ Responds well to and implements feedback _____ Initiative and Self-Direction _____ Identifies, prioritizes, and completes tasks without direct oversight _____ Seeks to learn and develop new knowledge and skills _____ Leadership and Responsibility _____ Leverages strengths of others to accomplish a goal _____ Takes ownership of one's work, performance, behavior, and actions _____ Communication _____ Articulates thoughts and ideas clearly and effectively through speaking and writing _____ Practices active listening skills _____ Collaboration _____ Works effectively with others _____ Open and responsive to new and diverse perspectives _____ Critical Thinking and Problem Solving _____ Asks questions to lead to better solutions _____ Identifies possible options and their outcomes _____	<u>Floor Systems</u> Lay out and construct a floor assembly _____ Lay out and install a sill/box frame _____ Install solid bridging _____ Lay out proper spacing and install floor joist _____ Install sub-floor _____ <u>Introduction to Construction Drawings</u> List and label selected symbols and abbreviations used on drawings _____ Read and interpret site/plot plans _____ Read and interpret foundation, floor, and other plan view drawings _____ Read and interpret elevation view drawings _____ Read and interpret section and detail drawings _____ Read and interpret schedules _____ Read and interpret written specifications _____	<u>Materials and Fasteners</u> Select proper wood/size/gradeSelect proper wood/size/grade _____ Select common fasteners and apply in appropriate application _____ Select common adhesives and apply in appropriate application _____ <u>Introduction to Concrete</u> Recognize different properties of cement _____ Describe the composition of concrete _____ Perform volume estimates for concrete quantity requirements _____ Perform the safety procedures associated with the construction and uses of concrete form _____
	<u>Wall and Ceiling Framing</u> Lay out, assemble, erect, and brace exterior walls _____ Apply exterior sheathing to exterior walls _____ Estimate the material required to frame walls and ceilings _____	<u>Safety/OSHA 10</u> Show the use of personal protective equipment _____ Locate and show material safety data sheets _____ Implement the safe operation of hand and power tools _____ Examine fire hazards, fire extinguishers, and show proper use _____
	<u>Roof Framing</u> Use a framing square, speed square, and calculator to lay out a roof rafter _____ Frame a gable roof with vent openings _____ Erect a gable roof using trusses _____ Estimate the materials used in framing and sheathing a roof _____	<u>Windows and Doors</u> Identify various types of fixed, sliding, and swinging windows _____ Identify the parts of a window installation _____ Install a new construction and replacement window _____ Install a pre-hung exterior door unit _____ Install a lock set _____
<u>Thermal and Moisture Protection</u> Calculate the required amounts of insulation for a structure _____ Install selected insulation materials _____ Install vapor barrier _____	<u>Basic Stair layout</u> Identify Types of stairs _____ Identify Stairway components and typical code requirements _____ Select proper materials used in the construction of a stair _____ Interpret construction drawings of stairs _____ Calculate the total rise and run of a stair _____ Layout and cut stringers, risers, and treads _____	<u>Exterior Finishing</u> Install a cornice _____ Estimate the amount of vinyl siding to cover a structure _____ Product comparison, advantages and disadvantages _____
<u>Drywall installation</u> Select fasteners for installation _____ Perform a single layer installation with various types of fasteners _____ Estimate material quantities for a drywall installation _____	<u>Roofing Applications</u> Install a 3 tab shingle _____ Install an architectural shingle _____ Install ice and water shield _____ Install starter shingle _____	<u>Window, door, floor and ceiling trim</u> Window trim installation techniques _____ Door trim installation _____ Baseboard installation techniques _____ Ceiling trim installation _____ Estimating trim materials _____
<u>Construction Math</u> Demonstrate the ability to read the standard ruler into whole inches, halves, fourths, eighths, and sixteenths _____ Apply practical construction math to finding area, square footage, perimeter footage _____	<u>Hand and power Tools</u> Select correct hand tool for proper application _____ Select correct power tool for proper application _____ Demonstrate proper maintenance of hand and power tools _____ Use hand and power tools in a safe and appropriate manner _____	<u>Cabinet Installation</u> State the classes and sizes of typical base and wall kitchen cabinets _____ Layout factory made cabinets, countertops, and back splashes _____