

CT.CAR Carpentry

Essential And Advanced Discipline Goals

- Develop and apply the technical competency and related academic skills that allow for economic independence and career satisfaction.
- Acquire the essential learnings and values that foster continued education throughout life.
- Demonstrate the ability to communicate, solve problems, work individually and in teams and apply information effectively.
- Develop technological literacy and the ability to adapt to future change.

Standards

Indicators

- CT.CAR.02** Demonstrate an understanding of the career path(s) necessary for a successful carpenter
 - CT.CAR.02.01** Illustrate the scope of career opportunities within the carpentry field
 - CT.CAR.02.02** Develop and present a personal career plan
 - CT.CAR.02.03** Define requirements and options for a desired career path
 - CT.CAR.02.04** Exhibit skills considered effective in attaining and retaining employment
- CT.CAR.04** Construct and install building components according to industry standards
 - CT.CAR.04.01** Read and interpret blueprints
 - CT.CAR.04.02** Estimate materials
 - CT.CAR.04.03** Install platform floor framing
 - CT.CAR.04.04** Construct exterior wall framing
 - CT.CAR.04.05** Construct interior wall framing
 - CT.CAR.04.06** Install gable-style roof framing
 - CT.CAR.04.07** Install rough openings in framing
 - CT.CAR.04.08** Install manufactured roof system
 - CT.CAR.04.09** Lay out a foundation
 - CT.CAR.04.10** Demonstrate knowledge of concrete installation
- CT.CAR.06** Install exterior finishes according to industry standards
 - CT.CAR.06.01** Install exterior doors
 - CT.CAR.06.02** Install windows
 - CT.CAR.06.03** Install vertical/horizontal siding
 - CT.CAR.06.04** Install fiberglass shingle roof system
 - CT.CAR.06.05** Install exterior cornice
- CT.CAR.08** Install interior finishes
 - CT.CAR.08.01** Install interior doors
 - CT.CAR.08.02** Install trim and hardware
 - CT.CAR.08.03** Install paneling
 - CT.CAR.08.04** Construct and install stair stringers
 - CT.CAR.08.05** Install and finish drywall
- CT.CAR.10** Determine safe procedures using industry and government standards
 - CT.CAR.10.01** Demonstrate general lab/work site safety habits
 - CT.CAR.10.02** Demonstrate safe use of tools and equipment
- CT.CAR.12** Complete a career start-up
 - CT.CAR.12.01** Define career opportunities
 - CT.CAR.12.02** Complete a job application
 - CT.CAR.12.03** Complete a job interview
 - CT.CAR.12.04** Create a resume
 - CT.CAR.12.05** Address a group
 - CT.CAR.12.06** Participate in VICA activities
- CT.CAR.14** Lay out a foundation
 - CT.CAR.14.01** Read and interpret plot plan
 - CT.CAR.14.02** Read and interpret foundation plan
 - CT.CAR.14.03** Accurately measure
 - CT.CAR.14.04** Demonstrate use of tools and equipment
 - CT.CAR.14.05** Define foundation layout terms

- CT.CAR.14.06 Observe safety procedures
- CT.CAR.14.07 Use textbook and resource materials
- CT.CAR.14.08 Work in a group
- CT.CAR.16 Estimate materials
 - CT.CAR.16.01 Calculate: Board feet, Percentage, Linear feet square feet , Cubic feet, Dimensions on blueprints
 - CT.CAR.16.02 Estimate: Footer package, Foundation package, Floor frame package, Wall frame package, Roof frame package, Roofing materials package, Exterior finish package, Interior finish package, Squares of materials
- CT.CAR.18 Install exterior cornice
 - CT.CAR.18.01 Identify and install: Rake, Fascia, Soffit, Boxed cornice
 - CT.CAR.18.02 Accurately measure
 - CT.CAR.18.03 Demonstrate use of tools and equipment
 - CT.CAR.18.04 Observe safety procedures
 - CT.CAR.18.05 Use textbook and resource materials to attain information
 - CT.CAR.18.06 Follow directions
 - CT.CAR.18.07 Define cornice terms
 - CT.CAR.18.08 Work in a group
- CT.CAR.20 Install fiberglass shingle roof system (shingles, felt, drip edge)
 - CT.CAR.20.01 Identify and install: Roofing felt, Drip edge, Starter strip, Shingle, Cap
 - CT.CAR.20.02 Accurately measure materials
 - CT.CAR.20.03 Demonstrate use of tools
 - CT.CAR.20.04 Define roofing material terms
 - CT.CAR.20.05 Observe safety procedures
 - CT.CAR.20.06 Use textbooks and resource materials to attain information
 - CT.CAR.20.07 Work in a group
- CT.CAR.22 Demonstrate knowledge of concrete installation
 - CT.CAR.22.01 Define concrete and reinforcement materials
 - CT.CAR.22.02 Define concrete handling and placing practices
 - CT.CAR.22.03 Define forming and flatwork practices
- CT.CAR.24 Install platform floor framing
 - CT.CAR.24.01 Identify and install: Sill sealer, Sill plate, Header joist/band, Floor joist, Bridging, Fasteners, Sub flooring
 - CT.CAR.24.02 Square up floor framing
 - CT.CAR.24.03 Accurately measure materials
 - CT.CAR.24.04 Demonstrate use of tools and equipment
 - CT.CAR.24.05 Define floor framing terms
 - CT.CAR.24.06 Observe safety procedures
 - CT.CAR.24.07 Crown material
 - CT.CAR.24.08 Identify lumber characteristics
 - CT.CAR.24.09 Use textbook and resource materials to attain information
 - CT.CAR.24.10 Work in a group
- CT.CAR.26 Construct exterior wall framing
 - CT.CAR.26.01 Identify and install: Sole plate, Top plate, Double top plate, Studs, Trimmer/jack studs, Rough sill, Cripple stud, Header, Corner assembly, Partition backup, Exterior sheathing
 - CT.CAR.26.02 Square up wall
 - CT.CAR.26.03 Brace and fasten wall
 - CT.CAR.26.04 Plumb wall
 - CT.CAR.26.05 Accurately measure materials
 - CT.CAR.26.06 Demonstrate use of tools and equipment
 - CT.CAR.26.07 Define wall framing terms
 - CT.CAR.26.08 Observe safety procedures
 - CT.CAR.26.09 Crown materials
 - CT.CAR.26.10 Identify lumber characteristics
 - CT.CAR.26.11 Use textbook and resource materials to attain information
 - CT.CAR.26.12 Work in a group

- CT.CAR.28** Construct interior wall framing
 - CT.CAR.28.01** Identify and install: Sole plate, Top plate, Double top plate, Studs trimmer/jack studs, Rough sill, Cripple stud, Header, Corner assembly, Partition backup
 - CT.CAR.28.02** Fasten wall
 - CT.CAR.28.03** Plumb wall
 - CT.CAR.28.04** Accurately measure materials
 - CT.CAR.28.05** Demonstrate use of tools and equipment
 - CT.CAR.28.06** Define wall framing terms
 - CT.CAR.28.06** Observe safety procedures
 - CT.CAR.28.07** Crown materials
 - CT.CAR.28.08** Identify lumber characteristics
 - CT.CAR.28.09** Use textbook and resource materials to attain information
 - CT.CAR.28.10** Work in a group
- CT.CAR.30** Install gable-style roof framing
 - CT.CAR.30.01** Identify and install: Common rafter, Ridge board, Gable stub, Collar tie, Ceiling joist roof sheathing
 - CT.CAR.30.02** Accurately measure
 - CT.CAR.30.03** Demonstrate use of tools and equipment
 - CT.CAR.30.04** Observe safety procedures
 - CT.CAR.30.05** Crown materials and identify lumber characteristics
 - CT.CAR.30.06** Use textbook and resource materials to attain information
 - CT.CAR.30.07** Work in a group
 - CT.CAR.30.08** Apply appropriate math skills (degrees, angles, Pythagorean theorem)
- CT.CAR.32** Install exterior/interior doors
 - CT.CAR.32.01** Check blueprints and specifications
 - CT.CAR.32.02** Interpret manufacturer's instructions and specifications
 - CT.CAR.32.03** Recognize a door and window schedule
 - CT.CAR.32.04** Identify door style
 - CT.CAR.32.05** Check rough opening
 - CT.CAR.32.06** Position door unit
 - CT.CAR.32.07** Plumb unit
 - CT.CAR.32.08** Level unit
 - CT.CAR.32.09** Jack unit
 - CT.CAR.32.10** Check unit operation and gaps
 - CT.CAR.32.11** Complete fastening unit
 - CT.CAR.32.12** Demonstrate use of tools and equipment
 - CT.CAR.32.13** Define related terminology
 - CT.CAR.32.14** Observe safety procedures
 - CT.CAR.32.15** Work in a group
- CT.CAR.34** Install windows
 - CT.CAR.34.01** Check blueprint and specifications
 - CT.CAR.34.02** Interpret manufacturer's instructions and specifications
 - CT.CAR.34.03** Check windows and rough opening sizes
 - CT.CAR.34.04** Position window unit into opening
 - CT.CAR.34.05** Level, plumb and shim window unit
 - CT.CAR.34.06** Jack window unit
 - CT.CAR.34.07** Check window unit for plumb and level
 - CT.CAR.34.08** Complete fastening unit
 - CT.CAR.34.09** Check opening operation of window
 - CT.CAR.34.10** Demonstrate proper use of tools and equipment
 - CT.CAR.34.11** Define related terminology
 - CT.CAR.34.12** Observe safety procedures
 - CT.CAR.34.13** Work in a group
- CT.CAR.36** Install vertical siding
 - CT.CAR.36.01** Install plumb
 - CT.CAR.36.02** Install level

- CT.CAR.36.03 Proper overlap
- CT.CAR.36.04 Read and interpret blueprints
- CT.CAR.36.05 Accurately measure
- CT.CAR.36.06 Demonstrate proper use of tools and equipment
- CT.CAR.36.07 Identify and select materials
- CT.CAR.36.08 Define vertical siding terms
- CT.CAR.36.09 Observe safety procedures
- CT.CAR.36.10 Follow directions
- CT.CAR.36.11 Identify and install fasteners
- CT.CAR.36.12 Use textbook and resource materials to attain information
- CT.CAR.36.13 Work in a group
- CT.CAR.38 Install and finish drywall
 - CT.CAR.38.01 Identify and install: Drywall, Cornerbead, Fasteners
 - CT.CAR.38.02 Accurately measure materials
 - CT.CAR.38.03 Demonstrate use of tools and equipment
 - CT.CAR.38.04 Define drywall terms
 - CT.CAR.38.05 Observe safety procedures
 - CT.CAR.38.06 Use textbook and resource materials
 - CT.CAR.38.07 Work in a group
- CT.CAR.40 Construct and install staircase
 - CT.CAR.40.01 Identify and install: Stringer, Treads, Risers, Railing, Newel post, Balusters
 - CT.CAR.40.02 Calculate: Total rise, Total run, Unit rise, Unit run, Head run, Tread thickness
 - CT.CAR.40.03 Accurately measure
 - CT.CAR.40.04 Demonstrate use of tools and equipment
 - CT.CAR.40.05 Observe safety procedures
 - CT.CAR.40.06 Use textbook and resource materials to attain information
 - CT.CAR.40.07 Follow directions
 - CT.CAR.40.08 Define stair terms
 - CT.CAR.40.09 Work in a group
- CT.CAR.42 Install paneling
 - CT.CAR.42.01 Identify and install: Paneling, Outside corner, Inside corner, Felt paper, Fasteners
 - CT.CAR.42.02 Accurately measure
 - CT.CAR.42.03 Demonstrate use of tools and equipment
 - CT.CAR.42.04 Observe safety procedures
 - CT.CAR.42.05 Use textbook and resource materials to attain information
 - CT.CAR.42.06 Follow directions
 - CT.CAR.42.07 Define paneling terms
 - CT.CAR.42.08 Work in a group
- CT.CAR.44 Install horizontal siding
 - CT.CAR.44.01 Identify and install: Outside corner, Inside corner, Starter strip, Siding, Undersill, J-channel, F-channel, Soffit, Rake, Fascia
 - CT.CAR.44.02 Accurately measure
 - CT.CAR.44.03 Demonstrate use of tools and equipment
 - CT.CAR.44.04 Observe safety procedures
 - CT.CAR.44.06 Use textbook and resource materials to attain information
 - CT.CAR.44.07 Follow directions
 - CT.CAR.44.08 Define horizontal siding terms
 - CT.CAR.44.09 Work in a group
- CT.CAR.46 Install manufactured roof system
 - CT.CAR.46.01 Identify and install: Gable truss, Regular truss, Roof sheathing, Bracing
 - CT.CAR.46.02 Read and interpret manufacturer's instructions and specifications
 - CT.CAR.46.03 Accurately measure
 - CT.CAR.46.04 Demonstrate use of tools and equipment
 - CT.CAR.46.05 Observe safety procedures
 - CT.CAR.46.06 Use textbooks and resource materials to attain information
 - CT.CAR.46.07 Follow directions

- CT.CAR.46.08** Work in a group
- CT.CAR.46.09** Define manufactured roof terms
- CT.CAR.48** Install rough openings in framing
 - CT.CAR.48.01** Identify and install: Stairwell rough opening, Window rough opening, Exterior door rough opening, Interior rough opening
 - CT.CAR.48.02** Interpret manufacturer's instruction and specifications
 - CT.CAR.48.03** Recognize blueprint details
 - CT.CAR.48.04** Accurately measure materials
 - CT.CAR.48.05** Demonstrate use of tools and equipment
 - CT.CAR.48.06** Define framing rough opening terms
 - CT.CAR.48.07** Observe safety procedures
 - CT.CAR.48.08** Identify lumber characteristics
 - CT.CAR.48.09** Use textbook and resource materials to attain information
 - CT.CAR.48.10** Work in a group
- CT.CAR.50** Install trim and hardware
 - CT.CAR.50.01** Identify and install: Base , Casing , Shoe molding, Shelving, Hardware, Stool, Apron
 - CT.CAR.50.02** Check blueprints and specifications
 - CT.CAR.50.03** Interpret manufacturer's instructions and specifications
 - CT.CAR.50.04** Recognize door and window schedule
 - CT.CAR.50.05** Demonstrate use of tools and equipment
 - CT.CAR.50.06** Define related terminology
 - CT.CAR.50.07** Observe safety procedures
 - CT.CAR.50.08** Work in a group
- CT.CAR.52** Read and interpret blueprints
 - CT.CAR.52.01** Identify and read: Scales, Alphabet of lines, Plot plans, Foundation plans, Floor plans, Elevations, Sections, Details, Window and door schedules, Symbols, abbreviations and notes, Specifications, Define related terminology