



CARPENTRY

Carpentry 2

This with a sequence of courses that prepares individuals to lay out, fabricate, erect, install, and repair wooden structures and fixtures using hand and power tools. Includes instruction in common systems of framing, construction materials, estimating, blueprint reading, concrete placing, siding, and mechanical systems. These courses are based on the current National Center for Construction Education and Research (NCCER) task list.

USOE
7/21/2008

CARPENTRY 2

Levels:	Grades 11-12
Units of Credit:	Minimum 0.5
CIP Code:	46.0202
11 Digit Code:	40-08-00-00-015
11 Digit CE Code:	40-08-00-13-015
Test #:	512
License:	CTE/Secondary
Endorsement:	Carpentry
Prerequisite:	Carpentry 1

CORE STANDARDS, OBJECTIVES AND INDICATORS

STANDARD **Students will receive an orientation to the carpentry trade**
460202-01

OBJECTIVES

460202-0101 Explain the importance of safety in the construction industry.

STANDARD **Students will be able to understand and demonstrate the**
460202-02 **use of wood building materials, fasteners and adhesives.**

OBJECTIVES

460202-0201 Explain the terms commonly used in discussing wood and
lumber.

460202-0202 Identify various types of imperfections that are found in lumber.

460202-0203 Interpret grade markings on lumber and plywood.

460202-0204 Identify the uses of and safety precautions associated with
pressure-treated lumber.

460202-0205 Describe the proper method of caring for lumber and wood
building materials at the job site.

460202-0206 State the uses of various types of engineered lumber.

460202-0207 List the basic nail and staple types and their uses.

460202-0208 Identify the different types of anchors and their uses.

460202-0209 Describe the common types of adhesives used in construction
work and explain their uses.

STANDARD **Students will be able to understand and demonstrate the safe use**
260201-03 **of hand and power tools.**

OBJECTIVES

460202-0301 Identify the hand tools commonly used by carpenters and describe
their uses.

460202-0302 Use hand tools in a safe and appropriate manner.

- 460202-0303 State the general safety rules for operating all power tools, regardless of type.
- 460202-0304 State the general rules for properly maintaining all power tools, regardless of type.
- 460202-0305 Identify the portable power tools commonly used by carpenters and describe the uses.
- 460202-0306 Use portable power tools in a safe and appropriate manner.

STANDARD **Students will be able to understand and demonstrate the uses of**
460202-04 **concrete and reinforcing materials.**

OBJECTIVES

- 460202-0401 Perform volume estimates for concrete quantity requirements.
- 460202-0402 Identify types of concrete reinforcement bars and describe their use.
- 460202-0403 Identify types of reinforcement bar supports and describe their use.
- 460202-0404 Recognize four kinds of footings:
- Continuous or spread
 - Stepped
 - Pier
 - Grade beam
- 460202-0405 Identify the parts of footing forms and explain their purpose.
- 460202-0406 Identify the parts of pier forms and explain their purpose.
- 460202-0407 Recognize types of concrete pours that require the construction of edge forms:
- Slabs with or without a foundation
 - Driveways
 - Sidewalks
 - Approaches
- 460202-0408 Identify the parts of edge forms and explain their purpose.
- 460202-0409 Explain the purpose of a screed and identify the different types of screeds.
- 460202-0410 Demonstrate the ability to set screeds on grade.
- 460202-0411 Identify the various types of concrete forms.
- 460202-0412 Identify the components of each type of form.
- 460202-0413 Explain the safety procedures associated with using concrete forms.
- 460202-0414 Erect, plumb, and brace selected concrete forms, including:
- Basic wall form with walers and strongbacks
 - Ganged wall form
 - Radius wall form
 - Column form
 - Beam form and shoring
 - Stair form

STANDARD **Students will be able to understand and demonstrate framing of**
460202-05 **flooring systems, wall and ceilings and roofing systems.**

OBJECTIVES

- 460202-0501 Read and understand drawings and specifications to determine floor system requirements.
- 460202-0502 Identify floor and sill framing and support members.
- 460202-0503 Name the methods used to fasten sills to the foundation.
- 460202-0504 List and recognize different types of floor joists
- 460202-0505 List and recognize different types of flooring materials.
- 460202-0506 Explain the purposes of subflooring and underlayment.
- 460202-0507 Match selected fasteners used in floor framing to their correct uses.
- 460202-0508 Demonstrate the ability to:
- Layout and construct a floor assembly
 - Install joists for a cantilever floor
 - Install a single floor system using tongue and groove plywood/OSB panels
- 460202-0509 Identify the components of a wall and ceiling layout.
- 460202-0510 Describe the procedure for laying out a wood frame wall, including plates, corner posts, door and window openings, partition T's, bracing, and firestops.
- 460202-0511 Describe the correct procedure for assembling and erecting an exterior wall.
- 460202-0512 Describe the common materials and methods used for installing sheathing on walls.
- 460202-0513 Layout, assemble, erect, and brace exterior walls for a frame building.
- 460202-0514 Understand the terms associated with roof framing.
- 460202-0515 Identify the roof framing members used in gable and hip roofs.
- 460202-0516 Identify the various types of trusses used in roof framing.
- 460202-0517 Use a rafter framing square, speed square, and calculator in laying out a roof.
- 460202-0518 Identify various types of sheathing used in roof construction.
- 460202-0519 Erect a gable roof using trusses.

STANDARD 460202-06 Students will be able to understand and demonstrate installation of windows and exterior doors.

OBJECTIVES

- 460202-0601 Identify various types of fixed, sliding, and swinging windows.
- 460202-0602 Identify the parts of a window installation.
- 460202-0603 State the requirements for a proper window installation.
- 460202-0604 Install a pre-hung window
- 460202-0605 Identify the common types of exterior doors and explain how they are constructed.
- 460202-0606 Identify the types of thresholds used with exterior doors.
- 460202-0607 Install a pre-hung exterior door with weatherstripping.
- 460202-0608 Identify the various types of locksets used on exterior doors and explain how they are installed.
- 460202-0609 Install a lockset.

STANDARD **Students will be able to understand and demonstrate drywall installation and finishing.**
460202-07

OBJECTIVES

- 460202-0701 Identify the different types of gypsum wallboard (drywall) and their uses.
- 460202-0702 Select the type and thickness of drywall required for specific installations.
- 460202-0703 Select fasteners for drywall installation.
- 460202-0704 Explain the fastener schedules for different types of drywall installations.
- 460202-0705 Perform single-layer and multi-layer drywall installations using different types of fastening systems, including:
- Nails
 - Drywall screws
 - Adhesives
- 460202-0706 Identify the hand tools used in drywall finishing and demonstrate the ability to use these tools.
- 460202-0707 Identify the automatic tools used in drywall finishing.
- 460202-0708 Identify the materials used in drywall finishing and state the purpose and use of each type of material, including:
- Compounds
 - Joint reinforcing tapes
 - Trim materials
 - Textures and coatings

STANDARD **Students will be able to understand and demonstrate interior finishing.**
460202-08

OBJECTIVES

- 460202-0801 Identify various types of door jambs and frames and demonstrate the installation procedures for placing selected door jambs and frames in different types of interior partitions.
- 460202-0802 Identify different types of interior doors.
- 460202-0803 List and identify specific items included on a typical door schedule.
- 460202-0804 Demonstrate the procedure for placing and hanging a selected door.
- 460202-0805 Identify the different types of standard moldings and describe their uses.
- 460202-0806 Make square and miter cuts using a miter box or power miter saw.
- 460202-0807 Make coped joint cuts using a coping saw.
- 460202-0808 Install interior trim, including:
- Door trim

- Window trim
- Base trim
- Ceiling trim

PROFESSIONAL DEVELOPMENT

STANDARD 460202-09 **The student will understand the need for professional development.**

OBJECTIVES

- 460202-0901 Complete a personal inventory
- 460202-0902 Set and meet goals
- 460202-0903 Motivate yourself
- 460202-0904 Decision making
- 460202-0905 Manage time
- 460202-0906 Organize personal belongings and lab equipment
- 460202-0907 Communicate verbally
- 460202-0908 Write effective communications
- 460202-0909 Establish a personal reading program
- 460202-0910 Develop effective work skills and attitudes
- 460202-0911* Master a working knowledge of SkillsUSA
 - state the SkillsUSA motto
 - state the SkillsUSA creed
 - learn the SkillsUSA colors
 - describe the official SkillsUSA dress
 - describe the procedure for becoming a SkillsUSA officer

STANDARD 460202-10 **The student will understand the need for leadership skills.**

OBJECTIVES

- 460202-1001 Serve on a committee
- 460202-1002 Prepare an agenda
- 460202-1003 Assist in planning a meeting
- 460202-1004 Review basic parliamentary procedure
 - Make a main motion
- 460202-1005 Participate in a school project
- 460202-1006 Attend a community meeting
- 460202-1007 Practice effective speaking
- 460202-1008 Present a 3-5 minute talk
- 460202-1009 Implement a leadership project
- 460202-1010* Master a working knowledge of SkillsUSA
 - Describe the meaning of the SkillsUSA emblem
 - State the SkillsUSA pledge
 - Describe the duties of a SkillsUSA officer

STANDARD **The student will understand the need for career planning.**
460202-11

OBJECTIVES

460202-1101 Define your future occupation
460202-1102 Survey employment opportunities
460202-1103 Report on a trade journal article
460202-1104 Explore opportunities for advanced training
460202-1105 Conduct a worker interview
460202-1106 Contact a professional association
460202-1107 Explore entrepreneurship opportunities
460202-1108 Give a talk about your career
460202-1109 Review career goals

STANDARD **The student will understand the need for employment skills.**
460202-12

OBJECTIVES

460202-1201 Develop a list of work standards to follow at school and on the
job.
460202-1202 Evaluate your personal ethics
 ▪ Evaluate your personal ethics against acceptable workplace
 ethics
460202-1203 Build a job search network
460202-1204 Find job leads
460202-1205 Write a resume
460202-1206 Create a job portfolio
460202-1207 Complete a job application
460202-1208 Write a business letter and memo
460202-1209 Participate in an actual or simulated job interview

*SkillsUSA PDP requirements - recommended