

Carpentry Basics - 4 credit hours

Competencies

ORIENTATION TO THE TRADE

1. Describe the history of the carpentry trade.
2. Identify the aptitudes, behaviors, and skills needed to be a successful carpenter.
3. Identify the training opportunities within the carpentry trade.
4. Identify the career and entrepreneurial opportunities within the carpentry trade.
5. Identify the responsibilities of a person working in the construction industry.
6. State the personal characteristics of a professional.
7. Explain the importance of safety in the construction industry.

BUILDING MATERIALS, FASTENERS, AND ADHESIVES

1. Identify various types of building materials and their uses.
2. State the uses of various types of hardwoods and softwoods.
3. Identify the different grades and markings of wood building materials.
4. Identify the safety precautions associated with building materials.
5. Describe the proper method of storing and handling building materials.
6. State the uses of various types of engineered lumber.
7. Calculate the quantities of lumber and wood products using industry-standard methods.
8. Describe the fasteners, anchors, and adhesives used in construction work and explain their uses.

HAND AND POWER TOOLS

1. Identify the hand tools commonly used by carpenters and describe their uses.
2. Use hand tools in a safe and appropriate manner.
3. State the general safety rules for operating all power tools, regardless of type.
4. State the general rules for properly maintaining all power tools, regardless of type.
5. Identify the portable power tools commonly used by carpenters and describe their uses.
6. Use portable power tools in a safe and appropriate manner.

READING PLANS AND ELEVATIONS

1. Describe the types of drawings usually included in a set of plans and list the information found on each type.
2. Identify the different types of lines used on construction drawings.
3. Identify selected architectural symbols commonly used to represent materials on plans.
4. Identify selected electrical, mechanical, and plumbing symbols commonly used on plans.
5. Identify selected abbreviations commonly used on plans.
6. Read and interpret plans, elevations, schedules, sections, and details contained in basic construction drawings.
7. State the purpose of written specifications.
8. Identify and describe the parts of a specification.
9. Demonstrate or describe how to perform a quantity takeoff for materials.

Performance Tasks

ORIENTATION TO THE TRADE

This is a knowledge-based module—there is no performance profile examination.

BUILDING MATERIALS, FASTENERS, AND ADHESIVES

1. Calculate the quantities of lumber and wood products using industry-standard methods.
2. Given a selection of building materials, identify a particular material and state its use.

HAND AND POWER TOOLS

1. Demonstrate the safe and proper use of the following hand tools:
 - Levels
 - Squares
 - Planes
 - Clamps
 - Saws
2. Demonstrate or describe the safe and proper use of five of the following power tools:
 - Circular saw
 - Portable table saw
 - Compound miter saw
 - Frame and trim saw
 - Drill press
 - Router/laminate trimmer
 - Portable power plane
 - Power metal shears
 - Pneumatic nailer/stapler

READING PLANS AND ELEVATIONS

1. Interpret selected symbols and abbreviations used on drawings.
2. Read and interpret site/plot plans.
3. Read and interpret foundation, floor, and other plan view drawings.
4. Read and interpret elevation view drawings.
5. Read and interpret section and detail drawings.
6. Read and interpret schedules.
7. Read and interpret written specifications.
8. Perform a quantity takeoff for materials.