

Construction Basics

Credit Hours: 3-4

Description: The Construction Basics course provides instruction on basic construction skills through NCCER Core: Introduction to Basic Construction Skills curriculum. The included NCCER Core modules prepare individuals for entry-level positions on project sites by providing the basic instruction and hands-on training in construction drawings, basic rigging, communication skills, employability skills, and materials handling. Students taking this course, combined with the Introductory Craft Skills course, will be prepared to take and pass the Core: Introduction to Basic Construction Skills exam to earn the NCCER Core credential. *All content from NCCER Core 6th edition modules.*

INTRODUCTION TO CONSTRUCTION DRAWINGS

Learning Objectives

1. Describe components and features used in construction drawings and identify how the drawings are different.
 - Summarize the purpose of the six basic construction drawing components.
 - List and explain the significance of various drawing elements, such as lines of construction, symbols, and grid lines.
 - Explain how dimensions relate to various drawing scales.
 - Demonstrate how to use engineer's and architect's scales.
 - Identify the six types of construction drawings.

Performance Tasks

1. Learning Objective 1 - Using the residential floor plan and elevations supplied in the Appendix D:
 - Locate the wall common to bedroom #3 and the garage.
 - Determine the overall width of the home.
 - Calculate the distance from the outside northwest corner of the house to the center of the window in bedroom #2.
 - Determine the overhang of the eaves.
 - Using an architect's scale, determine the width of the garage.

INTRODUCTION TO BASIC RIGGING

Learning Objectives

1. Identify and describe various types of rigging slings, hardware, and equipment.
 - Identify and describe various types of slings.
 - Describe how to inspect various types of slings.
 - Identify and describe how to inspect common rigging hardware.
 - Identify and describe various types of hoists.
 - Identify and describe basic rigging hitches and the related Emergency Stop hand signal.

Performance Tasks

1. Learning Objective 1 - Demonstrate the proper ASME Emergency Stop hand signal.
2. Learning Objective 1 - Demonstrate the ability to report the load capacity of a sling, and if the sling is too damaged to use.

BASIC COMMUNICATION SKILLS

Learning Objectives

1. Describe the communication, listening, and speaking processes and their relationship to job performance.
 - Describe the communication process and the importance of listening and speaking skills.
 - Describe the listening process and identify good listening skills.
 - Describe the speaking process and identify good speaking skills.
2. Describe good reading and writing skills and their relationship to job performance.
 - Describe the importance of good reading and writing skills.
 - Describe job-related reading requirements and identify good reading skills.
 - Describe job-related writing requirements and identify good writing skills.

Performance Tasks

1. Learning Objective 1 - Perform a given task after listening to oral instructions.
2. Learning Objective 2 - Fill out a work-related form provided by your instructor.
3. Learning Objective 2 - Read and interpret a set of instructions for properly donning a safety harness and then orally instruct another person on how to don the harness.

BASIC EMPLOYABILITY SKILLS

Learning Objectives

1. Describe the opportunities in the construction businesses and how to enter the construction workforce.
 - Describe the construction business and the opportunities offered by the trades.
 - Explain how workers can enter the construction workforce.
2. Explain the importance of critical thinking and how to solve problems.
 - Describe critical thinking and barriers to solving problems.
 - Describe how to solve problems using critical thinking.
 - Describe problems related to planning and scheduling
3. Explain the importance of social skills and identify ways good social skills are applied in the construction trade.
 - Identify good personal and social skills.
 - Explain how to resolve conflicts with co-workers and supervisors.
 - Explain how to give and receive constructive criticism.
 - Identify and describe various social issues of concern in the workplace.
 - Describe how to work in a team environment and how to be an effective leader.

Performance Tasks

This is a knowledge-based module. There are no Performance Tasks.

INTRODUCTION TO MATERIALS HANDLING

Learning Objectives

1. Identify the basic concepts of material handling and common safety precautions.
 - Describe the basic concepts of material handling and manual lifting.
 - Identify common material handling safety precautions.
 - Identify and describe how to tie knots commonly used in material handling.
2. Identify various types of material handling equipment and describe how they are used..
 - Identify non-motorized material handling equipment and describe how they are used
 - Identify motorized material handling equipment and describe how they are used.

Performance Tasks

1. Learning Objective 1 - Demonstrate safe manual lifting techniques.
2. Learning Objective 1 - Demonstrate how to tie two of the following common knots:
 - Square
 - Bowline
 - Half hitch
 - Clove hitch