

COFC 1080 - Construction Trades Core (version 201714L)

Course Title Course Development Learning Support

Construction Trades Core Standard No

Course Description

This course introduces the student to the basic fundamentals of the construction trades. Topics include Basic Safety, Construction Math, Hand and Power Tools, Construction Drawings, Rigging, Materials Handling, and Job-Site Communication and Work Ethic Skills.

Pre-requisites

Pre-requisites: None

Regstr. Co-requisites

Regstr. Co-requisites: None

True Co-requisites

True Co-requisites: None

Course Length

	Lecture Contact Time	Regular Lab Type	Reg. Lab Contact Time	Other Lab Type	Oth. Lab Contact Time	Total Contact Hrs
Contact Hours Per Week	3 hrs	Lab	2 hrs	N/A	0 hrs	5 hrs
Contact Min/Hrs Per Semester	2250 min		1500 min		0 min	75 hrs
	Lecture Credit Hours		Lab Credit Hours	Total Credit hours		WLU
Semester Credit Hours	3		1	4		138.75

Competencies & Outcomes

Order Description

1 Basic Safety

Order	Description	Learning Domain	Level of Learning
1	Describe the importance of safety, the causes of workplace incidents, and the process of hazard recognition and control.	Cognitive	Comprehension
2	Describe the safe work requirements for elevated work, including fall protection guidelines.	Cognitive	Comprehension
3	Identify and explain how to avoid struck-by and caught-in between hazards.	Cognitive	Knowledge
4	Identify common energy-related hazards and explain how to avoid them.	Cognitive	Knowledge
5	Identify and describe the proper use of personal protective equipment (PPE).	Cognitive	Knowledge
6	Identify and describe other specific job-site safety hazards.	Cognitive	Knowledge
7	Properly set up and climb/descend an extension ladder, demonstrating proper three-point contact.	Psychomotor	Guided Response
8	Inspect PPE items and determine if they are safe to use.	Psychomotor	Guided Response
9	Properly don, fit, and remove PPE items.	Psychomotor	Guided

			Response
10	Properly inspect a typical power cord and GFCI to ensure their serviceability.	Psychomotor	Guided Response

2 Construction Math

Order	Description	Learning Domain	Level of Learning
1	Identify whole numbers and demonstrate how to work with them mathematically.	Cognitive	Knowledge
2	Explain how to work with fractions.	Cognitive	Comprehension
3	Describe the decimal system and explain how to work with decimals.	Cognitive	Comprehension
4	Identify various tools used to measure length and show how they are used.	Cognitive	Knowledge
5	Identify and convert units of length, weight, volume, and temperature between the imperial and metric systems of measurement.	Cognitive	Knowledge
6	Identify basic angles and geometric shapes and explain how to calculate their area and volume.	Cognitive	Knowledge

3 Hand and Power Tools

Order	Description	Learning Domain	Level of Learning
1	Identify and explain how to use various types of hand and power tools, power saws, power drills, impact wrenches, and grinders and grinder attachments.	Cognitive	Knowledge
2	Identify and describe how to use various types of measurement and layout tools.	Cognitive	Knowledge
3	Identify and explain how to use various types of cutting and shaping tools.	Cognitive	Knowledge
4	Identify and explain how to use other common hand tools.	Cognitive	Knowledge
5	Visually inspect various tools to determine if they are safe to use.	Psychomotor	Guided Response
6	Safely and properly use various hand and power tools.	Psychomotor	Guided Response
7	Make a straight, square cut in framing lumber using a crosscut saw.	Psychomotor	Guided Response

4 Construction Drawings

Order	Description	Learning Domain	Level of Learning
1	Identify and describe various types of construction drawings, including their fundamental components and features.	Cognitive	Knowledge
2	Properly use a floor plan.	Psychomotor	Guided Response

5 Communication and Employability Skills

Order	Description	Learning	Level of
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		Domain	Learning
1	Describe the communication, listening, and speaking processes and their relationship to job performance.	Cognitive	Comprehension
2	Describe good reading and writing skills and their relationship to job performance.	Cognitive	Comprehension
3	Perform a given task after listening to oral instructions.	Psychomotor	Guided Response
4	Fill out a work-related form provided by your instructor.	Psychomotor	Guided Response
5	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.	Cognitive	Application
6	Describe the opportunities in the construction business and how to enter the construction workforce.	Cognitive	Comprehension
7	Explain the importance of critical thinking and how to solve problems.	Cognitive	Comprehension
8	Explain the importance of social skills and identify ways good social skills are applied in the construction trade.	Cognitive	Comprehension

6 **Materials Handling**

Order	Description	Learning Domain	Level of Learning
1	Describe the basic concepts of material handling and common safety precautions.	Cognitive	Comprehension
2	Identify various types of material handling equipment and describe how they are used.	Cognitive	Knowledge
3	Demonstrate safe manual lifting techniques.	Psychomotor	Guided Response
4	Demonstrate how to tie various common knots.	Psychomotor	Guided Response