South Carolina CTE

Carpentry

Basic Safety A.0

1. Identify the responsibilities and personal characteristics of a professional craftsperson A.1
2. Explain the role that safety plays in the construction crafts. A.2
3. Describe what job- site safety means. A.3
4. Explain the appropriate safety precautions around common job- site hazards. A.4
5. Demonstrate the use and care of appropriate personal protective equipment. A.5
6. Follow safe procedures for lifting heavy objects. A.6
7. Describe safe behavior on and around ladders and scaffolds. A.7
8. Explain the importance of the HazCom (Hazard Communication Standard) requirement and MSDS (Material Safety Data Sheets). A.8
9. Describe fire prevention and fire fighting techniques. A.9
10. Define safe work procedures around electrical hazards. A.10
11. Complete 10- hour OSHA course/assessment and receive card. (SDE Requirement) A.11

Basic Math B.0

1. Add, subtract, multiply, and divide whole numbers, with and without a calculator. B.1
2. Use a standard ruler and a metric ruler to measure. B.2
3. Add, subtract, multiply, and divide fractions. B.3
4. Add, subtract, multiply, and divide decimals, with and without a calculator. B.4
5. Convert decimals to percents and percents to decimals. B.5
6. Convert fractions to decimals and decimals to fractions. B.6
7. Explain what the metric system is and how it is important in the construction rade. B.7

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8. ..ecognize and use metric units of length, weight, volume, and temperature. B.8

	9 Recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them. B.9
Introduction to Hand Tools C.0	1 Recognize and identify some of the basic hand tools used in the construction trade. C.1
	2 Use these tools safely. C.2
	3 Describe the basic procedures for taking care of these tools. C.3
Introduction to Power Tools D.0	1 Identify commonly used power tools of the construction trade. D.1
	2 Use power tools safely. D.2
	3 Explain how to maintain power tools properly. D.3
Introduction to Blueprints E.0	1 Recognize and identify basic blueprint terms, components, and symbols. E.1
	2 Relate information on blueprints to actual locations on the print. E.2
	3 Recognize different classifications of drawings. E.3
	4 Interpret an d use drawing dimensions. E.4
Basic Rigging F.0	1 Explain how ropes, chains, hoists, loaders, and cranes are used to move material and equipment from one location to another on a job site. F.1
	2 Describe inspection techniques and load- handling safety practices. F.2
	3 Explain the American National Standards Institute (ANSI) hand signals. F.3
Basic Communication Skills (SDE Requirement) G.0	1 Explain techniques for communicating effectively with coworkers and supervisors. G.1
	2 Demonstrate verbal and written communication skills necessary in the workplace. G.2
	3 Demonstrate telephone and e- communication skills necessary in the workplace. G.3
Basic Employability Skills (SDE Requirement) H.0	1 Identify the roles of individuals and companies in the construction industry. H.1
	2 Explain the importance critical thinking and problem solving skills in the workplace. H.2
	)escribe computer systems and their industry applications. H.3

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	4 Explain interpersonal relationship skills, self -presentation, and key workplace issues such as sexual harassment, stress, and substance abuse. H.4
Demonstrating Basic Building Site Preparation Skills UA.0	1 Describe the major responsibilities of the contractor/carpenter relative to site layout. UA.1
	2 Use and properly maintain tools and equipment associated with taping. UA.2
	3 Use taping and/or chaining equipment and procedures to make distance measurements and perform site layout tasks. UA.3
	4 Recognize, use, and properly care for tools and equipment associated with differential leveling. UA.4
	5 Use a builder's level or laser level or transit and differential leveling procedures to determine site and building elevations. UA.5
	6 Check and/or establish 90- degree angles using the 3/4/5 rule. UA.6
Demonstrating Skills Necessary to Construct and Set Concrete Forms UB-0	U1 Install anchor bolts/foundation ties. UB.1
Demonstrating Floor Framing Skills with Metal or Wood UC.0	1 Understand current terms associated with floor framing. UC.1
	2 Select and use metal framing connectors. UC.2
	3 Lay out a floor frame. UC.3
	4 Cut and install sill plates. UC.4
	5 Install posts and columns. UC.5
	6 Frame and install a built -up girder/beam. UC.6
	7 Cut and install floor joists and bridging. UC.7
	8 Frame floor openings. UC.8
	9 Install a subfloor. UC.9
Demonstrating Wall Framing Skills with Metal or Wood UD.0	1 Understand current terms associated with wall framing. UD.1
	2 Select and use metal framing connectors. UD.2
	ay out a wall frame. UD.3

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	4 **Construct corner posts and T -posts.** UD.4
	5 **Frame and align and exterior wall.** UD.5
	6 **Frame and align a partition wall.** UD.6
	7 **Install backing for fixtures or cabinets.** UD.7
	8 **Build a box beam.** UD.8
	9 **Install structural sheathing.** UD.9
	10 **Anchor a partition.** UD.10
	11 **Frame wall openings.** UD.11
Interpreting and Demonstrating Use of Architectural Blueprints UE.0	1 **Read and interpret blueprints and specifications.** UE.1
Demonstrating Roof and Ceiling Framing Skills with Metal or Wood UF.0	1 **Understand current terms associated with roof and ceiling framing.** UF.1
	2 **Select and use metal framing connectors.** UF.2
	3 **Lay out a ceiling frame.** UF.3
	4 **Cut and install ceiling joists.** UF.4
	5 **Cut and install ceiling joist strongbacks.** UF.5
	6 **Frame ceiling openings.** UF.6
	7 **Lay out roof openings.** UF.7
	8 **Cut and install rafters.** UF.8
	9 **Cut and install a ridgeboard.** UF.9
	10 **Frame roof openings.** UF.10
	11 **Frame gable ends.** UF.11
	12 **Cut and install collar ties.** UF.12
	13 **Install roof trusses.** UF.13
	Install roof sheathing. UF.14
	Lay out common rafters. UF.15

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Demonstrating Skills Required to Install Roofing Materials UG.0	1 **Apply roof felt paper.** UG.1
	2 **Install asphalt composition shingles.** UG.2
	3 **Install flashing.** UG.3
	4 **Install ridge vent.** UG.4
Demonstrating Exterior Finishing Skills UH.0	1 **Install exterior sheathing.** UH.1
	2 **Install exterior finish materials.** UH.2
	3 **Frame a boxed cornice.** UH.3
	4 **Install a window unit.** UH.4
	5 **Install exterior doors and lock sets.** UH.5
	6 **Install exterior trim.** UH.6
	7 **Install door and window flashing.** UH.7
Demonstrating Interior Finishing Skills UI.0	1 **Install paneling products.** UI.1
	2 **Cut and install furring.** UI.2
	3 **Install drywall board.** UI.3
	4 **Install interior doors.** UI.4
	5 **Cut and install finish flooring.** UI.5
	6 **Cut and install interior trim.** UI.6
Demonstrating Skills Required to Construct Steps UJ.0	1 **Lay out and cut straight -run stringers.** UJ.1
	2 **Cut and install risers and treads.** UJ.2