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Arch-Const. Cluster Area Description:	CONSTRUCTION
Module Title / #:	CORE COMPETENCIES

Standards:	1. Demonstrate basic employability skills
Performance	<ol style="list-style-type: none"> 1. Explain the role of an employee in the construction industry. 2. Identify methods for productive workplace relations in a multi-cultural environment. 3. Demonstrate critical thinking skills and the ability to solve problems using those skills. 4. Demonstrate knowledge of computer systems and explain common uses for computers in the construction industry. 5. Define effective relationship skills. 6. Recognize workplace issues such as sexual harassment, stress, and substance abuse. 7. Use interpersonal skills to influence and guide others toward a goal 8. Demonstrate integrity and ethical behavior. 9. Use time efficiently to manage workload. 10. Assess one's own mastery of skills 11. Demonstrate accountability for individual performance.

Standards:	2. Demonstrate basic communication skills
Performance	<ol style="list-style-type: none"> 1. Interpret information and instructions presented in both verbal and written form. 2. Communicate effectively in on-the-job situations using verbal and written skills. 3. Demonstrate understanding of the benefits of productive multicultural communications. 4. Communicate effectively on the job using electronic communication devices. 5. Effectively work in as a participating team member. 6. Use different perspectives to increase innovation and the quality of work 7. Use digital media and environments to communicate and work collaboratively.

Standards:	3. Demonstrate knowledge regarding the interpretation of information from plans, specifications, environment and site location that affects safety processes and procedures.
Performance	<ol style="list-style-type: none"> 1. Describe the impact of globalization on construction safety. 2. Identify and describe the pre-construction and construction processes that relate to the function of safety systems. 3. Utilize English Language Arts skills to read and interpret drawings and technical specifications and other technical information to determine safety requirements

Standards:	4. Demonstrate knowledge regarding the essential components of sustainable design and construction
Performance	<ol style="list-style-type: none"> 1. Define the key principles of Green Building. 2. Define various components of energy consumption in buildings. 3. Identify the key benefits of Green Building. 4. Establish a site plan for protecting trees and managing water and erosion. 5. Establish an on-site recycling and waste management plan. 6. Incorporate and identify Universal Design Standards into the design and construction. 7. Identify local geographical, climatic, and meteorological data 8. Describe the concept and purpose of a pre-construction design coordination meeting 9. Describe the basic physical principles that apply to the built environment

Standards:	5. Understand the basic safety and safety operating procedures necessary for a construction project.
Performance	<ol style="list-style-type: none"> 1. Explain the idea of a safety culture and its importance in the construction crafts. 2. Identify causes of accidents and the impact of accident costs. 3. Explain the role of OSHA in job-site safety. 4. Explain OSHA's General Duty Clause and 1926 CFR Subpart C. 5. Recognize hazard recognition and risk assessment techniques. 6. Explain fall protection, ladder, stair, and scaffold procedures and requirements. 7. Identify struck-by hazards and demonstrate safe working procedures and requirements. 8. Identify caught-in-between hazards and demonstrate safe working procedures and requirements. 9. Define safe work procedures to use around electrical hazards. 10. Demonstrate the use and care of appropriate personal protective equipment (PPE). 11. Explain the importance of hazard communications (HazCom) and Material Safety Data Sheets (MSDSs). 12. Identify other construction hazards on your job site, including hazardous material exposures, environmental elements, welding and cutting hazards, confined spaces, and fires. 13. Inspect workplaces for safe working environment and report unsafe conditions. 14. Mitigate safety hazards. 15. Clean and maintain work area and leave in safe condition. 16. Follow tool checkout and maintenance procedures.

Standards:	<p>6. Demonstrate competency in the mathematics and geometry required for construction layout, including machinery, cut lists, fractions, decimals, area, volume, and percentages.</p> <p>7. Demonstrate competency in various measuring systems in the construction field, including English, metrics, engineers, and scales used in construction processes and basic surveying.</p>
Performance	<ol style="list-style-type: none"> 1. Add, subtract, multiply, and divide whole numbers, with and without a calculator. 2. Use a standard ruler, a metric ruler, and a measuring tape to measure. 3. Add, subtract, multiply, and divide fractions. 4. Add, subtract, multiply, and divide decimals, with and without a calculator. 5. Convert decimals to percentages and percentages to decimals. 6. Convert fractions to decimals and decimals to fractions. 7. Explain what the metric system is and how it is important in the construction trade. 8. Recognize and use metric units of length, weight, volume, and temperature. 9. Recognize some of the basic shapes used in the construction industry and apply basic geometry to measure them.

Standards:	8. Recognize and identify some of the basic hand tools and their proper uses in the construction trade.
Performance	<ol style="list-style-type: none"> 1. Demonstrate the ability to use the proper hand tool for the application/process. 2. Visually inspect hand tools to determine if they are safe to use. 3. Safely use hand tools.

Standards:	9. Recognize and identify some of the basic power tools and their proper uses in the construction trade.
Performance	<ol style="list-style-type: none"> 1. Demonstrate the ability to use the proper power tool for the application/process. 2. Visually inspect hand tools to determine if they are safe to use. 3. Safely use hand tools.

Standards:	10. Read and interpret construction drawings.
Performance	<ol style="list-style-type: none"> 1. Recognize and identify basic construction drawing terms, components, and symbols. 2. Relate information on construction drawings to actual locations on the print. 3. Recognize different classifications of construction drawings. 4. Interpret and use drawing dimensions.

Standards:	11. Demonstrate basic rigging skills
Performance	<ol style="list-style-type: none"> 1. Identify and describe the use of slings and common rigging hardware. 2. Describe basic inspection techniques and rejection criteria used for slings and hardware. 3. Describe basic hitch configurations and their proper connections. 4. Describe basic load-handling safety practices. 5. Demonstrate proper use of American National Standards Institute (ANSI) hand signals.

Standards:	12. Demonstrate the ability to safely handle materials
Performance	<ol style="list-style-type: none"> 1. Define a load. 2. Establish a pre-task plan prior to moving a load. 3. Use proper materials-handling techniques. 4. Choose appropriate materials-handling equipment for the task. 5. Recognize hazards and follow safety procedures required for materials handling.