Indiana CTE Next Level Programs of Study

Principles of Construction (2025)

Construction Trades 7130.D1

1. Comply with OSHA-10 training requirements. Explain the safety obligations of workers, supervisors, and managers to ensure a safe workplace. 7130.D1.1
2. Review basic mathematical functions and explain their applications to the construction trades. 7130.D1.2
3. Identify and explain specific applications of hand tools that are widely used in the construction industry, such as hammers, saws, levels, pullers, and clamps. 7130.D1.3
4. Provide detailed descriptions of commonly used power tools, such as drills, saws, grinders, and sanders. Review applications, proper use, safety, and maintenance. Demonstrate power tool use in on-the-job settings. 7130.D1.4
5. Discuss basic terms for construction drawings, components, and symbols. Explain the different types of drawings and interpret and use drawing dimensions. 7130.D1.5
6. Explain how ropes, chains, hoists, loaders, and cranes are used to move material and equipment from one location to another on a job site. 7130.D1.6
7. Identify the roles of individuals and companies in the construction industry. 7130.D1.7
8. Recognize hazards associated with materials handling and explain proper materials handling techniques and procedures. 7130.D1.8

Construction Industry 7130.D2

1. Recognize direct job opportunities in the - construction field. 7130.D2.1
2. Recognize indirect job opportunities in the -construction field. 7130.D2.2
3. Become familiar with new residential building products. 7130.D2.3
4. Understand the connection between residential construction and related fields. 7130.D2.4
5. Understand the importance of safety training and education in the construction industry. 7130.D2.5

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	6 **Understand the relationship between worker's compensation insurance and safety record.** 7130.D2.6
	7 **Understand and appreciate the roles that OSHA and INSafe play in the construction industry.** 7130.D2.7
	8 **Understand the hazards involved in the residential construction industry.** 7130.D2.8
	9 **Understand basic drafting/drawing techniques and how to apply them to - working drawings.** 7130.D2.9
	10 **Understand the relationship between individual building components and a structure as a whole.** 7130.D2.10
	11 **Utilize different resources to understand building component's applications and their limitations.** 7130.D2.11
	12 **Understand basic print reading for the construction industry.** 7130.D2.12
Career Navigation 7130.D3	1 **Explore career opportunities related to the program of study and understand how they relate to the global economy and marketplace.** 7130.D3.1
	2 **Understand the specialized skills needed for different career opportunities related to the program of study.** 7130.D3.2
	3 **Examine licensing, certification, and credentialing requirements for different career opportunities related to the program of study.** 7130.D3.3
	4 **Identify a career goal and develop an action plan, including opportunities available while in high school, for obtaining the specialized skills and credentials needed for a career related to the program of study.** 7130.D3.4
Leadership and Employability Skills 7130.D4	1 **Demonstrate professionalism by meeting expectations of promptness, attendance, being prepared, completing tasks, and following safety procedures.** 7130.D4.1
	2 **Demonstrate the skills needed to successfully collaborate within teams, departments, and organizations.** 7130.D4.2
	3 **Demonstrate an awareness and understanding of responsible, ethical, and professional networking.** 7130.D4.3
	4 **Examine personal, wellness, and stress management strategies.** 7130.D4.4
College and Career Re	1 **Demonstrate computer literacy skills and basic computer functions.** 7130.D5.1

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2 **Communicate clearly, effectively, and with reason through speaking, writing, using visuals, and active listening in formal and informal settings.** `7130.D5.2`

3 **Demonstrate decision-making and problem-solving skills using critical thinking and relevant math and data knowledge.** `7130.D5.3`

4 **Demonstrate research, study skills, and self-learning strategies needed to be successful in a career pathway.** `7130.D5.4`