Indiana CTE Next Level Programs of Study

Principles of Advanced Manufacturing (2025)

Advanced Manufacturing

1. Understand the importance of the manufacturing industry, and introduction to common manufacturing concepts through direct interaction with industry. 7108.D1.1
2. Conduct assigned tasks in a safe and workmanlike manner while working independently or in small groups. 7108.D1.2
3. Discuss the need for workplace safety and workplace safety training programs as covered by the OSHA 10 Hour program: 7108.D1.3
4. Attain readiness to take OSHA 10 Hour General Industry Certification exam. 7108.D1.4
5. Discuss quality systems and reference common manufacturing examples 7108.D1.5
6. Use quantitative analytical skills to evaluate and process numerical data. 7108.D1.6
7. Discuss basic blueprint reading fundamentals 7108.D1.7
8. Discuss basic measurement systems. 7108.D1.8
9. Perform basic measurements using precision measuring tools. 7108.D1.9
10. Demonstrate the ability to read and interpret technical documents. 7108.D1.10
11. Utilizing and applying software where appropriate to the course. 7108.D1.11
12. Attain readiness to take MSSC Safety and Quality Certification exam. 7108.D1.12

Career Navigation

1. Explore career opportunities related to the program of study and understand how they relate to the global economy and marketplace. 7108.D2.1
2. Understand the specialized skills needed for different career opportunities related to the program of study. 7108.D2.2
3. Examine licensing, certification, and credentialing requirements for different career opportunities related to the program of study. 7108.D2.3

Skip to main content

	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.** 7108.D2.4
Leadership and Employability Skills	1	**Demonstrate professionalism by meeting expectations of promptness, attendance, being prepared, completing tasks, and following safety procedures.** 7108.D3.1
	2	**Demonstrate the skills needed to successfully collaborate within teams, departments, and organizations.** 7108.D3.2
	3	**Demonstrate an awareness and understanding of responsible, ethical, and professional networking.** 7108.D3.3
	4	**Examine personal, wellness, and stress management strategies.** 7108.D3.4
College and Career Readiness Skills	1	**Demonstrate computer literacy skills and basic computer functions.** 7108.D4.1
	2	**Communicate clearly, effectively, and with reason through speaking, writing, using visuals, and active listening in formal and informal settings.** 7108.D4.2
	3	**Demonstrate decision-making and problem-solving skills using critical thinking and relevant math and data knowledge.** 7108.D4.3
	4	**Demonstrate research, study skills, and self-learning strategies needed to be successful in a career pathway.** 7108.D4.4