

CTE STANDARDS

Industrial Technology Performance Indicators

1. Understand problem solving, analysis and decision making in CTE.
 - Prepare drawings/designs using appropriate media
 - Solve mathematical problems related to drafting (e.g., conversion of units).
 - Solve mathematical problems related to Manufacturing (e.g., conversion of units).
 - Measure parts with English system.
 - Interpret and use prints, charts, diagrams, tables, and graphs
 - Utilize advanced math skills in product design and development

2. Understand the use of entrepreneurial knowledge and skills in EITS
 - Demonstrate how and why teamwork is encourage and promoted in industry.
 - Explain the importance of a business reputation and business ethics.
 - Identify steps within manufacturing processes that determine cost.
 - Identify opportunities for profit in manufacturing processes.
 - Identify possible barriers to profit in manufacturing processes.
 - Explain the effect of quality on profit.

3. Understand the use of communication skill in CTE - interpersonal and group; written and oral.
 - Be able to state how drafting is used in different fields as the major source of communication.
 - Demonstrate how to effectively communicate ideas either by drawing or writing.

4. Understand global and cultural diversity issues.
 - Be able to state how global issues affect engineers and draftsman.
 - Be able to state how global issues affect Architects.
 - Be able to state how global issues affect Manufacturing.

5. Understand basic and computational and informational technology.
 - Demonstrate proper care and maintenance of CAD equipment and software.
 - Demonstrate basic CAD operations.
 - Demonstrate proper care and maintenance of CAD equipment and software.
 - Explain CAD/CAM/CNC and robotics and describe its use in flexible manufacturing system (CIM).

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6. Understand the concept of career development and improvement - lifelong learning.
 - Define the role of Engineering in the free enterprise system.
 - Demonstrates the skills required keep a job including attendance and tardiness.

7. Understand basic technical skills and knowledge in the occupational area of CTE.
 - Demonstrate proficiency in creating two-dimensional CAD drawings
 - Demonstrate basic CAD operations.
 - Demonstrate proficiency in creating three-dimensional CAD drawings.
 - Demonstrate proficiency in three-dimensional CAD modeling.
 - Demonstrate proficiency in creating two-dimensional CAD drawings as it relates to architecture.
 - Demonstrate basic manual drafting technique as it relates to the industrial field.
 - Inspect, clean and organize work area and equipment for appropriate equipment use.
 - Demonstrate proper care and storage of lab tools.
 - Measure parts with English system
 - Identify and maintain hand tools for a specified job.
 - Demonstrate material fabrication.
 - Demonstrate material finishing processes.
 - Demonstrate material forming processes
 - Demonstrate material separating processes.
 - Demonstrate material combining processes.
 - Demonstrate material casting processes.
 - Perform maintenance procedures on lab equipment.
 - Measure parts using precision measurement tools (i.e., micrometer, vernier, dial calipers, and dial indicators).