Foundational Courses

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TEIS 1010 Introduction to Industrial Automation **120 Clock-Hours**

This course offers a comprehensive introduction to the essential skills and principles of industrial automation, encompassing industrial mechanics, lean manufacturing, electrical and pneumatic systems, motor control systems, and Programmable Logic Controllers (PLCs). Participants will gain hands-on experience with basic hand tools, learn productivity-enhancing lean methodologies, and acquire skills in machinery maintenance and troubleshooting. The curriculum also covers the fundamentals of AC/DC systems, pneumatic systems, motor control principles, and the operation and application of PLCs in industrial settings. Upon completion, participants will earn their OSHA 10 certification, equipping them with both foundational knowledge and practical skills for success in the field of industrial automation.

Objectives:
- Demonstrate workplace safety
- Demonstrate proper assembly practices
- Assemble, align, and maintain mechanical systems
- Perform quality & measurement practices
- Describe maintenance awareness
- PLC and HMI fundamentals