

WELDING TECHNOLOGY

Learning Outcomes

1. Compose technical knowledge: Present technical welding-related information clearly in both written and oral formats, and work collaboratively to solve problems.
2. Demonstrate technical training: Utilize different welding techniques to perform welds using various processes, ensuring adherence to AWS visual inspection standards.
3. Analyze and solve problems: Assess welding parameters/conditions, make accurate measurements ($\pm 1/16$ inch or 1mm), and calculate necessary values (areas, volumes, tensile strength, and travel speed).
4. Evaluate measurements and conversions: Convert between the English and Metric systems, as well as fractional and decimal measurements.
5. Utilize technical skills: Set up, shut down, and use various welding equipment, including different power sources, wire feeders, submerged arc, air carbon arc, and oxy-acetylene tools.
6. Identify and apply ethical standards: Recognize unethical situations in the welding profession and select appropriate ethical responses.
7. Model professional behavior: Exhibit good employee conduct and demonstrate civic responsibility through community service projects.