



Course Description

PMT0074 | Welder | 15.00 credits

In the Welder course, students delve into the intricate world of welding techniques, commencing with gas metal arc welding (GMAW). Students lay the groundwork, mastering basic and intermediate GMAW skills to craft robust and enduring welds. The curriculum advances to flux-core arc welding, guiding students from rudimentary techniques to sophisticated applications, broadening their versatility in welding tasks. Next, students delve into gas tungsten arc welding, emphasizing precision in both basic and intermediate scenarios. Upon completion of the course, students gain a profound comprehension of various welding methods, empowering them for thriving careers in the welding industry.

Course Competencies

Competency 1: The student will master basic and intermediate GMAW techniques to produce robust and enduring welds suitable for various applications by:

1. Practicing basic GMAW techniques to create solid and durable welds in different positions and materials
2. Applying intermediate GMAW skills to enhance weld quality and efficiency in more complex welding scenarios
3. Evaluating completed GMAW welds through visual inspection to identify strengths and areas for improvement

Competency 2: The student will develop skills in flux-cored arc welding, transitioning from fundamental techniques to advanced applications to increase versatility in welding tasks by:

1. Understanding the principles of flux-cored arc welding to differentiate it from other welding processes
2. Executing basic FCAW techniques to produce quality welds and progressively advancing to more complex applications
3. Demonstrating the ability to select the appropriate flux-cored wires based on material and welding conditions for optimal results

Competency 3: The student will gain proficiency in gas tungsten arc welding, focusing on precision and technique in both primary and intermediate applications by:

1. Learning the fundamentals of gas tungsten arc welding to understand the process and its applications in metal fabrication
2. Practicing GTAW techniques to achieve high-precision welds in various materials, including stainless steel and aluminum
3. Creating complex weld joints using GTAW methods to demonstrate advanced skill and attention to detail in welding projects

Learning Outcomes:

1. Communicate effectively using listening, speaking, reading, and writing skills
2. Solve problems using critical and creative thinking and scientific reasoning
3. Formulate strategies to locate, evaluate, and apply information