

WELDING TECHNOLOGY: COMBINATION WELDER (A.S.)

ASSOCIATE OF SCIENCE

The Associate of Science Combination Welder Degree Program combines general education courses with courses designed to provide students with the skills required to obtain certifications in Shielded Metal Arc Welding, Flux Cored Arc Welding, and Gas Tungsten Arc Welding. The program requirements include technical math skills and blueprint reading used in the industry. Students get a well-rounded education by also completing courses in Gas Tungsten Arc Welding and Structural Fabrication. Students completing this degree program will obtain the necessary technical knowledge, practical welding skills, and welding certifications required to enter the workforce as a combination welder specializing in metal fabrication, maintenance welding, and structural steel welding. Various municipalities, fabrication companies, and local unions seek capable graduates with this training to construct and maintain projects such as structural steel buildings, bridges, ships, and infrastructure.

Program Student Learning Outcomes

- Students will correctly setup and perform welding operations with the three most commonly used welding processes, which include: Shielded Metal Arc Welding, Flux Cored Arc Welding, and Gas Metal Arc Welding.
- Students will correctly setup Oxyacetylene Flame Cutting Equipment and perform manual oxyacetylene flame cutting operations with an acceptable appearance.
- Students will correctly setup Plasma Arc Cutting Equipment and perform manual plasma arc cutting operations with an acceptable appearance.

Program Requirements

Code Number	Course Title	Units
Core Requirements		
WELD 149	Welding Shop Math	4.0
WELD 159	Blueprint Reading for the Welding Trades	4.0
Required Courses		
WELD 120	Beginning Arc Welding	5.0
WELD 130	Gas Tungsten Arc Welding Fundamentals	5.0
WELD 200	Intermediate Arc Welding	4.0
Total Units		22

ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS

Complete a minimum of 60 units to include (1) the above major requirements, (2) the General Education requirements, and (3) electives as needed