

WELDING TECHNOLOGY: AEROSPACE WELDING (A.S.)

ASSOCIATE OF SCIENCE

The Associate of Science Degree Program in Aerospace Welding combines general education courses with courses that represent the first step in preparing students to enter the Aerospace Industry as a certified welder. The degree program requires students to complete three classes directly related to the Aerospace Welding Industry, which are: Gas Tungsten Arc Welding, Advanced Gas Tungsten Arc Welding, and Gas Tungsten Arc Welding Specialty Lab. In addition to these courses, students will complete coursework in technical math skills, and blueprint reading. Students completing this degree program will obtain the necessary technical knowledge, practical welding skills, and welding certifications required to enter the workforce as an Aerospace Welder. Various local aerospace companies seek capable graduates with this training to fabricate and weld critical components used in the construction of commercial and military airplanes, rockets, satellites, and spacecraft.

Program Student Learning Outcomes

- Students will systematically set up Gas Tungsten Arc Welding machines for aluminum welding operations to include: Required amperage, polarity, frequency, balance, gas type, gas flow, tungsten type, size, and preparation.
- Students will systematically set up Gas Tungsten Arc Welding machines for stainless steel welding operations to include: Required amperage, polarity, frequency, balance, gas type, gas flow, tungsten type, size, and preparation.
- Students will systematically set up Gas Tungsten Arc Welding machines for chromoly welding operations to include: Required amperage, polarity, frequency, balance, gas type, gas flow, tungsten type, size, and preparation.

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 130	Gas Tungsten Arc Welding Fundamentals	5.0
WELD 240L	Intermediate Gas Tungsten Arc Welding Laboratory	2.0
WELD 250L	Advanced Gas Tungsten Arc Welding Lab	2.0
WELD 260L	Gas Tungsten Arc Welding (GTAW) Aerospace Certification Laboratory	2.0
Total Units		19

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