

# Occupational Endorsement Certificate in Advanced Welding

---

- Demonstrate application of advanced mathematical formulas and computations as applied in the welding and inspection fields.

This Occupational Endorsement Certificate in Advanced Welding builds on foundational skills required for entry into the welding industry and prepares individuals for employment in pipe welding operations. Students gain knowledge of pipe fabrication, pipe welding and fitting processes. Courses in this certificate option are based on standards established by the American Welding Society and American Petroleum Institute.

## Admission Requirements

Complete the Application and Admission Requirements for Occupational Endorsement Certificate Programs (<http://catalog.uaa.alaska.edu/academicpoliciesprocesses/admissions/undergraduate/>).

## Graduation Requirements

- Complete the General University Requirements for Occupational Endorsement Certificates (<http://catalog.uaa.alaska.edu/undergraduateprograms/oecrequirements/>).
- Pass two separate welding process qualification tests.
- Complete the program requirements below.

## Program Requirements

Code	Title	Credits
MATH A105	Intermediate Algebra	4
or any course for which MATH A105 is a prerequisite		
WELD A112	Shielded Metal Arc Welding (SMAW)	4
WELD A114	Welding of High Strength Steels	3
WELD A117	Pipe Fabrication	4
WELD A121	Pipe Welding Vertical-Down SMAW	4
WELD A174	Gas Tungsten Arc Welding (GTAW)	3
<b>Total</b>		<b>22</b>

A minimum of 21 credits is required for this OEC.

## Program Student Learning Outcomes

Upon completion of this OEC, students will:

- Demonstrate hazard assessment and best safety practices.
- Demonstrate enhanced levels of technical skills in welding.
- Demonstrate intermediate knowledge of the interrelationship between metallurgy, welding and inspection processes.
- Demonstrate advanced forms of effective technical, oral, and written communication.