

Undergraduate Certificate in Welding Technology

This program is delivered only through Kenai Peninsula College.

The one-year Undergraduate Certificate in Welding Technology provides students with specific training for structural and pipe welding certification. Students gain comprehensive training in the latest welding technology, blueprint reading, layout and fabrication. Graduates of this program will be prepared for employment as structural or pipe welders, and will have a solid welding background for many mechanical trades.

Experienced welders have the option of bypassing the first semester courses by successfully completing written and practical examinations on first semester work.

Admission Requirements

- Complete the Admission Requirements for Undergraduate Certificates (<http://catalog.uaa.alaska.edu/academicpoliciesprocesses/admissions/undergraduate/>).

Graduation Requirements

- Complete the General University Requirements for Undergraduate Certificates (<http://catalog.uaa.alaska.edu/undergraduateprograms/certificaterequirements/>).
- Pass a structural, GMAW or FCAW and a pipe qualification test.
- Complete the following major requirements with a minimum cumulative GPA of 2.00:

Code	Title	Credits
WRTG A111	Writing Across Contexts	3
or COMM A111	Fundamentals of Oral Communication	
or WRTG A110	Introduction to College Writing	
MATH A104	Technical Mathematics ¹	3
or MATH A105	Intermediate Algebra	
WELD A101	Introduction to Welding	3
WELD A157	Technical Drawings for Welders	3
WELD A112	Shielded Metal Arc Welding (SMAW)	4
WELD A114	Welding of High Strength Steels	3
WELD A121	Pipe Welding Vertical-Down SMAW	4
or WELD A122	Pipe Welding Vertical-Up SMAW	
WELD A161	Gas Metal Arc Welding (GMAW)	3
WELD A162	Flux Cored Arc Welding (FCAW)	3
WELD A174	Gas Tungsten Arc Welding (GTAW)	3
Total		32

¹ Students may also fulfill this requirement by completing any MATH course for which MATH A105 is a prerequisite.

A minimum of 32 credits is required for the certificate.

Program Student Learning Outcomes

Students graduating with an Undergraduate Certificate in Welding Technology will be able to:

- Demonstrate competence in the oxy-acetylene cutting process.
- Demonstrate competence in the preparation of steel-plate certified groove welds.
- Demonstrate competence in the welding of steel-plate all position groove welds.
- Demonstrate competence in the oxy-acetylene cutting process of steel pipe (both with freehand and machine cutting).
- Demonstrate competence in the preparation of steel pipe to be welded with the stick-electrode process for common sizes of pipe used in industry.
- Demonstrate competence in the welding of steel pipe per Procedure KPC-I for testing and welds common schedules and sizes of pipe used in industry.
- Complete structural and pipe certification national testing standards.