

ASSOCIATE OF SCIENCE IN WELDING TECHNOLOGY (AS)

This degree prepares students for entry-level employment in the field of Welding through the study of fabrication, metal transfer and the use of different shielding gases. Students will acquire skills in metallurgy, blueprint design and creation, multi-position metal transfer, well-joint design and application, and basic material science.

Program Outcomes

- Adjust, operate and troubleshoot shielded metal arc welding, gas welding, gas tungsten arc welding, oxyfuel welding and cutting apparatuses to industry standards.
- Choose the correct joint prep process for the weld metal joints and complete that joint prep to industry standards.
- Perform groove, lap, fillet and seam welds using SMAW, GTAW and OFW apparatuses to industry standards.
- Produce simple effective orthographic drawings used for cutting, fit-up and welding of metal weldments. These drawings shall include the use of the American Welding Society welding symbols. All drawings shall be done to industry standards.
- Perform basic welding inspection and quality control tasks used in the manufacturing, construction and food processing industries.

Career Opportunities

Upon successful completion of this degree, students will be prepared for careers or employment in the following fields: Welding and metal fabrication careers in the manufacturing and construction industries. Welding related maintenance and repair positions in the food processing industries. Welding inspection and quality control in the manufacturing and construction industries.

Note

This degree is not designed for transfer; however, the courses included in this degree may be transferable and apply to other degrees designed for transfer.

Code	Title	Units
GENERAL EDUCATION AND SUBJECT REQUIREMENTS		25
College of the Sequoias' Associate Degree General Education (COS-GE)		
+		
REQUIRED MAJOR COURSES		22
WELD 161	Oxyacetylene Welding	4
WELD 162	Shielded Metal Arc Welding	4
WELD 171	Specialty Metals Welding	4
WELD 172	Gas Tungsten Arc Welding	4
WELD 181	Blueprint Reading/Metallurgy	3
WELD 276	Metal Fabrication	3
or AGTC 210	Agriculture Project Construction	
+		
RESTRICTED ELECTIVES		3-4
Select 3-4 units from the following courses:		
WELD 104	Metal Sculpture	3
WELD 105	Metalcraft Welding & Forging	3

WELD 107	Forging and Wrought Iron	2
WELD 273	Stainless Steel Weld / Repair	4
WELD 274	Aluminum Welding	4
WELD 275	Welding Codes/Certification	4
+		
ELECTIVES		9-10
Select additional degree applicable courses numbered 1-299 to achieve 60 units.		
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TOTAL		60

The Associate Degree requirements include completion of the:

1. Required major courses and restricted elective courses with a "C" or better grade in each course (required and restricted elective courses may be substituted with the approval of the Division Chair),
2. General Education requirements,
3. Subject requirements including PE, Health & Wellness, and American Institutions, and
4. A minimum of 60 units of degree applicable courses numbered 1-299, at least 12 of which must be taken in residence at College of the Sequoias, with a "C" (2.0) average (see Associate Degree Requirements (<https://catalog.cos.edu/associate-degree-requirements/>) for additional details).