

# CERTIFICATE OF ACHIEVEMENT IN WELDING

The Certificate of Achievement requirements include completion of the certificate courses with a “C” or better grade in each course. Required and support courses may be substituted with the approval of the Industry & Technology Division Chair.

This certificate prepares students for entry-level employment in the field(s) of welding and fabrication, both locally and internationally, and completion of this certificate can be enhanced for industry standards by students completing and passing American Welding society certifying tests. Students completing this certificate will acquire entry level skills in shielded metal arc, gas metal arc, gas tungsten metal arc, oxyfuel welding, oxyfuel cutting skills. Students will know basic metallurgy, blueprint design and reading, as well as the scientific principles of welding.

## Program Outcomes

- Adjust, operate, and troubleshoot shielded metal arc welding, gas tungsten arcwelding, gas metal arc welding, oxyfuel welding, and oxyfuel 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, GMAW and OFW apparatuses to industry standards.
- Perform basic welding inspection tasks relating to manufacturing and construction applications.

## Career Opportunities

Upon successful completion of this certificate, students will be prepared for employment in the following industries: Metal fabrication and repair in the manufacturing and construction industries. Maintenance welding and repair in the food processing industries. Welding-related quality control and inspection on welding-related applications.

## Program Requirements

Code	Title	Units
REQUIRED CERTIFICATE COURSES		22
AGTC 210 or WELD 276	Agriculture Project Construction Metal Fabrication	3
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
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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
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TOTAL		25-26