

# INTEGRATED METALS: CERTIFIED WELDER - CERTIFICATE

IMTL171	Welding Certificate Program Lab I	1
IMTL172	Welding Certificate Program Lab II	1
IMTL173	Welding Certificate Program Lab III	1
<b>Total Credits</b>		<b>19-20</b>

## Career Pathway Certificate of Completion

### Faculty Adviser

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This program is offered in the evening, and all courses apply toward the Welding Technology certificate and Integrated Metals AAS degree. Earning this certificate helps students become employed as a welder, or job upgrade, and/or wage increase. This program can be started in fall or winter term.

All core courses must be completed within 5 years in order for the certificate to be awarded.

## Program Outcomes

At the completion of this program, students should be able to:

- Demonstrate safety procedures and safety inspections for welding processes and related equipment
- Identify welding equipment and accessories and explain power source principles of operation
- Read, interpret and apply blueprint specifications for the production and inspection of manufactured pieces
- List and perform set-up, adjustments and operations of welding and oxy-fuel cutting equipment in the preparation and completion of welding practice plates
- Describe and perform welding processes as they relate to the welding of ferrous and non-ferrous metals
- Identify various electrodes, filler wires, shielding gasses and current types and their relationship to base-metal varieties
- Describe and apply the variables and techniques used to weld carbon steel and aluminum to blueprint specifications with regard to joint types, weld types and positions of welding
- Visually examine welds for discontinuities, defects, correct weld size and placement, providing solutions for welding procedure errors
- Produce acceptable test plate weldments according to American Welding Society (AWS) code specifications

**Note:** Students are required to maintain a minimum grade of "C" in all IMTL courses. The Certified Welder program is not financial aid eligible. However, the related degree program, Integrated Metals AAS and the Welding Technology Certificate are aid eligible.

Code	Title	Credits
IMTL120	SMAW (Shielded Metal Arc Welding/Stick) Theory	2
IMTL121	SMAW (Shielded Metal Arc Welding/Stick) Lab	3
IMTL124	Blueprint Reading for Welding Applications	3
IMTL140	GMAW/FCAW (Gas Metal and Flux Cored Arc Welding/Wire Feed) Theory	2
IMTL141	GMAW/FCAW (Gas Metal and Flux Cored Arc Welding/Wire Feed) Lab	3
IMTL163 or IMTL143	Welding Certification Preparation Lab CNC Cutting	3-4