

INTEGRATED METALS: GAS METAL AND FLUX CORED ARC WELDER - CERTIFICATE

IMTL173	Welding Certificate Program Lab III	1
Total Credits		12-13

Career Pathway Certificate of Completion | mhcc.edu/IntegratedMetals
(<http://mhcc.edu/IntegratedMetals/>)

Faculty Adviser

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This certificate is for Gas Metal and Flux Cored Arc Welding. It is a semi-automatic or automatic arc welding process.

Note: This Career Pathway Certificate program is designed for winter term entry. Students are required to maintain a minimum grade of "C" in all IMTL courses. 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 work 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
- 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

What are the employment opportunities?

This program will assist the student preparing for welder qualification testing and provide testing opportunities for welder certification to American Welding Society code standards in one or more positions and processes, providing the skill credential for entry into a position in industry as a certified welder or a position upgrade with their present employer.

Code	Title	Credits
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
IMTL152	Welding Processes and Procedures	2
IMTL163 or IMTL143	Welding Certification Preparation Lab CNC Cutting	3-4
IMTL172	Welding Certificate Program Lab II	1