

Industrial Manufacturing Technology (614)

Welding and Fabrication (Certificate)

About Our Program

Welding and Fabrication certificate graduates have the knowledge and ability required to lay out, fabricate, and weld various metals. These skills are developed in the areas of Print Reading, Shielded Metal Arc Welding (SMAW), Metal Inert Gas Welding (GMAW), and Tungsten Inert Gas Welding (TIG).

Program Outcomes

Students who complete this program of study will be able to:

- Weld in flat, horizontal, vertical, and overhead positions using the basic welding processes SMAW, GMAW, AND GTAW.
- Perform metal layout processes.
- Cut metals using oxyfuel and plasma cutting process.
- Apply the fundamentals of welding processes.
- Read and interpret basic blueprints and welding symbols to fabricate components.
- Apply basic math and measurement techniques.
- Follow industry safety practices.

Nature of Work and Employment

This work requires laying out jobs according to drawings or blueprints and determining the welding process best suited for the metals being fused.

Program Contacts

Call Highland at 815-235-6121 for the following program contacts:

- Scott Anderson, Vice President of Business, Technology, and Community Programs
- Todd Vacek, Welding Faculty
- Vicki Schulz, Student Advisor/Transfer Coordinator

Required Courses

*	BUSN	141	Business Communications (or ENGL 121 or COMM 101)	3
	DRAF	110	Print Reading and Inspection	2
*	MATH	111	Technical Math	3
	MTEC	164	Manufacturing Processes	3
	WELD	130	Introduction to Welding	3
*	WELD	232	Intermediate Welding and Fabrication	3
*	WELD	233	Advanced Welding Processes	3
			Technical Elective from DRAF or MTEC	3

Total Credit Hours =

23

* Course has a prerequisite. See course description.