

# WELDING AND FABRICATION, CERTIFICATE (614)

## 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).

## 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.

## Requirements

Code	Title	Hours
<b>Required Courses</b>		
DRAF 110	Print Reading and Inspection	2
MATH 111	Technical Math <sup>1</sup>	3
MTEC 164	Manufacturing Processes	3
WELD 130	Introduction to Welding	3
WELD 232	Intern Welding/Fabrication <sup>1</sup>	3
WELD 233	Advanced Welding Processes <sup>1</sup>	3
Technical Elective from DRAF or MTEC		3
Select one of the following:		3

BUSN 141	Business Communications <sup>1</sup>	
ENGL 121	Rhetoric and Composition I <sup>1</sup>	
COMM 101	Technical Communications <sup>1</sup>	
<b>Total Hours</b>		<b>23</b>

<sup>1</sup> Course has a prerequisite. See course description.

## 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.

## Program Contacts

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

- Dr. Matt Magee, Dean of Agriculture, Business & Technology
- Todd Vacek, Welding Faculty
- Vicki Schulz, Student Advisor/Transfer Coordinator