

WELDING TECHNOLOGY, Certificate - 4161

Engineering & Technology Department

CIP Code: 48.0508

The Welding Technology certificate program prepares students for employment in the welding industry as a qualified welder. Advanced skills are developed in blueprint reading, oxy fuel welding, shielded metal arc welding, gas metal arc welding, gas tungsten arc welding, flux cored and subarc welding, and testing and inspection. The practice that is provided through laboratory training prepares the student for AWS certification tests. The complete program is offered at the Harrisburg and York campuses.

Career Opportunities:

Graduates are employed as Assemblers, Maintenance Mechanics, Welders (with AWS certification), Welder's Helpers, Repair Technicians, Machine Operators, and Welding Sales and Service Representatives.

(SOC Code: 51-4121 Welders, Cutters, Solderers and Brazers)

Competency Profile:

The program is designed to prepare students to:

- Interpret welding blueprints
- Weld carbon steel, aluminum and stainless steel in all positions with the oxy fuel welding process
- Weld carbon steel in all positions with the shielded metal arc welding process
- Weld carbon steel, aluminum and stainless steel in all positions with the gas metal arc welding process
- Weld carbon steel, aluminum and stainless steel in all positions with the gas tungsten arc welding process
- Weld carbon steel, aluminum, and stainless steel in all positions with the flux cored arc welding process
- Weld carbon steel with the subarc welding process
- Weld pipe with oxy fuel, SMAW, GMAW, and GTAW welding processes
- Test and inspect weldments with destructive and nondestructive examination processes

PROGRAM REQUIREMENTS (TOTAL CREDITS = 31)

General Education	Major Requirements	Other Required Courses
	WELD 101 Print Reading Analysis for Welders	GTEC 101 Safety & Health in the Workplace
	WELD 102 Oxy-Fuel Welding & Cutting	3
	WELD 103 Shielded Metal-Arc Welding	3
	WELD 105 Shielded Metal-Arc Welding: Vertical & Overhead	3
	WELD 107 Shielded Metal-Arc Welding: Plate Test	3
	WELD 111 Welding Applications	3
	WELD 120 Gas Metal Arc Welding I	4
	WELD 130 Gas Tungsten Arc Welding I	3
	WELD 240 Pipe Welding	3
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RECOMMENDED SEQUENCE FOR FULL-TIME STUDENTS

Part-time students can complete this program by taking one or more courses each semester.

Fall Semester I	Spring Semester I	Summer
WELD 101	3 GTEC 101	3 WELD 240
WELD 102	3 WELD 107	3
WELD 103	3 WELD 120	4
WELD 105	3 WELD 130	3
WELD 111	3	