

WELDING, ONE-YEAR CERTIFICATE

Program Description

The One Year Welding Certificate program is designed to provide study in the areas of general welding and operations. The primary focus is to provide the student with a foundation of knowledge of general welding and safety. Related welding operations or processes for this program would include; SMAW, GMAW, FCAW, GTAW, OFC, PAC, CAC-A, OFW.

Program Outcomes

Students who successfully complete the One-year Welding Certificate will be able to:

1. Apply fundamentals of welding, including the basics of common joining processes, cutting and gouging, measurement, fabrication, repair, material identification, and visual acceptance criteria
2. Interpret and apply basic elements of blueprints such as line type identification, symbols, notes, 2D and 3D interpretation, dimensioning and measurement
3. Demonstrate a knowledge and understanding of safe working conditions, as well as, safety in handling materials, equipment, and personal protective equipment
4. Identify basic components of welding systems and welding processes, proper machine setup, and demonstrate trouble shooting when visual acceptance criteria of a weldment has not been met

Career Considerations

The Welding program prepares students for entry-level jobs and future careers in the following areas:

- Welder helper
- Production Welding
- Millwork
- Repair
- Cutting, Brazing, Soldering
- Trucking & Heavy equipment
- Structural Iron Work
- Welding Sales

Program Course Requirements

Course	Title	Credits
First Year		
First Term		
COM 218Z or PSY 101	Interpersonal Communication or Psychology of Human Relations	3-4
MFG 108	Starrett PMI	2
MTH 102	Math for the Trades (MTHG 052 or higher accepted)	4
WLD 101	Welding Processes-Apps	4
WLD 111	Shielded Metal Arc Welding	4
WLD 131	Basic Metallurgy	3
Credits		20-21
Second Term		
WLD 112	Shld Metal Arc Wldg:Mild Steel	3
WLD 113	Shld Metal Arc Wldg:Mld Stl II	3
WLD 114	Shld Metal Arc Wldg:MldStl III	3

WLD 140	Blueprint Reading	3
WR 117	Writing for Trades (WR 115 or higher accepted)	4
Credits		16
Third Term		
WLD 121	Gas Metal Arc Welding	3
WLD 122	Gas Metal Arc Welding-Pulse	3
WLD 141	Flux-Core Arc Wldg(Gas Shld)	3
WLD 142	Flux-Core Arc Wldg II Slf Shld	3
WLD 150	GTAW I	3
WLD 160	Aluminum Arc Welding I	3
Credits		18
Total Minimum Credits		54-55

Program Entrance Requirements

- A construction background or prior welding experience are helpful but not a requirement.
- Students with a criminal record are strongly urged to research employability before entering the welding program. If students enter the program with a felony conviction, they should disclose this information to their welding advisor and any Cooperative Work Experience (CWE) employer.