

Career and Technical Education

Certificate of Achievement — Welding Technology

Professional Skills and Career Paths

Mining Welder, Aerospace Welder/Fabricator,
Manufacturing Welder, Welder/Fabricator, Ship Welder,
Pipe Welder

Student Learning Outcomes

Graduates of the Welding Technology Certificate of Achievement Program will have the knowledge and skills to:

- Make satisfactory welds in all positions using the following welding processes:
 - Shielded Metal Arc Welding (SMAW)
 - Gas Metal Arc Welding (GMAW)
 - Flux Cored Arc Welding (FCAW)
 - Gas Tungsten Arc Welding (GTAW)
- Make satisfactory cuts with the following processes:
 - Oxygen Fuel Cutting (OFC)
 - Plasma Arc Cutting (PAC)
 - Air Carbon Arc Cutting (ACC)
- Interpret welding blueprints and welding symbols.
- Perform pipe layouts.
- Utilize basic welding metallurgy.
- Perform safely in the work environment, meeting and obeying all workplace safety requirements.

Formal admission to this program is required. Refer to page 86 for an outline of admission standards.

General Education Requirements	Credits
English/Communications. Determined by placement testing.....	3
ENG 100, 101, 103, or 107	
Computation — Any course with a MATH prefix.....	3
Human Relations	
BUS 110 (recommended).....	1-3

Program Requirements	Credits
WELD 105 Drawing and Weld Symbol Interpretation.....	3
WELD 110 Basic Arc Welding Principles and Practices**.....	5.5
WELD 150 Metallurgy Fundamentals for Welding.....	3
WELD 160 Welding Design/Layout and Pipefitting.....	5.5
WELD 210 Advanced Welding Principles and Practices.....	5.5

WELD 220	Gas Metal (GMAW) and Flux Cored Arc Welding (FCAW)	11
WELD 240	Gas Tungsten Arc Welding (GTAW)	7
WELD 260	Pipe Welding.....	8

SUGGESTED COURSE SEQUENCE Certificate of Achievement— Welding Technology

FALL—1st Semester	Credits
ENGLISH*	3
COMPUTATION*	3
HUMAN RELATIONS*	1-3
WELD 105	3
WELD 110	5.5
WELD 210	5.5
WELD 260	8
TOTAL	29-31

SPRING—2nd Semester	Credits
WELD 150	3
WELD 160	5.5
WELD 220	11
WELD 240	7
TOTAL	26.5

Refer to page 85. Minimum Credits: 55.5
***Choose with an advisor.**

**Students who have credit for WELD 136 from previous course enrollment or CTE College Credit (see page 23), contact a GBC advisor. Course requirement for WELD 110: 5.5 units of WELD 110 or 2.5 units of WELD 110 and 3 units of WELD 136.