

WELDING AND FABRICATION

CERTIFICATE OF COMPLETION WELDING AND FABRICATION

The Certificate of Completion Welding and Fabrication prepares students for entry-level jobs in metal working fields. Required courses are applicable toward the Associate of Applied Science Welding and Fabrication degree.

PROGRAM STUDENT LEARNING OUTCOMES

Upon successful completion of this program the student will be able to:

- Set up and operate manual and semi-automatic welding and cutting equipment used in the metal fabrication industry.
- Perform basic layout and fabrication skills to produce welded metal parts and projects.
- Read and Interpret blueprints and American Welding Society standard welding symbols.
- Perform as a team member and practice skills that reflect professional and ethical behavior in the workplace.

ENTRY REQUIREMENTS

Students are required to take the college placement test to determine skill level and readiness in math, reading and writing. As part of their training program,

students must begin with the courses within their skill level as determined by the college placement test scores.

Because a variety of working conditions exist in the welding field, a person generally should be in good physical condition and able to stand, stoop, kneel and bend without difficulty and be able to lift and carry at least 50 pounds. Good eyesight, especially depth perception, is necessary for a welder.

The Associate of Applied Science Welding and Fabrication and the Certificate of Completion Welding and Fabrication are both American Welding Society (AWS) entry level welding certified programs. Successfully completing the AWS portion of each welding course also qualifies the completer for a Certificate of Completion from the AWS as an Entry Level Welder – a nationally recognized certificate.

GRADUATION REQUIREMENTS

Students must complete a minimum of 51 credit hours with a minimum Grade Point Average (GPA) of 2.0 (C) average or better. All courses in this program indicated with a * must be completed with a 'C' or better. Fifteen (15) of the last 30 credits must be earned at Southwestern before the Certificate of Completion Welding and Fabrication is awarded.

Complete the graduation application process one term prior to the term of completion (i.e., spring term graduates must apply during winter term).

FALL = 17 CREDITS	MFG100 (2)* Safety for Fabrication	WLD4010 (3)* Welding Process I	WLD4061 (3)* Shielded Metal Arc Welding I	WLD4062 (3)* Shielded Metal Arc Welding II	DRFT105 (3)* Blueprint Reading	MTH55 (3)* Introduction to Technical Math (or higher)
WINTER = 18 CREDITS	WLD4126 (3)* Flux Cored Arc Welding	MFG4101 (3) Electrical/Electronic Principles	WLD4125 (3)* Gas Metal Arc Welding	MTH80 (3)* Technical Mathematics I	WLD4165 (3)* Welding Lab A	MFG4180 (3)* Field Experience or WLD9225 (3)*
SPRING = 16 CREDITS	WR90 (3)* Paragraph Fundamentals (or higher)	WLD4100 (3)* Gas Tungsten Arc Welding	WLD4150 (3)* Pipe Fitting and Fabrication	WLD4166 (3)* Welding Lab B	WLD4155 (4)* Fitting and Fabrication	

51 CREDITS = TOTAL PROGRAM REQUIREMENTS