

Area of Interest: Industrial Technology & Skilled Trades

Certificate: Fundamentals of Structural Welding

College Catalog: [2026-2027](#)

Program Location

Signal Peak Campus

Program Description

The Fundamentals of Structural Welding Certificate prepares students for employment as an entry level welder and welder helper. Topics include such welding skills as Flux Cored Arc Welding, Shielded Metal Arc Welding, Gas Metal Arc Welding, industrial safety, thermal cutting processes, interpretation of structural drawings, and introduction to fabrication. A typical graduate seeks employment in mining, steel fabrication, steel erection, and manufacturing industries. After completion of this certificate, students may continue to an Advanced Structural Welding and Fabrication Certificate, or an AAS in Structural Welding Technology.

Recommended proficiencies: High school welding or agriculture program.

Area of Interest Website: [Industrial Technology and Skilled Trades - Central Arizona College \(centralaz.edu\)](#)

Legend

Course Indicators

Bold = Required Course

Category (Cat. column)

The following abbreviations are used in the Cat. column:

Mathematics (M) Core Course (CC)

Semester 1

New Students — Find your suggested starting point for [English/Reading & Math](#) courses.

CAT.	COURSE	CREDITS	SEMESTER/GRADE	NOTES
M	MAT106 Technical Math I or higher	3-4		
CC	WLD118 Physical Characteristics & Mechanical Properties of Metals	1		
CC	WLD130 Intro to Flux Cored Arc Welding & Fabrication	6		
CC	WLD230 Advanced Flux Cored Arc Welding	6		

Total Certificate Credits: 16-17 Apply for graduation and attend career events!

2026-2027 Arizona Resident Tuition

For 2026-2027 Arizona Resident Tuition, please visit [Paying for College](#). Financial aid may be available.

Career Information

[CAC Career Center](#)

Free career resources and assistance for CAC students.

[O*NET OnLine](#)

Explore and search for detailed career information.

Search for occupations in **Advanced Structural Welding and Fabrication**, including:

- Education requirements for specific occupations
- Occupation tasks, knowledge, skills, and abilities
- Salary and wages for specific occupations

Transfer Information

[CAC University Transfer Center](#)

Free transfer resources and assistance for CAC students.

Note:

Use this Program MAP as a guide to choose courses with your advisor and track progress towards milestones and completion of program. Work with an advisor to customize your plan to align with your specific career and/or transfer goals.

Part-Time Students

Plans can be modified to fit the needs of part-time students by adding more semesters.

Student Information

Student Name: _____ Advisor Name: _____

Student ID Number: 880 _____ Date: _____