

Area of Interest: Industrial Technology & Skilled Trades
Degree: Structural Welding Technology, Associate of Applied Science (AAS)



Stackable Certificate 1: Fundamentals of Structural Welding
Stackable Certificate 2: Advanced Structural Welding and Fabrication
College Catalog: [2022-2023](#)

Program Location: Signal Peak

Program Description: The Structural Welding and Fabrication degree prepares students for employment as an entry level welder/fabricator with an array of career opportunities within the industry. Topics include quality control, thermal cutting processes, Flux-cored Arc welding with gas, Flux-cored Arc welding without gas, and using engine driven welding machines with portable semi-automatic wire feeders. Students will learn structural fabrication and introduction to steel erection through various projects. A typical graduate seeks employment in mining, steel fabrication, and steel erection industries.

Advising: itst.advisor@centralaz.edu

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

Legend

Bold Course=Required Course Recommended Course (R) Stackable Certificate (SC)

AGEC Course list (Arizona General Education Curriculum) and other degree requirements.

| | | | |
|-------------------------------------|----------------------------------|-------------------------------|---|
| Written Communication (WC) | Oral Communication (OC) | Arts/Humanities (AH) | Social/Behavioral Science (SB) |
| Lab Science (LS) | Mathematics (M) | Core Course (CC) | Elective (E) |

Semester 1: New Students-Find your suggested starting point for [English/Reading & Math courses](#).

| | | COURSE | CREDITS | SEMESTER/GRADE | NOTES |
|--------------------------|----|--|-----------|--|-------|
| SC1 | M | MAT106 Technical Math I | 3 | | |
| | CC | WLD110 Survey of Welding Processes | 3 | | |
| SC1 | CC | WLD118 Physical Characteristics & Mechanical Properties of Metals | 1 | | |
| SC1 | CC | WLD130 Intro to Flux Cored Arc Welding & Fabrication | 6 | | |
| SC1 | CC | WLD230 Advanced Flux Cored Arc Welding | 6 | | |
| Semester Credits: | | | 19 | Meet with your CAC advisor each semester! | |

Semester 2

| | | COURSE | CREDITS | SEMESTER/GRADE | NOTES |
|-------------------------|----|---|-----------|---|--|
| SC2 | CC | WLD128 Intro to Structural Drawings & CAD | 4 | | Students must complete Stackable Certificate 1 (SC1) courses before Stackable Certificate 2 (SC2) courses. |
| SC2 | CC | WLD129 Intro to Shielded Metal Arc Welding & Thermal Cutting Processes | 6 | | |
| SC2 | CC | WLD229 Advanced Shielded Metal Arc Welding | 6 | | |
| Semester Credits | | | 16 | Research career resources and opportunities! | |

| Semester 3 | | | | | |
|--------------------------|----|---|-----------|---|-------|
| | | COURSE | CREDITS | SEMESTER/GRADE | NOTES |
| R | WC | ENG101 College Composition I | 3 | | |
| R | SB | PEH101 Personal Health | 3 | | |
| | CC | WLD222 Gas Metal Arc Welding | 3 | | |
| | CC | WLD228 Welding Inspection Technology | 3 | | |
| Semester Credits: | | | 12 | Apply for graduation and attend career events! | |

| Semester 4 | | | | | |
|---|----|---|-----------|--|-------|
| | | COURSE | CREDITS | SEMESTER/GRADE | NOTES |
| R | OC | COM259 Professional Communication | 3 | | |
| R | AH | ART103 Beginning Jewelry & Metalwork | 3 | | |
| R | LS | AGS221 Soil Science | 4 | | |
| | CC | WLD221 Gas Tungsten Arc Welding | 3 | | |
| | CC | IRW130 Structural Steel Erection I | 3 | | |
| Semester Credits: | | | 16 | Finish strong-don't get distracted before finals! | |
| Total Degree Credits: | | | 63 | | |
| Fundamentals of Structural Welding Certificate: | | | 16 | | |
| Advanced Structural Welding & Fabrication Certificate: | | | 16 | | |

Arizona Resident Tuition for 2022-2023 is \$50 per credit hour; see [Paying for College](#). Financial aid may be available.

Career Information

CAC Career Center: centralaz.edu/career FREE CAC career resources and assistance.

O*NET OnLine: Visit onetonline.org and search for:

Occupations in Advanced Structural Welding and Fabrication including:

- Education needed for specific occupations
- Occupation tasks, knowledge, skills and abilities
- Salary/wages for specific occupations (\$)

Transfer Information

CAC University Transfer Center: centralaz.edu/transfer FREE CAC transfer resources and assistance.

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 need of part-time students by adding more semesters.

| | |
|-------------------------------|----------------------|
| Student Name: | Advisor Name: |
| Student ID Number: 880 | Date: |