



## CAID/Pima Community College

### Joint Mentoring Course

**Subject:** Advanced GMAW/FCAW CAID certification course

Non Credit 5 week course held at 2275 E Ganley, Tucson AZ

Wednesdays 7:00 am- 12:00 pm Start: Feb 10, 2016 Ends: March 9, 2016

**Instructor:** Curtis Casey

**Facilitator:** Kevin Westfall

#### Course Objectives:

1. Introduction to GMAW/FCAW theory (specifically transfer modes of the welding processes).
2. Introduce Welding Procedure Specifications and Procedure Qualification Records (CAID WPS Training module)
3. Demonstrate abilities to perform plate welds per CAID WPS WMF-1C in the 2G position
4. Demonstrate ability to perform plate welds per CAID WPS WMF-1C in the 3G position
5. Certify in both positions (2G and 3G) using Volumetric (RT) and Destructive testing (Bend)

#### On the first day of class students:

1. Need to provide proof of medical insurance.
2. Complete the CAID standards of conduct and safety (same requirements as a job shadow student).
3. Come to class in appropriate personnel protective clothing (leather boots, long pants, long sleeve shirt and welding helmet). CAID will provide welding jackets, gauntlet gloves, ear plugs, and safety glasses.

**Orientation:** 1) Parking, 2) Restrooms, 3) Breaks, 4) Clean-up, 5) Drug/alcohol policy 6) Absences (Students with more than one absence during the 5 week course will be dropped from class)

**Evaluation:** Final certification testing will be per ASME Section IX requirements

## Weekly Class outline:

### Week 1- 2/10/16

- Orientation,
- CAID WPS lecture,
- WM Video on GMAW theory,
- Shop tour and equipment setup,
- Clean up, best practices, dismiss

### Week 2- 2/17/16

- CAID WPS WMF-1C lecture,
- Lecture on welding inspection acceptance criteria (ASME Section IX)
- Demo specimen prep and bend testing
- Demonstration on Open root exercise (3/16" square groove plate) 2G and 3G position
- Practice open root techniques 2G and 3G,
- Certification plate fit-up prep and inspection
- Clean up, best practices, dismiss

### Week 3-2/24/17

- Complete WPS Optimum settings on 2G and 3G assignment
- Demo on 2G certification using stringer bead technique
- Practice 2G certification plate
- Clean up, best practices, dismiss

### Week 4- 3/2/16

- Demo on 3G certification using weave bead technique
- Practice 3G certification plate
- Clean up, best practices, dismiss

### Week 5-3/9/16

- Prep and run 2G certification plate
- Prep and run 3G certification plate
- Complete documentation on cert plates to send to RT
- Clean up
- course evaluation

*This course could possibly extend an additional 1-3 weeks depending on the students' demonstrated competency levels.*

CAID will be responsible for volumetric and destructive testing of eligible certification coupons. (Must meet visual acceptance criteria per ASME Sect IX to be eligible).