

## WELDING TECHNOLOGY

### Combination Welding

(CIP 48.0508)

#### Level 1 Certificate

The welding program is designed to prepare students with in-depth training and skills for entry-level employment in a wide variety of careers as a welder in light or heavy fabrication, construction, and manufacturing. Training focuses on the theory and application to provide essential skills in Shielded Metal Arc Welding (SMAW), Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW) and Gas Tungsten Arc Welding (GTAW) processes in all positions, using plate and pipe. Students will also gain knowledge in layout and fabrication as well as blueprint reading for welders, safety and metallurgy. The program is offered at the Wharton campus only. **Graduate can leave here with 16 certificates to build a resume.**

- 1.) Combination Welding Course Completion Certificate
- 2.) 3- certificates code weld tests according to AWS D1.1 for Fillets and Butt Joints - *Administered by a 3<sup>rd</sup> party CWI*
- 3.) 12- AWS certificates in welding related topics through the American Welding Society Online Library

#### Entrance Requirements:

- Must meet all admission requirements to Wharton County Junior College
- Testing is NOT required for acceptance into the program
- Students will be required to provide their own tools and personal protective equipment

NOTE: Courses do not have to be taken together as a semester block; they may be registered for individually.

Students **must** maintain an overall GPA of 2.0 to receive the certificate.

#### Semester I

WLDG 1412	Intro to Flux Cored Arc Welding (FCAW)
WLDG 1413	Intro to Blueprint Reading for Welders
WLDG 1428	Intro to Shielded Metal Arc Welding (SMAW)

#### Semester II

WLDG 1457	Intermediate Shielded Metal Arc Welding (SWAW)
WLDG 1435	Intro to Pipe Welding
WLDG 1417	Intro to Layout and Fabrication
WLDG 1434	Intro to Gas Tungsten Arc Welding (GTAW)

#### Semester III

WLDG 2453	Advanced Pipe Welding (Capstone Course)
WLDG 2451	Advanced Gas Tungsten Arc Welding (GTAW)
WLDG 2452	Advanced Flux Cored Arc Welding (FCAW)

**Total Semester Hours – 40**

#### Starting Fall 2017:

#### Code Testing – 3 Destructive Testing Certifications/ Qualifications

**Destructive Code Testing:** Testing for each semester

#### Specifics

Fillet Break Test- Semester I

Plate Bend Test- Semester II

Pipe Bend Test- Semester III

**Passer will receive a paper certificate and pocket card for each acceptable test.**

## **AWS American Welding Society Online Library**

### **12- Industry Recognized Certificates in Welding related topics**

- 1) Science of Non Destructive Testing – 6 Hours –
- 2) Welding Safety – 3 Hours –
- 3) Welding Fundamentals I – 14 Hours –
- 4) Welding Fundamentals II – 7 Hours –
- 5) Welding Fundamentals III – 5 Hours –
- 6) Welding Symbols – 10 Hours –
- 7) Metallurgy I – 6 Hours –
- 8) Metallurgy II – 6 Hours –
- 9) Fabrication Math I – 18 Hours –
- 10) Fabrication Math II – 15 Hours –
- 11) Destructive Testing – 7 Hours –
- 12) Welding Economics – 18 Hours –