



# Wharton County Junior College

## WELDING TECHNOLOGY Combination and Pipe Welding 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 and is open to both full and part time students.

### Successful graduates will complete the program with 19 Industry Recognized Certificates:

- WCJC Combination & Pipe Welding Certificate Level I
- Certified Welding Inspection Welder Qualification Tests – SIX – according to AWS D1.1 for Fillets and Butt Joints
- American Welding Society Content Mastery Certificates – TWELVE – including metallurgy, safety, etc

### 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

### Combination & Pipe Welding Certificate

*The following courses are required for graduation  
Program is open to full-time and part-time students*

#### Semester I

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

#### Semester II

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

#### Semester III

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

### Welder Qualification Testing – Proctored by CWI

*6 Individual- Destructive Testing Certifications /  
Qualifications according to AWS D1.1 and ASME  
sectionIV welding code.*

*Successful students receive a certificate and wallet  
card.*

2- Fillet Break Test WLDG 1428- SMAW or FCAW

2- Plate Bend Test WLDG 1457- SMAW or FCAW- 3G  
and 4G

2- Pipe Bend Test WLDG 2453- SMAW, GTAW or  
FCAW- Both Test 6G

### American Welding Society

*Content Mastery Certificates WLDG XXXX*

*Successful students receive an AWS certificate.*

1.) Science of Non Destructive Testing

2.) Welding Safety

3.) Welding Fundamentals I

4.) Welding Fundamentals II

5.) Welding Fundamentals III

6.) Welding Symbols

7.) Metallurgy I

8.) Metallurgy II

9.) Fabrication Math I

10.) Fabrication Math II

11.) Destructive Testing

12.) Welding Economics