



# Welding Technology

AAS (60 SCH\*)

\*Semester Credit Hour

5/2024

## First Semester - 16 SCH

PSYC 1300 - Learning Framework  
 WLDG 1323 - Welding Safety, Tools, and Equipment  
 WLDG 1425 - Introduction to Oxy-Fuel Welding and Cutting  
 WLDG 1307 - Introduction to Welding Using Multiple Processes  
 WLDG 1313 - Introduction to Blueprint Reading for Welders

## Second Semester - 15 SCH

COSC 1301 - Introduction to Computing  
 WLDG 1427 - Welding Codes and Standards  
 WLDG 1457 - Intermediate Shielded Metal Arc Welding (SMAW)  
 WLDG 1434 - Introduction to Gas Tungsten Arc Welding (GTAW)

## Third Semester - 14 SCH

MATH 1332 - Contemporary Mathematics  
 WLDG 1435 - Introduction to Pipe Welding  
 WLDG 2413 - Intermediate Welding Using Multiple Processes  
 WLDG 1317 - Introduction to Layout and Fabrication

## Fourth Semester - 15 SCH

DRAM 1310 - Introduction to Theater  
 ENGL 1301 - Composition I  
 WLDG 2451 - Advanced Gas Tungsten Arc Welding (GTAW)  
 WLDG 2553 - Advanced Pipe Welding

## Marketable Skills

Math skills; time and materials management; ability to acquire and evaluate information; interpret and communicate information; oral and written communications skills; computer skills; teamwork; cultural diversity; apply technology to work; creative thinking; decision-making; problem-solving; self-management; construction and industrial safety; oxy-fuel welding and cutting; power sources; electrode selection; shielded metal arc welding; gas metal arc welding and cutting; gas tungsten arc welding; flux-cored arc welding; blueprint reading; measurement; welding codes and standards; layout and fabrication; fillet welds; V-groove welds; plate welding; pipe welding; and 1G, 2G, 5G, 6G positions.

## Program Outcomes

- Students earning the Structural Steel Welding certificate will demonstrate proficiency by taking the American Welding Society Certification Test (3G) on plate using SMAW welding process.
- Students earning the Pipe welding certificate will demonstrate proficiency by taking the American Society of Mechanical Engineers section IX test (6G) on 5" pipe using SMAW welding process.
- Students earning the Advanced Welding Shop Technology certificate will demonstrate proficiency by taking the American Society of Mechanical Engineers section IX test (6G) on 2" pipe using the GTAW welding process.

## High School Endorsements

Business and Industry

## Expected Salary

**Texas wage data:** workers on average earn \$36,210; 10% of workers earn \$27,030 or less; 10% of workers earn \$53,290 or more.

## Career Opportunities

Blueprint reading; layout, cutting and fitting parts; tack and production welding; finishing and material handling; welding fabricators; shop supervisors; estimators and shop owners; pipe welder; and structural steel welder.

## Additional Education Opportunities

Bachelor of Arts in Applied Science