**Advanced Welding Shop Technology**

**First Semester - 20 SCH**

WLDG 2413 - Intermediate Welding Using Multi-processes  
WLDG 2435 - Advanced Layout and Fabrication  
WLDG 2443 - Advanced Shielded Metal Arc Welding  
WLDG 2451 - Advanced Gas Tungsten Arc Welding  
WLDG 2453 - 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 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**

Associate of Arts in Applied Science; Bachelor of Arts in Applied Science