

WELDING TECHNOLOGIES

The Welding Technology Program prepares students for a career in welding through hands-on, real-world welding training. Welding instruction is provided with carbon steel, stainless steel plate and pipe in all positions using GTAW, SMAW, GMAW and FCAW processes along with PAC (plasma arc cutting) and Oxy-fuel operations.

Students will attain a wide variety of marketable skills while being taught introductory and advanced welding methods. College of the Mainland offers a career pathway in Welding Technologies that allows students to complete a number of welding programs that qualify students to take a national certification exam.

Graduation Requirements

To be eligible for a Certificate or Associate of Applied Science degree in Welding Technology, students must have

- Completed the prescribed courses listed in this Catalog with an overall grade point average of 2.0 or better
- Passed each class listed in the prescribed course of study with a grade of "C" or better
- Met any individually prescribed behavior or remediation related requirements.

Effective September 1, 2017, HB 1508 amends the Texas Occupations Code Section 53 that requires education providers to notify potential or enrolled students that a criminal history may make them ineligible for an occupational license upon program completion. Program specific information will be provided in course syllabi.

Stackable Credentials

- Associate of Applied Science - Welding
- Certificate - Advance Level Welding
- Certificate - Entry Level Welding

Full-Time Schedules

Certificate - Entry Level Welding (Full-Time)

Certificate - Advanced Level Welding (Full-Time)

Associate of Applied Science - Welding (Full-Time)

Certificate - Entry Level Welding

Level One Certificate

Upon completion of the entry level welding certificate program, students will demonstrate competency in performing a bend test on a vertical 3G V-groove. This bend test incorporates the essential welding skills assessed in the Entry Level Welding certificate courses and prepares students for the welding industry pre-job qualification tests. This test serves as the capstone experience for the Entry Level Welding certificate.

Full-Time Student Schedule

Course	Title	Semester Credit Hours
Semester #1 (Fall)		
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)	4

WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding	4
WLDG 1430	Introduction to Gas Metal Arc (GMAW) Welding	4
Semester Credit Hours		12
Semester #2 (Spring)		
WLDG 1425	Introduction to Oxy-Fuel Welding and Cutting	4
WLDG 1457	Intermediate Shielded Metal Arc (SMAW) Welding	4
WLDG 1412	Introduction to Flux Cored Arc Welding (FCAW)	4
Semester Credit Hours		12
Total Semester Credit Hours		24

Certificate - Advanced Level Welding

Level One Certificate

Upon completion of the advanced level welding certificate program, students will demonstrate competency in performing a bend test on 5G-2" carbon steel pipe (combo and restricted). This bend test incorporates the essential welding skills assessed in the Advanced Level Welding certificate courses and prepares students for the welding industry pre-job qualification tests. This test serves as the capstone experience for the Advanced Level Welding certificate.

Full-Time Student Schedule

Course	Title	Semester Credit Hours
Semester #1 (Fall)		
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)	4
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding	4
WLDG 1430	Introduction to Gas Metal Arc (GMAW) Welding	4
Semester Credit Hours		12
Semester #2 (Spring)		
WLDG 1425	Introduction to Oxy-Fuel Welding and Cutting	4
WLDG 1457	Intermediate Shielded Metal Arc (SMAW) Welding	4
WLDG 1412	Introduction to Flux Cored Arc Welding (FCAW)	4
Semester Credit Hours		12
Semester #3 (Summer)		
WLDG 1435	Introduction to Pipe Welding	4
WLDG 2451	Advanced Gas Tungsten Arc (GTAW) Welding	4
Semester Credit Hours		8
Semester #4 (Fall)		
WLDG 2406	Intermediate Pipe Welding	4

WLDG 2413	Welding Using Multiple Processes	4
Semester Credit Hours		8
Total Semester Credit Hours		40

Associate of Applied Science - Welding

Upon completion of the AAS welding degree program, students will demonstrate competency in performing a bend test on 6G-2" carbon steel pipe (combo and restricted). This bend test incorporates the essential welding skills assessed in all courses leading to the AAS and prepares students for the welding industry pre-job qualification tests. This test serves as the capstone experience for the AAS Welding degree.

Full-Time Student Schedule

Course	Title	Semester Credit Hours
Semester #1 (Fall)		
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)	4
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding	4
WLDG 1430	Introduction to Gas Metal Arc (GMAW) Welding	4
ENGL 1301	Composition I	3
Semester Credit Hours		15
Semester #2 (Spring)		
WLDG 1425	Introduction to Oxy-Fuel Welding and Cutting	4
WLDG 1457	Intermediate Shielded Metal Arc (SMAW) Welding	4
WLDG 1412	Introduction to Flux Cored Arc Welding (FCAW)	4
MATH 1332	Contemporary Math (Quantitative Reasoning)	3
Semester Credit Hours		15
Semester #3 (Summer)		
WLDG 1435	Introduction to Pipe Welding	4
WLDG 2451	Advanced Gas Tungsten Arc (GTAW) Welding	4
Semester Credit Hours		8
Semester #4 (Fall)		
WLDG 2413	Welding Using Multiple Processes	4
WLDG 2406	Intermediate Pipe Welding	4
HIST 1301	U S History I	3
Semester Credit Hours		11
Semester #5 (Spring)		
Select from one of the following:		3
PHIL 2306	Introduction to Ethics	
ARTS 1301	Art Appreciation	
MUSI 1306	Music Appreciation	
GEOL 1403	Physical Geology	4
WLDG 2453	Advanced Pipe Welding	4
Semester Credit Hours		11
Total Semester Credit Hours		60