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 an Associate of Applied Science Degree in Welding Technology, students must have (1) completed the prescribed courses listed in this Catalog with an overall grade point average of 2.0 or better, (2) passed each class listed in the prescribed course of study with a grade of "C" or better, and (3) met any individually prescribed behavior or remediation related Requirements.

Stackable Credentials

- Associate of Applied Science - Welding (p. 1)
- Certificate - Advance Level Welding (p. 1)
- Certificate - Entry Level Welding (p. 1)

Full-Time Schedules

- Certificate - Entry Level Welding (p. 1) (Full-Time) (p.)
- Certificate - Advance Level Welding (Full-Time) (p. 1)
- Associate of Applied Science - Welding (Full-Time) (p. 1)

Certificate[1] - Entry Level Welding

Recommended Full-Time Student Schedule

After completing the Entry Level Welding certificate, students will take a certification test on QC10. Upon passing the exam, students will receive a Certified Entry Level Welding certification from the American Welding Society (AWS). The AWS certificate is verification of workplace competencies in the area of Entry Level Welding.

Course	Title	Semester Credit Hours
Semester #1		
WLDG 1425	Introduction to Oxy-Fuel Welding and Cutting	4
WLDG 1421	Introduction to Welding Fundamentals	4
WLDG 1430	Introduction to Gas Metal Arc (GMAW) Welding	4
	Semester Credit Hours	12
Semester #2		
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding	4
WLDG 1457	Intermediate Shielded Metal Arc (SMAW) Welding	4
WLDG 1435	Introduction to Pipe Welding	4
	Semester Credit Hours	12
	Total Semester Credit Hours	24

[1] Denotes a certificate that is recognized by the Texas Higher Education Coordinating Board as a Level One Certificate.

Certificate[1] - Advance Level Welding

Recommended Full-Time Student Schedule

After completing the Advanced Level Welding certificate, students will take a certification test on QC11. Upon passing the exam, students will receive an Advanced Certification from the American Welding Society (AWS). The AWS certificate is verification of workplace competencies in the area of Advanced Level Welding.

Course	Title	Semester Credit Hours
Semester #1		
WLDG 1425	Introduction to Oxy-Fuel Welding and Cutting	4
WLDG 1421	Introduction to Welding Fundamentals	4
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding	4
WLDG 1430	Introduction to Gas Metal Arc (GMAW) Welding	4
	Semester Credit Hours	16
Semester #2		
WLDG 1412	Introduction to Flux Cored Arc Welding (FCAW)	4
WLDG 1457	Intermediate Shielded Metal Arc (SMAW) Welding	4
WLDG 1435	Introduction to Pipe Welding	4
WLDG 2451	Advanced Gas Tungsten Arc (GTAW) Welding	4
	Semester Credit Hours	16
Semester #3		
WLDG 2406	Intermediate Pipe Welding	4
WLDG 2413	Welding Using Multiple Processes	4
	Semester Credit Hours	8
	Total Semester Credit Hours	40

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Associate of Applied Science - Welding

Recommended Full-Time Student Schedule

Course	Title	Semester Credit Hours
Semester #1		
WLDG 1425	Introduction to Oxy-Fuel Welding and Cutting	4
Select one of the following:		3
MATH 1314	College Algebra	

MATH 1332	Contemporary Mathematics (Quantitative Reasoning)	
MATH 1316	Plane Trigonometry	
ENGL 1301	Composition I	3
WLDG 1421	Introduction to Welding Fundamentals	4
	Semester Credit Hours	14
Semester #2		
Life and Physical Sciences (http://coursecatalog.com.edu/navigating-the-pathway/academic-transfer-programs/#corecurriculumtext)	Select from Core Curriculum	4
WLDG 1457	Intermediate Shielded Metal Arc (SMAW) Welding	4
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding	4
WLDG 1430	Introduction to Gas Metal Arc (GMAW) Welding	4
	Semester Credit Hours	16
Semester #3		
American History/Government-Political Science/Social-Behavioral Sciences (http://coursecatalog.cor navigating-the-pathway/academic-transfer-programs/#corecurriculumte	Select from Core Curriculum	3
WLDG 1412	Introduction to Flux Cored Arc Welding (FCAW)	4
WLDG 1435	Introduction to Pipe Welding	4
WLDG 2451	Advanced Gas Tungsten Arc (GTAW) Welding	4
	Semester Credit Hours	15
Semester #4		
Language, Philosophy and Culture (http://coursecatalog.com.edu/navigating-the-pathway/academic-transfer-programs/#corecurriculumtext)	Select from Core Curriculum	3
WLDG 2453	Advanced Pipe Welding	4
WLDG 2413	Welding Using Multiple Processes	4
WLDG 2406	Intermediate Pipe Welding	4
	Semester Credit Hours	15
	Total Semester Credit Hours	60

Part-Time Schedules

- Certificate - Entry Level Welding (Part-Time) (p. 2)
- Certificate - Advance Level Welding (p. 2) (Part-Time) (p.)
- Associate of Applied Science - Welding (p. 3) (Part-Time) (p.)

Certificate[1] - Entry Level Welding

Recommended Part-Time Student Schedule

Course	Title	Semester Credit Hours
Semester #1		
WLDG 1425	Introduction to Oxy-Fuel Welding and Cutting	4
WLDG 1430	Introduction to Gas Metal Arc (GMAW) Welding	4
	Semester Credit Hours	8
Semester #2		
WLDG 1421	Introduction to Welding Fundamentals	4
WLDG 1457	Intermediate Shielded Metal Arc (SMAW) Welding	4
	Semester Credit Hours	8
Semester #3		
WLDG 1435	Introduction to Pipe Welding	4
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding	4
	Semester Credit Hours	8
	Total Semester Credit Hours	24

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Certificate[1] - Advance Level Welding

Recommended Part-Time Student Schedule

Course	Title	Semester Credit Hours
Semester #1		
WLDG 1425	Introduction to Oxy-Fuel Welding and Cutting	4
WLDG 1430	Introduction to Gas Metal Arc (GMAW) Welding	4
	Semester Credit Hours	8
Semester #2		
WLDG 1421	Introduction to Welding Fundamentals	4
WLDG 1412	Introduction to Flux Cored Arc Welding (FCAW)	4
	Semester Credit Hours	8

Semester #3 (Summer)		
WLDG 1457	Intermediate Shielded Metal Arc (SMAW) Welding	4
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding	4
	Semester Credit Hours	8
Semester #4		
WLDG 1435	Introduction to Pipe Welding	4
WLDG 2451	Advanced Gas Tungsten Arc (GTAW) Welding	4
	Semester Credit Hours	8
Semester #5		
WLDG 2406	Intermediate Pipe Welding	4
WLDG 2413	Welding Using Multiple Processes	4
	Semester Credit Hours	8
	Total Semester Credit Hours	40

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Associate of Applied Science - Welding

Recommended Part-Time Student Schedule

Course	Title	Semester Credit Hours
Semester #1		
ENGL 1301	Composition I	3
WLDG 1425	Introduction to Oxy-Fuel Welding and Cutting	4
	Semester Credit Hours	7
Semester #2		
Select one of the following:		3
MATH 1314	College Algebra	
MATH 1332	Contemporary Mathematics (Quantitative Reasoning)	
MATH 1316	Plane Trigonometry	
WLDG 1430	Introduction to Gas Metal Arc (GMAW) Welding	4
	Semester Credit Hours	7
Semester #3 (Summer)		
WLDG 1421	Introduction to Welding Fundamentals	4
WLDG 1412	Introduction to Flux Cored Arc Welding (FCAW)	4
	Semester Credit Hours	8
Semester #4		
WLDG 1457	Intermediate Shielded Metal Arc (SMAW) Welding	4
Life and Physical Sciences (http://coursecatalog.cor navigating-the-pathway/academic-transfer-programs/#corecurriculumte	Select from Core Curriculum	4
	Semester Credit Hours	8
Semester #5		
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding	4
WLDG 1435	Introduction to Pipe Welding	4
	Semester Credit Hours	8
Semester #6 (Summer)		
WLDG 2451	Advanced Gas Tungsten Arc (GTAW) Welding	4
	Semester Credit Hours	4
Semester #7		
Language, Philosophy and Culture/Creative Arts (http://coursecatalog.com.edu/navigating-the-pathway/academic-transfer-programs/#corecurriculumtext)	Select from Core Curriculum	3
WLDG 2406	Intermediate Pipe Welding	4
	Semester Credit Hours	7
Semester #8		
WLDG 2413	Welding Using Multiple Processes	4
Social/Behavioral Sciences (http://coursecatalog.com.edu/navigating-the-pathway/academic-transfer-programs/#corecurriculumtext)	Select from Core Curriculum	3
	Semester Credit Hours	7
Semester #9 (Summer)		
WLDG 2453	Advanced Pipe Welding	4
	Semester Credit Hours	4
	Total Semester Credit Hours	60