Welding Technology

Welding is a cornerstone of our global infrastructure, playing an essential role in the creation of nearly everything we encounter in our daily lives. As one of the most sought-after trades, skilled welders are needed across a wide range of industries, from welding fabrication and repair shops to the aerospace sector.

Our welding program is designed to guide you through your educational journey with three certificate levels and an Associate Degree for those pursuing a traditional college degree. Each level is structured to build upon the previous one, ensuring you gain relevant skills without taking unnecessary courses.

- **Basic Certificate**: This two-semester program provides a strong foundation for entry-level welding jobs, equipping you with the essential skills needed to advance in the field.
- **Intermediate Certificate**: Completed in the third semester, this course focuses on pipe welding, enhancing your expertise and preparing you for more specialized roles.
- **Advanced Certificate**: In your fourth semester, you'll master the lucrative skill of TIG welding, with a strong emphasis on TIG pipe welding, making you a valuable asset in the job market.

Our Associate Degree can also be achieved within four semesters, allowing you to integrate required core courses throughout your studies.

Graduates of our program can find job opportunities worldwide, depending on their willingness to travel or relocate. Many choose to stay in East Texas, where a variety of rewarding local employment options await.

Program Learning Outcomes (PLO)

PLO 1: Students will know how to Identify Welding Electrodes for all Processes.
PLO 2: Students will apply appropriate skills to visually point out Discontinuities in weld samples.
PLO 3: Students will know how to Read a Tape Measure accurately to 1/16th.
PLO 4: Students will apply skills to Weld 2G Bevel Pipe coupon and Pass visual and Destructive Testing.
PLO 5: Students will apply critical thinking skills to Fabricate and weld a project using a Print and GTAW.

Courses Measuring the Achievement of Program Learning Outcomes

Course	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5
WLDG 2413	X				
WLDG 2413		X			
WLDG 2413			X		
WLDG 2406				X	
WLDG 2451					X

WELDING TECHNOLOGY RECOMMENDED ACADEMIC PLAN

1ST YEAR, 1ST SEMESTER			Credit Hours	✓
Term 1				
WLDG	1428	INTRODUCTION TO SHIELDED METAL ARC WELDING (SMAW)	4	☐
WLDG	1457	INTERMEDIATE SHIELDED METAL ARC WELDING (SMAW)	4	☐
STSU	0300	STUDENT SUCCESS	0	☐
Term 2				
WLDG	1313	INTRODUCTION TO BLUEPRINT READING FOR WELDERS	3	☐
SOCI	1301	INTRODUCTION TO SOCIOLOGY	3	☐
			14	☐

1ST YEAR, 2ND SEMESTER				
Term 1				
WLDG	2443	ADVANCED SHIELDED METAL ARC WELDING (SMAW)	4	☐
WLDG	2413	INTERMEDIATE WELDING USING MULTIPLE PROCESSES	4	☐
Term 2				
WLDG	1337	INTRODUCTION TO WELDING METALLURGY	3	☐
MUSI	1310	MUSIC APPRECIATION	3	☐
✹ ***Earned:***		***Level 1 Certificate in Welding Technology - Basic***	**14**	☐

☞ ***Apply for Graduation***

2ND YEAR, 1ST SEMESTER				
Term 1				
WLDG	1435	INTRODUCTION TO PIPE WELDING	4	☐
WLDG	2406	INTERMEDIATE PIPE WELDING	4	☐
Term 2				
WLDG	2432	WELDING AUTOMATION (SUMMER SEMESTER)	4	☐
PHYS	1305	PHYSICS	3	☐
✹ ***Earned:***		***Level 1 Certificate in Welding Technology - Intermediate***	**15**	☐

☞ ***Apply for Graduation***

2ND YEAR, 2ND SEMESTER				
Term 1				
WLDG	2453	ADVANCED PIPE WELDING	4	☐
WLDG	2451	ADVANCED GAS TUNGSTEN ARC WELDING (GTAW)	4	☐
Term 2				
WLDG	2355	ADVANCED WELDING METALLURGY	3	☐
SPCH	1318	INTERPERSONAL COMMUNICATIONS	3	☐
ENGL	1301	COMPOSITION I	3	☐
			17	
✹ ***Earned:***		***Level 2 Certificate in Advanced Welding Technology and Associate of Applied Science in Welding Technology***	**Total Hours** **60**	☐