WELDING TECHNOLOGY

Program Description:

The increased demand for certified welders has generated a need to offer in-depth training and lab experiences necessary for the development of combination and advanced welding skills required for certification in multiple areas. The Welding Technology program is designed to meet those objectives. Students will be trained in Shielded Metal Arc Welding (SMAW), Gas Tungsten Arc Welding (GTAW), Gas Metal Arc Welding (GMAW), and Pipe Welding.

The Welding Technology program is designed to provide hands-on training in the lab. Students who successfully accomplish welding skills in accordance with established proficiency standards will be eligible to earn various American Welding Society certifications. Classes are scheduled to accommodate area high school students who would like to attend the program for concurrent credit which awards both high school and college credit. The one-year technical certificate program may be continued to an Associate of Applied Science in General Technology degree. Individuals who desire only a Certificate of Proficiency in welding may complete the 10 credit hours indicated with an asterisk (*) in the suggested schedule below.

The program length for a full-time student is two (2) semesters and one (1) summer term. Estimated costs for the program are approximately $4,675 for tuition and fees and approximately $1,975 for books and supplies. *Tests for welding certifications are in addition to the tuition and fees and are based on the type of test being taken.*

Student Learning Outcomes

Successful completers of this program will be able to:

- demonstrate proper oxy-fuel cutting process (OFC), and torch adjustments, with emphasis on safety.
- demonstrate the ability to produce sound and discontinuity-free welds, with the Shielded Metal Arc process (SMAW) in the 1G, 2G, 3G, and 4G positions.
- demonstrate the ability to produce quality welds in all positions using the Gas Metal Arc process (GMAW).
- demonstrate the ability to produce quality welds in all positions using the Gas Tungsten Arc process (GTAW).
- demonstrate the ability to produce sound and discontinuity-free welds on pipe using both the SMAW and STAW process in the 2G, 5G, and 6G positions.

GRADUATION REQUIREMENTS (Suggested Schedule)

		Semester 1	**Credit Hours**
WELD	1103	Blueprint Reading	3
WELD	1115	*Basic Welding	5
WELD	1215	*SMAW (Shielded Metal Arc Welding)	5
MAT	1203	Technical Mathematics **OR**	3
MAT	2213	**Advanced Industrial Math	
		***Courses required for Welding Certificate of Proficiency**	**(10)**
		Semester 2	
WELD	1315	GTAW (Gas Tungsten Arc Welding)	5
WELD	1415	GMAW (Gas Metal Arc Welding)	5
COM	1203	Technical Communications **OR**	3
ENGL	1013	**Composition I	
CFA	1103	Tech Computer Fundamentals **OR**	3
CIS	1013	**Introduction to Computer-based Systems	
		Semester 3	
WELD	1513	Pipe Welding	3
COM	1102	Employability Skills/Ethics **OR**	2
WELD	1401	Welding Lab I **AND** WELD 1501 Welding Lab II	2
		Exit: Welding Technology Technical Certificate	**37**

****Required for Associate Degree**