

# WELDING, C.A.S.

The **Certificate of Applied Science in Welding** prepares graduates for the variety of opportunities in different industries, such as construction, oil & gas industry, and many more. Welding is the backbone of the world and is an essential component in many industries and art forms. Buildings, cars, planes and machines are just a few instances of where welding is utilized. Due to a consistent demand for certified welders, there is potential to experience stability and progress throughout your career.

Coursework involves physical mastery of the many facets of the field as well as the practical knowledge needed to pass the certification exams. By the time you have completed the program, students learn techniques in multiple areas of the industry. Below is a list of the 4 main welding techniques utilized most and students have the opportunity to become AWS certified in each.

- Metal arc welding, both gas and shielded
- Flux cord and gas tungsten arc welding
- Reading and interpretation of blueprints
- Welding tool and equipment maintenance

## Milestone Course

These courses are the keys to graduation and certification. Courses should be taken in the recommended semesters to stay on time for completion.

## Career Planning

- Plant maintenance jobs
- Pipeline welders
- Field and shop welders
- Mobile welders
- Pipe fitters in local fabrication shops

Each career listed above provides an opportunity to make an average wage of \$12.90 - \$27.33/hour.

Students should average 15 credit hours per semester, or 30 per year, to graduate on time.

### Total Degree Credits: 30

Course	Title	Hours
<b>Semester 1</b>		
COLL 101	ORIENTATION TO COLLEGE	1
MTEC 102	INTRODUCTORY CRAFT SKILLS <sup>1,2</sup>	2
WELD 111	BASIC OXYACETYLENE WELDING	3
WELD 171	WELDING THEORY	1
WELD 160	WELDING BLUEPRINT READING	2
WELD 121	BASIC SHIELDED METAL ARC(SMAW)	3
Quantitative Reasoning ( <a href="https://wvup-public.courseleaf.com/programs-study/general-education-mission/#qr">https://wvup-public.courseleaf.com/programs-study/general-education-mission/#qr</a> ) (Math 125 Preferred)		3-4
<b>Hours</b>		<b>15-16</b>
<b>Semester 2</b>		
WELD 131	BASIC GAS TUNGSTEN ARC (GTAW) <sup>1,3</sup>	3
WELD 133	BASIC FLUX CORE ARC WELD(FCAW) <sup>1,3</sup>	3
WELD 134	BASIC GAS METAL ARC WELD(GMAW) <sup>1,3</sup>	3
WELD 279	WELDING INSPECTION	2
Writing and Rhetoric ( <a href="https://wvup-public.courseleaf.com/programs-study/general-education-mission/#wr">https://wvup-public.courseleaf.com/programs-study/general-education-mission/#wr</a> ) (ENGL 107 Preferred)		3
Free Elective		1
<b>Hours</b>		<b>15</b>
<b>Total Hours</b>		<b>30-31</b>

- <sup>1</sup> Milestone Course
- <sup>2</sup> NCCER Core
- <sup>3</sup> AWS Certificate

**Degree requires a total of 30 credit hours. [ Core Course Credit Hours : 7 ]**

Code	Title	Hours
<b>Core Courses</b>		
COLL 101	ORIENTATION TO COLLEGE <sup>1</sup>	1
	Writing and Rhetoric ( <a href="https://wvup-public.courseleaf.com/programs-study/general-education-mission/#wr">https://wvup-public.courseleaf.com/programs-study/general-education-mission/#wr</a> )	3
	Quantitative Reasoning ( <a href="https://wvup-public.courseleaf.com/programs-study/general-education-mission/#qr">https://wvup-public.courseleaf.com/programs-study/general-education-mission/#qr</a> )	3
<b>Program Courses</b>		
MTEC 102	INTRODUCTORY CRAFT SKILLS	2
WELD 111	BASIC OXYACETYLENE WELDING	3
WELD 171	WELDING THEORY	1
WELD 160	WELDING BLUEPRINT READING	2
WELD 121	BASIC SHIELDED METAL ARC(SMAW)	3
WELD 131	BASIC GAS TUNGSTEN ARC (GTAW)	3
WELD 133	BASIC FLUX CORE ARC WELD(FCAW)	3
WELD 134	BASIC GAS METAL ARC WELD(GMAW)	3
WELD 279	WELDING INSPECTION	2
	Free Elective	1
<b>Total Hours</b>		<b>30</b>

<sup>1</sup> Institutional Graduation Requirement.