

## Special Alloy Welding, Certificate

### School of Technology

The Special Alloy Welding Certificate program is an opportunity for students to earn additional credentials for those who intend to seek employment in fields including but not limited to: energy, pressure vessel, petro-chemical, automotive, research, etc. Students will study the theory, metallurgy, and participate in hands-on advanced procedures welding Special Alloys both manually and robotically. Welding health and safety will be presented in its own course, and incorporated into all welding classes.

### Career Opportunities

Students completing the Special Alloy Welding Certificate will earn credentials to aid in employment in fields that utilize special alloys and robotic welding. These fields include but are not limited to; energy, pressure vessel, petro-chemical, automotive, research, etc.

### Program Learning Outcomes

Upon successfully completing this program, students will be able to:

- Demonstrate Proper Health and Safety Procedures, with an emphasis on ANSI recommendations and OSHA requirements
- Identify proper joint selection, filler metal selection, and weld
- chemistries of Special alloys
- Weld Special alloy plate in all positions using GTAW
- Weld Special alloy pipe in 6G position using GTAW
- Properly Prepare weld specimens for welding
- Program and Weld using welding robot
- Develop the troubleshooting skills on welding robots
- Read and work with industry blueprints

Seq #	Course ID	Course Title	Cr.	Term Offered	Prereq(s)	Options Available
1	WEL 125	Intro to Welding	4	F, Sp, Su		
2	WEL 212	Welding Health & Safety	3	F, Sp		
3	WEL 227	GTAW	4	F, Sp	WEL 125	
4	WEL 229	Special Alloy Welding	4	F	WEL 227	
5	WEL 232	Robotic Welding	4	Sp	WEL 125	
6	WEL 231	Special Alloy Pipe Welding	4	Sp	WEL 229	

Total Program Credits

23