

WELDING ALUMINUM ONLY, PATHWAY CERTIFICATE

Program Description

The Aluminum Only Pathway Certificate program is designed to provide study in the areas of Aluminum Fabrication to prepare students for entry-level employment in the Aluminum Manufacturing industry. Related occupations for this program certificate would include; boat manufacturing, aerospace and aviation, viticulture and brewing, petrochemical and LNG production.

Program Outcomes

Students who successfully complete the Welding Pathway Certificate will:

- Apply fundamentals of aluminum welding, including the basics of common joining processes, cutting and gouging, measurement, fabrication, repair, material identification, and visual acceptance criteria
- Interpret and apply basic elements of blueprints such as line type identification, symbols, notes, 2D and 3D interpretation, dimensioning and measurement
- Demonstrate a knowledge and understanding of safe working conditions, as well as, safety in handling materials, equipment, and personal protective equipment
- Identify basic components of welding systems and welding processes, proper machine setup, and demonstrate trouble shooting when visual acceptance criteria of a weldment has not been met

Career Considerations

Aluminum is the metal of the future. It is 1/3 the weight of steel, has excellent strength to weight ratio, is virtually corrosion resistant, and 100% recyclable. These material properties and many more are making Aluminum the choice metal for future engineering applications around the world, and the Aluminum Only Pathway Certificate prepares students for entry-level jobs and future careers in the following areas:

- Boat builders
- Fabrication
- Aerospace & Aviation
- Tool & Die makers
- Quality Control
- Inspection
- Trucking & Transportation equipment
- Welding Sales
- Automotive Industries

Program Course Requirements

Course	Title	Credits
First Year		
First Term		
WLD 101	Welding Processes-Apps	4
		Credits
		4
Second Term		
MTH 052	Industrial Applications-MTH	4

WLD 140	Blueprint Reading	3
		Credits
		7
Third Term		
WLD 150	GTAW I	3
WLD 160	Aluminum Arc Welding I	3
		Credits
		6
Second Year		
First Term		
WLD 261	Aluminum Arc Welding II	3
		Credits
		3
Second Term		
WLD 262	Aluminum Arc Welding III	3
		Credits
		3
		Total Minimum Credits
		23

Program Entrance Requirements

- A construction background or prior welding experience are helpful but not a requirement.
- Students with a criminal record are strongly urged to research employability before entering the welding program. If students enter the program with a felony conviction, they should disclose this information to their welding advisor and any Cooperative Work Experience (CWE) employer.