

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:

1. Apply fundamentals of aluminum welding, including the basics of common joining processes, cutting and gouging, measurement, fabrication, repair, material identification, and visual acceptance criteria
2. Interpret and apply basic elements of blueprints such as line type identification, symbols, notes, 2D and 3D interpretation, dimensioning and measurement
3. Demonstrate a knowledge and understanding of safe working conditions, as well as, safety in handling materials, equipment, and personal protective equipment
4. 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

First Year		
First Term		Credits
WLD 101	Welding Processes-Apps	4
Credits		4
Second Term		
WLD 140	Blueprint Reading	3
Credits		3

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		19

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.