

## WELDING

### Aluminum Only Pathway Certificate

#### PROGRAM MISSION

The Aluminum Only Pathway Certificate enriches our community with access to modern and up to date welding education that meets or exceeds industry standards.

#### 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. Exhibit "soft skills" such as; timeframe awareness, follow-through and completion of work, positive interactions with fellow classmates, good communication, positive attitude, and good work ethics
4. Demonstrate a knowledge and understanding of safe working conditions, as well as, safety in handling materials, equipment, and personal protective equipment

#### 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

##### Year One

MTH 052	Industrial Applications of Math	4
WLD 101	Processes & Applications	4
WLD 140	Blueprint Reading	3
WLD 150	GTAW – I	3
WLD 160	Aluminum Arc Welding & Fab - I	3
WLD 261	Aluminum Arc Welding & Fab - II	3
WLD 262	Aluminum Arc Welding & Fab - III	3

**Total Credits 23**

#### PROGRAM ENTRANCE REQUIREMENTS

##### Academic Entrance Requirement

Recommended:

- 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 Human Service field. If students enter the program with a felony conviction, they should realize the impact on employment. Background checks are a requirement.