

Career and Technical Education

Area of Study: Industrial Trades & Technology

Career Pathway: Welding

Get the Facts:

A welder is a skilled professional specializing in fusing materials to the Welding Procedure Specification (WPS) listed for the job at hand. Welders usually work with metals such as steel or aluminum; some work with thermoplastics or ceramics. Certifications are available through American Welding Society (AWS) and Certified Welding Technologies (CWT) .

Workforce Trends:

With the continuous need of skilled and knowledgeable employees in the welding industry, this pathway helps provide trained and work-ready employees. With a current annual growth rate of 16.5%, demand in Montana for individuals with welding and fabrication skills continues to increase.

Careers in Welding and Fabrication are:

- High demand, high skill, and high wage

Career Examples:

- Engineer
- Machine Operator
- Precision Inspector
- Microchip
- Manufacturer
- Technician in automated manufacturing
- Communication installer
- CNC Machinist

According to the Montana Department of Labor and Industry, the median hourly wage for occupations within the Manufacturing Career Pathway is \$34.57

Recommended Pathway Courses:

Students may select individual courses for exploration or a complete Pathway for an in-depth focus.

Foundation Courses (required)

- Welding 1-Metalworking .50 credit
- Welding 2- Arc .50/1.0 credit

Elective Courses

- Welding 3-Fabrication 1.0 credit
- IT Industrial Work Experience .50/1.0 credit
- WLD 180-Dual Credit 1.0 credit

College and Career Beyond High School

There are many options for education and training beyond high school, depending on your career goals.

- Certificate
- Associate degree
- Bachelor's degree
- On-the-job training
- Apprenticeship

MCPS Graduation Requirements-High School

- English/Language Arts 4.0 credits
- Mathematics 3.0 credits
- Social Studies 2.0 credits
- Science 2.0 credits
- Health Enhancement 2.0 credits
- Art 1.0 credit
- Career and Technical Education 1.0 credit

Suggested High School Plan of Study

9th Grade

- English 9 1.0 credit
- Math 1.0 credit
- Social Studies .50/1.0 credit
- Earth Science 1.0 credit
- P.E/Health 1.0 credit
- Art Courses 1.0 credit
- Art
- Welding 1 1.0 credit

10th Grade

- English 10 1.0 credit
- Math 1.0 credit
- Social Studies .50/1.0 credit
- Biology 1.0 credit

- P.E./Health 1.0 credit
- Art
- Welding 2 1.0 credit

11th Grade

- English 11 1.0 credit
- Math 1.0 credit
- U.S. History 1.0 Credit
- Science Elective
- P.E./Health Electives
- Art
- Pathway Elective .50 credit

12th Grade

- English 12 1.0 credit
- Math 1.0 credit
- U.S. Government 1.0 credit
- Science Elective
- P.E./Health Electives
- Art
- Pathway Elective .50 credit

Work-Based Learning- Participation in a Pathway-related work-based learning experience
 Career and Technical Student Organization- Skills USA