

# WELDING TECHNOLOGY A.A.S.

Zach Reddig, Director

The mission of the Welding Technology Program is to provide the regional workforce with credentialed, skilled, and competent welders and to be responsive to emerging workforce needs. The Welding Technology Program prepares students to operate and troubleshoot a variety of welding power sources and related equipment. The program prepares students to solve problems using computational skills and other problem-solving techniques essential to welding and steel fabrication. It also encourages the development of the teamwork and interpersonal skills required on the job.

Welding students develop skills in six different welding processes: oxyacetylene (OAW), shielded metal arc (SMAW), gas metal arc (GMAW), flux core arc, (FCAW), submerged arc (SAW), and gas tungsten arc welding (GTAW). Students also develop additional skills, such as blueprint reading and layout, metallurgy, and gain an understanding of how heating and cooling cycles affect the properties of metals. Students also study the design of jigs and fixtures and how to incorporate these into an automated welding system.

Courses such as Computer Aided Design and Drafting (CADD), OSHA Rules and Compliance, and Related Metals Processes provide for a solid background in the metals industry. Fabrication basics and Metal Design and Construction utilize all of the gained knowledge in an instructor-approved/student-designed project.

Welding technology students have the opportunity to become certified to American Welding Society Standards and receive documentation stating qualifications.

Students are awarded the Certificate of Applied Science upon successful completion of the first year of the Welding Technology program. Students are awarded the Associate of Applied Science degree upon successfully completing the two-year program.

The program often has a waiting list. For more detailed information, visit our web site or contact Zach Reddig, Program Director, at 406-243-7644 or by email.

## Associate of Applied Science - Welding Technology

### Missoula College

Degree Specific Credits: 62

Required Cumulative GPA: 2.0

### Catalog Year: 2018-2019

| Code | Title                       | Hours |
|------|-----------------------------|-------|
|      | First Year Welding Program  | 35    |
|      | Second Year Welding Program | 27    |
|      | Total Hours                 | 62    |

### First Year Welding Program

| Code  | Title                          | Hours |
|---|--------------------------------|-------|
| <b>Complete all of the following courses:</b> |                                |       |
| CAPP 120                                      | Introduction to Computers      | 3     |
| COMX 102                                      | Interprsnl Skills in Workplace | 1     |
| M 111   | Technical Mathematics          | 3     |
| MCH 114                                       | Related Metals Processes II    | 3     |
| WLDG 117                                      | Blueprint Rdng & Weldng Symbls | 3     |
| WLDG 145                                      | Fabrication Basics             | 4     |
| WLDG 150                                      | Welding Layout Techniques      | 2     |
| WLDG 180                                      | Shielded Metal Arc Welding     | 4     |
| WLDG 184                                      | OSHA Rules & Regulations Wldng | 1     |
| WLDG 187                                      | Flux Core Arc Welding          | 4     |
| WLDG 205                                      | Applied Metallurgy             | 4     |
| WRIT 121                                      | Intro to Technical Writing     | 3     |
| Total Hours                                   |                                | 35    |

Minimum Required Grade: C-

### Second Year Welding Program

| Code  | Title                         | Hours |
|---|-------------------------------|-------|
| <b>Complete all of the following courses:</b> |                               |       |
| BMGT 242                                      | Front Line Supervision        | 3     |
| DDSN 114                                      | Introduction to CAD           | 3     |
| WLDG 210                                      | Pipe Welding - Integrated Lab | 4     |
| WLDG 215                                      | GTAW (integrated lab)         | 4     |
| WLDG 245                                      | Metal Fab Design/Construction | 4     |
| WLDG 275                                      | Gas Metal Arc Welding         | 4     |
| WLDG 280                                      | Weld Testing Certification    | 2     |
| WLDG 285                                      | Automation in Welding         | 3     |
| Total Hours                                   |                               | 27    |

Minimum Required Grade: C-