

# Associate in Applied Science in Welding Technology

## Program Overview

Upon completion of this degree, students will have highly marketable advanced welding skills along with industrial robot programming and quality control skills.

## To Learn More About This Program

Contact Dan Miles at 269-687-5654 or [dmiles01@swmich.edu](mailto:dmiles01@swmich.edu).

## Degree Requirements

To earn this degree, students must have an overall GPA of 2.0 or higher, complete a minimum of 60 credit hours, and fulfill the course requirements of the program listed below. Students are permitted to complete a higher-level math course than shown below. Each general education course, prerequisite course, internship, and capstone course must be completed with a final grade of C or better.

## Course Offerings

Students pursuing an Associate in Applied Science in Welding Technology may complete select courses for this program online. Courses within this program may also be offered on-site at our Niles campus.

## General Education Courses

### COMMUNICATIONS

Course ID	Course	Credits
ENGL 103 or ENGL 103W	Freshman English 2 (or with workshop)	3 to 4 credits
SPEE 102	Fundamentals of Public Speaking	3 credits

### MATHEMATICS

Course ID	Course	Credits
MATH 128	Contemporary Mathematics	4 credits

Total Program Credits: 60

## Major-Specific Required Courses

Course ID	Course	Credits
EDUC 120	Educational Exploration and Planning	1 credit
CADD 103	Blueprint Reading/Engineering Graphics I	4 credits
INTE 159	Hydraulics and Pneumatics	3 credits
INTE 227	Industrial Robotics	2 credits
INTE 237	Industrial Robotic Welding	2 credits
INTE 255	Internship	3 credits
ISYS 110	Introduction to Computer Technology	3 credits
WELD 113	Trade Mathematics-Welding	3 credits
WELD 159	Basic Welding	2 credits
WELD 168	Welder Certification Preparation	2 credits
WELD 169	GMAW/MIG Welding	4 credits
WELD 175	GTAW/TIG Welding	4 credits
WELD 180	SMAW/Stick Welding	4 credits
WELD 200	Advanced Welding	3 credits
WELD 265	Thermal Cutting Processes	2 credits
WELD 277	Welding Fabrication and Maintenance Repair	2 credits
WELD 280	Metallurgy, Testing, and Inspection	3 credits
WELD 287	Fabrication and Maintenance II	3 credits

## Additional Notes About the A.A.S. in Welding Technology Program

- A prerequisite course may be needed prior to enrollment in some courses within this program. Specific prerequisite requirements are listed in the Course Description section in the Course Catalog. A summary of the prerequisites is listed below in the Example Course Sequence.
- This program as outlined does not meet MTA requirements. A student would need two different science courses (one with a lab), two different social science courses, and two different humanities courses. If interested in the MTA, students should seek help from an advisor for course selection.
- **Courses taken out of sequence may delay a student's ability to complete the program in a timely manner. Please consult your advisor regularly.**
- Each student should submit a graduation application at least one full semester before they plan to graduate.
- This program is subject to change. Students should consult with their advisor for program updates.

## Example Course Sequence

The following is a sample of a semester-by-semester approach to completing this program.

### FIRST SEMESTER

Courses	Credits	Prerequisites (Minimum Grade of C Required)
EDUC 120 Educational Exploration and Planning	1 credit	ENGL 115, ENGL 103W, ENGL 103, ENGL 104, or test score (concurrent enrollment in ENGL 115 allowed)
WELD 113 Trade Mathematics-Welding	3 credits	Test score
WELD 159 Basic Welding	2 credits	None
WELD 180 SMAW/Stick Welding	4 credits	WELD 159 (concurrent enrollment allowed)
WELD 265 Thermal Cutting Processes	2 credits	None
WELD 280 Metallurgy, Testing, and Inspection	3 credits	WELD 159 (concurrent enrollment allowed)

### SECOND SEMESTER

Courses	Credits	Prerequisites (Minimum Grade of C Required)
WELD 168 Welder Certification Preparation	2 credits	WELD 159
WELD 169 GMAW/MIG Welding	4 credits	WELD 159
WELD 175 GTAW/TIG Welding	4 credits	WELD 159
WELD 277 Welding Fabrication and Maintenance Repair	2 credits	WELD 113; WELD 159; WELD 169; WELD 175; WELD 265 (concurrent enrollment in WELD 113, 169, and 175 allowed)

### SUMMER SEMESTER

Courses	Credits	Prerequisites (Minimum Grade of C Required)
INTE 255 Internship	3 credits	Completion of welding certificate; recommendation of program advisor

### THIRD SEMESTER

Courses	Credits	Prerequisites (Minimum Grade of C Required)
CADD 103 Blueprint Reading/Engineering Graphics I	4 credits	None
INTE 227 Industrial Robotics	2 credits	None
ISYS 110 Intro to Computer Technology	3 credits	None
MATH 128 Contemporary Mathematics	4 credits	MATH 101, MATH 102, AUTO 113, CONS 113, WELD 113, or test score
WELD 200 Advanced Welding	3 credits	WELD 277

### FOURTH SEMESTER

Courses	Credits	Prerequisites (Minimum Grade of C Required)
ENGL 103 or ENGL 103W Freshman English 2 (or with workshop)	3 to 4 credits	ENGL 103W: Test score ENGL 103: ENGL 115 or test score (concurrent enrollment allowed)
INTE 159 Hydraulics and Pneumatics	3 credits	MATH 101, MATH 102, WELD 113 or test score placing into MATH 127, 128, 150 or higher (concurrent enrollment allowed)
INTE 237 Industrial Robotic Welding	2 credits	INTE 227; WELD 159
SPEE 102 Fundamentals of Public Speaking	3 credits	None
WELD 287 Fabrication and Maintenance II	3 credits	WELD 277