

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 or Atticus Weed at 269-687-5646 or aweed@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 English test score (Level 2 or higher); concurrent enrollment in ENGL 115 allowed
WELD 113 Trade Mathematics-Welding	3 credits	None
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	AUTO 113, CONS 113, or WELD 113, Math test score (Level 3 or higher), or concurrent enrollment in MATH 128C
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: English test score (Level 2 or higher) ENGL 103: ENGL 115 or English test score (Level 3); concurrent enrollment in ENGL 115 allowed
INTE 159 Hydraulics and Pneumatics	3 credits	None
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