



## **Welding Technology A.A.S.**

Curriculum Code: 0186

Effective: Fall 2020 – Summer 2025

### **Description**

Welding is many processes of fusion, adhesion, and cutting to fabricate or repair products used in manufacturing, research and application. A welding technician could also qualify for welding inspection where welding codes are applied. A welder is a skilled craftsman with a basic knowledge of metals, applied mathematics, blueprint reading, good eyesight, self-discipline and a respect for safety. A welder also needs to work well with his/her hands and have good manual coordination. Many hours of practice and proper training in the basics of MIG, TIG, shielded metal arc, brazing and oxy-fuel cutting, and plasma cutting are necessary. Welders can be found in tool and die industries, automakers, construction, oil refineries, pipelines and pressure vessels, aircraft industries and many more metal-related industries. Not all courses in this program transfer to all colleges. Students planning to transfer should see an academic advisor before enrolling in any course.

### **Additional Information**

Students who have already completed DCTM 102, ELTE 102, HVAC 102, or METS 102 with a grade of 2.0 or higher may substitute one of these courses for WELD 102. Any of these courses may also be used to fulfill the prerequisite for METS 140 and ELTE 108/109

### **Contact Information**

Contact the Center for Manufacturing Excellence at the West Campus Building, 5708 Cornerstone Drive, Lansing MI 48917, Room M103, telephone number 517-483-1104 or by [email](mailto:manufacturing@lcc.edu) (manufacturing@lcc.edu).

### **General Education - Applied Degree, Recommended Choices**

(For the full list of options, see [General Education](#))

- English Composition – *Select one*  
ENGL 124, Technical Writing, 3 credits / 3 billing hours
- English Composition (Second Course)/Communications or Applied Communications – *Select one*  
COMM 110, Communication in the Workplace, 3 credits / 3 billing hours
- Humanities and Fine Arts or Social Sciences or Applied Social Sciences – *Select one*  
MGMT 234, Diversity in the Workplace, 3 credits / 3 billing hours
- Mathematics or Applied Mathematics – *Select one*  
MATH 115, Technical Math II, 4 credits / 4 billing hours
- Natural Sciences Lab or Applied Science and Technology Lab – *Select one*  
Program of Study Required Courses will meet this requirement.

## Program of Study Required Courses

Course Code	Course Title	Credit / Billing Hours
METM 108	Machine Tool Operations	4 / 6
METM 190	Metallurgy and Heat Treatment	4 / 6
METS 140	Rigging	3 / 4.5
WELD 102	Industrial/Construction Safety	2 / 3
WELD 103	Combination Welding	4 / 6
WELD 105	Advanced ARC Welding	4 / 6
WELD 110	Gas Metal ARC Welding	4 / 6
WELD 111	Gas Tungsten ARC Welding	4 / 6
WELD 125	Structural Blpt Reading/ Weld	2 / 2
WELD 201	Tool and Die Welding	3 / 4.5
WELD 205	Pipe Welding	4 / 6
WELD 220	Structural Fab & Inspection	4 / 6

## Program of Study Required Courses – Limited Choices Courses – *Select a minimum of two courses and 5 credits*

Course Code	Course Title	Credit / Billing Hours
ELTE 108	Practical Electricity I	2 / 3
ELTE 109	Practical Electricity II	2 / 3
METM 100	Manufacturing Processes	3 / 4.5
WELD 115	Robotic MIG Welding	3 / 4
WELD 250	Welding Internship	3 / 3

## Total Credit Hours

60-61 credits / 81-83.5 billing hours

## Recommended Course Sequence

Semester I	Semester II
METM 108	METM 190
METS 140	WELD 105
WELD 102	WELD 111
WELD 103	WELD 125
WELD 110	

Semester III	Semester IV
Gen Ed – English Composition	Gen Ed – English Composition (Second Course)/
Gen Ed – Mathematics or Applied	Communications or Applied Communications
Mathematics	Gen Ed – Humanities and Fine Arts or Social
WELD 201	Sciences or Applied Social Sciences
WELD 220	WELD 205
Limited Choice	Limited Choice