

LANSING COMMUNITY COLLEGE

CURRICULUM GUIDE

Welding Technology
Associate in Applied Science Degree

Curriculum Code: 0186 (Effective Fall 2011 – Summer 2016)

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 craftsperson 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, auto makers, 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.

PREREQUISITES

Students should see *Course Descriptions* or *Course Offerings* for course prerequisite information. See the *Assessment and Placement Testing* section for skills assessment and advising information.

INFORMATION

Contact the Applied Manufacturing Technologies Program, West Campus Building, Room M103, telephone number (517) 483-5338 (Website: www.lcc.edu/manufacturing/welding/) or Student Services West Campus, West Campus Building, Room M106, telephone number (517) 267-5452.

REQUIREMENTS (See Note 1)

CODE	TITLE	TOTAL: 59 CREDITS CREDIT HOURS
MATH 114	Technical Math I	4
MATH 115	Technical Math II	4
METM 110	Intro to Precision Machining (See Note 1)	4
METM 190	Metallurgy and Heat Treatment	4
METS 140	Rigging (See Note 2)	3
MGMT 234	Diversity in the Workplace	3
SPCH 110	Oral Comm in the Workplace	3
WELD 102	Industrial/Construction Safety (See Note 2)	2
WELD 103	Combination Welding	4
WELD 105	Advanced ARC Welding	4
WELD 110	Gas Metal ARC Welding	4
WELD 111	Gas Tungsten ARC Welding	4
WELD 120	Structural Fab & Inspection	4
WELD 125	Structural Blpt Reading/Weld	2
WELD 201	Tool and Die Welding	3
WELD 205	Pipe Welding	4
WRIT 124	Technical Writing	3

LIMITED CHOICE REQUIREMENTS**TOTAL: 6 CREDITS**Complete the indicated number of credits from **EACH CHOICE** listed below.**CHOICE 1: General Education Core Areas****0 Credits**(See *General Education Core Requirements* for information on how to fulfill these requirements.

Core area proficiency exams, where appropriate, are available for each core area.)

Communication Core Area (See Note 3)	0
Global Perspectives and Diversity Core Area (See Note 3)	0
Mathematics Core Area (See Note 3)	0
Science Core Area (See Note 3)	0
Writing Core Area (See Note 3)	0

CHOICE 2: Technical Related**6 Credits**

ELTE 110	Practical Electricity (See Note 2)	3
METM 100	Manufacturing Processes	3
WELD 115	Robotic MIG Welding	3
WELD 250	Welding Internship	3

MINIMUM TOTAL**65****NOTES:**

1. Basic mechanical drafting skills are necessary for this course and may be demonstrated by a score of 80% or better on the Drafting Placement Test or by passing METD 100 with a 2.0 minimum grade.
2. Students who have already completed 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 four courses may also be used to fulfill the prerequisite for ELTE 110 and METS 140.
3. Students completing "REQUIREMENTS" have fulfilled the requirements for this Core area.

SUGGESTED COURSE SEQUENCE

Students should see course descriptions to find out when departments plan to offer courses. Students who for any reason are unable to follow the course sequence suggested below (for example, those who are part-time, have transferred in courses from another school, or have prerequisites to fulfill) should contact an academic advisor for help with adjustments.

I	II	III	IV
MATH 114	MATH 115	SPCH 110	MGMT 234
METM 110	METM 190	WELD 111	WELD 120
METS 140	WELD 105	WELD 125	WELD 201
WELD 102	WELD 110	WELD 205	Lim.Ch.2
WELD 103	Lim.Ch.2	WRIT 124	