

LANSING COMMUNITY COLLEGE

CURRICULUM GUIDE

Welding Technology
Associate in Applied Science Degree

Curriculum Code: 0186 (Effective Fall 2008 – Summer 2013)

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, 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 or counselor 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 Manufacturing Engineering Technologies Department, West Campus Building, Room M103, telephone number (517) 483-1339 (Website: www.lcc.edu/manufacturing/welding/) or Student Services West Campus, West Campus Building, Room M106, telephone number (517) 267-5510.

REQUIREMENTS (See Notes 1 and 2)

CODE	TITLE	TOTAL: 61 CREDITS CREDIT HOURS
EMTA 115	First Aid and CPR	2
MATH 114	Technical Math I	4
MATH 115	Technical Math II	4
METM 110	Intro to Precision Machining (See Notes 1 and 2)	4
METM 190	Metallurgy and Heat Treatment	4
METS 100	Maintenance Safety Practices	2
METS 140	Rigging	3
MGMT 234	Diversity in the Workplace	3
SPCH 110	Oral Comm in the Workplace	3
WELD 100	Combination Welding	4
WELD 101	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: 7–8 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**7–8 Credits**

ELTE 100	Electrical Safety Practices	1
ELTE 110	Practical Electricity	3
METM 100	Manufacturing Processes	4
WELD 250	Welding Internship	3

MINIMUM TOTAL**68****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. Basic computer skills are necessary for this course and may be demonstrated by a score of 80% or better on the PC Applications for Technology Placement Test or by passing METD 105 with a 2.0 minimum grade.
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 or counselor for help with adjustments.

I	II	III	IV
MATH 114	MATH 115	SPCH 110	EMTA 115
METM 110	METM 190	WELD 111	MGMT 234
METS 100	WELD 101	WELD 125	WELD 120
METS 140	WELD 110	WELD 205	WELD 201
WELD 100	Lim.Ch.2	WRIT 124	Lim.Ch.2