LANSING COMMUNITY COLLEGE

CURRICULUM GUIDE

Heating and Air Conditioning
Associate in Applied Science Degree

Curriculum Code: 0836 (Effective Fall 2009 - Summer 2014)

Heating, Ventilating, Air Conditioning and Refrigeration (HVAC/R) technicians work on systems that control temperature, humidity, and air quality of enclosed spaces. They are required to design, install, service, and maintain the various types of equipment used to control human comfort, preservation of food products, critical medical supplies, and computer and mechanical processes in residential, commercial, industrial, and institutional environments. Technicians must have a strong mechanical aptitude, be self-motivated, willing to accept challenges, and have a structured approach to problem solving. They should also have good communication skills, the ability to work well with others, and understand all aspects of the construction trade.

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 Environmental, Design and Building Technologies Department, West Campus Building, Room M103, telephone number (517) 483-5338 or Student Services West Campus, West Campus Building, Room M106, telephone number (517) 267-5510.

REQUIREMENTS — TOTAL: 46 CREDITS

CODE	TITLE	CREDIT HOURS
HVAC 100	Fundamentals of HVAC	3
HVAC 102	Industrial/Construction Safety (See Note 1)	2
HVAC 103	HVAC/R Piping (See Note 1)	2
HVAC 105	Sheet Metal Fab & Installation (See Note 1)	2
HVAC 110	Applied Electricity I (See Note 1)	3
HVAC 111	Applied Electricity II	3
HVAC 120	Heating I	3
HVAC 130	Air Conditioning I	3
HVAC 201	Mechanical Code	4
HVAC 220	Heating II	3
HVAC 221	Introduction to Hydronics	3
HVAC 230	Air Conditioning II	3
HVAC 231	Heat Pump	3
HVAC 240	Refrigeration I	3
HVAC 241	Refrigeration II	3
HVAC 251	Fund of Direct Digital Control	3

LIMITED CHOICE REQUIREMENTS **TOTAL: 22-29 CREDITS**

Complete the indicated number of credits from **EACH CHOICE** listed below.

CHOICE 1: General Education Core Areas **15-21 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	3-4
	Global Perspectives and Diversity Core Area	3-4
	Mathematics Core Area	3-4
	Science Core Area	3-5
	Writing Core Area	3-4

CHOICE 2: Trade Related **7-8 Credits**

AEET 215	Geothermal Technology	3
BLDT 103	Structural Blueprint Reading	4
BLDT 121	Residential Framing	4
WELD 103	Combination Welding (See Note 1)	4

MINIMUM TOTAL **68**

NOTE:

1. Students who have already completed ELTE 102, METS 102, or WELD 102 with a grade of 2.0 or higher may substitute one of these courses for HVAC 102. Any of these four courses may also be used to fulfill the prerequisite for HVAC 103, HVAC 105, HVAC 110 and WELD 103.

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
HVAC 100	HVAC 111	HVAC 201	HVAC 221
HVAC 102	HVAC 120	HVAC 220	HVAC 241
HVAC 103	HVAC 130	HVAC 230	Lim.Ch.1
HVAC 105	Lim.Ch.1	HVAC 240	Lim.Ch.2
HVAC 110	Lim.Ch.1	Lim.Ch.1	
Lim.Ch.1			

V
HVAC 231
HVAC 251
Lim.Ch.2