LANSING COMMUNITY COLLEGE

CURRICULUM GUIDE

Electrical Technology
Associate in Applied Science Degree

Curriculum Code: 0134 (Effective Fall 2011 - Summer 2016)

Students in this program may select either the construction specialty or the machine control and maintenance specialty. Construction electricians install electrical wiring and systems in homes, offices, stores or industrial plants. Machine control designers are responsible for designing control circuits which operate machinery in plants. Maintenance electricians work in industry maintaining and troubleshooting power and control circuits on machinery. Both specialties require mechanical aptitude, logical thinking and problem-solving skills. Employment opportunities vary with each specialty.

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 Utility & Energy Systems Program, West Campus Building, Room M127, telephone number (517) 483-1570 (Website: www.lcc.edu/utility/electrical/) or Student Services West Campus, West Campus Building, Room M106, telephone number (517) 267-5452.

REQUIREMENTS — TOTAL: 39 CREDITS

CODE	TITLE	CREDIT HOURS
ELTE 102	Industrial/Construction Safety (See Note 1)	2
ELTE 110	Practical Electricity (See Note 1)	3
ELTE 111	Intro to Industrial Automation	4
ELTE 112	Basic Wiring Installation	2
ELTE 121	Electrical Mathematics (See Note 1)	5
ELTE 123	Motors and Transformers	5
ELTE 131	Machine Controls I	4
ELTE 141	National Electrical Code I	4
ELTE 145	Electrical Prints for Building	4
ELTE 150	Electric Motor Maintenance	2
ELTE 260	Programmable Controllers I	4

LIMITED CHOICE REQUIREMENTS — TOTAL: 31-36 CREDITS

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

CHOICE 1: General Education Core Areas — 12-17 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 (See Note 2)	0
Science Core Area	3-5
Writing Core Area	3-4

CHOICE 2: Electrical Specialization (Choose one Subchoice)		**19 Credits**
Subchoice 2A: Construction Specialization		
BLDT 103	Structural Blueprint Reading	4
BLDT 121	Residential Framing	4
ELTE 142	National Electrical Code II	4
ELTE 143	National Electrical Code III	4
ELTE 240	Electrical Estimating	3
Subchoice 2B: Machine Control and Maintenance Specialization		
ELTE 122	Industrial Control Electronics	5
ELTE 232	Machine Controls II	4
ELTE 261	Programmable Controllers II	6
METS 130	Industrial Hydraulics (See Note 1)	4
	MINIMUM TOTAL	**70**

NOTES:

1. Students who have already completed HVAC 102, METS 102, or WELD 102 with a grade of 2.0 or higher may substitute one of these courses for ELTE 102. Any of these four courses may also be used to fulfill the prerequisite for ELTE 110, ELTE 121 and METS 130.
2. 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.

Subchoice 2A: Construction Specialty

I	II	III	IV
ELTE 102	ELTE 112	BLDT 103	BLDT 121
ELTE 110	ELTE 121	ELTE 123	ELTE 143
ELTE 111	ELTE 131	ELTE 142	ELTE 240
Lim.Ch.1	ELTE 141	ELTE 145	Lim.Ch.1
Lim.Ch.1	ELTE 150	ELTE 260	Lim.Ch.1

Subchoice 2B: Control and Maintenance Specialty

I	II	III	IV
ELTE 102	ELTE 112	ELTE 123	ELTE 122
ELTE 110	ELTE 121	ELTE 145	ELTE 261
ELTE 111	ELTE 131	ELTE 232	METS 130
Lim.Ch.1	ELTE 141	ELTE 260	Lim.Ch.1
Lim.Ch.1	ELTE 150	Lim.Ch.1	