

**LANSING COMMUNITY COLLEGE
APPRENTICE CURRICULAR GUIDE**

Name	Trade	Construction Electrician
Company	Total Hours	576
State of MI Apprentice Reg. #	Date Revised	August 18, 2010

This is a suggested curricular guide; companies may request modifications.

Course No.	Course Name	Prerequisite	Credits	Clock Hrs
ELTA 101	Electrical Safety	#R-3	1	16
ELTA 105	Electrical Industry Orientation	None	.5	8
ELTA 106	Basic Electrical Calculations	#R-3 & M-3 rec.	2	32
ELTE 110	Practical Electricity	** See notes on pre-requisites below.	3	64
ELTA 120	AC Fundamentals for Electricians	ELTE 110 & (ELTA106 or Math Level 4)	2	48
ELTE 131	Machine Controls I	ELTE 110	4	80
ELTE 141	National Electrical Code I	ELTE 110	4	64
ELTE 145	Electrical Prints for Buildings	ELTE 141	4	80
ELTE 150	Electric Motor Maintenance	ELTE 110	2	48
ELTA 155	Transformer Fundamentals	ELTA120 or ELTE121	1	32
ELTA 160	PLC Overview for Electricians	ELTE 131	1	32
ELTA 180	Intro to Fire Alarms	ELTA160 or ELTE260	1	16
		Subtotals:	25.5	520

ELECTIVES

In order to comply with the US Department of Labor Office of Apprenticeship and State of Michigan Electrical Administrative Board's requirement of a minimum of 576 hours of Related Trade Instruction, apprentices must select courses adding up to a minimum of 72 hours of additional elective course content from the list below.

ELTE 102	Industrial/Construction Safety	#R-3, W-2	2	48
ELTE 112	Basic Wiring Installation	ELTE 110	2	48
ELTE 121	Electrical Mathematics	ELTE 110 and (M-5 OR 2.0 in MATH114 OR 2.0 in MATH107)	5	96
ELTE 122	Industrial Control Electronics	ELTE 121, ELTE 111	5	112
ELTE 123	Motors and Transformers	ELTE 121	5	112
ELTE 132	Control Panel Assembly	ELTE 131, conc.	2	48
ELTE 142	National Electrical Code II	ELTE 141 or Approval	4	64

ELECTIVES (continued)				
ELTE 143	National Electrical Code III	ELTE 142 or Approval	4	64
ELTE 232	Machine Controls II	ELTE 131	4	96
ELTE 240	Electrical Estimating	ELTE 145	3	64
ELTE 260	Programmable Controllers I	ELTE 131	4	96
ELTE 261	Programmable Controllers II	ELTE 260	6	128

Notes on Prerequisites:

- # This course has required basic skill level(s) in reading (R), writing (W) and/or math (M). You will need to take the basic skills tests before you can enroll in this course. For more information on the basic skills tests, you may call (517) 267-5500.
- ** The prerequisites for ELTE 110 include basic skills levels in Reading, Writing and Math and one of several safety classes. It is allowed to take the safety class in the same semester (concurrently) as ELTE 110. The complete list of prerequisites is: *Minimum grade of 2.0 in a safety class (ELTE 100 or ELTA 101 or ELTE 102 or HVAC 102 or METS 102 or WELD 102 or concurrently) and basic skill levels as follows: Reading level 3 and Writing level 2 and (Math level 3 or minimum 3.0 in ELTA106).*

SUGGESTED COURSE SEQUENCE

1ST Year

- ELTA 101 1 cr
- ELTA 105 .5 cr
- ELTA 106 2 cr
- ELTE 110 3 cr

2ND Year

- ELTA 120 2 cr
- ELTE 150 2 cr
- ELTE 141 4 cr

3rd Year

- ELTE 131 4 cr
- ELTE 145 4 cr
- ELTA 160 1 cr

4th Year

- ELTA 155 1 cr
- ELTA 180 1 cr
- ELECTIVE