

LANSING COMMUNITY COLLEGE
APPRENTICE CURRICULAR GUIDE with Math and Theory Options

Name	Trade	Industrial Electrician
Company	Total Hours	576 minimum
State of MI Apprentice Reg. #	Date Revised	May 7, 2014

Course No.		Course Name	Prerequisite	Credits	Clock Hrs
ELTE 102		Industrial/Construction Safety	#R-3	2	48
ELTA 105		Electrical Industry Orientation	None	.5	8
ELTE 110		Practical Electricity	** See notes on pre-requisites below.	3	64
Opt. A	ELTE 121	Electrical Mathematics	ELTE 110 and (M-5 OR 2.0 in MATH114 OR 2.0 in MATH107)	5	96
	ELTE 123	Motors and Transformers	ELTE 121	5	112
Opt. B	ELTA 106	Basic Electrical Calculations	#R-3 & M-3 rec.	2	32
	ELTA 120	AC Fundamentals – Electrician	ELTE 110 & (ELTA106 or Math Level 4)	2	48
	ELTA 155	Transformer Fundamentals	ELTA120 or ELTE121	1	32
	ELTE 150	Electric Motor Maintenance	ELTE 110	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 260		Programmable Logic Controllers I	ELTE 131	4	80
ELTA 180		Intro to Fire Alarms	ELTA160 or ELTE260	1	16
			Subtotals:	28.5	600 to 696
ELECTIVES					
<i>The base program outlined above complies 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. Additional electives may be selected from the list below.</i>					
ELTE 122		Industrial Control Electronics	ELTE 121, ELTE 111	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 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 – Depends on Math and Theory Option

Math and Theory Option A

1ST Year

ELTE 102 2 cr
 ELTA 105 .5 cr
 ELTE 110 3 cr
 ELTE 131 4 cr

2ND Year

ELTE 260 4 cr
 ELTE 141 4 cr

3rd Year

ELTE 145 4 cr
 ELTE 121 5 cr

4th Year

ELTE 123 5 cr
 ELTA 180 1 cr

Math and Theory Option B

1ST Year

ELTE 102 2 cr
 ELTA 106 2 cr
 ELTA 105 .5 cr
 ELTE 110 3 cr

2ND Year

ELTE 131 4 cr
 ELTE 141 4 cr

3rd Year

ELTE 260 4 cr
 ELTA 120 2 cr
 ETLA 155 1 cr.

4th Year

ELTE 145 4 cr
 ELTA 180 1 cr
 ELTE 150 2 cr