

**LANSING COMMUNITY COLLEGE  
APPRENTICE CURRICULAR GUIDE**

Name	Trade	<b>Industrial Electrician</b>
Company	Total Hours	<b>576</b>
State of MI Apprentice Reg. #	Date Revised	<b>August 18, 2010</b>

**This is a suggested curricular guide. Companies may request modifications.**

Course No.	Course Name	Prereq.	Credits	Clock Hrs
ELTE 102	Industrial/Construction Safety	#R-3, W-2	2	48
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
ELTE 260	PLC I	ELTE 131	4	80
ELTA 180	Intro to Fire Alarms	ELTA160 or ELTE260	1	16
		Subtotals:	29.5	600
<b>ELECTIVES</b>				
ELTE 112	Basic Wiring Installation	ELTE 110	2	48
ELTE 121	Electrical Mathematics	**MATH 050, ELTE 110	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 232	Machine Controls II	ELTE 131	4	96
ELTE 261	Programmable Controllers II	ELTE 260	6	128
METS 115	Intro to Mechanical Systems	#None	4	96
WELD 103	Combination Welding	ELTE 102 conc.	4	96

**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**

**1<sup>ST</sup> Year**

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

**2<sup>ND</sup> Year**

ELTE 131	4 cr
ELTE 141	4 cr

**3<sup>rd</sup> Year**

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

**4<sup>th</sup> Year**

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