

**LANSING COMMUNITY COLLEGE**

**Computer, Engineering/Manufacturing Industrial Technologies**

**Curriculum Code: 0760**  
**(Effective Fall 2018 –**  
**Summer 2023)**

**Electrical Technology, Control Maintenance C.A.**  
**Pathway**

This certificate is designed to provide students with a background in applied electrical theory and the basic mechanical skills necessary to the practicing electrician in the machine control field.

**For More Information**

Contact the Electrical Technology Program at the West Campus Building, Room M127, telephone number (517) 483-1570 or Student Services West Campus, West Campus Building, Room M106, telephone number (517) 267-5452.

<b>Semester I</b> <b>Fall</b>	<b>Course Title</b>	<b>Prerequisites</b>	<b>Credit/Billing Hours</b>
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**Program of Study Requirements**

*Students who have already completed DCTM 102, 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 courses may also be used to fulfill the prerequisite for ELTE 108, ELTE 109, and ELTE 111.*

ELTE 102	Industrial/Construction Safety	Reading Level 3 and Writing Level 2	2 / 3
ELTE 108 <i>(1<sup>st</sup> 8 weeks)</i>	Practical Electricity I	Minimum 2.0 in (ELTE 102 or DCTM 102 or HVAC 102 or METS 102 or WELD 102 or concurrently) and Reading Level 3 and Writing Level 2 and (Math Level 3 or minimum 2.0 in MATH 105 or MATH 106)	2 / 3
ELTE 109 <i>(2<sup>nd</sup> 8 weeks)</i>	Practical Electricity II	Minimum 2.0 in ((ELTE 102 or DCTM 102 or HVAC 102 or METS 102 or WELD 102 or concurrently) and (ELTE 108 or concurrently)) and Reading Level 3 and Writing Level 2 and (Math Level 3 or minimum 2.0 in MATH 105 or MATH 106)	2 / 3
ELTE 111	Intro to Industrial Automation	Minimum 2.0 in ((ELTE 102 or DCTM 102 or HVAC 102 or METS 102 or WELD 102 or concurrently) and (ELTE 108 or concurrently)) and Reading Level 3 and Writing Level 2 and (Math Level 3 or minimum 2.0 in MATH 105 or MATH 106)	4 / 6
<b>Credits</b>			<b>10 / 15</b>

Semester II Spring	Course Title	Prerequisites	Credit/Billing Hours
<b>Program of Study Requirements</b> <i>Students may substitute ELTE 129 and ELTE 130 for ELTE 131.</i>			
ELTE 131	Machine Controls I	Minimum 2.0 in (ELTE 108 or ELTE 110) and Reading Level 3 and Writing Level 2 and Math Level 3	4 / 5
ELTE 132	Control Panel Assembly	Minimum 2.0 in (ELTE 130 or ELTE 131 or concurrently) and Reading Level 3 and Writing Level 2 and Math Level 3	2 / 3
METS 160	Introduction to Robotics	Minimum 2.0 in (ELTE 102 or DCTM 102 or HVAC 102 or METS 102 or WELD 102 or concurrently) and Reading Level 3 and Writing Level 2 and (Math Level 3 or minimum 2.0 in MATH 105 or MATH 106)	3/ 4.5
<b>Credits</b>			<b>9 / 12.5</b>
Semester III Fall	Course Title	Prerequisites	Credit/Billing Hours
<b>Program of Study Requirements</b>			
ELTE 150	Electric Motor Maintenance	Minimum 2.0 in (ELTE 109 or ELTE 110 or HVAC 110) and Reading Level 3 and Writing Level 2 and Math Level 3	2 / 3
ELTE 232	Machine Controls II	Minimum 2.0 in (ELTE 131 or (ELTE 129 and ELTE 130) or concurrently) and Reading Level 3 and Writing Level 2 and Math Level 3	4 / 6
ELTE 260	Programmable Controllers I	Minimum 2.0 in (ELTE 131 or (ELTE 129 and (ELTE 130 or concurrently))) and Reading Level 3 and Writing Level 2 and Math Level 3	4 / 6
<b>Credits</b>			<b>10 / 15</b>

Semester IV Spring	Course Title	Prerequisites	Credit/Billing Hours
<b>Program of Study Requirements</b>			
ELTE 122	Industrial Control Electronics	Minimum 2.0 in ((ELTE 108 or ELTE 110) and ELTE 111) and Reading Level 5 and Writing Level 2 and Math Level 5	5 / 7
ELTE 261	Programmable Controllers II	Minimum 2.0 in (ELTE 260 or ELTA 160) and Reading Level 3 and Writing Level 2 and Math Level 3	6 / 8
<b>Credits</b>			<b>11 / 15</b>
<b>Total Credits</b>			<b>40 / 57.5</b>