



Electrical Machine Controls C.C.

Career Community: Electrical and Manufacturing

Curriculum Code: 0966

Effective: Fall 2022 – Summer 2027

Description

This certificate is designed to provide students with entry level skills in the understanding of basic electrical theory, basic electrical operating characteristics of industrial machinery, and basic operation of programmable logic controllers. This curriculum would be an excellent choice for students wishing to enter an industrial electrical apprenticeship or for students in other industrial trades who wish to have a basic understanding of electrical control of industrial machines. All of the course work may be applied toward the Electrical Technology, Associate in Applied Science Degree.

Milestone

Completion of ELTE 108 and ELTE 109 with a 2.0 or higher is a key component for success in completing this program. Knowledge obtained in these courses is the foundation for learning in other required courses. Students are encouraged to contact their faculty if they need additional assistance with learning the concepts presented in these courses.

Additional Information

Students who have already completed DCTM 102, ELTE 102, HVAC 102, METS 102 or WELD 102 with a grade of 2.0 or higher may substitute one of these courses for TECH 102. Any of these courses may also be used to fulfill the prerequisite for ELTE 108 and ELTE 109.

Students may substitute ELTE 131 for ELTE 129 and ELTE 130 but ELTE 131 must be completed prior to taking ELTE 232 or ELTE 260.

Contact 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.

Program of Study Required Courses

Course Code	Course Title	Credit / Billing Hours
ELTE 108	Practical Electricity I	2 / 3
ELTE 109	Practical Electricity II	2 / 3
ELTE 111	Intro to Industrial Automation	4 / 6
ELTE 129	Machine Controls I – A	2 / 2.5
ELTE 130	Machine Controls I – B	2 / 2.5
ELTE 132	Control Panel Assembly	2 / 3
ELTE 232	Machine Controls II	4 / 6

Course Code	Course Title	Credit / Billing Hours
ELTE 260	Programmable Controllers I	4 / 6
METS 160	Introduction to Robotics	3 / 4.5
TECH 102	General Industry Safety	2 / 3

Minimum Total Credit Hours

27 credits / 39.5 billing hours

Recommended Course Sequence

Semester I
ELTE 108 (First 8 weeks) – Milestone course
ELTE 111
ELTE 129 (Second 8 weeks)
METS 160
TECH 102

Semester II
ELTE 109 (Second 8 weeks) – Milestone course
ELTE 130 (First 8 weeks)
ELTE 132
ELTE 232
ELTE 260

LCC makes every effort to limit revisions to the pathways during their effective timeframe. However, the College reserves the right to update certificate and degree title changes, and make course changes as needed, without prior notice.