



Electrical Apprenticeship C.A.

Career Community: Electrical and Manufacturing

Curriculum Code: 1570

Effective: Fall 2022 – Summer 2027

Description

This curriculum must be taken while working for an electrical contractor or other licensed employer as a registered apprentice. It is designed to provide electrical apprentices with a background in applied electrical theory and the basic skills necessary to a practicing electrician. This certificate fulfills all related trade instruction required for a United States Department of Labor, Office of Apprenticeship registered apprenticeship program in compliance with State of Michigan requirements for apprentice electricians.

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 interested in pursuing an Associate in Applied Science Degree in Electrical Technology should see a program advisor for course substitutions that would more readily transfer to that degree. Students who have previously taken electrical courses should also see an advisor for possible course substitutions.

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 classes may also be used to fulfill the prerequisite for ELTE 108 and ELTE 109.

Students may substitute ELTE 129 and ELTE 130 for ELTE 131.

Students who plan to pursue the Electrical Technology, Associate in Applied Science Degree (0134) should substitute ELTE 121 for ELTA 106 and ELTA 120; and ELTE 123 for ELTA 155 and ELTE 150.

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
ELTA 105	Elect. Industry Orientation	.5 / .5
ELTA 106	Basic Electrical Calculations	2 / 2
ELTA 120	AC Fundamentals - Electrician	2 / 3
ELTA 155	Transformer Fundamentals	2 / 3
ELTA 160	PLC Overview for Electricians	1 / 2
ELTA 180	Introduction to Fire Alarms	1 / 1
ELTE 108	Practical Electricity I	2 / 3
ELTE 109	Practical Electricity II	2 / 3
ELTE 131	Machine Controls I	4 / 5
ELTE 141	National Electrical Code I	4 / 4
ELTE 145	Electrical Prints for Building	4 / 5
ELTE 150	Electric Motor Maintenance	2 / 3
TECH 102	General Industry Safety	2 / 3

Program of Study Required Courses, Limited Choice – *Select one*

Course Code	Course Title	Credit / Billing Hours
ELTE 112	Basic Wiring Installation	2 / 3
ELTE 132	Control Panel Assembly	2 / 3
ELTE 142	National Electrical Code II	4 / 4
ELTE 232	Machine Controls II	4 / 6

Minimum Total Credit Hours

30.5 credits / 40.5 billing hours

Recommended Course Sequence

Semester I (Fall)
ELTE 108 (First 8 weeks) – Milestone course
ELTE 109 (Second 8 weeks) – Milestone course
TECH 102

Semester II (Spring)
ELTA 105
ELTE 141

Semester III (Fall)
ELTA 106
ELTE 150

Semester IV (Spring)
ELTA 120 (First 8 weeks)
ELTA 155 (Second 8 weeks)
Semester V (Fall)
ELTE 145
Semester VI (Spring)
ELTE 131
Semester VII (Fall)
ELTA 160
ELTA 180
Semester VIII (Spring)
Limited Choice

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.