



## **Electrical Utility/Lineworker A.A.S.**

Career Community: Electrical and Manufacturing

Curriculum Code: 1783

Effective: Fall 2025 – Summer 2030

### **Purpose of the Major**

This program of study prepares individuals to apply technical knowledge and skills to install, operate, maintain, and repair local, long-distance, and rural electric power cables; erect and construct pole lines; and install underground lines and cables. Includes instruction in line installation and repair, trenching, mobile equipment and crane operation, high-voltage installations, maintenance and inspection, safety, and applicable codes and standards.

Department approval is required to enroll in a significant number of the courses required for this degree. Interested students should contact an Electrical Program advisor before beginning this program for information regarding admission requirements.

### **Milestone**

In addition to the required General Education courses in Math and English, completion of ELTE 110 with a 2.5 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**

ELTE 272, ELTE 274 and ELTE 276 are scheduled in a ten-week block typically offered during Summer Semester. Enrollment is restricted to students who have received department approval and who have completed all other courses on the curriculum with a minimum 2.5 grade except PFFT 182, PFFT 183 and ELTE 182 which must be passed with a minimum 3.0 grade. Students must receive a minimum 3.0 in ELTE 272, ELTE 274 and ELTE 276 in order to successfully complete the program. ELTE 270 is optional for students who want to attend Consumers Energy Information sessions and have the qualifying scores to enroll.

Students may substitute ELTE 121 for ELTA 106 and ELTA 120; and ELTE 123 for ELTA 155. ELTE 121 also fulfills the General Education Applied Mathematics requirement.

### **Contact Information**

For further information, including about career options, course substitutions and waivers, etc., 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.

### **Major Required Courses** – *A minimum grade of 2.0 is required for General Education courses.*

Course Code	Course Title	Credit / Billing Hours
ACAD 100	First-Year Experience	1 / 1

Course Code	Course Title	Credit / Billing Hours
COMM 110 or COMM 120 or COMM 130 or COMM 200 or COMM 240 or COMM 260 or ENGL 122 or ENGL 132	Communication in the Workplace Dynamics of Communication Fundamentals Public Speaking Small Group Communication Interpersonal Communication Nonverbal Communication Composition II Honors Composition II	3 / 3 3 / 3 3 / 3 3 / 3 3 / 3 3 / 3 4 / 4 4 / 4
ELTA 106	Basic Electrical Calculations	2 / 2
ELTA 120	AC Fundamentals - Electrician	2 / 3
ELTA 155	Transformer Fundamentals	2 / 3
ELTE 104	Employee Worksite Basics	1 / 1
ELTE 110	Practical Electricity	4 / 6
ELTE 121 or MATH 115 or MATH 119 or MATH 120 or MATH 126	Electrical Mathematics Technical Mathematics Math – Applications for Living College Algebra Precalculus	5 / 6 4 / 4 4 / 4 4 / 4 5 / 5
ELTE 154	Utility Prints and Diagrams	3 / 3
ELTE 173	Energy Industry Fundamentals I	2 / 2
ELTE 174	Energy Industry Fundamentals II	2 / 2
ELTE 181	Pole Climbing I	.5 / 1
ELTE 182	Pole Climbing II	.5 / 1
ELTE 185	Pole Climbing Practice I	.25 / .5
ELTE 272	Electric Basic Line Climbing	4 / 6
ELTE 274	Ground/Utility Worker	6 / 9
ELTE 276	Energized Secondary Worker	5 / 8
ENGL 121 or ENGL 124 or ENGL 127 or ENGL 131	Composition I Technical Writing Business Writing Honors Composition I	4 / 4 3 / 3 3 / 3 4 / 4
METS 140	Rigging	3 / 4.5
PFFT 183	Lineworker Fitness C	2 / 4
TECH 102	General Industry Safety	2 / 3

Notes:

ACAD 100 may be waived when students meet one of the following College-approved waiver criteria:

- Completion of 12 college-level credits with minimum grades of 2.0 shown on the LCC transcript (including transfer, if applicable), or
- Employment in the field of, or a field related to, the degree being sought

Students wishing to waive ACAD 100 should contact their advisor.

### **Major Required Courses, Limited Choice - *Select one***

Course Code	Course Title	Credit / Billing Hours
ELTE 131	Machine Controls I	4 / 5
PFFT 182	Lineworker Fitness B	1 / 2

### **Major Required Courses, Limited Choice – Humanities and Fine Arts or Social Sciences or Applied Social Sciences - *Select one as recommended or select one from [LCC General Education Applied Degrees](#): Humanities and Fine Arts or Social Sciences or Applied Social Sciences. A minimum grade of 2.0 is required for General Education courses.***

Course Code	Course Title	Credit / Billing Hours
GEOG 200	World Regional Geography	4 / 4
MGMT 234	Diversity in the Workplace	3 / 3
SOCL 120	Introduction to Sociology	4 / 4

Note: Students considering future transfer, choose GEOG 200 or SOCL 120.

### **Major Required Courses, Limited Choice – Natural Sciences or Applied Sciences and Technology Lab - *Select one lab course as recommended or select one from [LCC General Education Applied Degrees](#): Natural Sciences or Applied Sciences and Technology Lab. A minimum grade of 2.0 is required for General Education courses.***

Course Code	Course Title	Credit / Billing Hours
BIOL 120	Environmental Science	4 / 6
CHEM 151 and CHEM 161	General Chemistry Lecture I General Chemistry Lab I	5 / 7
METM 190	Metallurgy and Heat Treatment	4 / 6
PHYS 120	The Art of Physics	4 / 5
PHYS 200	Intro to Applied Physics	4 / 5
PHYS 221	Introductory Physics I	4 / 6

### **[General Education - Applied Degrees](#)**

- English Composition or Applied English  
Major Required Courses meet this requirement.
- English Composition (second course)/Communication or Applied Communication  
Major Required Courses meet this requirement.
- Humanities and Fine Arts or Social Sciences or Applied Social Sciences  
Major Required Courses meet this requirement.
- Mathematics or Applied Mathematics  
Major Required Courses meet this requirement.
- Natural Sciences Lab or Applied Sciences and Technology Lab  
Major Required Courses meet this requirement.

## Additional Credits

After completing the course and credit requirements as noted on this pathway, students who fall short of the 60-credit minimum required for an Associate Degree may select any course(s) needed to reach 60 credits, except those courses noted in number 7 in the [Institutional Requirements for Associate Degrees](#). Students are encouraged to use Degree Works and meet with an Advisor to ensure all requirements are met and for course recommendations.

## Minimum Total Credit Hours

60 credits / 79 billing hours

## Recommended Course Sequence

Semester I (Summer)
ELTE 181
ENGL 121 or ENGL 124 or ENGL 127 or ENGL 131

Semester II (Fall)
ELTA 106
ELTE 104
ELTE 110 – Milestone course
ELTE 173 (first 8 weeks)
ELTE 174 (second 8 weeks)
ELTE 182
ELTE 185
METS 140
TECH 102

Semester III (Spring)
ELTA 120 (first 8 weeks)
ELTA 155 (second 8 weeks)
ELTE 121 or MATH 115 or MATH 119 or MATH 120 or MATH 126
ELTE 154
PFFT 183
Limited Choice

Semester IV (Summer)
ELTE 272
ELTE 274
ELTE 276

Semester V (Fall)
COMM 110 or COMM 120 or COMM 130 or COMM 200 or COMM 240 or COMM 260 or ENGL 122 or ENGL 132
Limited Choice - Humanities and Fine Arts or Social Sciences or Applied Social Sciences

Semester V (Fall)
Limited Choice – Natural Sciences Lab or Applied Sciences and Technology Lab

*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 titles, and make course changes as needed, without prior notice. The College also reserves the right to discontinue programs when warranted.*