## LANSING COMMUNITY COLLEGE

#### **CURRICULUM GUIDE**

Electrical Utility/Lineworker Certificate of Achievement

Curriculum Code: 1468 (Effective Fall 2018 - Summer 2019)

Lineworkers install and service power lines and power line connections between electrical power plants and the customers using the electricity. These lines may be above ground on utility poles or underground. This curriculum prepares students to enter the Electric Lines Apprenticeship Program with Consumers Energy or another utility/contractor. Department approval is required to enroll in ELTE 270, ELTE 272, ELTE 274 and ELTE 276 which are held onsite at the Consumers Energy Training Facility in Marshall, Michigan or at LCC's West Campus. Interested students should contact the Utility and Energy Systems program at Lansing Community College for information.

## **PREREQUISITES**

Students should see <u>Course Descriptions</u> for course prerequisite information. See <u>Academic</u> <u>Assessment and Placement Testing for Student Success</u> for skills assessment and advising information.

## **INFORMATION**

To be considered officially enrolled in this certificate of achievement, students must have an application on file and been given department approval. Contact the Electrical Technology Program, West Campus Building, Room M127, telephone number (517) 483–1570 (Website: www.lcc.edu/utility/electrical/).

### **COURSES**

CODE	TITLE	CREDIT HOURS
ELTA 106	Basic Electrical Calculations (See Note 1)	2
ELTA 120	AC Fundamentals - Electrician (See Note 1)	2
ELTA 155	Transformer Fundamentals (See Note 2)	2
ELTE 102	Industrial/Construction Safety (See Note 3)	2
ELTE 104	Employee Worksite Basics	1
<b>∠</b> ELTE 108	Practical Electricity I (See Notes 2 and 3)	2
ELTE 109	Practical Electricity II (See Notes 2 and 3)	2
ELTE 131	Machine Controls I (Choice 1)	4
ELTE 154	Electrical Prints and Diagrams (Choice 1)	3
<b>✓</b> ELTE 173	Energy Industry Fundamentals I	2
ELTE 174	Energy Industry Fundamentals II	2
ELTE 181	Pole Climbing I (See Note 5)	.5
ELTE 182	Pole Climbing II	.5
ELTE 185	Pole Climbing Practice I	.25
ELTE 186	Pole Climbing Practice II	.25
ELTE 187	Pole Climbing Practice III	.25
ELTE 188	Pole Climbing Practice IV	.25
ELTE 270	Lineworker Fundamentals (See Notes 4 and 6)	1
ELTE 272	Electric Basic Line Climbing (See Notes 4 and 7)	4
ELTE 274	Ground/Utility Worker (See Notes 4 and 7)	5
►ELTE 276	Energized Secondary Worker (See Notes 4 and 7)	4
METS 140	Rigging (See Note 3)	3
PFFT 181	Lineworker Fitness A (Choice 2)	1
PFFT 182	Lineworker Fitness B (Choice 2)	1
PFFT 183	Lineworker Fitness C (Choice 2)	2

#### NOTES:

- 1. ELTE 121 can be substituted for both ELTA 106 and ELTA 120 and will fulfill the General Education Core requirement for Mathematics if you choose to pursue an Associate Degree.
- 2. The following substitutions will also fulfill the requirements for the indicated courses on this curriculum: if ELTE 110 has already been taken, it can be used in place of ELTE 108 and ELTE 109; and ELTE 123 in place of ELTA 155.
- 3. Students who have already completed DCTM 102, HVAC 102, METS 102 or WELD 102 with a grade of 2.5 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 METS 140.
- 4. ELTE 270, ELTE 272, ELTE 274 and ELTE 276 are typically offered at either the Consumers Energy Training Facility in Marshall, Michigan or at LCC's West Campus. Students will need to make their own transportation arrangements.
- 5. ELTE 181 is a two-day course that typically meets each year in the Summer Semester. Enrollment is restricted to students who have received department approval.
- 6. ELTE 270 is a one week course that typically meets each year in between Fall and Spring semesters. Enrollment is restricted to students who have received department approval. This course is graded on a Pass/Fail basis and students must receive a passing grade in order to continue with the program.
- 7. 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, except for ELTE 182 which must be passed with a minimum 3.0 grade.
- 8. Students must complete all courses in the curriculum with a minimum grade of 2.5 to receive this certificate.

# SUGGESTED COURSE SEQUENCE

Students should see course descriptions to find out when departments plan to offer courses. Students who for any reason are unable to follow the course sequence suggested below (for example, those who are part-time, have transferred in courses from another school, or have prerequisites to fulfill) should contact an academic advisor for help with adjustments.

Summer	Fall	Spring	Summer
ELTE 181	Full Semester	Full Semester	ELTE 272
Choice 1	ELTE 102	Choice 1	ELTE 274
	METS 140	Choice 2	ELTE 276
	1st 8 Weeks	1st 8 weeks	
	ELTE 104	ELTA 120	
	ELTE 108	ELTE 173	
	2 <sup>nd</sup> 8 Weeks	2 <sup>nd</sup> 8 weeks	
	ELTA 106	ELTA 155	
	ELTE 109	ELTE 174	
	Short Courses	Short Courses	
	ELTE 182	ELTE 186	
	ELTE 185	Choice 1	
	ELTE 270	Choice 1	
	Choice 1		