

LANSING COMMUNITY COLLEGE

Computer, Engineering/Manufacturing Industrial Technologies

Curriculum Code: 1468
(Effective Fall 2018 –
Summer 2023)

Electrical Utility/Lineworker C.A. Pathway

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.

Note:

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 for both sections of PFFT 182 & PFFT 183 and ELTE 182 which must be passed with a minimum 3.0 grade. Students must receive a 2.5 in ELTE 272, ELTE 274 and ELTE 276 in order to successfully complete the program.

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.

Semester I Summer	Course Title	Prerequisites	Credit/Billing Hours
Program of Study Requirements			
<i>PFFT 181 is only required if the student fails the LPAT fitness test.</i>			
ELTE 181	Pole Climbing I	Department Approval	.5 / 1
PFFT 181	Lineworker Fitness A	Program Approval for Acceptance into the Electrical Utility/Lineworker Curriculum and Reading Level 3 and Writing Level 2	1 / 2
Credits			.5-1.5 / 1-3

Semester II Fall		Course Title	Prerequisites	Credit/Billing Hours
Program of Study Requirements				
Full Semester	ELTE 102	Industrial/Construction Safety	Reading Level 3 and Writing Level 2	2 / 3
1st 8 Weeks	ELTE 104	Employee Worksite Basics	Reading Level 3 and Writing Level 2 and (Math Level 3 or minimum 2.0 in MATH 105 or MATH 106)	1 / 1
1st 8 Weeks	ELTE 108	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
2nd 8 Weeks	ELTA 106	Basic Electrical Calculations	Reading Level 3 and Writing Level 2 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	2 / 2
2nd 8 Weeks	ELTE 109	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
Short Courses	ELTE 182	Pole Climbing II	Minimum 3.5 in ELTE 181	.5 / 1

Rigging Elective (Full Semester) - <i>Select 1</i>			
ELTE 156	Lineworker/Utility Rigging	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 4 or minimum 2.0 in MATH 105 or MATH 106)	3 / 4
METS 140	Rigging	Minimum 2.0 in (METS 102 or DCTM 102 or ELTE 102 or HVAC 102 or WELD 102 or concurrently) and Reading Level 3 and Writing Level 2 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	3 / 4.5
Fitness/Climbing Electives – <i>Select at least 1 course for a minimum of .50 credits</i> <i>Courses may not be duplicated</i>			
ELTE 185 <i>(8 hour class)</i>	Pole Climbing Practice I	Minimum 3.5 in ELTE 181	.25 / .5
ELTE 186 <i>(8 hour class)</i>	Pole Climbing Practice II	Minimum 2.5 in ELTE 182 or passing grade in ELTE 185	.25 / .5
ELTE 187 <i>(8 hour class)</i>	Pole Climbing Practice III	Minimum 2.5 in ELTE 182 or passing grade in ELTE 185	.25 / .5
ELTE 188 <i>(8 hour class)</i>	Pole Climbing Practice IV	Minimum 2.5 in ELTE 182 or passing grade in ELTE 185	.25 / .5
PFFT 182 <i>(Full Semester Class)</i>	Lineworker Fitness B	Minimum 3.0 in PFFT 181 or 2 minutes or better on LPAT score and Reading Level 3 and Writing Level 2	1 / 2
Credits			13-13.5 / 18-19.5

Semester III Spring		Course Title	Prerequisites	Credit/Billing Hours
Program of Study Requirements				
Full Semester	ELTE 154	Utility Prints and Diagrams	Minimum 2.0 in (ELTA 120 or ELTE 121 or concurrently) and Reading Level 3 and Writing Level 2 and (minimum 2.0 in ELTA 106 or Math Level 5)	3 / 3
Full Semester	PFFT 183	Lineworker Fitness C	Reading Level 3 and Writing Level 2	2 / 4
1st 8 Weeks	ELTA 120	AC Fundamentals - Electrician	Minimum 2.0 in (ELTE 108 or ELTE 110 or concurrently) and minimum 2.5 in (ELTA 106 or MATH 114 or Math Level 5) and Reading Level 3 and Writing Level 2	2 / 3
1st 8 Weeks	ELTE 173	Energy Industry Fundamentals I	Reading Level 4 and Writing Level 4 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	2 / 2
2nd 8 Weeks	ELTA 155	Transformer Fundamentals	Minimum 2.0 in (ELTE 121 or (ELTA 120 or concurrently)) and Reading Level 4 and Writing Level 2	2 / 3
2nd 8 Weeks	ELTE 174	Energy Industry Fundamentals II	Minimum 2.0 in (ELTE 173 or concurrently) and Reading Level 4 and Writing Level 4 and (Math Level 4 or minimum 2.0 in MATH 105 or MATH 106)	2 / 2
Climbing Electives – <i>Select at least 1 course for a minimum of .50 credits</i> <i>Courses may not be duplicated</i>				
ELTE 185 <i>(8 hour class)</i>		Pole Climbing Practice I	Minimum 3.5 in ELTE 181	.25 / .5
ELTE 186 <i>(8 hour class)</i>		Pole Climbing Practice II	Minimum 3.5 in ELTE 182 or passing grade in ELTE 185	.25 / .5
ELTE 187 <i>(8 hour class)</i>		Pole Climbing Practice III	Minimum 3.5 in ELTE 182 or passing grade in ELTE 185	.25 / .5
ELTE 188 <i>(8 hour class)</i>		Pole Climbing Practice IV	Minimum 3.5 in ELTE 182 or passing grade in ELTE 185	.25 / .5
ELTE 270 <i>(4 day class)</i>		Lineworker Orientation	Department Approval	1 / 1.5
Credits				13.5-14/ 18-18.5

Semester IV Summer	Course Title	Prerequisites	Credit/Billing Hours
Program of Study Requirements <i>Courses taken sequentially</i>			
ELTE 272	Electric Basic Line Climbing	Department Approval	4 / 6
ELTE 274	Ground/Utility Worker	Minimum 3.5 in ELTE 272	6 / 9
ELTE 276	Energized Secondary Worker	Minimum 3.5 in ELTE 274	5 / 8
Credits			15 / 23
Total Credits			42-44 / 60-64