

LANSING COMMUNITY COLLEGE

Computer, Engineering/Manufacturing Industrial Technologies

Curriculum Code: 1777
 (Effective Fall 2018 –
 Summer 2023)

Energy Industry Fundamentals C.C. Pathway

This Certificate provides a foundational understanding of the structure of the United States energy industry and the opportunity to study for and earn pre-employment certifications developed for the industry. Competencies addressed include employment skills, industrial safety, mathematics, electrical theory, problem solving, blueprint reading, rigging and troubleshooting.

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.

Students must complete all courses on this pathway with a minimum 2.5 grade to receive this certificate.
Semester I
Fall

Course Title	Prerequisites	Credit/Billing Hours
--------------	---------------	----------------------

Program of Study Requirements

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, ELTE 156 and METS 140.

ELTE 102 <i>Full Semester</i>	Industrial/Construction Safety	Reading Level 3 and Writing Level 2	2 / 3
ELTE 104 <i>1st 8 weeks</i>	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
ELTE 108 <i>1st 8 weeks</i>	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
ELTA 106 <i>2nd 8 weeks</i>	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

ELTE 109 <i>2nd 8 weeks</i>	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
Rigging Elective - <i>Select 1</i>			
ELTE 156 <i>Full Semester</i>	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 <i>Full Semester</i>	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
Credits			12 / 16–16.5

Semester II Spring	Course Title	Prerequisites	Credit/Billing Hours
Program of Study Requirements			
ELTE 154 <i>Full Semester</i>	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
ELTA 120 <i>1st 8 weeks</i>	AC Fundamentals - Electrician	Minimum 2.0 in ((ELTE 110 or ELTE 108 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
ELTE 173 <i>1st 8 weeks</i>	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
ELTA 155 <i>2nd 8 weeks</i>	Transformer Fundamentals	Minimum 2.0 in (ELTE 121 or (ELTA 120 or concurrently)) and Reading Level 4 and Writing Level 2	2 / 3
ELTE 174 <i>2nd 8 weeks</i>	Energy Industry Fundamental 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
Credits			11 / 13
Total Credits			23 / 29-29.5