

RENEWABLE ENERGY GENERATION, TRANSMISSION, AND DISTRIBUTION: POWERLINE MECHANIC



Department: Construction, Design, and Manufacturing
 Department Chair: Mr. William (Bill) Elarton, Room SQ-122
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Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Renewable Energy Generation, Transmission, and Distribution: Powerline Mechanic	A.S.	Plan B	34-36	6-7	40-43
Powerline Mechanic	C		18-20	-	18-20
Utility Industry Fundamentals	C		19-21	-	19-21

At least 60 degree applicable units (43 total major units and Plan B units) are required to earn an Associate degree.

PROGRAM OVERVIEW

LATTC offers Utility Industry Fundamentals and Powerline Mechanic Certificates of Achievement, as well as an Associate of Science degree in Renewable Energy Generation, Transmission, and Distribution with a Powerline Mechanic emphasis, for individuals interested in working in occupations in the utility industry sector—particularly transmission and distribution occupations. The courses comprising this program enable individuals to be prepared to obtain entry-level positions in the utility sector.

PROGRAM LEARNING OUTCOMES (PLOs)

Upon completion of the Degree program, students are able to:

- Use hand and power tools to perform basic utility powerline work.
- Perform calculations and measurements commiserate to entry level powerline work.
- Pole Climbing Competencies.

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Associate in Science Degree
 Major Units: 40-43

Requirements for the Associate in Science degree in Renewable Energy Generation, Transmission, and Distribution: Powerline Mechanic may be met by completing 34-36 units of Required Courses and 6-7 units of Major Electives with a “C” or better along with general education courses meeting Plan B graduation requirements. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

Recommended sequence of courses for Renewable Energy Generation, Transmission, and Distribution AS Degree with Power line Mechanic Emphasis

REQUIRED COURSES

SEMESTER I		UNITS	Completed
ECONMT 115	Fundamentals of D.C. Electricity	3	<input type="checkbox"/> _____
ECONMT 116	Hand Tools and Wiring Practices	2	<input type="checkbox"/> _____
ECONMT 100	(O.S.H.A.) Safety Standards	2	<input type="checkbox"/> _____
ECONMT 119	Electrical Construction and Maintenance	3	<input type="checkbox"/> _____
-or- ECONMT 173 <i>Electrical Mathematics (3)</i>			
-or- MATH 115 or higher (3-5)			

SEMESTER II		UNITS	Completed
ECONMT 129	Fundamentals of Alternative Current	3	<input type="checkbox"/> _____
ECONMT 130	Principles of Industrial Electric Power	3	<input type="checkbox"/> _____
BLDGCTQ 10	Energy and Utility Industry Careers	3	<input type="checkbox"/> _____

SEMESTER III		UNITS	Completed
ELECL 601	Powerline Mechanic Trainee	15	<input type="checkbox"/> _____

MAJOR ELECTIVES

Select 6-7 units from the courses below		UNITS	Completed
ECONMT 105	Fundamentals of Solar Electricity	3	<input type="checkbox"/> _____
ECONMT 110	Renewable Energy Systems	3	<input type="checkbox"/> _____
ECONMT 205	Solar Energy Installation & Maintenance Principles and Practices	2	<input type="checkbox"/> _____
ECONMT 215	Small Wind Energy Systems Principles and Practices	3	<input type="checkbox"/> _____
REF A/C 105	Solar Water & Pool Heating System Principles	3	<input type="checkbox"/> _____
REF A/C 110	Solar Water & Pool Heating System Practices	2	<input type="checkbox"/> _____
REF A/C 165	Thermal Energy Storage / Heat Recovery	4	<input type="checkbox"/> _____



POWERLINE MECHANIC

Certificate of Achievement

Major Units: 18-20

A Certificate of Achievement in Powerline Mechanic may be earned by completing 18-20 units of Required Courses with a "C" or better in each course.

REQUIRED COURSES

		UNITS	Completed	Semester/Yr
ELECL 601	Powerline Mechanic Trainee	15	<input type="checkbox"/>	_____
ECONMT 119	Electrical Construction and Maintenance	3	<input type="checkbox"/>	_____
-or- ECONMT 173	Electrical Mathematics I (3)			
-or- MATH 115	Elementary Algebra (5)			

UTILITY INDUSTRY FUNDAMENTALS

Certificate of Achievement

Major Units: 19-21

A Certificate of Achievement in Utility Industry Fundamentals may be earned by completing 19-21 units of Required Courses with a "C" or better in each course.

REQUIRED COURSES

		UNITS	Completed	Semester/Yr
ECONMT 100	(O.S.H.A.) Safety Standards	2	<input type="checkbox"/>	_____
ECONMT 130	Principles of Industrial Electric Power	3	<input type="checkbox"/>	_____
BLDGCTQ 10	Energy and Utility Industry Careers	3	<input type="checkbox"/>	_____
ECONMT 115	Fundamentals of D.C. Electricity	3	<input type="checkbox"/>	_____
ECONMT 116	Hand Tools and Wiring Practices	2	<input type="checkbox"/>	_____
ECONMT 129	Fundamentals of Alternating Current	3	<input type="checkbox"/>	_____
ECONMT 119	Electrical Construction and Maintenance	3	<input type="checkbox"/>	_____
-or- ECONMT 173	Electrical Mathematics I (3)			
-or- MATH 115 or higher	Elementary Algebra (3-5)			

USEFUL LINKS

LATTC Catalog

<http://college.lattc.edu/catalog/>

LATTC Financial Aid Office

<http://college.lattc.edu/financialaid/>

LATTC Counseling Department

<http://college.lattc.edu/counseling/>

Graduation Plan A

<http://college.lattc.edu/catalog>

Graduation Plan B

<http://college.lattc.edu/catalog>

Construction, Maintenance & Utilities Department

<http://college.lattc.edu/cdm>

You can enroll in these classes by logging on to the Student Information System at <https://college.lattc.edu/register>

For additional information consult a LATTC college counselor.