

RENEWABLE ENERGY WITH ENERGY EFFICIENCY EMPHASIS



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Award Title	Award Type	Grad. Plan	Required Course Units	Major Elective Units	Total Major Units
Renewable Energy Technician W/ Energy Efficiency Emphasis	A.S.	Plan B	36-38	4	40-42
Weatherization and Energy Efficiency	C		12	-	12
Energy Systems Technology Fundamentals	C		16	-	16

At least 60 degree applicable units (42 total major units and Plan B units) are required to earn an Associate degree.

PROGRAM OVERVIEW

LATTC offers a series of courses for individuals interested in working in the new, emerging renewable energy and energy efficiency industry. This degree program includes courses that enable individuals to: (1) have the requisite knowledge and skills to obtain employment in the energy/utility sector and (2) obtain skills and expertise to pursue other renewable energy and/or energy efficiency occupations.

By fulfilling the program requirements, students will have the necessary knowledge and skills for a career in residential and commercial renewable energy-related occupations.

PROGRAM LEARNING OUTCOMES (PLOs)

- Upon completion of the Degree/Certificate program, students are able to:
- Use hand and power tools to perform new and retrofit weatherization and related energy efficiency operations.
 - Demonstrate sustainable industry principles and practices.
 - Perform calculations and measurements related to weatherization and other energy efficiency operations.
 - Work independently and interdependently to safely accomplish shared professional outcomes.

RENEWABLE ENERGY TECHNICIAN W/ ENERGY EFFICIENCY EMPHASIS

Associate in Science Degree
 Major Units: 40-42

Requirements for the Associate in Science degree in Renewable Energy Technician W/ Energy Efficiency Emphasis may be met by completing 40-42 units of Required Courses along with general education courses meeting Plan B graduation Requirement. Information on the Plan B requirements may be found in the catalog under Graduation/Transfer Requirements.

REQUIRED COURSES

SEMESTER I

		UNITS	Completed	Semester/Yr
ECONMT 115	Fundamentals of D.C. Electricity	3	<input type="checkbox"/>	_____
ECONMT 116	Hand Tools and Wiring Practices	2	<input type="checkbox"/>	_____
BLDGCTQ 010	Energy and Utility Industry Careers	3	<input type="checkbox"/>	_____
ECONMT 119	Applied Electrical Calculations & Measurement	3	<input type="checkbox"/>	_____
-or- ECONMT 173 Electrical Mathematics (3)				
-or- MATH 115 or higher Elementary Algebra (5)				

SEMESTER II

		UNITS	Completed	Semester/Yr
ECONMT 129	Fundamentals of Alternating Current	3	<input type="checkbox"/>	_____
ECONMT 100	Occupational Safety	2	<input type="checkbox"/>	_____
CRPNTRY 148	Computer Assisted Estimating	3	<input type="checkbox"/>	_____

SEMESTER III

		UNITS	Completed	Semester/Yr
REF A/C 100	Project Management	3	<input type="checkbox"/>	_____
ECONMT 110	Renewable Energy Systems	3	<input type="checkbox"/>	_____
BLDGCTQ 007	Weatherization – Practical Energy Efficiency Techniques	3	<input type="checkbox"/>	_____
BLDGCTQ 008	Weatherization - Energy Efficiency Practices	1	<input type="checkbox"/>	_____

SEMESTER IV

		UNITS	Completed	Semester/Yr
BLDGCTQ 009	Energy Auditor – Residential	3	<input type="checkbox"/>	_____
BLDGCTQ 012	Energy Auditor – Residential Practices	1	<input type="checkbox"/>	_____
BLDGCTQ 921 †	Cooperative Education – Residential	2	<input type="checkbox"/>	_____

OTHER COURSE REQUIREMENTS

1 or more courses from the following list of courses

		UNITS	Completed	Semester/Yr
ECONMT 105	Fundamentals of Solar Electricity	3	<input type="checkbox"/>	_____
ECONMT 205	Solar Energy Installation & Maintenance Principles and Practices	2	<input type="checkbox"/>	_____
REF A/C 105	Solar Thermal Theory	3	<input type="checkbox"/>	_____
REF A/C 110	Solar Thermal Practices	2	<input type="checkbox"/>	_____
REF A/C 165	Thermal Heat Storage	4	<input type="checkbox"/>	_____



WEATHERIZATION AND ENERGY EFFICIENCY

Certificate of Achievement

Major Units: 12

A Certificate of Achievement in Weatherization and Energy Efficiency may be earned by completing 12 units of Required Courses listed, with a "C" or better in each course.

LATTC offers a series of courses for individuals interested in employment as weatherization and energy efficiency specialists. The courses are developed both for new building professionals and for professional builders/contractors already in the workforce in need of these skills. Homeowners may also find the introduction class helpful. Individuals will be prepared to be weatherization, energy efficiency, and retrofit technicians, home improvement retrofit trainees, residential air sealing technicians, insulation installers, energy conservation representatives or residential energy field auditors.

REQUIRED COURSES

		UNITS	Completed	Semester/Yr
BLDGCTQ 7	Weatherization - Practical Energy Efficiency Techniques	3	<input type="checkbox"/>	_____
BLDGCTQ 8	Weatherization - Energy Efficiency Practices	1	<input type="checkbox"/>	_____
BLDGCTQ 9	Energy Auditor – Residential	3	<input type="checkbox"/>	_____
BLDGCTQ 12	Energy Auditor – Residential Practice	1	<input type="checkbox"/>	_____
BLDGCTQ 921 †	Cooperative Education – Residential Practice	2	<input type="checkbox"/>	_____
ECONMT 100	(O.S.H.A.) Safety Standards: Construction and Industry	2	<input type="checkbox"/>	_____

ENERGY SYSTEMS TECHNOLOGY FUNDAMENTALS

Certificate of Achievement

Major Units: 16

A Certificate of Achievement in Energy Systems Technology Fundamentals may be earned by completing 16 units of Required Courses listed, with a "C" or better in each course.

The goal of the Energy Systems Technology Fundamentals Certificate of Achievement Program is to provide short-term industry-recognized training for entry-level professionals in the utility/energy sector; a significant industry sector in the Los Angeles region.

Skills gained from this program prepare a student for employment at the entry level in jobs such as; Los Angeles Department of Water and Power "Electrical Utility Helper" classification, Southern California Edison's "Utility Helper" position, City of Los Angeles "Electrical Craft Helper".

REQUIRED COURSES

		UNITS	Completed	Semester/Yr
BLDGCTQ 10	Energy and Utility Industry Careers	3	<input type="checkbox"/>	_____
ECONMT 100	(O.S.H.A.) Safety Standards	2	<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 119	Electrical Construction and maintenance	3	<input type="checkbox"/>	_____
	-or- ECONMT 173 <i>Electrical Mathematics I (3)</i>			
ECONMT 129	Fundamentals of Alternating Current	3	<input type="checkbox"/>	_____

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.