

# ELECTRICAL TECHNOLOGY, SOLAR INSTALLATION AND MAINTENANCE - ASSOCIATE IN SCIENCE

Plan Code: 2994

This program will prepare students for entry-level employment in the solar electrical industry. Upon completion the student will be able to install, maintain, and repair solar electrical equipment and systems in a safe and workmanlike manner.

## Program Student Learning Outcomes

- Demonstrate the ability to attain the Institutional Student Learning Outcomes (ISLOs).
- Analyze various types of solar power generation systems and demonstrate the ability to properly size systems to meet demand.

## Program Admission Requirement

New students must attend an Electrical orientation prior to enrollment. The program requisite is in place to ensure the safety and health awareness of LBCC electrical students.

## Program Requirements

This degree requires the completion of General Education coursework plus the following:

Code Number	Course Title	Units
<b>REQUIRED COURSES</b>		
ELECT 204	First Semester Fundamentals of DC Electricity	4
ELECT 209	Second Sem Fund of Motors/Generators	4
ELECT 212	Third Semester Fund of AC Electricity	4
ELECT 214	Fourth Semester AC Principles & Pract	4
ELECT 225	Algebra and Trigonometry for Technicians	4
ELECT 240	Introduction to National Electrical Code	3
ELECT 242	Electrical Code-Grounding	1.5
ELECT 253	OSHA Standards for Construction Safety	2
ELECT 435A	Motor Control Wiring and Troubleshooting	2
<b>Subtotal Units</b>		<b>28.5</b>
IN ADDITION, complete the following:		
ELECT 247	Electrical Code-Solar	1
ELECT 256	High Voltage Safety Awareness	1
ELECT 262	Solar 1-Grid-Tied Solar Photovoltaics	3
ELECT 263	Solar 2-Advanced Solar Photovoltaics	3
ELECT 275	Electrical Pipe Bending	1
ELECT 277	Blueprint Reading for Electricians	3
<b>Subtotal Units</b>		<b>12</b>
<b>Required Subtotal</b>		<b>40.5</b>
Complete one of the following: <sup>1</sup>		19-39

LBCC General Education (Plan A) (<https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-a/>)

CSU GE Breadth (Plan B) (<https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-b/>)

IGETC Pattern (Plan C) (<https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-c/>)

Electives (as needed to reach 60 degree-applicable units) <sup>2</sup>

**Minimum Degree Total** **60**

<sup>1</sup> Units for the major may be double-counted for LBCC GE, CSU GE, or IGETC; see counselor for limitations.

<sup>2</sup> Elective units from course(s) numbered 1-599, if needed, to reach 60 degree-applicable units.