

ELECTRICAL TECHNOLOGY, GENERAL INDUSTRIAL ELECTRICIAN - ASSOCIATE IN SCIENCE

Plan Code: 2993

The Electrical Technology, General Industrial Electrician Certificate of Achievement will prepare students for entry-level employment in the electrical maintenance and troubleshooting industry. Upon completion the student will be able to install, maintain, and repair electrical systems in a safe and workmanlike manner.

Program Student Learning Outcomes

- Demonstrate the ability to attain the Institutional Student Learning Outcomes (ISLOs).
- Develop procedures for the successful installation, maintenance and troubleshooting of electrical systems.

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
REQUIRED COURSES		
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
Subtotal Units		28.5
IN ADDITION, complete the following:		
ELECT 245	Electrical Code-Commercial	3
ELECT 250	Electrical Code-Industrial	3
ELECT 271	Electrical Cost Estimating 1	3
ELECT 275	Electrical Pipe Bending	1
ELECT 277	Blueprint Reading for Electricians	3
Subtotal Units		13
Required Subtotal		41.5
Complete one of the following: ¹		

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) ²

Minimum Degree Total **60**

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

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

ELECTRICAL TECHNOLOGY, GENERAL INDUSTRIAL ELECTRICIAN - CERTIFICATE OF ACHIEVEMENT

Plan Code: 3993

The Electrical Technology, General Industrial Electrician Certificate of Achievement will prepare students for entry-level employment in the electrical maintenance and troubleshooting industry. Upon completion the student will be able to install, maintain, and repair electrical systems in a safe and workmanlike manner.

Program Student Learning Outcomes

- Develop procedures for the successful installation, maintenance and troubleshooting of electrical systems.

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

Code Number	Course Title	Units
REQUIRED COURSES		
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
Subtotal Units		28.5
IN ADDITION, complete the following:		
ELECT 245	Electrical Code-Commercial	3
ELECT 250	Electrical Code-Industrial	3
ELECT 271	Electrical Cost Estimating 1	3
ELECT 275	Electrical Pipe Bending	1
ELECT 277	Blueprint Reading for Electricians	3
Subtotal Units		13
Total Units		41.5

GENERAL INDUSTRIAL ELECTRICIAN - CERTIFICATE OF ACHIEVEMENT

Plan Code: 3933

The General Industrial Electrician Certificate of Achievement will prepare students for entry-level employment in the electrical maintenance and troubleshooting industry. Upon completion, the student will be able to install, maintain, and repair electrical systems in a safe and workmanlike manner.

Program Student Learning Outcomes

- Develop procedures for the successful installation, maintenance and troubleshooting of electrical systems.

Program Requirements

Code Number	Course Title	Units
REQUIRED COURSES		
ELECT 245	Electrical Code-Commercial	3
ELECT 250	Electrical Code-Industrial	3
ELECT 271	Electrical Cost Estimating 1	3
ELECT 275	Electrical Pipe Bending	1
ELECT 277	Blueprint Reading for Electricians	3
Total Units		13