

# ELECTRICAL TECHNOLOGY, TRAFFIC SIGNAL TECHNICIAN - ASSOCIATE IN SCIENCE

Plan Code: 2996

This program will prepare students for entry-level employment in the traffic signal maintenance and troubleshooting industry. Most of this work is done by technicians employed by cities where the traffic signal systems are located. Upon completion the student will be able to install, maintain, and repair traffic signal 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 Traffic Signal 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
<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 256	High Voltage Safety Awareness	1
ELECT 275	Electrical Pipe Bending	1
ELECT 280	Traffic Signal Systems 1	3
ELECT 284	Traffic Signal Controllers & Digital Systems	3
ELECT 285	Traffic Signal Inspection and Safety	2
<b>Subtotal Units</b>		<b>10</b>
<b>Required Subtotal</b>		<b>38.5</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.

# ELECTRICAL TECHNOLOGY, TRAFFIC SIGNAL TECHNICIAN - CERTIFICATE OF ACHIEVEMENT

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Plan Code: 3996

This program will prepare students for entry-level employment in the traffic signal maintenance and troubleshooting industry. Most of this work is done by technicians employed by cities where the traffic signal systems are located. Upon completion the student will be able to install, maintain, and repair traffic signal systems in a safe and workmanlike manner.

## Program Student Learning Outcomes

- Develop procedures for the successful installation, maintenance and troubleshooting of Traffic Signal 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
<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 256	High Voltage Safety Awareness	1
ELECT 275	Electrical Pipe Bending	1
ELECT 280	Traffic Signal Systems 1	3
ELECT 284	Traffic Signal Controllers & Digital Systems	3
ELECT 285	Traffic Signal Inspection and Safety	2
<b>Subtotal Units</b>		<b>10</b>
<b>Total Units</b>		<b>38.5</b>

# TRAFFIC SIGNAL TECHNICIAN - CERTIFICATE OF ACHIEVEMENT

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Plan Code: 3936

This program will prepare students for entry-level employment in the traffic signal maintenance and troubleshooting industry. Most of this work is done by technicians employed by cities where the traffic signal systems are located. Upon completion of the Electrical Technology Certificate of Achievement and the Traffic Signal Technician Certificate of Achievement, the student will be able to install, maintain, and repair traffic signal systems in a safe and workmanlike manner.

## Program Student Learning Outcomes

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

## Program Requirements

Code Number	Course Title	Units
<b>REQUIRED COURSES</b>		
ELECT 256	High Voltage Safety Awareness	1
ELECT 275	Electrical Pipe Bending	1
ELECT 280	Traffic Signal Systems 1	3
ELECT 284	Traffic Signal Controllers & Digital Systems	3
ELECT 285	Traffic Signal Inspection and Safety	2
<b>Total Units</b>		<b>10</b>