



# ELECTRICAL TECHNOLOGY, TRAFFIC SIGNAL TECHNICIAN

## Curriculum Guide for Academic Year 2021-2022

### Table of Contents

- Associate in Science Degree, p. 1
- Certificate of Achievement, p. 2
- Career Opportunities, p. 2
- Program Mission and Outcomes, p. 3
- Legend, p. 3

Students planning to **transfer** to a four-year college or university should refer to the ASSIST web site at [www.assist.org](http://www.assist.org) and **consult a counselor** before beginning a program of study. Please call (562) 938-4561 (LAC) or (562) 938-3920 (PCC) to schedule a counseling appointment. Students may also wish to visit the Transfer Center on either campus.

Program of study leading to: <b>Associate in Science (A.S.) Degree</b>			Units	In Progress	Completed Grade
<b>Required Major Coursework:</b>					
	ELECT 253	OSHA Standards for Construction Safety	2		
†	ELECT 225	Algebra and Trigonometry for Technicians	4		
†	ELECT 204	First Semester Fundamentals of DC Electricity	4		
†	ELECT 240	Introduction to the National Electrical Code	3		
†	ELECT 209	Second Semester Fund of Motors/Generators	4		
†	ELECT 435A	Motor Control Wiring and Troubleshooting	2		
†	ELECT 212	Third Semester Fund Of AC Electricity	4		
†	ELECT 214	Fourth Semester AC Principles & Practice	4		
†	ELECT 242	Electrical Code-Grounding	1.5		
		<b>Subtotal Units</b>	<b>28.5</b>		
<b>Required Concentration Courses</b>					
	ELECT 280	Traffic Signal Systems 1	3		
†	ELECT 284	Traffic Signal Controllers and Digital Systems	3		
†	ELECT 285	Traffic Signal Inspection and Safety	2		
†	ELECT 275	Electrical Pipe Bending	1		
†	ELECT 256	High Voltage Safety Awareness	1		
		<b>Subtotal Units</b>	<b>10</b>		
		<b>TOTAL UNITS</b>	<b>38.5</b>		

For graduation with an **Associate in Science (A.S.) Degree with a major in Electrical Technology, Traffic Signal Technician:**

1. **Minimum Unit Requirements:** Any course that appears on a curriculum guide and the General Education Pattern (Plan A) may fulfill both major and general education requirements (Approved by College Curriculum Committee Spring 2012). For this degree, complete a minimum of 60 units in courses numbered 1-599. Please note that additional elective units may be required to meet this minimum based upon courses selected to fulfill General Education for the Associate Degree  

Electrical Technology, Traffic Signal Technician    38.5 Units  
 General Education §    19 Units
2. **Scholarship:** Maintain an **overall grade point average (GPA) of 2.0** ("C" average) based on all accredited college work applied to the degree, no matter where completed. For this **field of concentration, complete each course above** with a **grade of "C" or better**, or "P" if course is graded on a P/NP basis.
3. **Residence for the Degree:** Complete at least 12 semester units of the required 60 semester units in residence at Long Beach City College in order for the college to grant an Associate of Arts and/or an Associate of Science Degree.
4. **Residence for the Field of Concentration:** Complete fifty percent (50%) or more of the unit requirements for this

field of concentration in residence; this means at **least 19.5 units** of the required 38.5 units. Credit earned by exam, where applicable, may be included.

5. **General Education and Proficiency Requirements:** Complete the required A.A./A.S. General Education and Proficiency requirements\*, otherwise known as "Plan A". For Plan A requirements, refer to the general catalog or view it online at <http://osca.lbcc.edu> .
6. Complete and submit the degree application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at <http://admissions.lbcc.edu/> . Refer to the Schedule of Classes (<http://schedule.lbcc.edu>) and click the "Important Dates" link to view the actual deadline for each semester.

\*The requirements for general education/proficiency and the field of concentration (major) need to be from the same catalog year. This catalog year may be any year between the year of initial enrollment to the present, provided continuous enrollment is maintained throughout. See the catalog for definition of "continuous enrollment".

Program of study leading to:  
**Certificate of Achievement**

**REQUIRED COURSES**—Complete the 38.5 units of required courses as listed in the Associate Degree requirements box.

TOTAL UNITS    38.5   

For graduation with an **Electrical Technology, Traffic Signal Technician Certificate of Achievement:**

1. Complete each of the **REQUIRED COURSES** listed above with a **minimum grade of "C"**.
2. Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 19.5 units** of the required 38.5 must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.
3. Complete and submit the certificate application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at <http://admissions.lbcc.edu/> . Refer to the Schedule of Classes (<http://schedule.lbcc.edu>) and click the "Important Dates" link to view the actual deadline for each semester.

Program of study leading to:  
**Certificates of Achievement – Traffic Signal Technician**

**REQUIRED COURSES**

		UNITS	In Progress	Completed Grade
	ELECT 280                      Traffic Signal Systems 1	3		
†	ELECT 284                      Traffic Signal Controllers & Digital Systems	3		
†	ELECT 285                      Traffic Signal Inspection and Safety	2		
†	ELECT 275                      Electrical Pipe Bending	1		
†	ELECT 256                      High Voltage Safety Awareness	1		
<b>TOTAL UNITS</b>		<b>10</b>		

For graduation with a Traffic Signal Technician **Certificate of Achievement:**

1. Complete each of the **REQUIRED COURSES** listed above with a **minimum grade of "C"**, or better, or "P" if course is graded on a P/NP basis.
2. Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 5 units** of the required 10 units. Credit earned by exam, where applicable, may be included.

Complete and submit the certificate application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at <http://admissions.lbcc.edu/> . Refer to the Schedule of Classes (<http://schedule.lbcc.edu>) and click the "Important Dates" link to view the actual deadline for each semester.

**Career Opportunities**

This **Associate Degree or Certificate of Achievement** is a two-year program leading to the Associate in Science (A.S.) degree. This degree will help students succeed after transferring to a CSU or UC School Computer Science major program. Students wishing a bachelor's degree (transfer program) should meet with a counselor to discuss transferability of courses.

## Program Mission and Outcomes

Program Student Outcomes:

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

## Legend

† This course has a prerequisite. Prerequisite courses must be complete with at least a “C” or “P” grade. Refer to the General Catalog (<http://www.lbcc.edu/cat/index.html>), the Schedule of Classes (<http://schedule.lbcc.edu/>), or the online Credit Course Outline (<http://wdb-asir.lbcc.edu/coursecurriculum/course/details/>) for specific prerequisite information.