LONG BEACH CITY COLLEGE

ELECTRICAL TECHNOLOGY, SOLAR INSTALLATION and MAINTENANCE

Curriculum Guide for Academic Year 2019-2020

Table of Contents

Associate in Science Degree, p. 1
Career Opportunities, p. 3
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 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:
Associate in Science (A.S.) Degree

			Units	In Progress	Completed Grade
Required Major Coursework:					
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		
		Subtotal Units	28.5		
Required Concentration Courses					
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 277	Blueprint Reading for Electricians		3		
ELECT 475	Electrical Pipe Bending		1		
		Subtotal Units	**12**		
		TOTAL UNITS	**40.5**		

For graduation with an **Associate in Science (A.S.) Degree with a major in Electrical Technology, Solar Installation and Maintenance:**

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

   ELECT Certified Network Installation Associate 40.5Units
   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 20.5 units** of the required 40.5 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 40.5 units of required courses as listed in the Associate Degree requirements box.

TOTAL UNITS	**40.5**		

For graduation with an **Electrical Technology, Solar Installation and Maintenance 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 20.5 units** of the required 40.5 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 – Solar Installation and Maintenance

REQUIRED COURSES		**UNITS**	**In Progress**	**Completed Grade**
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		
	TOTAL UNITS	**12**		

For graduation with a **Solar Installation and Maintenance 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 6 units** of the required 12 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:

- Analyze various types of solar power generation systems and demonstrate the ability to properly size systems to meet demands

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/coursedetails/) for specific prerequisite information.