

Electrical Technology

(3ELEC, 4ELEC-TEC, 6ELEC-TEC, EELEC, and EELEC-CAE)



Type: Technical
Location: North and Central Campuses
Degree/Certificate: Occupational Certificate, Certificate of Technology, Associate of Applied Science (A.A.S.), Enhanced Skills Certificate
Duration: One term, two terms, and four terms

Program Information

Have you considered a hands-on skill that can lead to owning your business? San Jacinto College's electrical technology program may be the answer. Homeowners, builders, and businesses rely on skilled electricians for repairs and new installations. A career as a journeyman or master electrician puts you in demand. Our programs help you master everything from simple residential wiring to complex commercial and industrial power and controls for the area's petrochemical plants and business infrastructure.

The San Jacinto College electrical technology program:

- Uses a curriculum that prepares you to fill entry-level positions in residential, commercial and industrial electrical fields.
- Prepares students for jobs in maintenance, design, marketing, estimating and other electrical-related industries.
- Is a registered Electrical Apprenticeship program with the Texas Department of Licensing and Regulation (TDLR).
- Offers daytime and evening courses which enable apprentices to start accumulating the required on-the-job experience.
- Prepares students for journeyman and master electrical exams.

Additional Information

The Texas Department of Licensing and Regulation (TDLR) requires an apprentice to have 8,000 hours of on-the-job experience in order to take the Journeyman exam. A master electrician candidate must have 12,000 hours of verifiable experience.

Career Opportunities

According to the U.S. Department of Labor, employment of electricians is expected to increase faster than average for all occupations through the year 2022. Increases in population and economy will provide demand for more electricians, to install and maintain electrical devices and wiring in homes, factories, offices, and other structures.

Experienced electricians can advance to jobs as:

- Supervisors
- Project managers
- Construction superintendents
- Estimators
- Electrical inspectors
- Electrical contractors
- Master Electrician

Earning Potential

Electrician median salary: \$50,510 per year*

*Source: Bureau of Labor Statistics

For More Information

Call Center: 281-998-6150
General Email:
information@sjcd.edu

San Jacinto College Central

8060 Spencer Hwy.
Pasadena, TX 77505
281-476-1835

San Jacinto College North

5800 Uvalde Road
Houston, TX 77048
281-998-6150, ext. 7263

Electrical Technology (6ELEC-TEC)

Occupational Certificate

<i>First Term</i>	<i>Credit</i>
ELPT 1215 Electrical Calculations I	2
CETT 1302 Electricity Principles	3
ELPT 1325 National Electric Code I	3
ELPT 1345 Commercial Wiring	3
ELPT 1429 Residential Wiring	4
Occupational Certificate Total	15

Capstone Experience: ELPT 1345

Electrical Technology (4ELEC-TEC)

Certificate of Technology

<i>First Term</i>	<i>Credit</i>
ELPT 1215 Electrical Calculations I	2
CETT 1302 Electricity Principles	3
ELPT 1325 National Electric Code I	3
ELPT 1429 Residential Wiring	4
ELPT 1345 Commercial Wiring	3
Subtotal	15

<i>Second Term</i>	<i>Credit</i>
ELPT 1351 Electrical Machines	3
ELPT 1441 Motor Controls	4
ELPT 2215 Electrical Calculations II	2
ELPT 2325 National Electric Code II	3
ELPT 2343 Electrical Systems Design	3
Subtotal	15

<i>Third Term</i>	<i>Credit</i>
ELPT 1357 Industrial Wiring	3
ELPT 2305 Motors and Transformers	3
ELPT 2301 Journeyman Electrician Exam Review or ELPT 2364 Practicum (or Field Experience) - Electrical and Power Transmission Installation/Installer, General	3
Subtotal	9

Certificate of Technology Total 39

Capstone Experience: ELPT 2301 or ELPT 2364

Electrical Technology (5ELEC-TEC)

Level II Certificate

<i>First Term</i>	<i>Credit</i>
ELPT 1215 Electrical Calculations I	2
CETT 1302 Electricity Principles	3
ELPT 1325 National Electrical Code I	3
ELPT 1429 Residential Wiring	4
ELPT 1345 Commercial Wiring	3
Subtotal	15

<i>Second Term</i>	<i>Credit</i>
ELPT 1351 Electrical Machines	3
ELPT 1441 Motor Controls	4
ELPT 2215 Electrical Calculations II	2
ELPT 2305 Motors and Transformers	3
ELPT 2337 Electrical Planning and Estimating	3
Subtotal	15

<i>PostY1Summer</i>	<i>Credit</i>
ELPT 2325 National Electrical Code II	3
Subtotal	3

<i>Third Term</i>	<i>Credit</i>
ELPT 2343 Electrical Systems Design	3
ELPT 2319 Programmable Logic Controllers I	3
ELPT 1357 Industrial Wiring	3
ELPT 2301 Journeyman Electrician Exam Review or ELPT 2364 Practicum (or Field Experience) - Electrical and Power Transmission Installation/Installer, General	3
Subtotal	12

Level II Certificate Total 45

Capstone Experience: ELPT 2301 or ELPT 2364

Electrical Technology (3ELEC)

Associate of Applied Science Degree

<i>First Term</i>	<i>Credit</i>
ELPT 1215 Electrical Calculations I	2
CETT 1302 Electricity Principles	3
ELPT 1325 National Electric Code I	3
ELPT 1429 Residential Wiring	4
ENGL 1301 Composition I	3

Subtotal 15

Second Term *Credit*

ELPT 1345 Commercial Wiring	3
ELPT 1351 Electrical Machines	3
ELPT 1441 Motor Control	4
ELPT 2215 Electrical Calculations II	2
MATH 1333 Contemporary Mathematics for Technical Programs or MATH 1314 College Algebra	3

Subtotal 15

PostY1Summer *Credit*

ELPT 2325 National Electric Code II	3
---	---

Subtotal 3

Third Term *Credit*

ELPT 2343 Electrical Systems Design	3
ELPT 1357 Industrial Wiring	3
ELPT 2305 Motors and Transformers	3
ELPT 2337 Electrical Planning and Estimating	3
*Social and Behavioral Sciences	3

Subtotal 15

Fourth Term *Credit*

ELPT 2319 Programmable Logic Controllers I	3
ELPT 2301 Journeyman Electrician Exam Review or ELPT 2364 Practicum (or Field Experience) - Electrical and Power Transmission Installation/Installer, General	3
Speech.....	3
*Humanities or Fine Arts.....	3

Subtotal 12

Associate of Applied Science Degree Total 60

Capstone Experience: ELPT 2301 or ELPT 2364

* Courses which satisfy this requirement are listed in the Humanities and Fine Arts, and Social and Behavioral Sciences sections of the Transfer Core Curriculum.

Electrical Technology (EELEC)

Enhanced Skills Certificate

<i>First Term</i>	<i>Credit</i>
ELPT 2449 Industrial Automation	4
ELPT 1440 Mater Electrician Exam Review I	4

Enhanced Skills Certificate Total 8

Electrical Technology Communications and Alternative Energy (EELEC-CAE)

Enhanced Skills Certificate

<i>First Term</i>	<i>Credit</i>
EECT 1340 Telecommunicatins Transmission Media	3
RBPT 2345 Onsite Power Generation and Renewable Energy ...	3

Enhanced Skills Certificate Total 6

