

ELECTRICAL TECHNOLOGY, ASSOCIATE OF APPLIED SCIENCE

Program Information

Have you considered a hands-on skill that is very much in demand throughout the Houston region? San Jacinto College's Electrical Technology program is 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 students 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;
- Offers daytime and evening courses that enable apprentices to start accumulating the required on-the-job experience; and
- 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 to take the journeyman exam. A master electrician candidate must have 12,000 hours of verifiable experience.

Career Opportunities

According to the US Department of Labor, employment of electricians is expected to increase 7 percent from 2021 to 2031. Increases in population and economy will provide a 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, and
- Master electricians.

Earning Potential

Electrician: \$56,205 per year¹

¹ Source: Texaswages.com (<http://Texaswages.com>), median salary Gulf Coast region, 2021

For more information, students may contact Central campus, 281-478-2799; or North campus, 281-998-6350, x7346.

Campuses

Central Campus

North Campus

Information

The Electrical Technology curriculum is designed to provide basic training for students to fill entry-level positions in the fields of construction, maintenance, design, marketing, residential, industrial, commercial, and other electrical-related industries.

The program will also allow electrical workers to upgrade their skills as they gain on-the-job experience.

Students enrolling into San Jacinto College programs with external learning experiences (i.e., clinical, practicum, externship, cooperative, etc.) will be required to comply with the immunization requirements and policies of the clinical/external learning sites to engage in all clinical/external learning experiences. Vaccination requirements at clinical/external learning sites are implemented pursuant to the independent authority of such facilities and are not mandated by San Jacinto College. Failure to meet the immunization requirements mandated by clinical/external learning sites may limit a student's ability to complete the program and/or may delay the student's graduation date. San Jacinto College does not process exemptions, and students should address potential vaccination exemptions directly with the clinical/external learning site.

Plan of Study

3ELEC

First Term		Credits
ELPT 1315	Electrical Calculations I	3
ELPT 1325	National Electric Code I	3
ELPT 1321	Introduction to Electrical Safety and Tools	3
ELPT 1429	Residential Wiring	4
CETT 1302	Electricity Principles	3
Credits		16
Second Term		
ELPT 2325	National Electrical Code II	3
CNBT 2310	Commercial/Industrial Blueprint Reading	3
ELPT 1351	Electrical Machines	3
ELPT 1345	Commercial Wiring	3
MATH 1332 or MATH 1314	Contemporary Mathematics (Quantitative Reasoning) or College Algebra	3
Credits		15
Third Term		
ELPT 1357 or ELPT 1371	Industrial Wiring or Commercial Lighting, Fixtures, and Controls	3
ELPT 2423 or ELPT 2405	Transformers or Motors & Transformers	4
ELPT 1441	Motor Control	4
ENGL 1301	Composition I	3
Credits		14

Fourth Term

ELPT 2319 or ELPT 2337 or ELPT 2364	Programmable Logic Controllers I or Electrical Planning and Estimating or Practicum-Electrical and Power Transmission Installation/Installer, General	3
ELPT 2343	Electrical System Design	3
SPCH 1311 or SPCH 1315	Introduction to Speech Communication or Public Speaking	3
Select one of the following:		3
ECON 2302	Principles of Microeconomics Social and Behavioral Sciences	
Language, Philosophy and Culture (Humanities) or Creative Arts (Fine Arts)		3
Credits		15
Total Credits		60

Capstone Experience: ELPT 2343 Electrical System Design