

Electrician

31-32 unit certificate • 60 unit degree

The Electrician program prepares students to become an entry-level electrician trainee, and along with California State requirements prepares students for careers as electricians. Courses are aligned with the California state standards to prepare students to earn their Electrician Training card.

Required Courses (to earn certificate)

ELC/ELE-71 Residential Electrical Wiring (4 units)

The course introduces students to wiring methods commonly used in residential electrical wiring.

ELC/ELE/MAN-72 Commercial and Industrial Electrical Wiring (4 units)

Wiring of commercial and industrial buildings.

ELC/ELE/MAN-73 Electric Motors and Transformers (4 units)

Enables electricians to understand and effectively wire most standard DC motors, servos and steppers, as well as many AC motors.

ELC/ELE/MAN-74 Industrial Wiring and Controls (4 units)*

Industrial controls and electrical wiring of modern facilities, manufacturing, or warehousing.

ELC/ELE-75 Solid State Devices and Lighting Controls (3 units)*

Students will learn about solid state devices (electronics), sensors, SCR (silicon control rectifier), transistors, and proximity and light sensors used in most industrial and commercial installations.

ELC/ELE-76 Low Voltage Wiring and Alternate Energy Generation (3 units)

Introduces electricians to the specialized needs and requirements of institutional, educational and government entities.

ELC/ELE/MAN-77 Electrical Theory (3 units)

This course introduces students to electrical theory, Ohm's Law, magnetism, voltage inductance, capacitance, units of electric measurement, and proper usage of electrical test equipment (meters).

ENE-62 Math for Automated Systems (3 units)

Course concepts from arithmetic, algebra, geometry and scientific notation, extended and applied to problems in automation technology from electrical and mechanical engineering including metal work, welding, and building energy systems.

OR

MAT-36 Trigonometry (4 units)*

Prerequisite: MAT-35 and 53 or qualifying placement level.

A course in mathematical problems frequently used by students enrolled in the trade, industrial and engineering programs.

CON-66 National Electrical Code (3 units)

Review of electrical codes including discussion and analysis of the application of physical laws in development of the code requirements.

*This class transfers toward one or more CSUSB or CalPoly majors. Visit www.assist.org or the Counseling office for details.

Electrician

Tuition \$46/unit • Duration of Study: 16 months

An Association of Science Degree in Electrician will be awarded upon completion of the required courses (31-32 units) plus the General Education requirements. Please refer to the Norco College Catalog or visit the Counseling Center.

Job & Wage Information

- Electronics Engineering Technician
Wage Range*: \$29.06-41.99
2% increase in employment expected in CA 2019-2029; 2,330 openings annually
More info: <http://bit.ly/ElectronicsEngineeringTechNC>
- Critical Systems Technician
Wage Range*: \$27.33-32.15
2% increase expected in CA 2019-2029; 200 openings annually
More info: <http://bit.ly/ElectricalInstallerNC>
- Quality Control Technician/Analyst
Wage Range*: \$23.60-30.84
7% increase expected in CA 2019-2029; 1,120 openings annually
More info: <http://bit.ly/QualityControlNC>

*2020, Riverside/Ontario/San Bernardino Metro Area

What type of interests might be a good fit for this career choice?



Realistic

People who have athletic or mechanical ability and prefer to work with objects, machines and tools. Preference for working with things over people.

For more information on careers that fit this category of interests, visit the Career Center in the Center for Student Success.

What's Your School?

SCHOOL OF
Science, Technology,
Engineering & Mathematics

Visit www.norcollege.edu/STEM for more information about this program.