

Green Technician 7-12 unit certificate

The Green Technician certificate program teaches students about renewable energy and related sustainability concepts. Design, installation, and maintenance issues along with OSHA safety are included.

Required Courses

MAN-77 Electrical Theory for Electricians (3 units)
An introduction to electrical theory, Ohm's Law, magnetism, electromagnetism, voltage, resistance, current, inductance, capacitance, reactance, impedance, Watts, Volt-Amps, VARs, current control devices, sensors and actuators phase angle, power-factor, transformers, motors, power distribution systems, and proper usage of electrical test equipment (meters). Student will learn concepts of electrical power, energy, Kirchoff's Laws, along with basic math to solve fundamental electrical problems for both alternating current (A.C.) and direct current (D.C.) circuits. Student will learn basic electrical safety procedures, including the proper use and requirements for personal protective equipment (PPE).

OR

ELE-11 DC Electronics (4 units)*
Basic electrical theory including Ohm's Law, the Power Law, the Current and Voltage Laws of Kirchoff, Direct Current (DC) theory, time constants, multimeter measurements, magnetism, electromagnetism, resistors, capacitors, coils, transient analysis and DC motors, voltage, current, resistance, power, series, parallel and complex series/parallel circuits.

AND

ELE-13 AC Electronics (4 units)*
Prerequisite: ELE-10, 11, 21 or 23
Alternating current (AC) theory, devices, circuits and applications include: resistance, reactance, impedance, capacitance, inductance, Ohm's Law, Power Law, sinusoidal waveforms, Peak, Peak-to-Peak and Root-Mean-Square (RMS) measurements.

ELE-91 Fundamentals of Solar Energy (3 units)*
This course is for students interested in a career in the solar industry. The fundamental principles and functions of photovoltaic industry will be introduced along with the planning, installation and maintenance of all necessary components for a photovoltaic system.

ELE/MAN-55 Occupational Safety and Health Administration (OSHA) Standards for General Industry (1 unit)
This course covers OSHA policies, procedures, and standards as well as safety for general industry and health principles. Topics include scope and application of the OSHA general industry standards.

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

Green Technician

Tuition \$46/unit • Duration of Study: 10 months

A certificate in Green Technician will be awarded upon completion of the required courses (12units). Please refer to the Norco College Catalog or visit the Counseling Center.

Job & Wage Information

- Solar Photovoltaic Installer
Wage Range*: \$17.35-25.81
8% increase expected in CA 2019-2029; 1,480 openings annually
More information: <http://bit.ly/SolarInstallerNC>

*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.