

# General Electrician Module IV - VI

**School:** SoCal ROC  
**Course ID:** 520  
**Availability:** Call 310-224-4200  
**Weight:** 0.00kg  
**Dimensions:** 0.00cm x 0.00cm x 0.00cm

## Short Description

**Commercial/Industrial Wiring, Electric Motors, Motor Controls and Intro to PLC**

## Description

**Module IV** teaches the issues concerning power quality and teaches the student test equipment and procedures to maintain and troubleshoot transformers, distribution systems and branch circuits. It also deals with power distribution via transformers, it includes all aspects of power supplied by transformers such as single-phase systems, three-phase wye and delta distribution systems and voltage correction through primary taps and autotransformers.

It focuses on the selection and utilization of electrical instrumentation, proper interpretation of wire color connections, proper wiring techniques, and the types and features by technical instruction and practical experience in wiring.

In **Module V** the student will first gain a thorough understanding of the types and operating characteristics of AC and DC motors. It focuses on AC and DC motors and generators, single-phase motors, three-phase power systems and machines, testing procedures on live circuits, motor control, troubleshooting and maintenance techniques. It provides students with technical instruction and practical experience in workplace safety, code-approved wiring techniques, and AC theory.

**Module VI** focuses on the features, functions, and control of magnetic full voltage starters. It also covers the basic operation of manual motor starters, the operation and application of motor overload devices and control pilot devices, the use and troubleshooting techniques for two-wire, three-wire, and separate control circuits.

Students will learn not only how to install and connect control circuits they will learn how to fully notate and document the control circuits to facilitate quick and easy troubleshooting. Students will be able to size and specify DC power supplies, identify common semiconductor devices, be able to specify, install and troubleshoot proximity, photoelectric and ultrasonic sensors.

They will also be able to understand the basics of digital logic and identify the parts of a programmable logic controller, connect the inputs and outputs of a programmable controller. Students will learn to nexplain how the controller inputs,updates, processes logic, controls outputs and be able to install and program smart relays.

**Prerequisites**

1. Must be 18+
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3. Must have passed Module I-III to enroll

**On the job training**

Yes

**Schedule**

**Complete Module IV-VI in 1 Semester:** Monday - Thursday from 9:45am - 3:45pm

To access the most recent course schedule please call registration or click the link under Course Information. Please be advised the schedule is subject to change.

**Course Location**

**SoCal ROC**

Address: 2300 Crenshaw Blvd., Torrance, CA 90501 U.S.

Phone: 310-224-4200