



# Introduction to Electronics for Electricians

On-Line Electrical – 8 hours

**COST: \$99.00**

*Successful completion of this course results in an ABC certificate and is accepted as Continuing Education towards renewal of a California electrical license.*

**TO REGISTER:** Call or email Continuing Education at (858) 513-4700 or [continuinged@abcsd.org](mailto:continuinged@abcsd.org).

**Payment:** Your tuition will be covered in full if you qualify with Training Funds; otherwise, a credit card will be required for the full tuition.

## **COURSE DESCRIPTION:**

In this class, electricians learn about Electronic Components, Electronic Circuits, and the Electrical Theory that underpins them.

## **Course Topics Include:**

- Electrical/ Electronic Theory
- Electrical history
- Use of engineering notations
- Electrons, protons, neutrons
- Law of Charges
- Conductors
- Insulators
- Semiconductors
- Magnetism
- Static electricity
- Current, voltage, resistance
- Different types of electrical circuits
- Ohm's Law
- Electrical sources: AC and DC
- Series, parallel, and combination circuits
- Electronic Components
- Resistors
- Applying resistor color code to find ohm values
- Semiconductors
- Diodes including LEDs
- Transistors
- Inductors
- Capacitors
- Integrated Circuits
- Electronic Circuits
- Power supplies
- Transformer circuits
- Rectifier circuits
- Filter circuits
- Regulator circuits
- Schematic diagrams
- Printed circuit boards & breadboards
- Virtual breadboards

## **IMPORTANT TO NOTE:**

- Students must pass the final exam to earn credit for this course.
- All course hours must be completed within 90 days of purchase to receive credit.
- Review the System Requirements below BEFORE you enroll in this class, to make sure your computer is compatible.

## **MINIMUM SYSTEMS REQUIREMENTS:**

- Supported Operating Systems: Desktop or Laptop Running Windows XP and later or running Mac OS X and later
- Latest version of Adobe Flash Player installed. Download latest version at: <https://get.adobe.com/flashplayer/>
- DSL connection or higher
- REQUIRED BROWSER SUPPORT: Internet Explorer 9 and later, Google Chrome 17.0 and later or Safari 5.1 and later
- MOBILE DEVICE SUPPORT: Tablets with IOS 7 or later and Android 4.2.2 or later.
- *Self-paced courses are not officially supported on smartphones of any kind.*

## **CANCELLATION POLICY:**

No refunds or transfers

## **TUITION COVERED & Class not completed:**

Full tuition will be deducted from any remaining Training Funds.

**QUESTIONS?** Please call (858) 513-4700 and ask for Continuing Education (x206).