



Bharath Gulf

Electrician Training Course

Course Outline

- **Module 1:** A Practical Approach to Electrical Work
- **Module 2:** Electricity
- **Module 3:** Residential Wiring: An Introduction
- **Module 4:** Residential Wiring: Lighting
- **Module 5:** Residential Wiring: Special Circuits
- **Module 6:** Commercial Electrical Wiring
- **Module 7:** Industrial Electrical Wiring

We take great pride in providing you with the most up-to-date electrician training textbooks and equipment. One or more of the subjects mentioned to the right might, therefore, change if updating becomes necessary during the course of your electrician training. The order in which the material is presented may vary.



Module 1:

A Practical Approach to Electrical Work

- The Electrical Trade Today and Tomorrow
- Safety First: Fire and Shock
- Electrical Connections
- The Electrician's Best Friend—The Multimeter
- Now You Try It: Practical Exercises You Can Do Today
- A "Parts List" for the Future

Module 2:

Electricity

- The Electron
- Conductors and Insulators
- Volts, Amperes, and Ohms
- Resistance and Conductance
- Meters
- Ohm's Law
- Power and Voltage Drop
- Series and Parallel Circuits
- Sources of Electricity
- Friction, Heat, Pressure, Light and Magnetism
- Motors
- Direct Current and Alternating Current
- Vectors and Sinusoidal Waveforms
- Capacitance, Inductance, Reactance, Impedance and Resonance
- Transformers
- Semiconductors, Diodes and Transistors
- Amplification and Rectification

Module 3:

Residential Wiring: An Introduction

- General Information for Installations
- Electrical Symbols and Outlets
- Lighting and Small Appliance Circuits
- Wiring Methods
- Switch Controls
- GFCIs

Module 4:

Residential Wiring: Lighting

- Lighting Fixtures, Ballasts and Lamps
- Lighting Branch Circuits for the Front Bedroom, Master Bedroom, Bathroom, Hallways, Front Entry, Porch, Kitchens, Living Room, Study/Bedroom, Garage, Rec Room and Workshop
- Special Purpose Outlets: Water Pump, Water Heater

This program is specifically designed to serve as an introduction or enhancement of the theoretical knowledge required for the vocational application of this subject. It is intended to help individuals in the furtherance of their vocational training and is not intended as a substitute for licensing or certification requirements, which may include an apprenticeship or additional training, as required by law.



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Module 5:

Residential Wiring: Special Circuits

- Waste Disposals, Dishwashers
- Ceiling Fans, Attic Fans
- Air Conditioning, Electric Heating
- Gas and Oil Central Heating Systems
- Low Voltage Systems
- Security Systems, Remote Control Systems
- Pools, Spas, Hot Tubs

Module 6:

Commercial Electrical Wiring

- Plans and Specifications
- Entry Level Electrical Working Drawings
- Computing the Electrical Load
- Branch Circuit Installation
- Motor and Appliance Circuits
- Upper Level Electrical Working Diagrams
- Panel board Selection and Installation
- Electrical Service Equipment
- Emergency and Standby Power Systems
- Fuses and Circuit Breakers
- Low-Voltage Remote Control Lighting
- The Cooling System

Module 7:

Industrial Electrical Wiring

- Construction Plans and Site Work
- Transformers and Over Current Protection
- Feeder Bus Systems
- Panel Power Boards and Protective Devices
- Trolley Busways
- Wire Tables and Conductor Size
- Motors, Controllers and Installation
- Ventilation and Air-Conditioning
- System Protection, Circuit Breakers, and Coordination
- Lighting Protection and Site Lighting
- Programmable Logic Controllers
- Hazardous Locations and Safety

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