

ADD ON COURSE

DEPARTMENT OF PHYSICS

COURSE TITLE: BASIC ELECTRICAL HOUSE WIRING

This course is simple and easy way for learning at the beginning for understanding the different types of tools and devices used in electrical wiring. The students, professional and the fresher's on this course can easily able to understand the principle and concept of electrical wiring. After completing this course, students will have a solid knowledge of the fundamental of electrical wiring and how it functions within the home, including how electricity is generated, transmitted and how it enters the home through the power meter, the main breaker and the branch circuit breaker panel. This course covers details all types of switches and how to correctly wire them. Safety practices are covered in detail in the course.

At the end of the course the student will know how to take on small electrical projects and repair around the home, both safely and competently.

Aim: This course is designed to develop a real-time hand on skills to inspect, identify, repair and maintain electrical connections with appropriate hand tools and power equipment.

Pre-requisite to the course: Inclination for taking up electrical wiring as a self-employment occupation candidate should be able to read and write local language. Basic knowledge of electricity is preferred. Minimum educational qualification of the candidate: H.S.L.C passed in the age group of 18 to 45 years.

Career Opportunities: At the end of the course, the candidate will be able to

1. Perform house/hospital/office wiring etc.
2. Start own electrical shop or business enterprise.
3. Understand the fundamental of electrical equipment, electricity, currents and voltage etc.

THEORY:

Unit 1 (No. of lecture: 4, Markes:10)

Basic symbols of electricity: Ground or earth electrode, Antenna, Battery, Source: constant voltage, fuse, inductor, motor, bulb, transformer, co-axial plug, switch, resistor, capacitor, diode, diode LED, Capacitor.

Unit 2 (No. Of lectures: 6, marks: 15)

Electrical devices and their uses: Transformer, motor, generator, electrical appliances such as ceiling fan, table fan, vacuum cleaner, washing machine, electric bulb, heater, refrigerator, electric iron, mixer grinder etc.

Devices of measuring electricity: Ammeter, Voltmeter, Multimeter

Unit3 (No of lectures: 4 marks: 10)

Electrical tool and instruments: Tape measure, Multimeter, wire stripper, fish tape, non- contact voltage detector, pliers, flashlight, power drills and drivers, hammer, cable cutter, voltage taster, spanners, electrical tape, insulated screwdrivers etc.

Unit 4: (No of lectures:4, marks:10)

Electrical circuits and electrical wire joints: Series and parallel connections, line wire, neutral wire, earth wire understanding wire and cable specification switches.

Unit 5(No of lectures: 2, marks: 5)

Rules of safety of electricity: Different precautions and safety measures from electric shock to be discussed.

Practical (No of Periods: 15, total marks: 40)

1. Practical work on soldering practices and AC and DC power supply testing.
2. Practical work on connection test in different electrical appliances such as ceiling fan, table fan, electric bulb, heater, electric iron etc.
3. Practical work on current and voltage measurement using multimeter.
4. Practical work on house wiring by OVC casing, PVC rigid pipe and MS pipe including testing and commissioning.

List of Students:

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Practical Class Image:





Certificates:



