Electrical Installation Syllabus

Module	Unit	Topics / Content	Learning Outcomes	Suggested Activities
Module 1: Electrical Safety and Fundamentals	**Unit 1: Electrical Safety and Housekeeping**	- Electrical hazards (shock, burns, fire) - PPE (gloves, goggles, boots) - Safe work practices - Housekeeping	- Identify hazards - Demonstrate safe practices - Maintain a clean workspace	- Safety demonstration - Hazard identification exercise
	Unit 2: Tools, Measuring Devices, Cable Color Code & Voltage Supply	- Hand tools (pliers, strippers, screwdrivers) - Measuring devices (multimeter, tester), measuring tape - Cable color codes (live, neutral, earth) - Voltage supply (single & three-phase)	- Identify tools and uses - Interpret color codes - Distinguish voltage types and supplies	- Tool identification activity - Matching exercises - colour code identification
Module 2: Introduction to Electricity	**Unit 1: Electrical Generation & Ohm's Law**	- Electrical generation, transmission and distribution of electrical energy - Ohm's Law Voltage, current, resistance	- Explain electricity generation - Apply Ohm's Law - Define electrical terms	- Simple calculations - Demonstrations
	Unit 2: Fixtures and Fittings	- Types of lamps, switches, and socket outlets - Electrical accessories	- Identify fixtures - Select appropriate fittings	- Show-and-tell activity

	Unit 3: Use of Multimeters	- Multimeter parts - Measuring voltage, current, resistance - Safety procedures	- Use a multimeter correctly to measure voltage, resistance, current, and continuity - Take accurate readings	- Practical measurement exercises
Module 3: Introduction to Circuit Wiring	**Unit 1: Wiring an Extension Cord**	- Components of an extension cord - Cable selection - Wiring procedure	- Assemble the extension cord safely	- Hands-on wiring task
	Unit 2: One-Way Lighting Circuit & Material Estimate	- Circuit diagrams - Wiring a one-way switch - Estimating materials	- Prepare material list - Wire a one-way circuit	- Cost estimation activity - Practical wiring