No	Course Information	
1	Unit name:	Principle of Electrical Engineering
2	Code:	EP 11011
3	Classification:	Engineering subject
4	Credit value:	2.5
5	Semester/ Year Offered:	1/1
6	Pre-requisite:	NA
7	Mode of delivery:	Lecture, Practical
8	Assessment system and breakdown of marks:	
	Test	20%
	Mid-term Examination	30%
9	Academic staff teaching unit:	
10	Course outcome of unit: In this course students will be able • To describe the characteristics of electron theory, electric charges • To describe the circuit diagram of DC Circuits and Ohm's law. • To explain the current and voltage in the DC circuit by Ohm's law and voltage and current divider method. • To compute the power in DC circuit, magnets and electromagnet. • To explain the function of electrical equipment. .	
11	Synopsis of unit: The course covers the basic of electric energy and electrical concepts. The course introduces electric charges, conductors, insulators, semiconductors, current, voltage, resistance, inductance, capacitance, power, magnet and electromagnetic.	

	Topic: **Chapter Title**
	➢ **Electron Theory** ➢ **Conductors, Insulators and Semiconductors** ➢ **Electric Charges** ➢ **Current** ➢ **Voltage** ➢ **Resistance** ➢ **Simple Electric Circuit** ➢ **Ohm's Law** ➢ **DC Series Circuit** ➢ **Series-Parallel Circuits** ➢ **Power** ➢ **Magnetism** ➢ **Electromagnetism**
14	Main references: From Siemen Textbook For IBE-EP Electrical Circuit Theory and Technological, JOHN BIRD, 5th Edition Electrical and Electronic Principles and Technology, John Bird, 3rd Edition Electrical Charge, Force, and Field Problems (Practice Question), Arun Saha, http://oer.galileo.usg.edu/physics-ancillary/2
15	Additional references: www.dummies-com>science-electronics http://www.anixter.com> literature> the ……

Information on Lab Practical

1	**Application of Electrical Hand Tools** **Objective:** It is intended for students who studied in Electrical Power to use correctly and proficiently the hand tools. **Requirement Materials** • Cutting Plier • Long Nose Pliers • Screw Driver (star, flat) • Tester • Pocker • Jumper • Wood Saw • Hacksaw • Claw Hammer • Wire Gauge Plate Connecting wires
2	**Resistor color code** **Objective:** - To understand the construction of resisters and type of resistors - To interpret the color code of resistors - To measure the resistance of resistors and compare its code - To use correct value of resistor in electric circuits **Requirement Materials** • Resistor
	Application of Multi-meter **Objective:** To measure and test the voltage, current and resistance. To knows the usage of multi-meter. **Requirement Materials** 1. Resistors 2. Capacitors 3. Battery (1.5V, 9V) 4. Multi-meter

	Application of modern Inductance Capacitance Meter **Objective:** To measure and test the modern inductance and capacitance. To knows the usage of inductance capacitance meter. **Requirement Materials** 1. Inductors 2. Capacitors 3. Modern Inductance Capacitance Meter
	Application of Clamp Meter **Objective:** To measure the Clamp meter. To knows the usage of Clamp meter. **Requirement Materials** **1.** Clamp meter
	Wire Splice/connection method **Objective:** To know the wire connection method. To use the method for anywhere. **Requirement Materials** 1. Wire 2. Plier 3. Cutter
	Measuring of Resistor Using Multi-meter **Objective:** To measure and test the voltage, current and resistance. To knows the usage of multi-meter. **Requirement Materials** 1. Resistors 2. Capacitors 3. Battery (1.5V, 9V) 4. Multi-meter Measuring and Interpretation of Resistor Color Code