**EEE 204**

**Basic Electrical Engineering (3units)**

1. Circuits - elements, dc and ac circuits, basic circuit laws and theorems. Resonance, power, power factors, 3-phase circuits.

2. Introduction to machines and machine designs. Physics of devices

3. Discharge devices, semi-conductors, diode and transistors. Transistor characteristics, devices and circuits;

4. Electrical and electrical power measurements. Instrumentation systems including transducers, signal conditioners, and read out devices. Oscilloscope, recorders, bridges.

5. Measurement of voltage, current, resistance, impedance, frequency, phase difference, electric power, energy, force, displacement, temperature, flow, pressure, and other engineering parameters.