

Faculty of Engineering & Technology**Electrical Circuits 1****Information :****Course Code :** EED201**Level :** Undergraduate**Course Hours :** 4.00- Hours**Department :** Electrical Power Engineering**Instructor Information :**

Title	Name	Office hours
Associate Professor	Moneer Mohamed Ali Abu-Elnaga	8
Assistant Lecturer	Ahmed Moreab Hussien Mohamed	

Description :

Basic electrical quantities, Ohm's Law, Kirchhoff's Laws, Resistance and source combinations, Voltage and current division, Y-delta transformation. Techniques of solving DC electric circuits: nodal and mesh analysis, source transformation. Circuit theorems: superposition, Thevenin, Norton and Maximum power transfer. AC sinusoidal sources, Time domain and phasor representation, Inductance and capacitance: Voltage and current relationships, Impedance and admittance, Voltages and currents phasor diagrams, Techniques of solving AC electric circuits: Nodal analysis, Mesh analysis, and source transformation. Theorems: superposition, Thevenin, and Norton. Steady state power analysis.