Course Code: EEE 4101

Course Title: Electrical Engineering

Course Code and Title	Section A	Section B
EEE 4101- Electrical Engineering	**ELECTRIC CURRENT** Understand electricity and its nature; Structure of atoms; Current, voltage and resistance; Factors upon which the resistance of a conductor depends, Laws of resistance; Current density and electric field strength; The relation $R=\rho L/A$; Electricity Bills. **OHM'S LAW** Understand Ohm's Law, the relation between energy current, voltage and resistance; Equivalent resistance; Wye-delta transformation. **KIRCHHOFF'S LAW** Principles of Kirchhoff's Law; Nodal Analysis; Mesh analysis; Lighting system.	**NETWORK THEOREM** Understand network theorem; Source transformation technique; Superposition theorem for DC analysis; Thevenin's theorem for DC analysis; Norton's theorem for DC analysis; Maximum Power Transfer theorem for DC analysis. **CAPACITORS AND INDUCTORS** Features of capacitor and inductors; Series parallel capacitors and inductors;