0401213 Electrical Engineering

(3 Credit hours, Prerequisite 0302102 General Physics (2))

Circuit components and Ohms law; Kirchhoffs laws; circuit theorems; circuit analysis; AC steady state circuits; AC circuit analysis; AC power calculations; three phase circuits; introduction to magnetic circuits; single-phase and three-phase transformer; fundamentals of DC generators and motors; introduction to AC machines. 3-phase system, Magnetic field and circuits, Principles of AC machines, synchronous generator, Synchronous motor, Induction motor, single-phase motors.