



EGR 131: Introduction to Electrical Circuits

This course is an introduction to DC electrical circuits. It examines physics and laws of voltage, current, and power; series and parallel direct current circuit analysis. It includes equivalent circuit concepts and methods of DC circuit analysis including Mesh and Nodal Analysis. Network theorems, including Thevenin's, Norton's and Superposition are also examined. Prerequisite(s): Intermediate Algebra Competency, or concurrent enrollment in MTH 152. Three lecture hours and three laboratory hours per week. Instructional Support Fee applies.

Course Student Learning Outcomes

1. Utilize mathematical concepts required to solve DC circuits.
2. Conduct circuit analysis on series and parallel DC circuits.
3. Develop the ability to apply Ohms law to analyze simple one loop circuits to complex mesh circuits utilizing network theorems such as Thevenin, Norton and superposition.
4. Discuss principles of transient capacitive and inductive circuits.

Credits: 4

Program: Engineering