

# ENGR2210 : Electrical Circuits

Fundamental principles of electrical circuits, DC and AC circuit analysis, single and three-phase electric power systems, electric motors. Introduction to circuit components, Ohm's and Kirchhoff's laws, superposition, Thevenin and Norton theorems, operational amplifiers, RL and RC transients, circuit simulation with SPICE. Sinusoidal steady-state analysis, transformers, frequency response, Bode plots, resonance and filters, and Laplace transforms. **Fee:** Additional fee required.

**Credits** 3

**Concurrent**

ENGR2210L

**Prerequisites**

[MATH3540](#), [PHYS2120](#)

**Fees**

\$300