

ELEC 201 and ELEC 202     *Electric Circuit Analysis I and II*     Three Credit Hours

Prerequisites for ELEC 201: MATH 131 or permission of the department head to allow it as a corequisite; prerequisite or corequisites: ELEC 104, PHYS 221/271.

Prerequisites for ELEC 202: MATH 132 or permission of the department head to allow it as a corequisite, a grade of "C" or better in ELEC 201; prerequisite or corequisites: ELEC 105, ELEC 204, ELEC 206.

Required of electrical engineering sophomores.

Basic electrical elements and sources, Ohm's and Kirchoff's Laws, techniques of circuit analysis, sinusoidal analysis and phasors, power, three-phase circuits, and transient response of simple circuits, uses SPICE to aid circuit analysis.

Lecture: three hours, two semesters.

**Students must earn at least a "C" in ELEC 202 before enrolling in any courses for which ELEC 202 is a prerequisite.**

ELEC 204     *Electrical Laboratory*     One Credit Hour

Prerequisites or corequisites: ELEC 202 or ELEC 308, ELEC 206

Required of electrical engineering sophomores.

An introduction to the experimental method. Laboratory exercises are designed to supplement the material presented in ELEC 201 and ELEC 202.

Laboratory: two hours.

ELEC 206     *Computer Applications for Electrical Engineers*     Three Credit Hours

Prerequisite or corequisite: ELEC 202 or ELEC 308

Required of electrical engineering sophomores.

The computer is presented as a tool for the solution of electrical engineering problems. High level language programming of computers; the use of application programs for the study of electrical circuits in the time and frequency domains; data manipulation, data plotting, and equation solving using application programs such as MATLAB.

Lecture: three hours

ELEC 301     *Linear Systems Laboratory*     One Credit Hour

Prerequisite: ELEC 204, ELEC 309

Corequisite: ELEC 312

Required of electrical engineering juniors.

A laboratory course to accompany ELEC 312.

Laboratory: two hours.