ELEC 302 *Electrical Machinery Laboratory* One Credit Hour
Prerequisite or corequisite: ELEC 316
Required of electrical engineering juniors.
A laboratory course to accompany ELEC 316.
Laboratory: two hours.

ELEC 306 *Electronics I* Three Credit Hours
Prerequisites: ELEC 202, ELEC 204, ELEC 206; prerequisite or corequisite: ELEC 313
Required of electrical engineering juniors.
Characteristics of solid-state devices; theory and design of low-frequency amplifiers; transistor biasing and stabilization; design of multistage amplifiers, utilizing bipolar and MOS devices.
Lecture: three hours.

ELEC 307 *Nuclear Engineering* Three Credit Hours
Prerequisite: PHYS 222/272
An introduction to the theory and application of nuclear energy. Topics include fission and the chain reaction; nuclear fuels; nuclear reactor principles, concepts, examples, construction, operation, and ecological impact; radiation hazards and shielding; nuclear propulsion; and controlled fusion.
Lecture: three hours.

ELEC 308 *Elements of Electrical Engineering* Three Credit Hours
Prerequisite: MATH 132
Required of civil engineering juniors.
Fundamental electrical concepts and units; basic laws of electrical circuits; equivalent circuits; DC and steady-state AC circuit analysis; and effective current, average power, and three-phase power.
Lecture: three hours.

ELEC 309 *Signals and Systems* Three Credit Hours
Prerequisites: ELEC 202, ELEC 204, ELEC 206, MATH 234; prerequisite or corequisite: MATH 335
Required of electrical engineering juniors.
The study of continuous and discrete systems utilizing Laplace and z-transform theory.
Lecture: three hours.

ELEC 311 *Digital Logic and Circuits* Three Credit Hours
Prerequisite or corequisite: MATH 206 or consent of department head.
Required of electrical engineering sophomores.
Introduction to Boolean algebra; digital data coding; digital arithmetic; design of combinational and sequential circuits; design, construction and evalua-