

EE 1001L: Introduction to Electrical Engineering Lab

1 Credit Hours

Prerequisite: ENGR 1000

This is the laboratory portion of the multidisciplinary engineering course, ENGR 1000, serving as its specific Electrical Engineering (EE) component. It introduces the EE faculty and gives overviews of career opportunities, campus facilities, student organizations, etc. Skills necessary for EE students are introduced, including writing formal laboratory reports, preparing a speech with audio-visual highlights, learning basic printed circuit board design and soldering, drafting a winning resume, applying basic computer skills, and performing a small-scale EE research project. Notes: This is the preferred lab in the 2-course orientation sequence for Electrical Engineering major, along with the required lecture ENGR 1000. However, it is open to all students, and it is an allowable lab for all engineering majors' orientation lab requirement.

EE 2290: Special Topics

1-6 Credit Hours

Special Topics course for Electrical Engineering majors.

EE 2301: Circuit Analysis I

4 Credit Hours

Prerequisite: PHYS 2212 or (ENGR 1000 and MATH 1190)

This course introduces basic circuit analysis including resistive circuits, voltage and current sources, analysis methods, network theorems, energy storage elements, and AC steady-state analysis. Techniques for analyzing resistive networks are heavily emphasized. In addition, the physical mechanisms of capacitance and inductance are examined along with analysis of transient responses in circuits containing resistors, capacitors, and inductors. Laboratory exercises reinforce the theoretical concepts presented in class and provide various opportunities to become proficient with standard instrumentation used in electrical engineering.