ECET 4420L: Communications Circuit Applications Lab

1 Credit Hours

Concurrent: ECET 4420

Students simulate, build, and test circuits used in communications systems. These include amplifiers, oscillators, mixers, filters, and matching networks.

ECET 4510: Power System Analysis

3 Credit Hours

Prerequisite: ECET 2111

This course involves the analysis of power systems starting with the calculation of line resistance, line inductance, and line capacitance of power transmission lines. These parameters are used to model power systems in order to derive the bus impedance matrix, perform network calculations and analyze systems for symmetrical and unsymmetrical faults.

ECET 4520: Industrial Distribution Systems, Illumination, and the NEC

3 Credit Hours

Prerequisite: ECET 3500

This introductory design course involves the lighting, wiring and electrical protection systems in commercial and industrial buildings. This course covers: lighting fundamentals, light sources, lighting system layouts for interior spaces, protection of electrical systems, fuses, circuit breakers, instrument transformers and protective relays, grounding and ground-fault protection, feeder design and branch circuits for lighting and motors. This course includes projects - designing lighting and wiring systems for commercial/industrial buildings.

ECET 4610: Control Systems

3 Credit Hours

Prerequisite: ECET 2310 and ENGT 2000

This course is a study of feedback control systems theory including practical applications of compensation and PID concepts. Control system modeling, transient and steady state characteristics, stability and frequency response are analyzed. Compensation and controller design using Root locus methods are covered. The use of control system software, such as MATLAB, in the analysis and design of control systems is emphasized.