

ECET 3410L: High Frequency Systems Lab

1 Credit Hours

Prerequisite: ECET 2310 and either (PHYS 2212 and PHYS 2212L) or (PHYS 1112 and PHYS 1112L)

Concurrent: ECET 3410

Students measure the performance of electromagnetic transmission system elements including transmission lines, waveguides, and components. Matching networks are designed with Smith charts, simulated, and analyzed.

ECET 3620L: Signals and Systems Analysis Lab

1 Credit Hours

Prerequisite: ECET 2310, ECET 2310L and MATH 2306

Concurrent: ECET 3620

This lab develops the analysis of continuous- and discrete-time signals occurring in circuits and systems containing linear and nonlinear elements. Methods include graphical techniques, Laplace transform, Fourier analysis, convolution, and difference equations. Topics regarding communication systems, Bode plots for transfer functions, classical filter responses, and practical second-order filter designs are also presented. An introduction to discrete-time systems and sampling theory is included. MATLAB is used in conjunction with all laboratory exercises.

ECET 3701L: Embedded Systems Lab

1 Credit Hours

Prerequisite: ECET 2210 and ECET 2310

Concurrent: ECET 3701

This laboratory course supplements ECET 3701. The initial part consists of a series of weekly labs designed to familiarize students with the target hardware and programming language used in the course. Later labs increase in complexity and target embedded concepts such as timers and multi-threading. The end of the term culminates in a group project where teams develop a complex embedded system.

ECET 4490: Special Topics

1-4 Credit Hours

Prerequisite: Department Chair approval

This course covers advanced topics of special interest to faculty and students that are not in the regular course offerings. Offered on a demand basis. This course may be taken more than once.