ECET 1101L: Circuits I Lab

1 Credit Hours

Concurrent: ECET 1101

This course provides laboratory experiences to complement ECET 1101 Circuits I. Basic prototyping and testing skills are developed, and lecture concepts are reinforced. Circuits are constructed on solderless breadboards using standard electrical components, and measurements are completed using general-purpose instrumentation.

ECET 1200: Digital I

3 Credit Hours

Concurrent: ECET 1101 and MATH 1190

This course is a study of digital circuit fundamentals with an emphasis on combinational and sequential logic design, logic simplification and implementation using standard digital integrated circuits and programmable logic devices. Topics also include binary number systems, binary arithmetic, logic families, design techniques, logic simulation, flip-flops, counters, registers, memory technologies, and VHDL programming.

ECET 2111L: Circuits II Lab

1 Credit Hours

Concurrent: ECET 2111

This laboratory course reinforces theoretical concepts presented in ECET 2111, expanding on circuit analysis techniques learned in ECET 1101 to circuits containing all three types of passive circuit elements and sinusoidal sources. Students document experimental lab results in reports evaluated based on completion, format, and data accuracy. Lab sessions offer students the opportunity to become proficient in working with standard instrumentation in electrical engineering technology.

ECET 2210: Digital II

3 Credit Hours

Prerequisite: ECET 1200

Concurrent: ECET 2300

This course is a study of industry-dominate microcontroller architecture and assembly programming language. Principles covered include: the study of an industry standard micro-controller, assembly language programming, logic family characteristics, system interfacing and system timing issues.