

ELECTRICAL/COMPUTER ENGINEERING (EECE)

EECE 396 Topics1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

EECE 496 Topics1-3 Credits

Course may be taken multiple times up to maximum of 15 credit hours.

EECE 225 Introduction to Circuits and Electronics3 Credits

Analysis of electric circuits by use of Ohm's law, network reduction, node and loop analysis, Thevenin's and Norton's theorems, DC and AC signals, transient response of simple circuits, transfer functions, basic diode and transistor circuits, and operational amplifiers.

Prerequisites: PHYS 132/PHYS 132L; and MATH 236 (can be taken concurrently).

Corequisites: EECE 225L.

Terms Typically Offered: Fall.

EECE 225L Introduction to Circuits and Electronics Laboratory1 Credit

Lab component required for EECE 225. Introduces analysis, modeling, design, and testing of analog electronic circuits in a practical laboratory setting.

Prerequisites: PHYS 132/PHYS 132L; and MATH 236 (can be taken concurrently).

Corequisites: EECE 225.

Terms Typically Offered: Fall.

EECE 226 Circuits as Systems3 Credits

Continued analysis of basic circuits, Laplace transform techniques, transfer functions, frequency response, Bode diagrams, resonant circuits, Fourier series expansions, and convolution.

Prerequisites: EECE 225 and MATH 236.

Corequisites: EECE 226L.

Terms Typically Offered: Spring.

EECE 226L Circuits as Systems Design Laboratory1 Credit

Lab component required for EECE 226. Emphasizes design and testing of analog electronic circuits in a practical laboratory setting.

Prerequisites: EECE 225 and MATH 236.

Corequisites: EECE 226.

Terms Typically Offered: Spring.

EECE 235 Digital Logic3 Credits

Design and applications of digital logic circuits, including both combinational and sequential logic circuits. Introduces hardware descriptive language, simulating and synthesis software, and programming of field programmable arrays (FPGAs).

Prerequisites: CSCI 130.

Terms Typically Offered: Spring.

EECE 237 Embedded Software Engineering3 Credits

Introduction to the design of digital systems. Covers system software-hardware integration as well as hardware and software building blocks. Skills associated with software development and debugging will be developed. Uses modern electronic system design platforms, embedded and mobile computing platforms, and various programming languages.

Prerequisites: CSCI 130 or CSCI 111; and EECE 235 (may be taken concurrently).

Terms Typically Offered: Fall.

EECE 244 Applications of Embedded Systems3 Credits

Introduction to concepts relating to embedded systems and computer architecture through programming a microcontroller. Application of digital and analog electronics concepts to engineer hardware, firmware, and appropriate solutions.

Prerequisites: CSCI 111 or CSCI 130; and EECE 225/EECE 225L or ENGR 317/ENGR 317L.

Terms Typically Offered: Spring.