ELECTRICAL/COMPUTER ENGINEERING (EECE)

Courses

EECE 225 Introduction to Circuits and Electronics 3 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 Laboratory 1 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.
Fees: Yes.

EECE 226 Circuits as Systems 3 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 Laboratory 1 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.
Fees: Yes.

EECE 235 Digital Logic 3 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 111 or CSCI 130.
Terms Typically Offered: Fall.

EECE 244 Applications of Embedded Systems 3 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.
Fees: Yes.

EECE 337 Embedded Systems 3 Credits
Introduction to design of embedded systems. Skills associated with software development and debugging will be developed. Course uses modern system design platforms to create custom embedded firmware. Students will compare custom solutions to those involving the application of existing tools to control external peripherals, such as lights, sensors, and screens.
Prerequisites: CSCI 241; or CSCI 112 and ENGR 140.
Equivalent Course(s): CSCI 322
Terms Typically Offered: Fall.

EECE 396 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.

EECE 496 Topics 1-3 Credits
Course may be taken multiple times up to maximum of 15 credit hours.