ECE - ELECTRICAL AND COMPUTER ENGINEERING TECHNOLOGY

ECE 205 Electrical and Computer Lab I (1-6-3)
Offered Spring Semester
Prerequisites: ECE 211, ECE 221
Co-requisite: ECE 222
This course covers basic test and measurement instrumentation, basic electrical components and circuits and technical writing using word processing.

ECE 210 Computer Engineering Lab I (0-3-1)
Offered Spring Semester
Co-requisite: ECE 211
This course is an introduction to designing, building, simulating and testing digital logic circuits. Topics include SSI and MSI ICs; general combinational circuits; adders, decoders and multiplexors; general sequential circuits; shift registers, counters and memory.

ECE 211 Introduction to Computer Engineering I (3-0-3)
Offered Spring Semester
Prerequisite: MAT 140 or Instructor Permission
This course covers digital systems and employs basic mathematical techniques used in the design of conventional and sequential systems.

ECE 212 Introduction to Computer Engineering II (3-0-3)
Offered Summer Semester
Prerequisites: CPT 234, ECE 211
This course applies the overall concepts of microprocessor orientation and architecture and fundamental concepts of assembly-level programming.

ECE 215 Computer Engineering Lab II (0-3-1)
Offered Summer Semester
Prerequisites: ECE 210, ECE 211
Co-requisite: ECE 212
This course enhances the student's understanding of computer organization via assignments involving assembly language programming. Topics include basic syntax, branching and loops, addressing modes, arrays and pointers, subroutines and stacks.

ECE 220 Electrical Engineering Lab I (0-3-1)
Offered Fall Semester
Co-requisite: ECE 221
This course covers the principles of measurement and instruments used to measure parameters and dynamic variables in electric circuits. Steady-state and transient measurements in DC and AC circuits and data analysis methods are included.

ECE 221 Introduction to Electrical Engineering I (3-0-3)
Offered Fall Semester
Prerequisite: MAT 141
This course introduces the basic concepts of circuit analysis, applying fundamental laws and principles, resistor circuits and first- and second-order linear circuits in the time domain using calculus-based solutions where applicable.

ECE 222 Introduction to Electrical Engineering II (3-0-3)
Offered Spring Semester
Prerequisite: ECE 221
This course covers sinusoidal steady-state analysis of AC circuits, complex frequency analysis, Fourier series analysis and Laplace transforms.

ECE 225 Electrical Engineering Lab II (0-3-1)
Offered Spring Semester
Prerequisites: ECE 220, ECE 221
Co-requisite: ECE 222
This course emphasizes measurement techniques in AC steady-state circuits and comparison to theoretical predictions. Two-port network methodology and transfer functions are studied experimentally and related to analysis using transform techniques.