University of Cyprus

Department of Electrical and
Computer Engineering

FALL SEMESTER 2019-2020

HMY307
Prerequisites: ECE 202 (6 ECTS)
This course provides education in digital circuit analysis and design. Students will learn to analyze and design basic digital circuits, particularly with applications to combinatorial logic gates, sequential logic and regenerative logic circuits. Students will further improve their circuit simulation skills (e.g. PSpice) for the analysis of logic circuits. The course will cover topics such as Semiconductor BJT's & Diode Logic Circuits, MOSFET Structure & Mathematical Modeling Equations, MOSFET Logic Circuits, Regenerative Logic Circuits, Analog-to-Digital & Digital-to-Analog Converters and Semiconductor Memories. Elective Course

HMY333
Prerequisite: ECE 331 (6 ECTS)
This course involves study of wave phenomena with specific applications to waves in media and electromagnetic phenomena. Topics include Maxwell's equations and the plane wave equations, dispersion, radiation of EM waves, interaction of EM waves with matter, reflection of EM waves at boundaries, interference and diffraction, microwave and optical waveguides Elective Course