

Course Syllabus

Course Code and Name	EE 26332 – Logic Circuits Design
Credit and contact hours	3 (2, 1, 1) (Lecture, Tutorial, Lab)
Required or Elective	Required
Level / Year	Level (5) / Year (3)
Course Prerequisite	EE 26231 Fundamental of Electronic Devices
Textbook	M. Mano and M. Ciletti, Digital Logic Design, Addison Wesley Longman, 2006.
Course Description	This course cover the following topics: Number systems, Logic gates, truth tables, Boolean functions and Boolean algebra - Canonical forms, SOP and POS forms, NAND/NOR circuits - K-maps - Design and analysis of combinational logic circuits such as comparators, code converters, adders, etc - Multiplexers, demultiplexers, encoders and decoders - Programmable logic devices (PLAs, ROMs, PALs) - Introduction to synchronous sequential circuits, latches, flip-flops, and timing - Sequential logic circuit analysis and design, state diagrams, registers, and counters - Modeling, simulation and synthesis of digital circuits from HDL models.
Brief List of Topics to be Covered	<ol style="list-style-type: none">1- Number systems.2- Boolean algebra and simplifications rules.3- Karnaugh maps4- Combinational circuit design5- Sequential circuit analysis6- Programable logic devices (PLD)
Course is prerequisite for	<ul style="list-style-type: none">• EE26434 Electrical and Electronic Measurements• EE26435 Introduction to Microprocessor• EE26444 Computer Networks