

Faculty of Engineering & Technology

Logical Design and Digital Circuits

Information :

Course Code : ELE 215

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Department of Electrical Engineering

Instructor Information :

Title	Name	Office hours
Lecturer	MOSTAFA MOHAMED SALAHELDIN ABDELKHALEK ELEWA	1
Assistant Lecturer	Mohamed Essam Abd El Aziz Abd El Aal	

Description :

Review on number systems: positional notation, binary number systems, number base conversion, octal and hexadecimal, negative numbers, coded number systems, Switching functions: main operators, postulates and theorems, Analysis and synthesis of switching functions, incompletely specified functions, Design using NAND and NOR gates, standard combinational Logic, PLA & PAL implementation of combinational logic, Storage devices: 1-bit storage, set-reset FF, clocked SR-FF, positive and negative-edge triggered SR-FF, JK-FF, Race-around condition, Master-slave JK-FF, D-FF, T-FF, Excitation table. Introduction to sequential circuits and FSM.