3. COMPUTER SCIENCE DOMAIN CORE COURSES

Course Title	**Digital Logic Design**
Course Code	**DC-121**
Credit Hours	3
Category	Domain Core
Prerequisite	Applied Physics
Co-Requisite	None
Follow Up	None
Course Description	Number Systems, Logic Gates, Boolean Algebra, Combination logic circuits and designs, Simplification Methods (K-Map, Quinn Mc-Cluskey method), Flip Flops and Latches, Asynchronous and Synchronous circuits, Counters, Shift Registers, Counters, Triggered devices & its types. Binary Arithmetic and Arithmetic Circuits, Memory Elements, State Machines. Introduction Programmable Logic Devices (CPLD, FPGA); Lab Assignments using tools such as Verilog HDL/VHDL, MultiSim
Text Book(s)	Digital Fundamentals by Floyd, 11/e.
Reference Material	Fundamental of Digital Logic with Verilog Design, Stephen Brown, 2/e.