

National University

Of Computer & Emerging Sciences - Peshawar

Department of Computer Science

Course Outline

Course Details

Course Title	Digital Logic Design		
Course Code	EE-227	Year of Study:	1st
Compulsory/Elective	Compulsory		
Course Prerequisites	Nil	Prerequisite Knowledge	Physics – Intermediate Level
Class Schedule	Two 90 minutes lecture per week		
Duration	One semester	Credit Units	3

Instructor Details

Instructor	Shakir Ullah Shah
E-mail	shakir.ullah@nu.edu.pk
Ext.	110
Office	Office #3: Administrative Building
Office Hour	Will be announced during class

Text Book and Reference books

➤ Digital Fundamentals by Floyd

Marks Distribution

Quiz (6)	10 %
Assignments (6)	10 %
Class Participation	4 %
Presentations/Project (1)	6 %
Sessional-1	15 %
Sessional-2	15 %
Final	40 %
Total	100%

Weekly Distribution

1	Introduction
2	Number systems ; Complement Number Representation
3	Addition, Subtraction, Multiplication, and Division
4	Boolean Algebra, Theorems, Standard Representation of Logic Functions
5	Combinational Circuit Analysis
6	Combinational Circuit Synthesis I
7	Combinational Circuit Synthesis II
8	Timing Hazards
9	Logic Documentation ; Three-State Devices
10	Decoders
11	Encoders
12	Multiplexers, Exclusive OR Gates, and Parity Circuits
13	Comparators
14	Adders, Subtractors, and ALUs
15	Sequential Circuits: Latches
16	D Latch ; Flip-Flops
17	Clocked Synchronous State-Machine Analysis
18	Shift Registers

Course Policy

- All individuals involved in any kind of cheating in any exam, quiz, assignment or project will get

zero score.

- There will be no retake of any quiz, assignment, Project/Presentation or any type of Exam.
- No individual extra credit assignments will be given. If an opportunity for extra credit becomes available to the whole class, it will be announced in class
- 80% attendance is required for the student to be able to sit in the exam.
- Students are advised to come to class in time. Late comers may be marked as LATE or ABSENT