

Distance Learning Division Course Map

EET 231 Digital Logic & Circuits

UNIT 1. Number Systems and Logic Gates

Concepts:

- Convert a number given in any one number system to its equivalent value in any other number system.
- Convert a decimal number to BCD code.
- Read ASCII code table.
- Describe how AND, OR, Inverter (NOT), NAND, and NOR gates work.
- Write truth tables for gates with more than 2-inputs.
- Expand gates.
- Use gates for enable/disable purposes.
- Bread board and test gates.

Objective(s)	Reading	Video	Discussion	Visual Aid(s)	Applied Activity
INSTRUCTION					
Number Systems & Conversions	ELesson Week01/w01a015.htm Week01/w01a015.pdf				
	Chapter 1 Reading Week01/w01a020.htm				
					Chapter 1 Exercises Week01/w01a025.htm
			Discussion board posting: Q/A Week01/w01a025.htm		
Basic Logic Gates	ELesson: Week01/w01a026.htm Week01/w01a026.pdf				
	Chapter 3 Reading Week01/w01a027.htm				
					Flash Game: Logic Gates Week01/w01a030.htm
ASSESSMENT/EVALUATION					
					Lab 1 Week01/w01a035.htm labmanual/EET_231_L1_01_REVISED.pdf
					Homework 1 Week01/w01a040.htm Week01/231hw1.pdf

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UNIT 2. Waveforms and Other Ways to Represent Digital Circuit Behavior

Concepts:

- Estimate and draw output waveforms for given input waveforms for different gates and their expressions.
- Write truth tables for given logic (Boolean) expressions.
- Write the expression for output of a logic circuit.
- Draw logic diagram (circuit) for a logic expression.
- Solve some troubleshooting related problems.
- Bread board and test gates/circuits using waveform analysis.

Objective	Reading	Video	Discussion	Visual Aid(s)	Applied Activity
INSTRUCTION					
Timing Analysis	ELesson Week02/w02a010.htm Week02/DL_231_eL2_TimingAnalysis.pdf				
	Chapter 3 Week02/w02a015.htm				Chapter 3 Problems Week02/w02a015.htm
Truth Tables	ELesson Week02/w02a017.htm Week02/DL_231_eL2_WritingTruthTablesforExpressions.pdf				
Output Expressions	ELesson Week02/w02a019.htm Week02/DL_231_eL2_OutputExpression.pdf				
Logic Diagrams	ELesson Week02/w02a021.htm Week02/DL_231_eL2_DiagramfromExpression.pdf				
Getting Started in B ² LOGIC	ELesson Week02/w02a040.htm Week02/DL_231_eL2_GettingStartedinB2LOGIC.pdf				
ASSESSMENT/EVALUATION					
					Lab #2 Week02/w02a030.htm labmanual/EET_231_L2_01.pdf
					Homework #2 Week02/w02a034.htm Week02/231hw2.pdf