Republic of Iraq

The Ministry of Higher Education

& Scientific Research

بسم الله الرحمن الرحيم

University: Diyala
College: Engineering
Department: Communications
Stage: First
Lecturer name: Riyadh K. Ahmed
Academic Status: lecturer
Qualification:Ph.D.
Place of work: Communications Dept.

Flow up the implementation of course syllabus

Course Instructor	Riyadh K. Ahmed				
E_mail	riyadhkhalaf@engineering.uodiyala.edu.iq				
Title	Communication systems				
Course Coordinator	**4hours weekly**				
Course Objective	This course is designed to introduce to the student the fundamentals of the theory of digital communications. The course will provide in-depth knowledge of communication fundamentals, which include Digital transmission of information across discrete and analog channels				
Course Description	The subject divided in to several chapters, as follow: Chapter One: Pulse code modulation Chapter two : Digital modulation Chapter three: Spread spectrum system Chapter four: Ciphering & deciphering systemsd				
Textbook	John Proakis&MasoudSalehi, 2008. Digital Communications, Fifth Edition. McGraw-Hill Education.				
Course Assessment	First Term	Mid-Year	2nd Term	Project	Final Exam
	20 %		20 %	----	60 %
General Notes	1.Simon Haykin, 2014. Digital Communication Systems.First Edition,Wiley. 2.Communication systems by Ferrel G. Stremler.				

Course Weekly Outline

week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1	6/10	Sampling theorm		
2	13/10	Nyquist rate		
3	20/10	PAM		
4	27/10	TDM		
5	3/11	Quintization		
6	10/11	PCM		
7	17/11	Quintization of TDM		
8	24/11	Delta modulation		
9	1/12	APCM		
10	8/12	Equalization		
11	15/12	Matched filter		
12	23/12	ASK		
13	30/12	FSK		
14	5/1	PSK		
15	12/1	Coherent detection		
16	19/1	Non coherent detection		
Half-Year Break				
17	23/2	Multi level modulation		
18	2/3	QAM		
19	9/3	QPSK, OQPSK, and DQPSK		
20	16/3	OFDM		
21	23/3	MSK		
22	30/3	Error performance of digital modulation		
23	6/4	Carrier recovery and clock recovery		
24	13/4	Spread spectrum (direct sequence)		
25	20/4	Spread spectrum (time hopping and frequency hopping)		
26	27/4	TDMA		
27	4/5	FDMA		
28	11/4	CDMA		
29	18/5	CDMA with OFDM		
30	25/5	Ciphering system, Deciphering systems		

Instructor Signature: **Dean Signature:**