

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Republic of Iraq  
The Ministry Of Higher Education  
& Scientific Research



University: Diyala  
College: Engineering  
Department: Computer  
Stage: 3<sup>rd</sup> year  
Lecturer name: A.Lect H.S.RADHI  
Qualification: MSC  
Place of work: Computer Dept.

Course Instructor	Asst.Lect Hussein Sultan Radhi				
E-mail	Hussein <sup>٥٧٢٠٠٢</sup> @yahoo.com				
Title	Communication				
Course Coordinator	Asst.Lect Hussein Sultan Radhi				
Course Objective	To teach students the concepts communication fundamentals & systems (Analog & Digital)				
Course Description	Students will learn the basics of communication systems, signals ,types of modulations(AM,FM,PM &Digital Modulations), circuits in transmitters & Receivers.				
Textbook	١. Rodger E. Ziemer / William H. Tranter: Principles of Communications, Modulation and noise, ٢٠٠٢ ٢. Lathi: signal Processing and Linear Systems, ١٩٩٨. ٣. Ferrel stremler: Introduction to communication Systems, ١٩٨٢				
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	As(٤٠%)	As(١٠%)	As(٠%)	-	As(٥٠%)
General Notes					

Republic of Iraq  
The Ministry Of Higher Education  
& Scientific Research



University: Diyala  
College: Engineering  
Department: Computer  
Stage: 3<sup>rd</sup>  
Lecturer name: A.Lect H.S,Radhi  
Qualification: MSC.  
Place of work: Computer Dept.

## Course Weekly Outline

Week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1	23/09/2014	Deterministic and random signals		
2	30/09/2014	Periodic and Aperiodic signals		
3	07/10/2014	Some important functions		
4	14/10/2014	Power and energy signals		
5	21/10/2014	Fourier series		
6	28/10/2014	Parseval's theorem		
7	04/11/2014	Fourier Transform		
8	11/11/2014	Power spectral density and correlation		
9	18/11/2014	Amplitude Modulation(AM)		
10	25/11/2014	The AM spectra & Power consideration		
11	02/12/2014	AM modulators		
12	09/12/2014	Demodulation of AM signals		
13	16/12/2014	Frequency Modulation (FM)		
14	23/12/2014	FM spectra &Power consideration		
15	30/12/2014	NBFM and bandwidth estimation		
16	06/01/2015	End Term Exam		
<b>Half – year break</b>				
17	17/02/2015	Generation of wide-band FM signals		
18	24/02/2015	Demodulation of FM signals		
19	03/03/2015	Pulse Modulation &Sampling Theory		
20	10/03/2015	Pulse Amplitude Modulation (PAM)		
21	17/03/2015	Pulse Width Modulation (PWM)		
22	24/03/2015	Pulse Position Modulation (PPM)		
23	31/03/2015	Delta Modulation (DM)		
24	07/04/2015	Pulse Code Modulation (PCM)		
25	14/04/2015	Time Division Multiplexing (TDM)		
26	21/04/2015	Frequency Division Multiplexing (FDM)		
27	28/04/2015	Digital Modulation		
28	05/05/2015	Amplitude shift keying (ASK)		
29	12/05/2015	Frequency shift keying (FSK)		
30	19/05/2015	Phase shift keying (PSK)		
31	26/05/2015	Seminar		
32	02/06/2015	End Term Exam		

INSTRUCTOR Signature:

Dean Signature: