



Course Syllabus

Course ID	0902313
Course Title	Analog communications
Prerequisite	
Time & Date	9:30- 11:00am (Room ENG208)
Coordinator	-
Instructor	Assistant.Prof Dr. Khaldoon Ghaidan E.mai; khldn45@yahoo.com Ex.273
Office hours	Sun Mon Tue Thu 1:00-3:00 pm
Course Description	Characterization of Analog signals, Analog modulation techniques: Amplitude, frequency and phase modulation. Pulse modulation Pre : 0902308
Course Objectives	<ol style="list-style-type: none">1. Ability to analyze signals and systems in time and frequency domain.2. Understand and analyze different types of amplitude modulated signals.3. Understand and analyze different types of angle modulated signals.4. Ability to evaluate the performance of amplitude and angle modulated signals in the presence of additive white Gaussian noise.5. Understand sampling theorem and pulse modulation techniques.
Course Outcomes	<p>a-k Engineering and Technology An ability to apply knowledge of mathematics, science, and engineering An ability to design and conduct experiments, to analyze and interpret data An ability to design a system, component, or process to meet desired needs An ability to function on multi-disciplinary teams</p> <p>program outcomes</p> <p>(e) An ability to identify, formulate, and solve engineering problems (f) An understanding of professional and ethical responsibility (g) An ability to communicate effectively (h) The broad education necessary to understand the impact of engineering solutions in a global and societal context (i) A recognition of the need for, and an ability to engage in life-long learning</p>

	(j) A knowledge of contemporary issues (k) An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
Course Topics	<p>1. Probability principles and set theory, Topic Random variable</p> <p>2. Signals and systems</p> <p>Topics</p> <ol style="list-style-type: none"> 1. Introduction. 2. Representation of Signals and systems. 3. Amplitude and Angle Modulation. 4. Noise in CW Modulation 5. Pulse Modulation
Course Text Book	Simon Haykin, "Communication Systems" 4th edition, Wiley 2001
Course References	<ol style="list-style-type: none"> 1. Wayne Tomasi, "Electronic Communications Systems, Fundamentals through Advanced", 4th edition, Prentice Hall 2001. 2. R. E. Ziemer and W. H. Tranter, "Principles of Communications", 4th edition, Wiley, 1995 3. Leon Couch II, "Digital and Analog Communication Systems", 6th edition, Prentice Hall, 2001 4. A. B. Carlson, "Communication Systems", 3rd edition. McGraw-Hill, 1986
Course delivery	Lectures Tutorial Lab Homework Project Computer Internet Industrial Visit
Course Assessment	Assignments & short reports..... 10% 1st exam 20% 2 nd exam 20% Final exam 50%
Updated	Dr. Khaldoon 29/9/2009

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO12
CO1											
CO2											
CO3											
CO4											
CO5											
CO6											

CO7											
CO8											
CO9											

	a	b	C	D	e	f	g	h	i	j	K
CO1											
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CO5											
CO6											
CO7											
CO8											
CO9											

ABET a-k Engineering and Technology program outcome

- (a) An ability to apply knowledge of mathematics, science, and engineering
- (b) An ability to design and conduct experiments, to analyze and interpret data
- (c) An ability to design a system, component, or process to meet desired needs
- (d) An ability to function on multi-disciplinary teams
- (e) An ability to identify, formulate, and solve engineering problems
- (f) An understanding of professional and ethical responsibility
- (g) An ability to communicate effectively
- (h) The broad education necessary to understand the impact of engineering solutions in a global and societal context
- (i) A recognition of the need for, and an ability to engage in life-long learning
- (j) A knowledge of contemporary issues
- (k) An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

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Deliberate plagiarism is a serious act of academic misconduct. Students may be suspended from the University if they are found to have plagiarized their course work. Whether inadvertent or deliberate, plagiarism includes the following:

- (a) word-for-word copying of sentences or whole paragraphs or presenting of substantial extracts from either paper-based or electronic sources the work or data of others that are published or unpublished (such as books, internal reports, and lecture notes or tapes) without clearly indicating their origin;
- (b) using very close paraphrasing of sentences or whole paragraphs without due acknowledgement in the form of reference to the original work;
- (c) submitting another student’s work in whole or in part;
- (d) using of another person’s ideas, work or research data without acknowledgement;
- (e) copying computer files, algorithms or computer code without clearly indicating their origin;
- (f) submitting work that has been written by someone else on the student’s behalf; and
- (g) submitting work that has been derived, in whole or in part, from another student’s work by a process of mechanical transformation (e.g., changing variable names in computer programs).