	Jerash Private University	جامعة جرش الأهلية
	Faculty of Engineering	كلية الهندسة
	Department of Communication Engineering	

EF_Syll 0902304_

Course Syllabus

Course ID	0902304
Course Title	Electronics (2)
Prerequisite	0902204 (1)Electronics
Time & Date	
Coordinator	
Instructor	Dr. Faculty of Engineering E-mail: Telephone: ext.
Office hours	Tue 8:30 – 11:30am & SunTueThu 9:00-10:00 am
Course Description	Periodic waveforms. AC response of RL. RC and RLC circuits. Phase analysis. Impedance concept Resonance. Steady State analysis of AC circuits. Coupled circuits. Three Phase circuits. Fourier analysis. lap lace analysis. Two-Port networks. Circuit analysis using computers

Course Objectives	1 Understand, design, and analyze single-stage BJT and FET amplifiers .
	   2.Understand and analyze multi-stage BJT and FET amplifiers .
	   3.Understand, and study the frequency response of any BJT or FET amplifier.
	   4.Understand and analyze differential amplifiers.
	   5.Understand, the theory of operation and practical considerations of an operational Amplifier.
	   6.Understand, design, and analyze any operational amplifier circuit and different applications.

Course Outcomes	After successfully completing this course, the students should be able to: 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 An ability to identify, formulate, and solve engineering problems (e) An understanding of professional and ethical responsibility (f) An ability to communicate effectively (g) The broad education necessary to

	understand the impact of engineering solutions in a global and societal context.
	(h) A recognition of the need for, and an ability to engage in life-long learning (i) A knowledge of contemporary issues (j) An ability to use the techniques, skills, and modern engineering toolsnecessary for engineering practice
Course Topics	1. Small-Signal Low-Frequency Analysis and Design: 10 Hours 2. Multi-Stage Amplifiers 7 Hours 3. Frequency Response 8 Hours 4. Differential Amplifiers 8 Hours 5. Operational Amplifiers Theory 2 Hours 6. Operational Amplifiers : 8 Hours applications
Course Text Book	Microelectronic circuit analysis and design by D. Neamen
Course References	1. Electronic Circuits by D. Schilling and Belove 2. Electronic Devices and Circuits by Bogart Microelectronic circuits by Sedra and Smith
Course delivery	Lectures Tutorial Lab Homework Project Computer Internet Industrial Visit
Course Assessment	Assignments & short reports……………………. 10% 2 exams @ 20% each …………………………. 40% Final exam …………………………………….. 50%
Updated	Dr. Takialddin AL-Smadi 10/2009

	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											
CO2											
CO3											
CO4											
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

Plagiarism

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).