Syrian Arab Republic Ministry of Higher Education Syrian Virtual University Syrian Virtual University Syrian Virtual University

Course Definition Form

"Introduction to wireless systems"

1- Basic Information:

Course Name	Introduction to wireless systems
Course ID	CCS401
Contact Hours (Registered Sessions)	30
Contact Hours (Synchronized Sessions)	18
Mid Term Exam	
Exam	1.5
Registered Sessions Work Load	30
Synchronized Session Work Load	18
Credit Hours	5

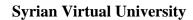
2- Pre-Requisites:

Course	ID
Electromagnetic Waves and transmission Lines	CRF301
English Level 3	Eng3

3- Course General Objectives:

This course aims to enable students to have very good knowledge about wireless communications especially the history of its progress and the great relations between it with every details of humanity life and activities. Understanding the great effects of wireless communications in economy and employment worldwide showing the great ratio of wireless communications development especially in the last twenty years. Demonstrating the most important services wireless communications offering and applications depend on and cover population needs nowadays.

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4- Intended Learning Outcomes (ILO):

Code	Intended Learning Outcomes							
ILO1	Recognizing Licensed and unlicensed frequencies							
ILO2	Recognizing Radio systems and their infrastructure							
ILO3	Recognizing Market of wireless communications and importance of wireless communications							
ILO3	in economy							
ILO4	Recognizing General wireless services offered for human being							
ILO5	Recognizing Radio communication systems and their applications							
ILO6	Describing the history of wireless communications and its impact on economy and							
ILOU	employment							

5- Course Syllabus (18 hours of total synchronized sessions)

• RS: Recorded Sessions; SS: Synchronized Sessions;

ILO	Course Syllabus	RS	SS	Type	Additional Notes
ILO3 ILO6	Introduction: 1- History of wireless communications. 2- Importance of wireless communications. 3- The Impact of wireless Technologies on economy. 4- The Impact of wireless Technologies on Employment.	5	3	Assignments Seminars Projects Practices Others	
ILO1	Radio frequencies: 1- Radio spectrum. 2- Frequencies used in wireless communications. 3- Licensed & unlicensed radio frequencies. 4- Mechanism of radio frequencies licensing. 5- Radio channels & bandwidth	5	3	Exercises Assignments Seminars Projects Practices Others	

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	Radio systems:				Exercises	
	1- Radio system devices.					
ILO2	- Towers of radio communication systems.				Assignments	
			3		Seminars	
	3- Radio communication networks.				Projects	
					Practices	
					Others	
	Market of radio communications:				Exercises	
	1- The market profile		3		Assignments	
11.02	2- The driving forces that shape the	5			Seminars	
ILO3	market. 3- Future trends in the wireless market.	3			Projects	
					Practices	
					Others	
	Wireless communications technologies:				Exercises	
	1- Infrared (IR) Wireless				E LACICISCS	
	Communication Technology.				Assignments	
				Seminars		
	2- Broadcast Radio Technology.				Projects	
	3- Microwave Radio Technology.				Practices	
	4- Satellites Communication				Others	
ILO5	Technology.	5	3			
	5- Wireless Networking Technology.					
	6- Ultra Wide Band (UWB)					
	Technology.					
	5.					
	7- Bluetooth Technology.					
	8- ZigBee Technology.					

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	Wireless communications services:			区 Exercises	
ILO4	 Wireless Voice Communication Service. Paging Services. Mobile Data Services. Satellite Services. 	5	3	Assignments Seminars Projects Practices Others	
ILO4	5- Wireless Home services.	5)		
	6- Broadband Wireless Access service.				
	7- Wireless Broadcast Services.				
	8- Wireless Commercial Application				
	Services.				
		l	l		

6- Assessment Criteria (Related to ILOs)

ISC	Interactive Synchronized Collaboration	Ex	Exams		Rpt	Reports
PF2F	Presentations and Face-to-Face Assessments	PW	PW Practice Work			

ILO		Intended		Assessment Type					
Code	ILO	Results	ISC	PW	Ex	PF2F	Rpt		
ILO1	Licensed and unlicensed frequencies		X		X	X	X		
ILO2	Radio systems and their infrastructure		X		X	X	X		
ILO3	Market of wireless communications and importance of wireless communications in economy		X		X	X	X		
ILO4	General wireless services offered for human being		X		X	X	X		
ILO5	Radio communication systems and their applications		X		X	X	X		
ILO6	History of wireless communications and its impact on economy and employment		X		X	X	X		

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7- Practice Tools:

Tool Name	Description

8- Main References

The Increasingly Important Impact of Wireless Broadband Technology and services on the U.S. Economy.

Wireless Market Overview: Trends and Challenges.

The economic benefits of new spectrum for wireless broadband.

The impact of regulation on innovation and choice in wireless communications

EVERETT M. EHRLICH, JEFFREY A. EISENACH, WAYNE A. LEIGHTON

An Introduction to Wireless Technology IBM International Technical Support Organization.

Federal institute of science and technology (FISAT) History of wireless communication.

Importance of Radio Regulation Policies in Wireless Communications Study

Dr. Reza Kamali, Utah Valley University

Socioeconomic Impacts of Wireless Technology A Review of Opportunities and Challenges in Health Care, Finance, Education and Community Empowerment

The Employment Effects of Advances in Internet and Wireless Technology: Evaluating the Transitions from 2G to 3G and from 3G to 4G Robert J. Shapiro and Kevin A. Hassett

9- Additional References

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