

نموذج (هـ)

Brief Course Description

Course number: ECE 373	Course name: Wireless Communications
لغة تدريس المقرر: English	Pre-requisites: ECE 371, ECE204
Credit hours: 3 (3+ 0 + 0)	Course level: Eighth Level -Fourth Year

Course Description

وصف المقرر :

Review of basics of communications systems. Introduction to wireless communications, Channel modeling and propagation. The cellular concept. Modulation schemes for wireless systems. Fading mitigation techniques. Spread spectrum and OFDM. Multiple access schemes, Wireless standards.

Course objectives

أهداف المقرر :

- ✓ To introduce wireless communication systems and their relevance in today's life.
- ✓ To allow the students model and parametrize wireless fading channels.
- ✓ To explain the signal design for wireless systems and networks
- ✓ To familiarize the students with wireless standards and their specifications.
- ✓ To acquire skills to carry out technical search.

Course Outcomes

مخرجات التعليم:

Upon completing the course, the student should be able to:

- Understand the basic concepts of wireless systems.
- Identify and describe the main propagation characteristics in wireless channels.
- Analyze the performance of modulation schemes over fading channels and implement them using Software tools.
- Identify and compare the fading mitigation techniques and their performance over wireless channels.
- Conduct technical search in wireless communications area.

Textbook and references

الكتاب المقرر والمراجع المساندة:

Book	Authors	Publisher	Publication year
Wireless Communications: principles and practice" (textbook)	T.S. Rappaport	Prentice Hall	2002
Journal and Magazine Papers (as reading handouts)	-----	-----	-----
Principles of Mobile Communication	G.L. Stuber	Kluwer Academic	2001
Wireless Communications	Andreas F. Molisch	Wiley-IEEE Press	2010
Mobile Wireless Communications	M. Schwartz	Cambridge University Press	2005
Mobile Wireless Communications	Mischa Schwartz	Cambridge University Press	2005
Wireless Communications	Andrea Goldsmith	Cambridge University Press	2005
Fundamentals of wireless communication	D. Tse and P. Viswana	Cambridge University Press	2005