



## نموذج وصف المقرر

### وصف المقرر

يوفر وصف المقرر هذا إيجازاً مقتضياً لأهم خصائص المقرر ومخرجات التعلم المتوقعة من الطالب تحقيقها مبرهنًا عما إذا كان قد حقق الاستفادة القصوى من فرص التعلم المتاحة. ولا بد من الربط بينها وبين وصف البرنامج .

1. المؤسسة التعليمية	جامعة تكريت/ كلية علوم الحاسوب والرياضيات
2. القسم العلمي / المركز	قسم علوم الحاسوب
3. اسم / رمز المقرر	الحوسبة المتنقلة
4. أشكال الحضور المتاحة	حضور
5. الفصل / السنة	الفصل الثاني 2023 / 2024
6. عدد الساعات الدراسية (الكلية)	30 ساعة نظري و 30 ساعة عملي
7. أهداف المقرر	

Mobile computing is an umbrella term used to describe technologies that enable people to access network services anyplace, anytime, and anywhere. A communication device can exhibit any one of the following characteristics:

1. Fixed **and wired**: This configuration describes the typical desktop computer in an office. Neither weight nor power consumption of the devices allow for mobile usage. The devices use fixed networks for performance reasons.

2. Mobile **and wired**: Many of today's laptops fall into this category; users carry the laptop from one hotel to the next, reconnecting to the company's network via the telephone network and a modem.

3. Fixed **and wireless**: This mode is used for installing networks, e.g., in historical buildings to avoid damage by installing wires, or at trade shows

to ensure fast network setup.

4. **Mobile and wireless:** This is the most interesting case. No cable restricts the user, who can roam between different wireless networks. Most technologies discussed in this book deal with this type of device and the networks supporting them. Today's most successful example for this category is GSM with more than 800 million users.

## 8. مخرجات المقرر وطرائق التعليم والتعلم والتقييم

### أ- الاهداف المعرفية

Understand the concepts of mobile computing and their architecture (GSM), and The aim of mobile Computing is to provide the user with the "best possible" information from a database. A common form of interaction for mobile Computing is for the user query. These are then used by the mobile Computing system to identify information that key goal of an Mobile Computing system is to retrieve information which might be useful or relevant to the user. The emphasis is on the mobile Computing as opposed to the mobile of data.

### ب - الاهداف المهاراتية الخاصة بالمقرر

- Knowledge and Understanding
- description of the decision process
- justification for how the process would be improved with this system.
- the goals/objectives of the DSS
- discussion of how those goals/objectives meet the needs of the users.
- discussion of how the DSS might be integrated into normal work processes.
- an explanation of what types of information will the system require, and how will that information be maintained.

طرائق التعليم والتعلم

- Subject-specific skills
- summer training
- Graduate Research

Scientific Reports

#### طرائق التقييم

Sudden daily and continuous weekly tests.  
Exercises and activities in the classroom.  
Guide students to some websites to benefit from them

#### ج- الاهداف الوجدانية والقيمي

Mobile computing was providing students with fundamental concepts and the technology associated with mobile computing. The course covers contemporary, interactive mobile computing technology systems, focusing on types, applications, and theories of operation. Basic technologies such mobile communication data representation, compression, retrieval and communication will be covered in an integrated manner. On the completion of the course, students should be able to understand the fundamental concepts and make critique to the technologies associated with various mobile computing such as mobile phone, Mobile video ,mobile audio and mobile computer .

## 9. بنية المقرر

عدد الساعات التدريسية		مفردات المنهج	الاسبوع
عملي	نظري		
2	2	Introduction to Personal Communications Services (PCS) : PCS Architecture, mobility management, Networks signaling, Global System for Mobile Communication (GSM) System overview : GSM Architecture, Mobility management, Network signaling	.1
2	2	General Packet Radio Services (GPRS): GPRS Architecture, GPRS Network Nodes, Mobile Data Communication; WLANs (Wireless LANs) IEEE 802.II standard, Mobile IP	.2
2	2	Wireless Application Protocol (WAP): The Mobile Internet standard, WAP Gateway and Protocols, wireless mark up Languages (WML), Wireless Local Loop (WLL) : Introduction to WLL Architecture, wireless Local Loop Technologies	.3
2	2	Third Generation (3G) Mobile Services: Introduction to International Mobile Telecommunications 2000 (IMT 2000) Vision, Wideband Code Division Multiple Access (WCDMA),and CDMA 2000	.4
2	2	Global Mobile Satellite Systems ; case studies of the IRIDIUM, ICO and GLOBALSTAR systems. Wireless Enterprise Networks : Introduction to Virtual Networks, Blue tooth technology, Blue tooth Protocols	.5
2	2	Server-side programming in Java, Pervasive web application architecture, Device independent example application	.6
2	2	Wireless Transmissions	.7
2	2	SWITCHING	.8
2	2	Message Switching	.9
2	2	Packet Switching	.10
2	2	Space Division Multiple Access	.11
2	2	Frequency division multiplexing	.12
2	2	<i>Spread Aloha multiple access</i>	.13
2	2	Review	.14

2	2	Review	.15
<b>10. البنية التحتية</b>			
Mobile Communication: J. Schiller, Pearson Education 2. Mobile Computing: P.K. Patra, S.K. Dash, Scitech Publications. 3. Mobile Computing: Talukder, TMH, 2 <sup>nd</sup> Edition.		1- الكتب المقررة المطلوبة	
<b>Reference Books:</b> 1. Pervasive Computing: Burkhardt, Pearson Education. 2. Principles of Mobile Computing: Hansmann, Merk, Springer, 2 <sup>nd</sup> Edition. 3. Wireless Communication & Networking: Garg, Elsevier 4. Third Generation Mobile Telecommunication Systems: P. Stavronlakis, Springer. 5. The Wireless Application Protocol: Sandeep Singhal, Pearson Education		2- المراجع الرئيسية (المصادر)	
لا يوجد		أ) الكتب والمراجع التي يوصى بها (المجلات العلمية، التقارير، .....)	