



Arab Academy for Science, Technology & Maritime Transport
College of Computing and Information Technology

University/Academy: Arab Academy for Science and Technology & Maritime Transport
Faculty/Institute: College of Computing and Information Technology
Program: Information Systems

Course title	Mobile Computing Applications
Course code	IS433

Form no. (11A) Knowledge and skills matrix for a course

Course content	Week study	Knowledge	Intellectual skills	Professional skills	General skills
Mobile Computing Systems	1	<ul style="list-style-type: none"> Understand the constraints and architectural requirements for developing mobile applications. 	Identify the design patterns involved in multi-tier distributed applications.	•	
Intro to Mobile Frameworks and Tools	2	<ul style="list-style-type: none"> Understand the standard mobile frameworks 	<ul style="list-style-type: none"> Compare between different Mobile Frameworks 	•	
Android Platform framework	3	<ul style="list-style-type: none"> Understand the structure of the Android Operating System 	•	<ul style="list-style-type: none"> Install Android Operating System 	
Mobile user interface development	4	<ul style="list-style-type: none"> Understand some general design principles for user interface development 	<ul style="list-style-type: none"> -Apply usability attributes and approaches to Mobile 	<ul style="list-style-type: none"> Develop basic mobile applications 	

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		<ul style="list-style-type: none"> explain different interaction styles and their use Identify when to use graphical and textual information presentation explain the principal activities in the user design process 	system evaluation		
<i>UML</i> for Mobile Application	5	<ul style="list-style-type: none"> Understand the UML Standard Understand the role of UML in Mobile applications design 	<ul style="list-style-type: none"> Apply UML diagrams according to design purpose 	<ul style="list-style-type: none"> 	
XML for Mobile Application	6	<ul style="list-style-type: none"> Understand the XML Standard Understand the role of XML in Mobile applications development 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Developing UI using XML on Android Platform 	
7 th week Exam	7	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	
Mobile web applications	8	<ul style="list-style-type: none"> Understand the main aspects of mobile web application Understand difference between Web Apps vs. 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Create Mobile web Application 	

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		Mobile Native Apps			
Using Mobile Network Information	9	<ul style="list-style-type: none"> Identify the different mobile network information 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> create applications that use network-based information 	
PhoneGap	10	<ul style="list-style-type: none"> Understand how to create application using Web API 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Developing mobile app using PhoneGap 	Learn how to use a JavaScript API
Mobile development process	11	<ul style="list-style-type: none"> Identify the main stages of Mobile development process 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	
12 ^h week Exam	12	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	
Wireless Technologies(1)	13	<ul style="list-style-type: none"> Understand the Basics of Wi-Fi Understand the Basics of Wi-Max 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	
Wireless Technologies(2)	14	<ul style="list-style-type: none"> Understand the Basics of GSM Understand the Basics of Bluetooth Understand the Basics of IRDA 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	
Wireless Security	15	<ul style="list-style-type: none"> Identify basic security requirements when developing mobile applications. Understand Attack based on SMS Understand Attack based on 	<ul style="list-style-type: none"> Analyze Security threats in wireless communication 	<ul style="list-style-type: none"> 	

Course content	Week study	Knowledge	Intellectual skills	Professional skills	General skills
		MMS -Understand Attack based on WiFi -Understand Attack based on GSM -Understand Bluejacking , Bluesnarfing			

Course Instructor

Name:

Signature:

Head of Department

Name:

Signature: