



## Course Weekly Outline

Course Instructor	Rehab F. Hassn				
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Title	Mobile Networks Security				
Course Coordinator					
Course Objective	This course offers a survey on mobile and wireless networks and the major security basics necessary for understanding yje mobile security problem. It also presents current and emerging mobile and wireless technologies. It also introduces vulnerabilities and security mechanism fundamentals. It finally presents the vulnerabilities in wireless technology and an adaptation of copyright protection techniques in the wireless and mobile context.				
Course Description	<b>Mobile network Overview: Cellular network basic concepts, Mobile Generations, IEEE Wireless standardization</b> <b>Basics of Security and security services</b> <b>WiFi security , bluetuth security, and WiMAX Security</b>				
Textbook	Wireless and Mobile Network Security Security Basics, Security in On-the-shelf and Emerging Technologies Edited by Hakima Chaouchi Maryline Laurent-Maknavicius				
References					
Course Assessment	Term Tests	Laboratory	Quizzes	Project	Final Exam
	30%		10%	----	60%
General Notes					



## Course weekly Outline

week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1	29-9-2014	Introduction to Mobile cellular networks		
2	6-10-2014	Cellular network basic concepts		
3	13-10-2014	The Mobil Generations		
4	20-10-2014	IEEE wireless networks Standardization		
5	27-10-2014	Basics on security and security services		
6	3-11-2014	Symmetric and asymmetric cryptography		
7	10-11-2014	Electronic signatures and MAC and Hash Function		
8	17-11-2014	Quiz		
9	24-11-2014	Public Key Infrastructure (PKI) and electronic certificates		
10	1-12-2014	Management of cryptographic keys		
11	8-12-2014	Authentication mechanisms		
12	15-12-2014	Password-based authentication		
13	22-12-2014	<i>Kerberos ticket-based authentication</i>		
14	29-12-2014	<i>Smart card-based authentication</i>		
15	5-1-2015	<i>Biometry authentication</i>		
16	13-1-2015	Exercises		
17	20-1-2015	Mid. Examination		
<b>Half-year Break</b>				
17	16-2-2015	Introduction to process synchronization problem		
18	23-2-2015	The Critical-Section Problem Synchronization Examples		
19	2-3-2015	Peterson's Solution Synchronization Hardware		
20	9-3-2015	Semaphore Monitors		
21	16-3-2015	Deadlock Characterization Methods for Handling Deadlocks		
22	23-3-2015	Deadlock Prevention Deadlock Avoidance		
23	30-3-2015	Deadlock Detection Recovery From Deadlock		
24	6-4-2015	Introduction to Memory Management Swapping and Contiguous Memory		

		Allocation		
<b>25</b>	<b>13-4-2015</b>	Paging and Structure of the Page Table Segmentation		
<b>26</b>	<b>20-4-2015</b>	QUIZ		
<b>27</b>	<b>27-4-2015</b>	<i>MultiMeedia Contents Watermarking</i>		
<b>28</b>	<b>4-5-2015</b>	<i>Wireless intrusion prevention systems</i>		
<b>29</b>	<b>11-5-2015</b>	<i>Wireless honeypots</i>		
<b>30</b>	<b>18-5-2015</b>	<i>Bluetooth Security</i>		
<b>31</b>	<b>25-5-2015</b>	<i>WiFi Security</i>		
<b>32</b>	<b>1-6-2015</b>	امتحانات الكورس الثاني		

**Instructor Signature:**

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