Course Description Form	
Course Code and Name	CENG473 INTRODUCTION TO WIRELESS AND MOBILE NETWORKS (TECH.ELECT.)
Course Semester	7
Catalog Content	Wireless and mobile networks
Textbook	Stallings, W., "Wireless Communications & Networks (2nd Edition)", Prentice Hall, 2004.
Supplementary Textbooks	Schiller, J., "Mobile Communications Second Edition", Addison Wesley, 2003. T.S. Rappaport, ``Wireless Communications: Principles & Practice", Second Edition, Prentice Hall, 2002.  Mischa Schwartz, ``Mobile Wireless Communications", Cambridge University Press, 2005. Andrea Goldsmith, ``Wireless Communications", Cambridge University Press, 2005.
Credit	6
Prerequisites of the Course **(** *Attendance Requirements***)**	-
Type of the Course	Elective
Instruction Language	English
Course Objectives	Teaching fundamentals of wireless network technologies, wireless network design principals analysis
Course Learning Outcomes	At the end of the course, the students will have basic knowledge about; 1) Understanding of fundamental wireless network protocols 2) Be able to design a GSM network 3) Be able to do network performance analysis
Instruction Methods	The mode of delivery of this course is Face to face

Weekly Schedule

1. Week: Wireless and mobile network fundamentals
2. Week: Problem solving
3. Week: Wireless medium access
4. Week: Architectures and protocols
5. Week: GSM/GPRS
6. Week: CDMA
7. Week: 802.11
8. Week: Bluetooth
9. Week: 3G,NG
10. Week: Mobile IP
11. Week: Mobile transport layer
12. Week: Mobile application development
13. Week: Mobile application development
14. Week: Mobile application development

Teaching and Learning Methods

(These are examples. Please fill which activities you use in the course)

Weekly theoretical course hours: 3
Internet browsing, library work
Report Preparing
Preparing a Presentation
Presentations
Preparation of Midterm and Midterm Exam
Final Exam and Preparation for Final Exam

Assessment Criteria

	Numbers	**Total Weighting (%)**
Midterm Exams	1	30
Assignment	5	10
Application		
Projects	1	20
Practice		
Quiz		
Percent of In-term Studies (%)		60
Percentage of Final Exam to Total Score (%)		40
Attendance		

Workload

Activity	**Total Number of Weeks**	**Duration (weekly hour)**	**Total Period Work Load**
Weekly Theoretical Course Hours	14	3	42
Weekly Tutorial Hours			
Reading Tasks			
Studies	9	3	27
Material Design and Implementation			
Report Preparing	3	10	30
Preparing a Presentation	2	10	20
Presentations	2	10	20
Midterm Exam and Preparation for Midterm Exam	1	5	5
Final Exam and Preparation for Final Exam	1	6	6
Other (should be emphasized)			
Total Workload			150

Total Workload / 25			6	
Course Credit (ECTS)			6	

Contribution Level Between Course Learning Outcomes and Program Outcomes

No	Program Outcomes	1	2	3	4	5
1	Sufficient knowledge on mathematics, science and computer engineering; ability to apply theoretical and practical knowledge in these areas to model and solve engineering problems				X	
2	Ability to identify, define, formulate and solve complex engineering problems; ability to choose and apply appropriate analysis and modelling methods for these purposes					X
3	Ability to design a complex system, process, device, software, algorithm, or product under realistic constraints and circumstances to meet certain requirements; ability to apply modern design techniques for this purpose			X		
4	Ability to choose, develop and use modern techniques and tools necessary for engineering applications; ability to effectively use computing technologies				X	
5	Ability to design and implement systems or experiments to solve engineering problems, collect and interpret data to evaluate and analyze the results of solutions				X	
6	Ability to work effectively in intradisciplinary and interdisciplinary teams or individually	X				
7	Ability to efficiently prepare, evaluate and interpret reports			X		
8	Ability to make presentations and conduct effective verbal and written communication in Turkish and English			X		
9	Awareness of the necessity of lifelong learning; ability to access information, follow scientific and technological developments; ability to perpetually renew oneself		X			
10	Awareness of professional and ethical responsibility, ability to act in accordance with ethical principles				X	
11	Ability to apply knowledge on project management, risk management and change management			X		
12	Awareness of entrepreneurship and innovation, ability to design and build	X				
13	Ability to devise local and global solutions to contemporary issues considering the effects of engineering applications on health, environment and security	X				
14	Awareness of the legal consequences of engineering solutions	X				
15	Ability to apply knowledge on software development process and documentation rules		X			
16	Knowledge on standards used in engineering applications				X	
17	Awareness of occupational health and security, information security and privacy	X				

The Course's Lecturer(s) and Contact Informations

Prof. Dr. Suat OZDEMIR
suatozdemir@gazi.edu.tr