Course Description Form

Course Code and Name	5101329 Mobile And Wireless Networks
Course Semester	Fall - Spring
Catalog Content	Principles of wireless networks, physical properties, TCP / IP communication protocol, wireless network technologies and methods of establishing wireless networks.
Textbook	Stallings, W., "Wireless Communications & Networks (2nd Edition)", Prentice Hall, 2004.
Supplementary Textbooks	-
Credit	8
Prerequisites of the Course (Attendance Requirements)	There is no prerequisite or co-requisite for this course
Type of the Course	Elective
Instruction Language	Turkish
Course Objectives	1. To provide information about fundamental wireless technologies 2. Comparing wireless technologies and knowing which technologies and environments should be preferred 3. Having knowledge about cellular network setup and operation concept
Course Learning Outcomes	1. Learning wireless transmission fundamentals 2. Learning fundamental techniques in design of second generation wireless networks 3. Learning cellular network and protocols, access techniques 4. Learning signaling and mobility management
Instruction Methods	The mode of delivery of this course is Face to face.
Weekly Schedule	1. Introduction 2. Fundamentals of Communication 3. Fundamentals of Communication 4. Antennas 5. Encoding 6. Encoding 7. Spread Spectrum 8. Error Control 9. Error Control 10. Cellular Networks 11. Cellular Networks 12. GSM 13. GSM Security 14. 3G
Teaching and Learning Methods *(These are examples. Please fill which activities you use in the course)*	Weekly theoretical course hours:3 Reading Activities:2 Internet browsing, library work:1 Preparing report:5 Preparing presentation:5 Preparation of Midterm and Midterm Exam:15 Final Exam and Preparation for Final Exam:20

Assessment Criteria

	Numbers	**Total Weighting (%)**
Midterm Exams	1	20
Assignment	5	20
Application	0	0
Projects	1	20
Practice	0	0
Quiz	0	0
Percent of In-term Studies (%)	0	60
Percentage of Final Exam to Total Score (%)	0	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	0	0	0
Reading Tasks	15	2	30
Studies	13	3	39
Material Design and Implementation	0	0	0
Report Preparing	5	8	40
Preparing a Presentation	1	9	9
Presentations	0	0	0
Midterm Exam and Preparation for Midterm Exam	1	20	20
Final Exam and Preparation for Final Exam	1	20	20
Other (should be emphasized)	0	0	0
Total Workload			200
Total Workload / 25			8
Course Credit (ECTS)			8

Contribution Level Between Course Learning Outcomes and Program Outcomes

No	Program Outcomes	1	2	3	4	5
1	Reaches the expansion of knowledge by conducting scientific research in the field of engineering and evaluation, interpretation and application of information.				x	
2	Has extensive and in depth knowledge including the latest techniques, methods applied and their limitations in engineering.				x	
3	Completes and applies knowledge by using scientific methods by using limited or missing data and integrates information from different disciplines.			x		
4	Be aware of new and developing practices of the profession, examines and learns when needed.				x	
5	Defines and formulates problems related to the field, develops methods to solve them and applies innovative methods in solutions.			x		
6	Develops new and / or original ideas and methods, designs complex systems or processes and develops innovative / alternative solutions in their designs.			x		

	7	Designs and applies theoretical, experimental and modeling based researches, examines and solves the complex problems encountered in this process.			x			
	8	Works effectively in disciplinary and multidisciplinary teams, leads such teams and develops solution approaches in complex situations, works independently and takes responsibility.			x			
	9	Communicates oral and written using a foreign language at least at the level of European Language Portfolio B2.		x				
	10	Conveys the process and results of the studies in written and oral form in a systematic and clear manner in national and international environments within or outside the field.		x				
	11	Knows the social, environmental, health, security, legal aspects of engineering applications; project management, and business life applications and be aware of the constraints of these engineering applications.	x					
	12	Considers social, scientific and ethical values in the stages of data collection, interpretation and announcement and in all professional activities.		x				
The Course's Lecturer(s) and Contact Information		Computer Engineering Department Chair E-mail address: bmbb@gazi.edu.tr						