	Course name: CENG 560			**Department:**			**Semester**
YILDIRIM BEYAZIT UNIVERSITY 2010	Advanced Computer Networks			Computer Engineering			1 or 2
	Methods of Education						**ECTS**
	Lecture	**Recitation**	**Lab**	**Project (F. Study)**	**HomeW**	**Others**	**Total**	7,5
	42	42	-	80	28	33	225	

Language	English
Compulsory/Elective	Elective
Prerequisites	None
Course Contents	This course covers a set of advanced topics in computer networks. The focus is on principles, architectures, and protocols used in modern networked systems, such as the Internet itself, wireless and mobile networks, and large-scale peer-to-peer systems. The goals of the course is to build on basic networking course material in providing an understanding of the tradeoffs and existing technology in building large, complex networked systems
Course Objectives	- To fill gaps in students' networking knowledge - To grasp the current directions of computer networks research - To provide in-depth coverage some research areas - To prepare students to conduct research
Learning Outcomes and Competences	- To develop literature searching and literature review techniques - To analyze and evaluate published results - To improve oral and written communications skills - To better understand experimental methodology - To appreciate performance evaluation issues
Textbook and /or References	- "Computer Networking", Kurose & Ross by Pearson - "Computer Networks and Internets, 5/e" by Comer, Prentice-Hall - "Computer Networks" by Tanenbaum, Prentice-Hall - "Data Communications and Networking" by Forouzan, McGraw-Hill

Assessment Criteria	Assessment Items	If any, mark as (X)	Percentage (%)
	Midterm Exams	X	20
	Quizzes		
	Homeworks	X	10
	Projects	X	20
	Term Paper		
	Laboratory work		
	Other		
	Final Exam	X	50

Instructors	Assist Prof Dr Lami Kaya
Week	**Subject**
1	Computer Networks and the Internet
2	Application Layer: Fundamentals and Issues
3	Application Layer: Common Applications
4	Transport Layer: Transport Layer Basics and UDP Protocol
5	Transport Layer: Reliable Transport and TCP Protocol
6	Networking Layer & Routing: Fundamentals and Issues
7	Networking Layer & Routing: Common Routing Protocols
8	*Mid-Term*
9	Link Layer: Fundamentals, Protocols and Issues
10	Wireless & Mobility: Fundamentals, Types and Issues
11	Multimedia: Fundamentals, Protocols and Issues
12	Security: Fundamentals, Protocols and Issues
13	Class Presentations
14	Class Presentations