

CmpE 475 Computer Networks Fall 2009

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Class Meetings : Thursday 09:00-09:50 ETA-A2
Thursday 12:00-13:50 ETA-A2

Textbook : A. Tanenbaum, Computer Networks, Prentice-Hall, 2003, 4th Ed.
Also recommended :
W. Stallings, Data and Computer Communications,
Prentice-Hall, Latest Edition

Grading :	Term papers & term project	200
	Midterm 1	200
	Midterm 2	250
	Final Exam	350 Total exams: 80%
	Total	1000

Subjects to be covered :

1. Introduction : Overview of computer networks, network hardware/software, layers, OSI and TCP/IP reference models, example networks, standardization (Ch 1)
2. Physical Layer (Data Communications) : Theoretical basis, transmission media, wireless transmission, satellites, wired and mobile telephone system, xDSL, cable television (Ch 2)
3. Data Link Layer : Design issues, error detection and correction, elementary protocols, sliding window protocols, protocol performance, specification and verification, example data link layers (HDLC, PPP) (Ch 3)
4. Medium Access Control Sublayer: Channel allocation problem, multiple access protocols, IEEE 802 standards for local area networks, Ethernet, wireless LAN's, broadband wireless, Bluetooth, bridges and switches (Ch 4)
5. Network Layer : Design issues, routing algorithms, congestion control, quality of service, differentiated services, MPLS, internetworking, Internet Protocol (IP, mobile IP, IPv6), routing protocols OSPF, BGP, multicasting (Ch 5)
6. Transport Layer : Services, elements of a transport protocol, example transport protocol, UDP and TCP, performance issues (Ch 6, if time permits)

Not all sections above will be lectured, you will study the related sections in the textbook and you are responsible for these sections

Exam Dates and Times :

- Midterm 1 : On November 5, 2009 Thursday 12:00-13:50
- Midterm 2 : On December 3, 2009 Thursday 12:00-13:50
- Final Exam : As scheduled by the Registrar

Additional Notes :

1. Paper/project grading : 25% less for each day late, no acceptance after 4 days late.
2. You get zero if you miss an exam without official excuse.
3. Your attendance is required in all classes.
4. Successful completion of CmpE 322 Operating Systems course is recommended.
5. The email list cmpe475@listeci.cmpe.boun.edu.tr will be used by all students and by the instructor for internal communications within this course.