EE382N - Communication Networks

Option III Course Syllabus

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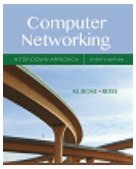
General Information

Classroom	ECJ 1.312.
Contact	ramesh@mail.utexas.edu; Office: EER 5.824 Office Hours: TTh 12-1pm (Google Hangout)
Pre-requisites	EE312 or equivalent
Time	1-5pm
Website	UT Canvas
TAs	Aastha Tripathi (aastha_tripathi@utexas.edu)

Course Overview

This is an introductory course in Computer Networking. It covers all basic components of modern networks, including: link level technologies such as Ethernet, token rings, and wireless Ethernet; switching technologies such as bridges and ATM; internetworking including IP; the transport layer, including TCP and RPC; and congestion control. Time permitting; we will also consider security, quality of service, high-performance networks, and/or multimedia. Although IP and TCP are primary examples used in the course, it is NOT a course on TCP/IP

Text



Computer Networking: A Top-Down Approach, 7th edition
J.F. Kurose, K.W. Ross
ISBN-10: 0132856204 • ISBN-13: 9780132856201

Note: *The book currently has a 7th edition but if you bought the 6th edition, that works too.*

Grading Criteria

Assignment	Percentage
Projects (4)	80%
Problem Solving	10%
Final Quiz	10%

This is a project-based class where most of the work you are evaluated for, are projects. There will be 4 large projects each worth 20%. Each project will have a Wireshark (wireshark.org) component and a programming component. The Wireshark component gives you a practitioner's perspective of the project at hand and the programming component asks you to implement a networking aspect covered in class.

Problem Solving

There will two types of activities here, a) In class problem solving where a small problem will be posed in class and you will work in teams of two. Each team member submits his/her individual report of completion, b) Offline problem solving based on problems at the end of each book chapter.

Late Policy

All programming projects have a strict deadline. However, you can turn in the first two programming assignments by the deadline for the last programming assignment to earn a maximum of 75%. So, say you did not turn in Project1/2 at the scheduled deadline. You may turn them in any time before the deadline for the last Project and earn a maximum of 75 points on it. The TA will not be obliged to grade a late submission before the last project.

Honor Code

Programming assignments, examinations must be the product of work performed exclusively by you (or team). You may discuss problem sets in a group but your submission must be your own work. Allegations of Scholastic Dishonesty will be dealt with according to the procedures outlined in Appendix C, Chapter 11, of the General Information Bulletin, http://www.utexas.edu/student/registrar/catalogs/

Tentative Lecture Schedule

Date	Topics
Aug 19-20 (Fri-Sat)	Chapter 1 and 2: The Internet, Performance, Application-Layer Protocols, Socket Programming
Sep 16-17 (Fri-Sat)	Chapter 3: Transport-Layer Protocols (Connection-oriented communication using Virtual-Circuits - TCP, Connection-less communication using Datagrams -UDP)
Oct 7-8 (Fri-Sat)	Chapter 4 and 5 : Network Layer – Data and Control Plane: (IPv4, IPv6) Routing (RIP, IGMP), Control (ICMP, DHCP, NAT)
Nov 4-5 (Fri-Sat)	Chapter 6: Data Link-Layer Protocols, CRC, LAN Addressing (ARP), Multiple Access protocols (Wired-Ethernet, wireless-WiFi, Bluetooth,4G), Virtual LANs
Dec 1-2 (Th-Fri)	Chapter 7: Wireless Networks and Mobility. 802.11* (WiFi), Bluetooth, Cellular Networks. Handoffs in GSM, Mobile IP

Disclaimer

Instructor reserves the right to modify course policies, the course schedule, and point values and due dates.

Additional Details

The University of Texas at Austin provides, upon request, appropriate academic adjustments for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471-6259, 471-4241 TDD, or the College of Engineering Director of Students with Disabilities, 471-4321.