Administrivia for CSE/EE 461 (Winter 2005; Bershad) Introduction to Computer Communication Networks

Instructor: Brian Bershad (Bershad@cs.washington.edu)
TAs: Alan Liu (aliu@cs.washington.edu)
Tushar Jain (tushar@cs.washington.edu)
Time/Place: MWF 9:30 to 10:20pm
Office Hours: TBA on the web site

Course Web: http://www.cs.washington.edu/education/courses/461/05wi

Course Description: This course introduces the basics of networking, ranging from sending bits over wires to the Web and distributed computing. We focus on the internetworking ground in-between these two extremes for distributed, large-scale, heterogeneous networks such as the Internet. The goal of the course is to give students an appreciation of the fundamental challenges of networking, design strategies of proven value, and common implementation technologies. Topics will include the following: framing, error correction, packet switching, multi-access (Ethernet), addressing and forwarding (IP), distance vector and link state routing, queuing and scheduling, reliable transport, congestion control (TCP), quality of service, naming (DNS), and security.

Prerequisites: Two kinds are required. First, you need the ability to develop software programs to complete the programming assignments (CSE 143). We will be using Java. Second, you need a basic understanding of probability concepts to complete the written assignment questions (MATH 390/STAT 390, STAT 391, IND E 315, or CSE 321).

Mailing List: Join the class mailing list right away by sending email to majordomo@cs.washington.edu with "subscribe cse461" as the contents. We will use this list for clarifications, last minute announcements, etc. A discussion board (link available from the course website) will be available for you and and you should feel free to use it for class related discussion. In particular, you're encouraged to freely help one another with programming issues that are time consuming and don't contribute to your learning about networks. Please post only to the second list.

Textbook: Computer Networks: A Systems Approach, by Larry Peterson and Bruce Davie. Morgan Kaufmann, **3rd edition, 2003**. This is required reading, and the only networking book you will need (regardless of what the bookstore might recommend). I have placed a copy of Peterson, plus Keshav and Tannenbaum, two other worthwhile books, on reserve at the Engineering Library.

Programming Projects: There is a substantial programming component to this class. Over the quarter, we will build a class network called the Fishnet that runs on standard Java VMs. You will do all your project work in pairs. There are four assignments, each worth 10% of your grade.

Lab Access: You will do most of your development in the CSE Labs, so you should gain access to them right away. CSE majors should already have access and an account. Non-majors must fill out a request form. It is possible for you to develop your programs on non-Lab machines, as long as they compile on the Lab machines without any changes whatsoever (so that we can automatically compile your source).

Staffing Issues: Tushar will be principally handling infrastructure issues related to the programming project. Alan will be handling sections. Both will help with grading. Each will have office hours. Please feel free to use them.

Written Assignments: There are three written homework assignments, each worth 10% of your grade.

Turnin and Late Policy All turnin, both electronic and written for programming projects and written assignments, is due at the beginning of class and will be considered late once we leave the classroom. For the programming assignments in which you are working in pairs, you turnin only one solution per team. You may turn in **one (1)** programming project plus **one (1)** written assignment late without penalty, as long as it reaches the TA before the **next** class, whenever this may be, when solutions will generally be handed out. No further late homework will be accepted.

Final: There is a comprehensive final worth the remaining 30% of your grade. Note that there is no midterm. We will distribute review questions.

Grading Summary: Four programming projects, 40%, three written assignments, 30%, and a final, 30%.

Collaboration Policy: Unless we specifically state otherwise, we encourage you to collaborate on homework provided (1) You spend at least 15 minutes on each problem alone, before discussing it with others, and (2) You write up every solution on your own (or with your partner for programming assignments), using your own words, and understand the solution fully. Copying someone else's written homework or programs is cheating (see below), as is copying from another source (prior year's material, etc.).

Cheating Policy: Cheating is a serious offense. Students in 461 who know me from other courses can attest to my extremely low-tolerance for cheating, which I broadly define as representing another's work as your own. While getting caught cheating won't kill you, you'll wish it had. If you feel that you are having a problem with the material, or don't have time to finish an assignment, or have any number of other reasons to cheat, talk with me. Just don't cheat. To avoid creating situations where copying can arise, never publicly post your solutions. If in doubt about what might constitute cheating, send me email describing the situation.
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