CMPSC 381: Networks
Fall 2009
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Home page: http://cs.allegheny.edu/wiki/cs381F2009

Course Description and Policies

Office Hours: My office is in Alden 105, extension 2883. My hours are Tuesday 9:00 – 11:00 a.m., Wednesday 2:30 p.m. – 4:30 p.m., Thursday, 9:00 – 11:00 a.m., and by appointment. The best way to schedule an appointment is to send me an e-mail. Don’t be shy about asking for appointments if you can’t make my scheduled office hours!


Grading: (All percentages are approximate!)
- Attendance and participation approx. 10%
- Homework (labs, problem sets) approx. 50%
- Final project approx. 10%
- Two mid-term exams approx. 10% each
- Final exam (Mon., 12/14, 7 p.m.) approx. 10%

Learning Objectives:

General Knowledge. By the end of the semester you should know the basic architecture and terminology of the Internet and the World Wide Web — IP addresses, packet switching, main protocols (TCP, UDP, IP, ICMP, RIP, etc.). In addition, you should know the basic ideas underlying other networking technologies such as wireless networks, LAN technologies like Ethernet, etc.

In-Depth Knowledge. You should have a good understanding of some of the more important details of some of these technologies, such as the structure of IP packets, the details of protocols such as TCP (congestion control, acknowledgements, windowing methods, etc.), error detection, CDMA, CSMA/CD, routing algorithms, etc.

Practical Experience. You should be able to write robust code to implement network applications using the Java API.

Current Practice: You should be aware of recent developments in network technology and management and know something about current trends in the field, including some of the more prominent social and political issues associated with networks.

Policies:

E-mail.

“The use of email is a primary method of communication on campus. . . . All students are provided with a campus email account and address while enrolled at Allegheny and are expected to check the account on a regular basis.” [from The Compass, The Allegheny Student Handbook]
Attendance and Participation. It is expected that students in this course will attend class except for exceptional circumstances. A portion of the final grade will be determined by attendance.

Whenever possible, advise me of legitimately excusable absences (illness, death in the family, and certain College sponsored activities) prior to the class you will be missing. (For instance, if you are ill on Tuesday evening and are fairly certain you will be unable to attend Wednesday’s class, send me an e-mail or phone me to let me know the night before if at all possible.)

If you know in advance of specific conflicts due to athletic events or other College-related reasons, please have the coach or other college official provide me with a list of dates and reasons as soon as possible so I can avoid problems in scheduling exams, due dates, etc.

Late Policy. Every assignment will have a given due date and time (usually the time will be “at the beginning of class” on the due date). If the assignment is handed in after that, there will be a late penalty (minimum of 15% of the grade, increasing as more time passes). No assignment will be accepted more than one week after the due date.

Special Needs and Disabilities The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Learning Commons at 332-2898.

Collaboration, Plagiarism, and the Honor Code. You are encouraged to periodically review the specifics of the Honor Code as stated in the College Catalogue and elsewhere.

No collaboration with others is permitted unless specifically provided for as part of the assignment. All assignments must consist of your own, original work. Whenever specific phrases and sentences or, more generally, non-trivial ideas from outside sources are used, they must be clearly and unambiguously identified. Taking someone else’s ideas and simply paraphrasing them is not enough to avoid charges of plagiarism — you must cite the sources of ideas other than your own.

Schedule

We will pretty much follow the book in this course, so very roughly the schedule will look something like this:

- Chapter 1 (Computer Networks and the Internet) — about 1 week
- Chapter 2 (Application Layer) — about 2 weeks
- Chapter 3 (Transport Layer) — about 2 weeks
- Midterm Exam 1 — I propose that we have this sometime the week of Oct. 5 (perhaps Weds., Oct. 7?)
- Chapter 4 (Network Layer) — about 2 weeks
• Chapter 5 (Link Layer; LANs) — about 2 weeks

• Chapter 6 (Wireless and Mobile Networks) — about 2 weeks

• Midterm Exam 2 — I propose that we have this sometime the week of Nov. 9 (perhaps Weds., Nov. 11?)

• Chapters 7-9, Final Project) — remainder of the semester

• Final Exam — Monday, 14 December, 7 p.m.