ComS486: Fundamental Concepts in Computer Networking
Spring 2009

Course Schedule
Spring 2009, TR 2:10pm-3:30pm in 2125 Pearson

Instructors
Professor Johnny Wong Email: wong@cs.iastate.edu
Office: 202 Atanasoff Hall
Phone: (515)294-2586
Office Hours: W: 2:00pm - 3:00pm, R: 10:00am - 11:00am or by appointment.

Teaching Assistant
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Office: 116A Atanasoff Hall (big lab on the first floor)
Office Hours: M, T: 10:00am - 11:00am, or by appointment

Course Description
An introduction to fundamental concepts in the design and implementation of computer communication in both the wired and wireless networks, their protocols, and applications. Topics include: layered network architecture in the Internet, applications, transport, Socket APIs, network, and data link layers and their protocols, multimedia networking, and network security.

After completing this course, students should have a good understanding of networking concepts, issues, and approaches to addressing the issues. Students should have general knowledge on how the Internet works and have basic network programming skills.

Prerequisite
Com S 352: Introduction to Operating System.

Programming Languages
C/C++ and Java

List of Topics
Chapter 1: Computer Networks and the Internet
Chapter 2: Application Layer
Chapter 3: Transport
Chapter 4: The Network Layer
Chapter 5: The Link Layer and Local Area Networks
Chapter 6: Wireless and Mobile Networks
Chapter 8: Security in Computer Networks

Textbook
Computer Accounts
You will use the computers in Pearson Hall room 0108 (Windows), 0109 (Windows), 0105 (Windows), and 0141 (Linux) for the programming projects. If you do not already have a computer science UNIX account, you should go to http://support.cs.iastate.edu/accounts.php3 to apply for an account. One working day after you apply for your account, you can activate it in 0141 Pearson Hall at the Unix Account Activation Terminal. Problems, concerns or questions may be taken to the Systems Support Group staff in Room 0125, Pearson Hall or email ssg@cs.iastate.edu.

Course website: http://www.cs.iastate.edu/~cs486

Grading
There will be several written and programming homework, one project, one in-class midterm exam (in mid-October), and one final exam. The exams will be close book. The final course grade will be computed as follows: Homework: 10% Projects: 50% Mid-term exam: 20% Final exam: 20%

If you have questions regarding the grading of your homework, projects or exams, you MUST come to see either the instructor or the TA WITHIN ONE WEEK after the date your homework, projects or exams have been returned to you.

Late Policy
Homework and projects must be turned in before the specified due date and time. Late homework and projects will NOT be accepted.

Academic Honesty
You must do your homework and projects on your own!

You may discuss the homework with anyone and use any reference material, provided you do not copy any other person's work. Appropriate reference or credit must be acknowledged if you do not solve the homework problems on your own.

For the programming projects, it is expected that you have written EVERY LINE OF CODE that you submit (with the exception of code given out in class). The following are examples of activities that are PROHIBITED:

- Writing code with another student.
- Copying code from another student.
- Giving code to another student (via email, printouts, etc).
- Posting code in a publicly accessible location.

Such activities will result in zero points awarded for the project and a formal charge of Academic Dishonesty through the Dean of Students' Office (see the University's Academic Dishonesty Policy for details).

Disability Policy
If you have a disability and require accommodations, please contact the instructor early in the semester so that your learning needs may be appropriately met. You will need to provide documentation of your disability to the Disability Resources (DR) office, located on the main floor of the Student Services Building, Room 1076, 515-294-6624.