

Fall 2004
CprE 489: Computer Networking and Data Communications
Course Syllabus

Instructor:

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Office Hours: TR 3:30 ~ 5:00pm

Teaching Assistant:

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Office Hours: MW 3:30 ~ 5:00pm

Class Information:

Class meets on TR 11:00am ~ 12:15pm at LAGOMAR W0142.

Course Description:

Welcome to CprE 489! We are looking forward to learning together with you. In this course, we will try to understand how computer networks operate: how packets are transmitted, how packets are routed, what to do when there is network congestion, and etc. We will study OSI reference model and TCP/IP networking architecture. Various protocols at the physical, data link, network, and transport layers will be studied. We will learn what sockets are and how to use them. And we will write codes. We write codes to build simple client-server applications.

Prerequisite: CprE 305 or EE 324

Textbook:

- A. Leon-Garcia and I. Widjaja, *Communication Networks: Fundamental Concepts and Key Architectures*, McGraw-Hill, 2nd Ed., 2004. ISBN 0-07-246352-X.

References:

- W.R. Stevens, *UNIX Network Programming, Vol. 1: Networking APIs: Sockets and XTI*, 2nd Ed., Prentice-Hall, 1997. ISBN 0-13-490012-X.
- J.F. Kurose and K.W. Ross, *Computer Networking: A Top-Down Approach*, 3rd Ed., Addison-Wesley, 2005. ISBN 0-321-22735-2.

WebCT:

- This course will use WebCT for communication and course information.
- All course materials, including class notes, homework and programming assignments, supporting materials, will be posted on WebCT.
- You will have access to your individual scores through WebCT.
- You may post your questions on the WebCT bulletin board.
- **Please check WebCT regularly.**

Assignment Information:

- We will be doing homework/programming assignments in groups of two. You have to inform us who your partner is with the solution of your first assignment. The partners will last the whole semester. Try to form a group where you have an opportunity to learn from each other or at least one person can learn from the other. Taking turns to do assignments is not allowed. It has to be a joint effort each time. **Both partners should write their effort level, totaling to 100%, on each assignment.** Each of your assignment grade will be "**your_grade = min(100, grade_obtained*effort_level*2)**". If effort levels are not mentioned, we will assume nobody put in any effort (in other word, both of you get a zero grade). You are free to work with other groups in interpreting assignments. However, the solutions to the assignments have to be solely done by the group.

- Homework assignment is due one week from the assign date. **Please hand in your homework assignment to the instructor before the lecture.**
- Due dates of the programming assignments will be announced on the assign dates. Please prepare a cover sheet for each programming assignment. Programming codes are expected to be well-commented. Comments account for 20% of the assignment grade. Submission procedure will be announced later in the semester.
- **No late homework/programming assignments will be accepted.**

Exam Information:

- Exams are closed book. Crib Sheet: One 8½ by 11 paper (two-side) can be used for reference to study notes. No other information is allowed. ALWAYS hand in your crib sheet with the exam.
- One midterm exam: date TBD, but will be announced several weeks in advance.
- Final Exam: 12/15, Wed, 9:45 ~ 11:45am at LAGOMAR W0142.
- **Final exam will NOT be comprehensive.**

Grading:

Homework Assignments	25%
Programming Assignments	15%
Midterm Exam	30%
Final Exam	30%

Important Notes:

1. Cheating – Cheating is a very serious offense. It will not be tolerated on any exams or assignments, and will be dealt with in the most severe manner allowable under university regulations. If caught cheating, such as copying homework assignments or programming codes, you can expect a failing grade and initiation of a cheating case in the university system.
2. Students with special needs – Please address any special needs or special accommodations with the instructor at the beginning of the semester or as soon as you become aware of your needs so that we can work together to support your learning. Those seeking accommodations based on disabilities should obtain a Student Academic Accommodation Request (SAAR) form from the Disability Resources (DR) office (294-6624). DR is located in Room 1076 of the Student Services Building.