UNIVERSITY OF CALIFORNIA, SAN DIEGO
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CSE123a Computer Networks
Fall 08

MEETING TIMES

Tuesday Thursday, 3.30- 4.50

INSTRUCTOR

George Varghese
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Tel: (office) 822 0424, email: varghese@cs.ucsd.edu

OFFICE HOURS

See web

COURSE OBJECTIVES

CS123 assumes no previous background in computer and/or telephone networking. The focus of the course will be on learning various principles and techniques. See the course syllabus and outline for more details.

WORK INVOLVED

- **Laboratory and Programming Exercises**

  There will be at least two programming assignments. The assignments will help you get a feel for real protocols. A possible assignment could be to write a CRC program, or to compute the shortest routes for an actual ISP like ATT. The actual coding will be quite small. You will do these programs in Java, C or C++; programs will be done individually by each student. Let us know if you need a class account.

  Students are assumed to be competent in Java and to be familiar with Unix. Students not familiar will have to learn those outside the class room. C++ and Unix will NOT be taught as part of this course.

- **Exams and Quizzes**

  There will be a midterm and a final examination. The midterm and exams will allow you to bring in a 2-sided 1 page (possibly typed) cheat sheat but no other materials.

- **Homework**

  There will be 2-4 homework problems handed out each week (with a few exceptions). They will be handed out on a Thursday and will be due the following Thursday at the start of class on the due date. Because of the lack of grading support, I will only randomly pick 1 or 2 of the questions to grade and base your grade on those. We will not accept homework

after the class starts. Why? Because I do not want you to solve (or fine-tune) homeworks during class. Recall also that any one homework does not carry much weight in the overall scheme of things. I also dislike grade jockeying (where students keep asking for regrading to up their scores). Genuine cases are welcome, but if we suspect you of being a grade jockey, we reserve the right to regrade your entire homework or test! Finally, I should clarify what it means not to collaborate. Feel free to discuss the homework with your friends after you have thought about it for a few days by yourself. Also DO write up the homework by yourself in your own style.

At times, I will put in an interesting no-grade problem for the people who are really interested. Homeworks are CRUCIAL. Since the focus is not on programming (which I assume you will learn from other courses) but on concepts, doing the homeworks is the only way. As Gauss once said (or should have said), there is no royal road to learning except by working at it.

- **Reading**

  I will post the lecture slides on the web site. For all lectures, I will also suppplement the lectures with my own notes as pdf files.

- **Textbook and Reading Assignments:** Much of the lecture material in the course is NOT in any textbook. Read the lecture notes.

GRADING Grades will be assigned on a curve only if the average test and homework scores are very low. If everyone does well, everyone will get good grades. However, there will be a special $A*$ grade (reported in your grade sheet as an $A+$) that I will keep track of. If you are applying for graduate school or for a job, and have an $A*$, I would be happy to write a very strong recco letter for you. The $A*$ is reserved for true excellence, measured in terms of class participation, test and homework scores. I am also hoping that 5 A students will also help TA this class the next time it will be taught so we can have a really excellent class with great graders. We need your help for that. In return, I will do my best to help such TAs with job and graduate school recommendations.

The breakup of points for grading is:

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Homeworks and Programming Projects          35 %
Midterm (to be announced)                   30 %
Final   (to be announced )                  35 %
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OPTIONAL TEXT

Interconnections, Radia Perlman, Addison-Wesley, 1992.

Additional References

Computer Networking: A Top Down Approach Featuring the Internet, Jim Kurose and Keith Ross. (Nice book with lots of stuff of multimedia and security thats in no other book.)

Computer Networking: A Systems Approach, L. Peterson and B. Davy. (Very nice systems perspective on networking.)