ECE 330:543, Communication Networks 1
Information Sheet and Syllabus
Fall 2006

- **What This Class Is and Isn't:** This class serves as an introduction to advanced concepts in computer networking. It is *not* a class about protocols. It is not a class about IP/BGP/RTP/RMTP/etc... Rather, the purpose behind this class is to give the student the mathematical and analytical machinery necessary to do research and comprehend the behavior and performance analysis of communication networks.

- **Course Specifics:**

  - Place and Time: Th 6:40-9:30, at SEC-204.
  - Instructor: Wade Trappe. Phone: x50611 . Office: CORE 523. (Note: I spend the majority of my time in the WINLAB ORBIT facility off-campus)

    Email: trappe@winlab.rutgers.edu. Office Hours are Th 4:00pm-6:00pm (in CORE). If you desire to speak with me outside of these times, please email me to arrange an appointment.
  - TA: None.

- **Handouts and Materials:** All course related materials will be available at the course website www.winlab.rutgers.edu/~trappe/CommNetsF06.html. Homework assignments will be posted on this website and announced in class.

- **Prerequisites:** It is expected that students have an undergraduate level background in probability, and are co-registered for Stochastic Signals and Systems.

- **Texts:** There are two required texts: Data Networks, by D. Bertsekas and R. Gallagher. Prentice Hall, 1992; and Communication Networking: An Analytical Approach, by Anurag Kumar, D. Manjunath and Joy Kuri.

- **Grading:** OK, so last time I tried a quasi-Moore style teaching for this class and that was a fiasco. This time, the class will be much more traditional (i.e. no interactive homework assignments!) The grade of the class will be based upon a midterm exam, a final exam, and several computer projects.

  - Homework: (0%) There will be homework assignments. Homework is like eating vegetables... it is good for your health!
  - Computer Projects: (2 small projects at 15% each) The purpose of the two projects is to give students hands on experience with the concepts taught in the class. Students will pair into teams and will report their findings in a short writeup that will be graded. The writeups will be graded based upon the technical content and the clarity of the exposition.
  - Exam: (A midterm at 30%) One midterm will be given during the course of the semester. At least one week notice will be given in class to allow students to prepare. The exam is closed book. I don't believe in *cheat sheets*. My exams are like Greek tragedies– they are always a cathartic experience. Make certain to eat your vegetables!
  - Final: (40 %) The final exam is comprehensive. Any material covered in class is fair game. However, I will examine your ability to go beyond the basic course material and will expect you to be able to apply your knowledge to challenging problems.

  There is no set policy regarding the distribution of grades. However, since this class is considered a *core* class, the grading will be highly competitive. Not all students will be getting a B or better– grades of C and C+ will be given (or, dare I venture... lower). After the first midterm, I will provide feedback so that students can gauge their performance.