• **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 of communication networks.

• **Course Specifics:**
  - Place and Time: TTh 4:30-5:50, at SEC-117.
  - Instructor: Wade Trappe. Phone: x50611. Office: CORE 523. Email: trappe@winlab.rutgers.edu. Office Hours are T 10:00am-12:00. 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/CommNetsF04.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.


• **Grading:** This class will be structured differently from most of your traditional chalkboard classes with homework and exams. Instead, the class will consist of a mix between lectures and student involvement. The goal is to engage the students in the process of learning (and to remove “presentation” timidity) by making student teams present results, solved problems, system designs and analyses. The grade of the class will be based upon a midterm exam, a final exam, several computer projects, and class participation.

  – Homework: (0%) There will be homework assignments. However, they will not be graded.
  – Class Participation: (25%) Students will be broken into teams and interactive problems will be assigned at several strategic junctures in the course. These presentations will be scored and the class will be encouraged to ask questions and give feedback to the student teams.
  – Computer Projects: (2 small projects at 5% each, one large project at 15%) The purpose of the two projects is to give students hands on experience with the concepts taught in the class. Students paired 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 25%) 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
  – Final: (25 %) 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. After the first midterm, I will provide feedback so that students can gauge their performance.