ECE 332:424, Introduction to Information and Network Security
Information Sheet and Syllabus
Spring 2006

- **Course Motivation:** This course introduces the principles of information and network security, and is aimed at providing computer and communication engineers the tools needed to secure a communication application.

- **Course Specifics:**
  - Place and Time: MW 1:40-3:00PM, at SEC-207.
  - Instructor: Wade Trappe. Phone: x50611 . Office: CORE 523.
    Email: trappe@winlab.rutgers.edu. Office Hours are MW 3:30-4:30 pm.
  - TA: None.

- **Handouts and Materials:** All course related materials will be available at the course website www.winlab.rutgers.edu/~trappe/InfoNetSecU06.html. Homework assignments will be posted on this website and announced in class.

- **Prerequisites:** This class will rely heavily upon mathematics and computer programming skills. Students should have received a B or higher in undergraduate level classes in: probability, discrete mathematics, and differential equations. Additionally, students should be familiar with programming, and comfortable with learning new programming languages (e.g. Matlab, C and Java will be used in this class).

- **Texts:** Introduction to Cryptography with Coding Theory, by Trappe and Washington, Prentice Hall, 2005. Security Engineering, Ross Anderson, Wiley Publishing.

- **Grading:** The grade for the class will be based upon homework, midterm exams, programming projects, and a term project.
  - Homework: (0%) There will be homework assignments that will be assigned roughly every week. The homework assignments will not be due. Instead, students are expected to work on the homework independently. Solutions will be 2 weeks after they are assigned. Some of the homework will require using MATLAB.
  - Midterms: (2 midterms at 25% each) Two midterms will be given. For each midterm, at least one week notice will be given in class to allow students to prepare. The exams are closed book and will focus on cryptography and the mathematics of security.
  - Small Computer Projects: (35% total) There will be several programming assignments throughout the course of the semester. Some programming assignments will be in MATLAB, while others will involve C or Java. Students will be broken into teams of three. Each project will require a short report.
  - Term Report/Project: (15%) Students will break up into teams of no more than three members and choose one project topic to research and report. Topics will be given midway through the semester. Topics will range from theory to practical aspects of security. These projects will be due on the final day of class.