ECE 332:601, (Advanced) Information and Network Security
Information Sheet and Syllabus
Spring 2004

- **Course Overview:** This course is an advanced graduate course that will cover a diverse set of topics related to information and network security. The class will cover a mix of mathematics and programming, covering aspects of security from theory to practice. This course is primarily aimed at giving graduate students the resources needed to follow the state of the art in security research. This does not mean that this class is a research class, but it does mean that advanced levels of independent study is required.

- **Course Specifics:**
  - Place and Time: M 4:30-7:20PM, at CORE 601.
  - Instructor: Wade Trappe. Phone: x50611 . Office: CORE 523. Email: trappe@winlab.rutgers.edu. Office Hours are MW 10:00-11:30 am.
  - TA: None.

- **Handouts and Materials:** All course related materials will be available at the course website www.winlab.rutgers.edu/~trappe/AdvSec_S05.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 either Stochastic Processes, Comm Nets I, Computer Networks I (CS), Algorithms, or Digital Communications, or should have my permission to take this class. Students should be willing to program, and comfortable with learning new programming languages.


- **Grading:** The grade for the class will be based upon regular quizzes, programming projects, and a term project.
  - Homework: (0%) There will be regular homework assignments. The homework assignments will not be due. Instead, students are expected to work on the homework independently. Some assignments will require programming.
  - Quizzes: (Total of 30%) Starting February 14th (Happy Valentines!) there will be a short 20-30 minute quiz every week. These quizzes will typically have one or two short/quick problems on security, ranging from math to writing pseudocode for something, to discussing the merits of a scheme. Sometime in April, the pain will end and I will stop giving quizzes.
  - Paper Presentation: (20% total) The class will be broken into groups and a list of papers will be given. Each group will be responsible for choosing a paper and presenting a 20-30 minute summary of their paper. Papers will be given out midway through the semester.
  - Small Computer Projects: (20% total) There will be several small programming assignments throughout the course of the semester.
  - Term Report/Project: (30%) Students will break up into teams of no more than three members and will choose a topic of their interest (related to security) with which to investigate, implement, and report. At the end of the semester, the teams will present their projects to other teams. As good security analysts, everyone is expected to ask questions!