

## **COSC 6389 Computer and Network Security**

Instructor: R.M. Verma, Office: PGH 532, Tel: 3-3348.

### **Recommended Textbook (not required)**

- Cryptography and Network Security by W. Stallings, Pearson Education, 2006.

### **References**

- Foundations of Security by N. Daswani, C. Kern and A. Kesavan, Apress, 2007.
- Applied Cryptography by B. Schneier, Wiley, 1996.

### **Goals**

- To provide computer science graduate students with a broad understanding of security issues in computer systems and networks.

### **Topics covered include (but are not limited to) the following:**

- Cryptography: secret key, public key and digital signatures.
- Authentication and identification schemes
- Intrusion detection
- Security of electronic mail and the World Wide Web
- Viruses, Worms and Trojans
- Firewalls
- Protocol Verification
- Practical Issues - Guest lectures by System Administrator

**Grading criteria - subject to change:** Class participation 3%, Assignments 19%, Quiz 1 (Oct. 11) 12%, Quiz 2 (Nov. 29) 36%, term paper 22% and presentation 8%.

**Laptop/Cellphone/Pagers Policy:** All laptops, cellphones, and pagers (beepers, etc.) should be off in class, otherwise they may, at the instructor's discretion, be confiscated for the duration of the class period on first offence, until the next class on second violation and until the end of the semester on the third violation.

**Academic Honesty Policy:** Collaboration with anyone or anything in or outside the course is prohibited on any homeworks, exams and programming assignments (yes, that excludes the internet as well) unless specifically and explicitly allowed by the instructor. The *appropriate* help of the instructor and (if applicable) the TA is of course allowed and encouraged.

**Submission Guidelines:** Nothing should be submitted via email unless you are explicitly asked by me to do so. Any file submitted via email must be named as follows. First, no spaces or punctuation symbols are allowed in the file name except for a period. Second, the file name must begin with XYnnnn, where X and Y are the initials of your first name and last name respectively and nnnn are the last 4 digits of your Student ID. After the digits should be short descriptor such as hw1 for homework 1 and then the period and type of file. Inside the file it is very important to include: your name, the purpose of the submission and the date you are submitting the file.