

## **COSC 6397 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
- Firewalls
- Protocol Verification

Grading criteria (subject to change): Class participation 10%, Assignments 20%, Term paper and presentation 30%, final (in class) 35%, showing interest and enthusiasm for the course by doing something related to the course and beyond the course requirements 5%.

Academic Honesty Policy: No collaboration with anyone or anything in or outside the course is allowed on any homeworks, exams and programming assignments (yes, that excludes the internet as well). The *appropriate* help of the instructor and (if applicable) the TA is of course allowed and encouraged.