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, Worms and Trojans

- Firewalls

- Protocol Verification

- Practical Issues - Guest lectures by System Administrator

Grading criteria (subject to change): Class participation 4%, Assignments 20%, Term paper and presentation 16%, Midterm 20%, final (in class) 36%, and showing interest and enthusiasm for the course by doing something related to the course and beyond the course requirements 4%.

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.