

# Fall 2016 SYLLABUS

## ITSS 4360: Network and Information Security

Instructor: Shaojie Tang, Ph.D.

Office: JSOM 3.802 Office Hours: Monday 3:00 PM – 5:00 PM

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### COURSE DESCRIPTION:

With the advances in information technology, security of information assets has become a keenly debated issue for organizations. While much focus has been paid to technical aspects of the problem, managing information security requires more than technology. Effective information security management demands a clear understanding of technical as well as socio-organizational aspects of the problem. The purpose of this course is to prepare business decision makers who recognize the threats and vulnerabilities present in current information systems and who know how to design and develop secure systems.

### PREREQUISITES:

Prerequisites: MIS 3300 and (MATH 1326 or MATH 2414 or MATH 2419) and (MATH 2333 or OPRE 3333 or MATH 2418 or MATH 2415 or CS 2305). (3-0) Y (2015-08-16 22:12:50)

**TEXTBOOK AND SUPPLIES** (the first book is strongly recommended; you should get it if possible):

- William Stallings: Cryptography and Network Security: Principles and Practice Published by Prentice Hall, Hardcover.
- Charlie Kaufman, Radia Perlman, and Mike Speciner: Network Security: Private Communication in a Public World, 2nd Edition, Prentice Hall, 2002, ISBN: 0-13-0460192.

## EVALUATIONS:

- Exam 1, 15%.
- Exam 2, 15%.
- Exam 3, 40%.
- Homework & Assignment, 30 %
- Percentages given here are approximate, and the instructor may change them during the course.  
Disastrous performance in either the exams, or in the homework, will result in a Fail grade
- **Numeric-To-Letter-Grade Scale:** 96-100 A+, 92-96 A, 88-92 A-, 84-88 B+, 80-84 B, 76-80 B-, 72-76 C+, 68-72 C, 64-68 C-, 60-64 D+, 56-60 D, 52-56 D-, 0-52 F.

## EXAMS:

If a student misses a midterm for an emergency [as agreed with instructor], there will be no makeup exam: the final will become proportionally more important. If a student misses a midterm without previous agreement and without definitive proof as to the medical or legal reasons, he or she will get a zero for that exam. The final exam is mandatory on the scheduled day.

## HOMEWORKS:

- Your best version of the assignment must be ready for submission **before** the class **by the due day**. **Work completed after the dead line will NOT be accepted for evaluation.**
- You are encouraged to discuss homework problems with your peers, and to help one another debug programs. However, all algorithms you devise, code you write, and anything else you might turn in should be entirely your own work. Plagiarism will be severely punished.
- Individual help will not be given unless the code of program is properly indented and documented.

## Tentative Class Schedule (These will be adjusted according to the actual progress):

- T1. Basic Security Concepts
- T2. Basic Cryptography
- T3. Secret Key Cryptography
- T4. Public Key Cryptography
- T5. Key Management
- T6. Digital Signatures and Authentication Protocols.
- T7. Other Topics: Privacy, Verifiable Computing, Proof of Possession.