

ISM 6223

Business Telecom Strategy and Applications – II Spring 2017

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Lectures: MW 1:55 AM to 3:40 PM

Office Hours: MW 12:45 PM to 1:45 PM, and by appointment

Reference Materials:

1. *Network Security Essentials: Applications and Standards, 5th edition*, by William Stallings, Prentice Hall, 2014, ISBN 0133370437

Course Objective

This course covers the fundamental principles and practices of network and data security. We will study core security concepts and review existing security architectures and systems.

Teaching methodology

The teaching methodology adopted by this course will consist of in-class lectures, programming exercises and discussions. You are expected to attend all classes, and read the assigned readings for the dates specified.

Grading

| Sr.No. | Evaluation Mechanism | Weights |
|--------|----------------------|---------|
| 1. | Exam – I | 30 % |
| 2. | Homework | 20 % |
| 3. | Project | 20 % |
| 4. | Exam - II | 30 % |

There will be 4 homework exercises. These will be given in the class and on Canvas. The due dates for these will be announced in the class and on Canvas.

The Exam-I and Exam-II exams will have short answer, multiple choices, and true-false type of questions.

According to the ISOM office guidelines grades will be awarded so that the class GPA is around 3.5.

Project

There will be eight groups for the project. I will form your project groups by October 30th and they will be posted on Canvas. For the project, you are supposed to research some issues or technologies in computer or network security. The project can be survey of an area, construction of a security system, an analysis of a security tool, or some comparative study.

A set of suggested projects is included below. You may select one of the suggested projects, or you may devise your own comparable project. A project proposal should be one paragraph in length. Proposals are due by e-mail by March 15th. Any e-mail communication with me has to have a subject line start with “ISM6223: “. Proposals are not graded. You will be given feedback about the suitability of the project. A final project report along with a PowerPoint presentation is due on April 13th. You will present the project on one of the two days. Presentations will be 20 minutes long. Every member of the team should be present for presentation and should speak something. The final report should be maximum five pages including everything (1.5 spaced). All the project presentations will be available on the class web site on the same day.

There will be at least one question about the projects in the final exam.

Ideas for projects:

You cannot have a project about a topic already covered in the class. Following is a list of some possible projects. You may choose to do a project about any other topic of your liking.

- IP Security
- Java Security
- Mobile Code Security

- Authentication Protocols
- Intrusion Detection
- Vulnerabilities revealed by traffic analysis
- Virtual Private Network

Project cannot be about the following topics:

- Biometric Device
- Smart Card

Laptop Policy

Laptops are required for certain classes. I will send a mail at least a day in advance when laptops are required in class. Other than when it's required by me a open laptop is not allowed in class. If I see an open laptop then you will lose 2% of the class grade for each day your laptop is open without my permission. So for example your laptop is open for 5 class days without my permission then you will lose 10% of class grade.

Honors Policy

You are expected to follow the University Honors Policy when working on assignments, homeworks, projects, and exams. Please read and agree to this statement. If you don't want agree with this statement let me know ASAP.

"I understand that the University of Florida expects its students to be honest in all of their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action, up to and including expulsion from the University."

ASSURANCE OF LEARNING

Each program at the Warrington College of Business Administration has developed goals and objectives that express the most valued skills and knowledge that students should be able to demonstrate upon completion of the total learning experiences in that program. The following goals and objectives are specifically mapped to ISM6223.

The ISOM program goals and objectives that apply to this course are:

Learning Goal 1: Our graduates will be knowledgeable in core Information Technology, Decision Support, and Analytical Skills.

1A. Students will demonstrate competency in Network Security Concepts.

U Matter statement:

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging

members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Tentative Class Schedule

| Week | Date | Topics | Readings from book |
|-------------|------------------|---|-------------------------------------|
| 1 | Feb 27 Mar 1 | Introduction, Security Framework Intro to Encryption, Message Confidentiality Project groups formed | 1.3, 1.4, 1.5, 1.6 2.1, 2.2 |
| 2 | Mar 13 Mar 15 | Public Key Encryption, Digital Signatures Network Authentication Project Proposal Due – Proposals not graded | 3.1, 3.4, 3.6 4.1, 4.2, 4.3, 4.4 |
| 3 | Mar 20 Mar 22 | E-mail Security, PGP E-mail Security, PGP continued | 8.1 |
| 4 | Mar 27 Mar 29 | Exam - I Firewalls | 12.1, 12.2, 12.3, 12.5 |
| 5 | Apr 3 Apr 5 | Phases of Computer Attacks and Tools – I Phases of Computer Attacks and Tools – II | |
| 6 | Apr 10 Apr 12 | Project presentations – 4 groups Project presentations – 4 groups Project Report Due | |
| 7 | Apr 17 Apr 19 | External Speaker Exam – II | |