CS 3IS3 Fall 2007

00 Preliminaries

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McMaster University

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Instructor

- Dr. William M. Farmer
- Office: ITB 163
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- E-mail: wmfarmer@mcmaster.ca
- Web: http://imps.mcmaster.ca/wmfarmer/
- Office hours: M 14:30, F 9:30, or by appointment

Teaching Assistant

- Sahar Abu Ghannam
  - E-mail: `abughas@mcmaster.ca`
  - Office hours: TBA
- Ms. Abu Ghannam will:
  - Help students with their assignments and projects
  - Answer questions concerning the course material
  - Provide assistance to the instructor
  - Mark assignments
  - Help the instructor mark the projects

Mission

The mission of this course is to introduce students to the fundamental concepts and issues of information security. By the end of this course the student should:

1. Understand the importance of information security in software systems.
2. Understand what a security policy is and what are the major mechanisms for implementing security policies.
3. Have a background in information security sufficient for the study of computer networking.
4. Be familiar with the major educational resources available for information security.
5. Be able to effectively present ideas about information security in written, oral, and web formats.

Mechanics

- Lectures: MW 8:30–9:20, F 10:30–11:20 in BSB B154
- Course web site:

  `http://www.cas.mcmaster.ca/~wmfarmer/CS-3IS3-07/`

- WebCT: Some limited WebCT services will be offered
- Textbook: M. Bishop, *Introduction to Computer Security*, Addison Wesley Professional, 2005. ISBN 0321247442.
- Class representative: The class will pick a class representative who will serve as a liaison between the students and the instructor

Work Plan

- Three lectures per week given by the instructor
- Five assignments
- Research and presentation project
  - Done individually
  - Purpose is to investigate and present an important topic in information security
  - Products: written proposal, oral presentation, and wiki page presentation
- Midterm test during class time on Friday, October 26
- 2-hour final exam on the date scheduled by the University

Academic Integrity

- Students are expected to exhibit honesty and use ethical behavior in all aspects of the learning process
- Academic dishonesty consists of misrepresentation by deception or by other fraudulent means
- Academic dishonesty includes:
  - Plagiarism
  - Copying
  - Improper collaboration
- Academic dishonesty can result in serious consequences
- Your work must be your own. Plagiarism and copying will not be tolerated!
- Students may be asked to defend their written work orally

Other Policy Statements (1)

1. Significant study and reading outside of class is required.
2. Students are required to attend the lectures. Attendance will be recorded, and absences will be excused only in highly exceptional cases.
3. The student is expected to ask questions during class.
4. A student may use his or her texts and notes during the midterm test and final exam.
5. Late assignments and project components will be penalized 5% a day. The midterm test may not be taken at a time different than the scheduled time without prior approval from the instructor.
6. The instructor reserves the right to require a deferred final exam to be oral.
7. Calculators and electronic devices are not permitted during the midterm test and final exam.

Other Policy Statements (2)

8. The Faculty of Engineering is concerned with ensuring an environment that is free of all adverse discrimination. If there is a problem, that cannot be resolved by discussion among the persons concerned, individuals are reminded that they should contact their Department Chair and the Human Rights and Equity Services (HRES) office as soon as possible.
9. Suggestions on how to improve the course and the instructor's teaching methods are always welcomed.

Marking Scheme

Assignments (5)	20%
Research and presentation project	20%
Midterm test	20%
Final exam	40%
Total	**100%**

Notes:

1. The marks for the assignments, project, and midterm test will be accessible via WebCT.
2. A student's final score will be reduced by one half point for each missed lecture and tutorial (there is no penalty for the first five absences).
3. The instructor reserves the right to adjust the marks for an assignment, midterm test, or final exam by increasing or decreasing every score by a fixed number of points.

Syllabus

Unit	Topic	Chapters
00	Preliminaries	
01	Basic Information Security	1–3
02	Security Policies	4–7
03	Basic Cryptography	8–9
04	Authentication	11
05	Information Control Mechanisms	13–16
06	Design for Security	12,17
07	Malicious Software	19
08	Security Management	20–22

Note: Since this is the first offering of COMP SCI 3IS3, it may be necessary to make some changes to the course after the term has started.