

COMP 4580 Computer Security

Winter 2012

Instructor	Dr. Rasit Eskicioglu E2-574 EITC (474-8835) rasit@cs.umanitoba.ca
Lectures	10:00 – 11:20 pm, T/R, E2-304 EITC
Prerequisites	COMP 3430 and COMP3720
Textbook (optional)	<i>Analyzing Computer Security</i> , Charles P. Pfleeger and Shari Lawrence Pfleeger, Pearson Education, Inc., 2012.
Web page	http://www.cs.umanitoba.ca/~comp4580

Calendar Description

(Formerly 074.458) Computer security and information management. This course will examine state-of-the-art knowledge about the issues relevant to data and computer security.

Course Evaluation

There will be four assignments, one term test, a term project on an advanced topic, and a final examination. At least one assignment and the term test will be marked and returned before the voluntary withdrawal deadline (March 16, 2012). The mark breakdown is as follows:

4 Assignments	30%
Term test	25%
Term paper	20%
Final examination	25%

The assignments may include programming and written work. All programming will be done in a UNIX environment, using various programming and scripting languages. Assignments will be due on the dates and times specified on each. **No late assignment will be accepted.** The term test will be held in class on Thursday, February 16, 2012. Please be sure to be available for them. The Student Records will announce the final examination date and time. As part of the evaluation, each student will prepare a written report on a current advanced topic. Details will be available on the course web page.

Course Outline

This course is required for the Networks and Security specialization. We will discuss the following broad topics in class (in tentative order):

- ❑ Basic concepts, threat models, computer security goals
- ❑ Cryptography, cryptographic protocols and their integration into systems and apps
- ❑ Operating system security
- ❑ Network security
- ❑ Software security

- Advanced topics and case studies

Please note that the topics listed above are generic and only intended to convey the general coverage of the course. There might be some deviation from this outline in terms of the material to be covered and the time taken to cover it.

Academic Dishonesty

[Excerpt from Faculty of Science Statement on Academic Dishonesty] “The Faculty of Science and The University of Manitoba regard acts of academic dishonesty in quizzes, tests, examinations, laboratory reports or assignments as serious offences and may assess a variety of penalties depending on the nature of the offence. Acts of academic dishonesty include, but are not limited to bringing unauthorized materials into a test or exam, copying from another individual, using answers provided by tutors, plagiarism, and examination impersonation. Note: *cell phones, pagers, PDAs, MP3 units or electronic translators are explicitly listed as unauthorized materials, and must not be present during tests or examinations.* Penalties that may apply, as provided for under the University of Manitoba's Student Discipline By-Law, range from a grade of zero for the assignment or examination, failure in the course, to expulsion from the University. The Student Discipline By-Law may be accessed at:

http://umanitoba.ca/admin/governance/governing_documents/students/868.htm.

Suggested minimum penalties assessed by the Faculty of Science for acts of academic dishonesty are available on the Faculty of Science web-page:

http://umanitoba.ca/faculties/science/resources/Discipline_Penalties_Table_Jul09.pdf”

Registration Advisory

It is your responsibility to insure that you are entitled to be registered in this course. This means that you have:

- the appropriate prerequisites, as noted in the calendar description, or have permission from the instructor to waive these prerequisites;
- not previously taken, or are concurrently registered in, this course and another that has been identified as "not to be held with" in the course description.

The registration system may have allowed you to register in this course, but it is your responsibility to check. If you are not entitled to be in this course, you will be withdrawn, or the course may not be used in your degree program. There will be no fee adjustment. This is not appealable. Please be sure to read the course description for this and every course in which you are registered.