This sheet summarizes information for the course CSC 347 F ("Introduction to Information Security") during the Fall session of 2013 on the Mississauga campus at the University of Toronto. By the end of the first week of classes, you should have read and become familiar with the contents of this information sheet.

Course Website

`http://www.cs.toronto.edu/~sgorbunov/347f13`

The course website will be available at the start of the first week of classes and it will always contain the most up-to-date information possible regarding the course. *You are responsible for all announcements posted on the course web site*, so please check the `Announcements` sections of the page frequently (at least once a week). You are also responsible for all announcements made in lectures: make a friend in class and get their notes if you miss class.

Instructor

Instructor	**Office**	**Email**	**Office Hours**
Sergey Gorbunov	TBD	`sgorbunov@cs.toronto.edu`	Wed 2-3pm

Teaching Assistant	**Email**
Andy Chow	`chow@cs.toronto.edu`

Classes

Lecture: Wednesday 11am-1pm, IB 270
Tutorial: Friday 10am-11am, DV 1158

Course Information

An investigation of many aspects of modern information security. Major topics cover: Techniques to identify and avoid common software development flaws which leave software vulnerable to crackers. Utilizing modern operating systems security features to deploy software in a protected environment. Common threats to networks and networked computers and tools to deal with them. Cryptography and the role it plays in software development, systems security and network security.
Prerequisites for this course are: CSC209H5, 236H5, 290H5 *If you have not taken these courses, please contact the instructor.*

Grading Scheme

Item	Worth
Assignment 1	20%
Assignment 2	20%
Assignment 3	20%
Case Study	10%
Final exam	30%

Lateness Policy

All assignments are due *by 11.59pm* on their due date. Late assignments will be accepted at most 48 hours late with 30% penalty. **The late policy is strictly enforced.**

Academic Integrity

Honesty and fairness are fundamental to the University of Toronto's mission. Plagiarism is a form of academic fraud and is treated very seriously. The work that you submit must be your own and cannot contain anyone elses work or ideas without proper attribution. You are expected to read the handout How not to plagiarize (`http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize`) and to be familiar with the Code of behaviour on academic matters, which is linked from the UTM calendar under the link Codes and policies.

Course Outline

Some of the course topics include:

- **Software Security** (3 weeks)
  1. Buffer and integer overflows
  2. Canonical representation issues
  3. SQL injections and cross-site scripting attacks
  4. Standard and novel protection mechanisms for code and operating systems
- **Cryptography** (3 weeks)
  1. Secret key and public key cryptography
  2. Hash functions and digital signatures
  3. Public key infrastructure
  4. Applications of cryptography throughout information security
- **Systems Security** (3 weeks)
  1. Access control mechanisms: users, permissions, files and processes
  2. Protecting file system, users and data
  3. Malware, viruses, email and browser threats
  4. Security through information flow control
- **Network Security** (3 weeks)
  1. Basic network protocols (TCP, IP, UDP, ICMP)
  2. Network attacks (denial of service, flooding, man-in-the-middle, injections)
  3. Protecting networks (firewalls, honeypots, intrusion detection systems)

Final Exam

- Duration: 3 hours
- Aids Permitted: Non-Programmable Calculators, 2 pages of double-sided Letter ($8 - 1/2 \times 11$) sheet

Students who cannot write a final examination due to illness or other serious causes must file an online petition within 72 hours of the missed examination. Original supporting documentation must also be submitted to the Office of the Registrar within 72 hours of the missed exam. Late petitions will NOT be considered. If illness is cited as the reason for a deferred exam request, a U of T Medical Certificate must show that you were examined and diagnosed at the time of illness and on the date of the exam, or by the day after at the latest. Students must also record their absence on ROSI on the day of the missed exam or by the day after at the latest. Upon approval of a deferred exam request, a non-refundable fee of 70 is required for each examination approved.

Courtesy: Vinod Vaikuntanathan, Arnold Rosenbloom.