SOEN 321   Information Systems Security

General Information

- SOEN321: Information Systems Security
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- Office: EV9.181, youssef@ciise.concordia.ca
- Email: youssef@ciise.concordia.ca
- Course material will be available on Moodle
- Online Tutorials
  - Check ENCS course schedule for time

Conditions Specific to Remote Teaching and Assessment

1. All students are expected to have access to a computer with following capabilities:
   a. reliable internet connection
   b. camera and microphone (your computer and/or cellphone)
   c. document scanning application such as Adobe Scan app
      (https://play.google.com/store/apps/details?id=com.adobe.scan.android&hl=en_CA)

2. All students should install VPN for remote desktop access to Concordia University computer labs
   https://www.concordia.ca/it/support/connect-from-home.html
   Once you have VPN connection to Concordia University, you can access to all available software in Gina Cody School labs by following the process described in:
   https://www.concordia.ca/ginacody/aits/support/faq/connect-from-home.html

3. You might be required to download Microsoft Office 365: https://www.concordia.ca/it/services/office-365-education.html

4. All students are expected to do online, timed exams through Moodle Quiz, and if needed using live-invigilation

   Please note the following with respect to online live Zoom exams:
   - That the exams will take place during the exam period at the designated date and time set by the professor. All exam times will be set to Eastern Standard Time.
   - That your image, voice and screen activity *may* be recorded throughout the duration of the exam.
   - That you must show your Concordia University Identification card to validate your identity. Alternative government-issued photo identification will be accepted, though it is not recommended. Only identification in English or French will be accepted.
   - That any recording made (if one is made) will only be viewed by authorized university personnel (no external entity has authorization to review the recording).
   - That you will be responsible for ensuring appropriate, properly functioning technology (webcam, a microphone, appropriate browser and an ability to download any necessary software, as well as a reliable internet connection with a minimum of a 3G connection).
   - For your online examination(s), you will need to download the appropriate browser lockdown technology and use Zoom. Protocols for entering the examination will be provided by your professor.

- That you should enter the virtual test site and become familiar with the software that will be used for your exam before starting the exam.
- That you will need a quiet place within which to take the exam. Earplugs or noise-cancelling headphones that are not connected to a device may also be used to allow you to focus for the duration of the exam.

  a. Course instructor reserves the right to conduct an individual oral examination to verify student's response to online exam questions

Course Description

- This course introduces the students to basic concepts in information systems security. The following topics will be covered (if time allowed): Cryptographic security protocols. Threats, attacks, and vulnerabilities. Security services: confidentiality; authentication; integrity; access control; non‑repudiation; and availability; Security policies; Security mechanisms: encryption; data‑integrity mechanisms; digital signatures; keyed hashes; access‑control mechanisms; challenge‑response authentication; Network security, Key‑management principles, firewalls, Security protocols, Security architectures, Malware.
- Prerequisites: See the Undergraduate Calendar

Learning Objectives

- By the end of this course, students should be able to:
    1. Have a clear understanding of basic concepts in information systems security
    2. Analyze the security risks a specific information system may have
    3. Set up appropriate security goals for the system
    4. Choose appropriate security technologies in a network environment or information system to achieve the set security goals and eliminate the identified security risks.
    5. Implement some symmetric key ciphers and some toy examples (or textbook versions) of public key systems
    6. Reason that security is a systems problem, and that technical methods such as cryptography can only form part of the solution.

Schedule

- The set of slides posted on the course website will be covered in sequential order. The time allocated for each set will depend on the classroom response and progress.

Course Materials

- The course slides are available on Moodle
- Lecture recordings will be posted on Moodle.
- *Optional* Textbook: Computer Security: Principles and Practice, 4rd edition

Authors: William Stallings and Lawrie Brown
- o Publisher: Prentice Hall
- o Copies are available at Concordia University bookstore..

Marks Distribution and Grading

You will be evaluated based on about 5 online quizzes (exact weight of each quiz will be determined before the time of each quiz). These online quizzes will be conducted during the regular classroom time (exact duration and quiz open time will be posted on Moodle).

There will be **NO makeup** for any of these online quizzes.

Academic Code of Conduct

Academic Integrity

Any form of cheating, plagiarism, personation, falsification of a document as well as any other form of dishonest behaviour related to the obtention of academic gain or the avoidance of evaluative exercises committed by a student is an academic offence under the Academic Code of Conduct and **may lead to severe penalties up to and including suspension and expulsion.**
As examples only, you are not permitted to:
- Copy from anywhere without indicating where it came from
- Let another student copy your work and then submit it as his/her own
- Hand in the same assignment in more than one class
- Have unauthorized material or devices in an exam. Note that you do not have to be caught using them – just having them is an offence
- Copy from someone's else exam
- Communicate with another student during an exam
- Add or remove pages from an examination booklet or take the booklet out of an exam room
- Acquire exam or assignment answers or questions
- Write an exam for someone else or have someone write an exam for you
- Submit false documents such as medical notes or student records
- Falsify data or research results
You are subject to the Academic Code of Conduct. Take the time to learn more at
http://provost.concordia.ca/academicintegrity/

Student's Responsibilities

- Students are expected to attend every class. Some material may only be covered in online class and not made available on the course website. Students are expected to read the assigned material and to actively participate in class discussions.

- Students are expected to be respectful of other people's opinions and to express their own views in a calm and reasonable way. Disruptive behaviour will not be tolerated.
- Students are expected to be familiar with the Code of Rights and Responsibilities:
  http://rights.concordia.ca

Student Services

- **Concordia Counselling and Development** offers career services, psychological services, student learning services, etc.
  http://cdev.concordia.ca
- **The Concordia Library Citation and Cycle Guides:**
  http://library.concordia.ca/help/howto/citations.html
- **Advocacy and Support Services:**
  http://supportservices.concordia.ca
- **Student Transition Centre:**
  http://stc.concordia.ca
- **New Student Program:**
  http://newstudent.concordia.ca
- **Office for Students with Disabilities:**
  http://supportservices.concordia.ca/disabilities/
- **The Academic Integrity Website:**
  http://provost.concordia.ca/academicintegrity/

Disclaimer

- In the event of extraordinary circumstances beyond the University/Instructor's control, the content and/or evaluation scheme in this course is subject to change.