

Fall 2018: Course outline

COMP 5110 / CSI 5136

Computer Security & Usability

(Tentative outline, will be finalized the first week of class)

Class Schedule

Location: Tory Building 204
Class Time: Friday 11:35am - 2:25pm
Course Website: <https://www.carleton.ca/culearn/>

Instructor Information

* Email is the best way to reach me.

Instructor: Dr. Sonia Chiasson
Office: Herzberg 5130
Telephone: 613-520-2600x1656
Email: chiasson@scs.carleton.ca
Office hours: By arrangement

Course Description

This course focuses on designing and evaluating computer security and privacy software with particular attention to human factors. Topics include methodologies for empirical security and usability analysis, and design principles for usable security and privacy. Applications include user authentication, social engineering, mobile computing, and usable security for administrators.

Topics Covered

A human computer interaction perspective on some of the following computer security topics:

- Introduction to usability, security, and privacy
- Methodologies for evaluating usable security
- Security and usability analysis
- Phishing and Risk
- User authentication
- Trust, social engineering, and phishing

- Privacy
- Security and privacy in mobile computing
- Usable security software design principles, human-in-the-loop design framework
- Security indicators and warnings
- Usable security for security administrators

Textbook (s)

No textbook. Assigned readings will be from research papers available online.

Online and Other Resources

The course will use CU Learn's Moodle course management system. <https://www.carleton.ca/culearn/>

uOttawa students should request access to cuLearn from Carleton's Graduate Studies by completing the following form: [uOttawa Request to access CULearn](#)

Evaluation

Students will be evaluated in this course according to the following measures. Dates are tentative and will be finalized the first week of class.

Component	Weight	Due Date
Weekly reading responses	10	Weekly
Class participation and discussion	10	Weekly
Discussion Leads	10	scheduled throughout semester
Assignment 1 - usability analysis	20	Tuesday October 2
Research project plan	10	Tuesday October 30
Research project presentation	10	Friday November 30
Research project final paper	30	Tuesday December 11

Other Important Dates

Monday October 15: REB applications should be submitted if conducting a user study for your final project.

Friday October 19: Each student should have discussed their potential research project with the instructor by now (either in-person or by email)

Presentations

This is a seminar class and active participation is expected during class. Students will take turns leading discussion on papers during the term.

Discussion leads will present a brief summary of the paper, prepare discussion topics/questions, and lead discussion on the paper.

The *Participation* mark will be based on participation in discussion and class contributions throughout the term.

Research project presentation: Each student will present their final project on the last day of class.

Attendance

Students are expected to have completed the preparatory readings, attend class, and participate in discussion.

Collaboration Policy

Discussing assignments with other students is permitted and encouraged, but the actual work presented or submitted is to be done individually unless otherwise specified on the assignment description.

If you intend to publish work completed for this class, you need to submit it for grading **before** collaborating with others to polish the work for publication. You cannot submit for grading work done collaboratively with others (including your supervisor).

Intellectual Property

All materials created for this course (including course notes, coding examples, lecture recordings, tutorials, assignments, assignment code bases, marking schemes, tests, exams, and test/exam solutions) remain the intellectual property of the instructor. They are intended for the personal and non-transferable use of students registered in the course. Reposting, reproduction and/or distribution of any course materials, in part or in whole, without the written consent of the instructor, is illegal and **strictly prohibited**.

Graduate Academic Advisor

The School of Computer Science graduate advisor can assist you with information about prerequisites and preclusions, enquiries about course substitutions/equivalencies, understanding your academic audit and remaining requirements for graduation. The advisor will also refer students to appropriate resources on campus such as the Student Academic Success Centre (SASC), Writing Tutorial Centre, Registrar's Office, etc.

University Policies

Student Academic Integrity Policy

Every student should be familiar with the Carleton University student academic integrity policy. A student found in violation of academic integrity standards may be awarded penalties which range from a reprimand to receiving a grade of F in the course or even being expelled from the program or University. Some examples of offences are: plagiarism and unauthorized co-operation or collaboration. Information on this policy may be found in the Undergraduate Calendar.

Plagiarism

As defined by Senate, "plagiarism is presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own". Such reported offences will be reviewed by the office of the Dean.

Unauthorized Co-operation or Collaboration

Senate policy states that "to ensure fairness and equity in assessment of term work, students shall not co-operate or collaborate in the completion of an academic assignment, in whole or in part, when the instructor has indicated that the assignment is to be completed on an individual basis". Please refer to the course outline statement or the instructor concerning this issue.

Requests for Academic Accommodation

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

Pregnancy obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Religious obligation

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf

Academic Accommodations for Students with Disabilities

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also

contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. carleton.ca/pmc

Survivors of Sexual Violence

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and its survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: carleton.ca/sexual-violence-support

Accommodation for Student Activities

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

For more information on academic accommodation, please contact the departmental administrator or visit: students.carleton.ca/course-outline