Fall 2019: Course Outline
COMP 5110 / CSI 5136
Computer Security & Usability

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

Class Schedule

Location: Richcraft 3224
Class Time: Tuesday 8:35am - 11:25pm
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.

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly reading responses</td>
<td>10</td>
<td>Weekly</td>
</tr>
<tr>
<td>Class participation and discussion</td>
<td>10</td>
<td>Weekly</td>
</tr>
<tr>
<td>Discussion Leads</td>
<td>10</td>
<td>scheduled throughout semester</td>
</tr>
<tr>
<td>Assignment 1 - usability analysis</td>
<td>20</td>
<td>Friday October 4, 2019</td>
</tr>
<tr>
<td>Research project plan</td>
<td>10</td>
<td>Friday November 1, 2019</td>
</tr>
<tr>
<td>Research project presentation</td>
<td>10</td>
<td>Tuesday December 3, 2019</td>
</tr>
<tr>
<td>Research project final paper</td>
<td>30</td>
<td>Tuesday December 10, 2019</td>
</tr>
</tbody>
</table>
Other Important Dates

Tuesday September 24: TCPS-2 Ethics tutorial should be completed and certificate submitted.

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 and reading response, 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**

My lectures and all course materials (including all PowerPoint presentations, course notes, handouts, and similar materials) are protected by copyright. I am the exclusive owner of copyright and intellectual property of all course materials. You may take notes and make copies of course materials for your own educational use. You may not allow others to reproduce or distribute lecture notes and course materials publicly for commercial purposes without my express written consent.

**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.

**Student Support Services**

Carleton University offers programs and services that promote positive mental health and assist students with realizing their full potential. These student support services and resources are explained here:  [https://carleton.ca/studentsupport/supporting-our-students/](https://carleton.ca/studentsupport/supporting-our-students/)
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. Additional information on this policy may be found in the Undergraduate Calendar.

Academic Integrity

The University Senate defines plagiarism as “presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one’s own.” This can include:

- reproducing or paraphrasing portions of someone else’s published or unpublished material, regardless of the source, and presenting these as one’s own without proper citation or reference to the original source;

- submitting a take-home examination, essay, laboratory report or other assignment written, in whole or in part, by someone else;

- using ideas or direct, verbatim quotations, or paraphrased material, concepts, or ideas without appropriate acknowledgment in any academic assignment;

- using another’s data or research findings;

- failing to acknowledge sources through the use of proper citations when using another’s works and/or failing to use quotation marks;

- handing in "substantially the same piece of work for academic credit more than once without prior written permission of the course instructor in which the submission occurs.

Plagiarism is a serious offence that cannot be resolved directly by the course’s instructor. The Associate Dean of the Faculty conducts a rigorous investigation, including an interview with the student, when an instructor suspects a piece of work has been plagiarized. Penalties are not trivial. They can include a final grade of "F" for the course.

All cases of suspected plagiarism will be referred to 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.

**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.

**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 to ensure accommodation arrangements are made. For more details, visit the Paul Menton website.

**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 where 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. For more details, see the policy.

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