Fall 2013: Course outline
COMP 5900G / CSI 5140
Computer Security & Usability

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

Class Schedule

Classroom: TBD
Class Times: Wed 14:35 - 17:25
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

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 the following computer security topics:

- Introduction to usability, security, and privacy
- Methodologies for evaluating usable security
- Security and usability analysis
- Phishing and Risk
- Knowledge-based authentication
- Biometric and alternative 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/](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](https://www.carleton.ca/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.

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<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Due Date</th>
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</thead>
<tbody>
<tr>
<td>Weekly reading responses</td>
<td>10</td>
<td>Weekly</td>
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<tr>
<td>Class participation and discussion</td>
<td>10</td>
<td>Weekly</td>
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<tr>
<td>Discussion Leads</td>
<td>10</td>
<td>scheduled throughout semester</td>
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<tr>
<td>Assignment 1 - usability analysis</td>
<td>20</td>
<td>Wednesday October 2</td>
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<tr>
<td>Research project plan</td>
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<td>Wednesday November 6</td>
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<td>Research project presentation</td>
<td>10</td>
<td>Wednesday December 4</td>
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<td>Research project final paper</td>
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<td>Wednesday December 11</td>
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Important Dates

Friday October 25: Each student should have discussed potential research projects 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.

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 of Science.

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.

Academic Accommodations for Students with Disabilities
The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a
formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and 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 me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable) at http://www2.carleton.ca/pmc/new-and-current-students/dates-and-deadlines/

Religious Obligation
Write to me 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: http://www2.carleton.ca/equity/

Pregnancy Obligation
Write to me 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: http://www2.carleton.ca/equity/

Medical Certificate
The following is a link to the official medical certificate accepted by Carleton University for the deferral of final examinations or assignments in undergraduate courses. To access the form, please go to http://www.carleton.ca/registrar/forms