Syllabus

1 Course Information

Main site: https://cseweb.ucsd.edu/classes/wi16/cse227-a
Piazza: https://piazza.com/ucsd/winter2016/cse227/home
GradeSource: http://www.gradesource.com/reports/4955/27677/index.html

Lectures: Tuesdays and Thursdays, 8:00 AM to 9:20 AM, Pepper Canyon Hall 122.
Project presentations: Thursday, March 17, 8:00 AM to 11:00 AM, Pepper Canyon Hall 122.

Instructor: Kirill Levchenko
Email: klevchen@cs.ucsd.edu
Office hours: Tuesdays at 2:00 PM in CSE/EBU3b 3234

2 Goals and Topics

You will learn how to apply the latest research results in computer security as well as conduct computer security research yourself. We will cover the following topics:

- Security principles (1 lectures)
- Software vulnerabilities and defenses (4 lectures)
- Web security (5 lectures)
- Phishing, spam, and fraud (3 lectures)
- Privacy (1 lecture)
- Side channels (1 lecture)
- Malware (2 lectures)
- Cyberphysical systems (1 lecture)
- Miscellaneous (2 lectures)

3 Prerequisites

There are two prerequisites: CSE 221 (Operating Systems) and CSE 222A (Computer Communication Networks). You will be expected to know the material from these classes.

4 Textbook, Readings and Lectures

There is no textbook for this class. The readings for the course will consist of research papers (usually two per lecture) posted on the class Web page. Note that some academic papers must be accessed from a UC San Diego IP address. You must complete the assigned readings before lecture. Lectures will build on the material covered in the readings.
5 Grading

Your grade will be based on in-class quizzes (32%), in-class participation (18%), and your final project (50%).

6 Quizzes

There will be a short quiz at the start of each lecture covering the reading assigned for that lecture, starting with the lecture on January 7. The quizzes are intended to test your understanding of the reading. Each quiz will last exactly 5 minutes. Everyone will take the quiz at the same time; no late quizzes will be given. You must be present in class to take quiz. There will be a total of 18 quizzes, of which your lowest two quiz grades will be dropped. The remaining 16 quizzes will determine your quiz grade.

7 Project

In this class, you will undertake your own research project, which you will present at the end of the course. The project must be done in groups of 4-5 people. You may come up with your own project or you may choose from one of the project ideas on the class page.

7.1 Presentation

You will give a 15-minute project oral presentation during the final exam period (Thursday, March 17, 8:00 AM to 11:00 AM). Your presentation should follow the style of a conference talk.

7.2 Final report

Your written final report (due at 8 AM on March 19) should follow the style of a short conference paper. It should be a maximum of 6 pages, not including references.

7.3 Important Dates

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<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>January 15</td>
<td>Form project group.</td>
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<tr>
<td>January 29 (8 AM)</td>
<td>Submit project proposal (1 page max).</td>
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<tr>
<td>March 17 (8 AM)</td>
<td>Present project (15 mins).</td>
</tr>
<tr>
<td>March 19 (8 AM)</td>
<td>Submit project report (6 pages max).</td>
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8 Academic Integrity

Integrity of scholarship is essential for an academic community. The University expects that both faculty and students will honor this principle and in so doing protect the validity of University intellectual work. For students, this means that all academic work will be done by the individual to whom it is assigned, without unauthorized aid of any kind. You are expected to adhere to the Policy on Integrity of Scholarship found at:

http://academicintegrity.ucsd.edu