Course Overview and Syllabus

Monday, March 28th, 2016.

Course Info.

Website: [https://cseweb.ucsd.edu/classes/sp16/cse127-a](https://cseweb.ucsd.edu/classes/sp16/cse127-a)
Lectures: Monday and Wednesday, 6:30–7:50 PM, CENTR 216
Section: Friday, 2:00–2:50 PM, CENTR 113
Final exam: Wednesday, June 8th, 7:00–9:59 PM, room TBA.

All course material will be posted to the course Website—check it regularly! We will also use Piazza for discussion and Gradescope for homework submission and grading and for exam grading.

Staff.

Instructor: Hovav Shacham
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Teaching assistant: Zhaomo Yang
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See the course Website for staff offices and office hours.

Prerequisites. The formal prerequisites for CSE 127 are CSE 21 or Math 15B, and CSE 120. These prerequisites will be strictly enforced.

Because security is a cross-cutting concern, CSE 127 will touch on many topics across the CS curriculum, including material covered in CSE 110 (software engineering), CSE 123 (computer networks), CSE 130 (programming languages), CSE 131 (compiler construction), CSE 135 (Web applications), and CSE 141 (computer architecture). If you have not taken these courses, you can still enroll in CSE 127, but we will expect you to pick up the necessary background on your own.

We expect you to be comfortable with debugging and Unix command-line tools (CSE 15L); with C and assembly programming and the hardware-software interface (CSE 30); and with process management, virtual memory, system call handling, and the filesystem (CSE 120).

Tentative Syllabus

A tentative calendar, along with associated readings, is posted online at [https://cseweb.ucsd.edu/classes/sp16/cse127-a/calendar.html](https://cseweb.ucsd.edu/classes/sp16/cse127-a/calendar.html).
Textbook and readings. Instead of a textbook, we will read research papers. The readings are mandatory. Links to these will be posted to the course Website ahead of each lecture.

In addition, the course Website includes links to reference books you may wish to consult.

Programming projects and written homework. There will be four programming projects. The first and fourth programming projects will be in two parts, with the second part of each project due one week after the first. To complete the projects, you will need access to a computer capable of running QEMU and VirtualBox.

There will also be two written homework assignments. These homework assignments will be collected and checked for completeness but not graded. You are responsible for all the material covered on the homework.

You may discuss the homework with other students, but you must write up your solutions by yourself. See the “Collaboration policy” section, below, for more details.

Exams. There will be one closed-book, in-class, 80-minute midterm. The date for the midterm is posted on the course Website. There will also be a closed-book, comprehensive final exam in the course’s registrar-assigned final exam slot.

There will be no makeups for the midterm exam. If you miss the midterm because of a documented medical emergency (and only for this reason), we will substitute your final exam score for the missed midterm. If you miss the final exam because of a documented medical emergency, contact the instructor immediately to arrange a makeup exam. If you miss the final exam for any other reason, you will receive a failing grade in the class.

Grading. The programming projects will count for 50% of your class score, the written homework for 5%, the midterm for 15%, and the final exam for 30%. We expect to apply the following cutoffs in translating scores to letter grades: A/B cutoff at 85%; B/C cutoff at 76%; C/D cutoff at 67%; and D/F cutoff at 58%. Participation—in lecture, in section, at office hours, and on Piazza—may affect your final grade at the margin.

You may request a regrade of a programming project, homework, or midterm no later than two weeks after that project, homework, or midterm is handed back. You should do so in writing, by e-mail to the course staff, explaining exactly what errors in grading you identified.

Homework preparation and submission. All written homework must be typeset (for example, using \LaTeX) and submitted as a PDF.

All homework and programming projects must be submitted using the class online submission tool. Submissions by other means—on paper, by e-mail, etc.—will not be accepted.

Late policy. Homework assignments will be due at the beginning of class on the day they are due. Both parts of each programming project will be due at 11:59 PM on the day they are due.
Each student will have a total of seven (7) twenty-four hour extensions (“late days”) for the quarter. Late days can be used, in twenty-four hour quantums, on any homework or programming project due date. (There may be exceptions due to course scheduling constraints.) For programming projects done in pairs, late days will be charged to both students in the pair; both partners must have sufficient late days for a late submission. No additional extensions will be given for any reason. Once all late days have been used up, late assignments will not be accepted.

Policy on academic accommodations. Per UCSD policy on academic accommodations (see https://senate.ucsd.edu/Operating-Procedures/Senate-Manual/Appendices/3), any requests for accommodations must be presented to the instructor and to the CSE department student-affairs staff within the first two weeks of instruction (that is, by Monday, April 11th). Accommodations cannot be made retroactively. All requests must be accompanied by a letter of certification and accommodation recommendation from the Office for Students with Disabilities.

Collaboration policy. You may work in pairs on programming projects. It is expected that both students in a pair contribute to each part of the project. If you worked with a partner, you must make a joint submission. You may switch partners between projects, but not between parts of the same project. You must not discuss the programming projects with anyone else in the class besides your partner, nor with anyone who is not enrolled in CSE 127. This includes both people at UCSD and people not at UCSD.

You may discuss the homework with anyone in the class. You must then write up the solutions entirely on your own. You must list the name of everyone in the class with whom you discussed the homework in your homework writeup. You must not discuss the homework with anyone who is not enrolled in CSE 127. This includes both people at UCSD and people not at UCSD.

If you received permission from the course staff to refer to any books or online resources beyond the ones assigned listed under “Book and Internet use policy,” below, you must cite these sources in your writeup.

No collaboration whatsoever is allowed on the midterm or the final exam. If you are unsure about what constitutes allowed collaboration, ask the course staff!

Book and Internet use policy. You can and should use the CSE 127 Piazza forum to ask for help on the homework. You must not post to any forum elsewhere, including Stack Exchange or Facebook groups.

You must not consult any book or Internet resource on computer security without first getting approval from the course staff. You must note any such resources you consulted on your homework submissions.

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1Note that we expect that “discussed with” is a symmetric relation.
You must not seek out solutions to specific assigned questions on the Internet, from computer security courses offered at other universities, or from computer security courses offered in previous quarters at UCSD.

If you are unsure about what constitutes allowed use of outside resources, ask the course staff!

**Posting of solutions.** You must not post online or otherwise distribute to others your solutions to homework or the exams in this course. This prohibition applies both during and after the quarter. This prohibition specifically covers posting any programming assignments to GitHub or similar sites except in a private repository.

Students violating this policy will be subjected to the academic integrity disciplinary process.

**Academic integrity.** Academic integrity at UCSD is governed by the Policy on Integrity of Scholarship, available at [https://senate.ucsd.edu/Operating-Procedures/Senate-Manual/appendices/2](https://senate.ucsd.edu/Operating-Procedures/Senate-Manual/appendices/2). Allegations of academic misconduct are handled by the Academic Integrity Office, [https://students.ucsd.edu/academics/academic-integrity/](https://students.ucsd.edu/academics/academic-integrity/).

Cheating will not be tolerated, and any student who engages in forbidden conduct will be subjected to the disciplinary process. The course penalty assessed for any cheating in CSE 127 is a *failing course grade*. Cheaters may additionally be subject to administrative sanctions.