Course Overview and Syllabus

Thursday, April 1st, 2008.

Course Info

Website:  https://cseweb.ucsd.edu/classes/sp10/cse127
Lectures:  Tuesday and Thursday, 11:00 AM–12:20 PM, EBU 3B 1202
Section:  Friday, 11:00–11:50 AM, WLH 2204
Final exam:  Tue, June 8th, 11:30 AM–2:30 PM, room TBA.

Staff

Instructor:  Hovav Shacham
Office:  EBU 3B 3124
Phone:  (858) 822–7921
E-mail:  hovav@cs.ucsd.edu
Office hours:  Monday, 4:00–6:00 PM

Teaching Assistant:  Albert Yonghahk Park
Office:  EBU 3B 240A
Phone:  TBA
E-mail:  yapark@cs.ucsd.edu
Office hours:  Friday, 12:15–2:15 PM

Tentative Syllabus

I. Introduction
II. Computer Security
   Buffer Overflows and Memory Safety — Sandboxing and Legacy Software — Writing
   Secure Code
III. Network Security
   The TCP/IP Protocol Suite — Firewalls and NATs — Intrusion Detection and Denial
   of Service — SSH, SSL, and IPsec
IV. Application Security
   Web Browser Security — Website Security — Spam and Phishing — Worms and Botnets
V. Topics in “Classic” Information Security
   Authentication — Covert Channels — Access Control and the Common Criteria
VI. New and Advanced Topics
   Per class interest. Sample topics: voting; DRM; trusted computing.

Textbook Information

Instead of a textbook, we will read research papers. These will be posted to the course
Website ahead of each lecture.
Assignments and Grading

There will be two written homework assignments and two programming projects. Each programming project will be in two parts, with the second part due one week after the first. There will be an in-class, closed-book midterm and an in-class, closed-book, comprehensive final exam. We may also have quizzes on the reading, as necessary.

The homework will count for 30% of the final grade. The programming projects will count for 40%. The midterm will count for 10% and the final exam for 20%. (If we have reading quizzes they will count for 5% and the final for 15%.) In addition, to pass the class you must receive a passing grade on every component: homeworks, projects, and tests.

Collaboration Policy

You may discuss a homework assignment with one other student in the class. You must write up your solutions separately. If you discussed the solutions with anyone, please note so on your solutions. You may work in pairs on programming projects. It is expected that both students in a pair contribute to each part of the project. No collaboration whatsoever is allowed on exams. You must not look at homework, programming project, or exam solutions from previous years of this class, or equivalent classes at other schools.

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 except as noted in advance, due to course time constraints. For programming projects done in pairs, late days will be charged to both students in the pair. No additional extensions will be given for any reason. Once all late days have been used up, late assignments will not be accepted.

Academic Integrity

Students are expected to do their own work, as outlined in the UCSD Policy on Integrity of Scholarship: http://www-senate.ucsd.edu/manual/Appendices/app2.htm.

Cheating will not be tolerated, and any student who engages in forbidden conduct will be subjected to the disciplinary process. Cheaters will receive a failing grade on the assignment, the exam, or in the entire course. They may also be suspended from UCSD.

1except as noted in advance, due to course time constraints