General Information

Instructors

Matt Bishop   *Email*: mabishop@ucdavis.edu
Office: 2209 Watershed Sciences   *Phone*: (530) 752-8060
Office Hours: Tu 1:10–2:00pm; W 9:00–9:50am; Th 10:00–10:50am; or by appointment; or by chance

Karl Levitt   *Email*: levitt@cs.ucdavis.edu
Office: 2207 Watershed Sciences   *Phone*: (530) 752-0832
Office Hours: *To be arranged*

Lectures and Discussion Section

Lecture: TuTh 4:40pm–6:00pm in 217 Art
Discussion section: *To be arranged*

Teaching Assistant

Chun-Ming Lai   *Email*: cmlaih@gmail.com
Office: 55 Kemper
Office Hours: Th 12:00pm–2:00pm

Course Outline

Modern topics in computer security, including: protection, access control, operating systems security, network security, applied cryptography, cryptographic protocols, secure programming practices, safe languages, mobile code, malware, privacy and anonymity, and case studies from real-world systems. Not open for credit to students who have taken course 235.

Course Goals

- Understand what computer security is and learn its basic limits;
- Learn the basic policy models underlying security;
- Know about common vulnerabilities, the basics of software security and formal verification;
- Learn the basic techniques of cryptography;
- Learn about host-based security, network security, and intrusion detection; and
- Explore other topics of interest.

Prerequisite

ECS 150, Operating Systems; ECS 152A, Computer Networks, is strongly recommended

Text

M. Bishop, *Computer Security: Art and Science*, Addison-Wesley, Boston, MA (2003). ISBN 0-201-44099-7; papers and handouts

Class Web Site

We will be using Desire2Learn, one of the learning management systems that UC Davis is considering adopting to replace Sakai (*i.e.*, SmartSite). To access the class web site, go to Desire2Learn (https://ucdavis.brightspace.com) and log in using your campus login and password. Then go to ECS 235A in your schedule. We will post announcements, assignments, handouts, and grades there, and you *must* submit assignments there. The alternate web site, http://nob.cs.ucdavis.edu/classes/ecs235a-2014-04, has all the handouts, assignments, and announcements.

Because Desire2Learn is being tested, students have to be loaded in manually. So you may not be able to access the site immediately. Once we know you have access, we will post an announcement, but you should try occasionally anyway. If you have any feelings about that learning management system, or experience any problems, please let us (especially Matt Bishop) know, so we can get you (and us!) help, or report the information when the pilot study ends.

Grading

Homework is 50% of your grade and the project is 50% of your grade. There is no final examination.

Academic Integrity

The UC Davis Code of Academic Conduct, available at `http://sja.ucdavis.edu/cac.html`, applies to this class. For this course, all submitted work must be your own. You may discuss your assignments with classmates or the instructor to get ideas or a critique of your ideas, but the ideas and words you submit must be your own. Unless *explicitly* stated otherwise, collaboration is considered cheating and will be dealt with accordingly.