

General Information

Course

Name: ECS 235A, Computer and Information Security

CRN: 30580

Instructor

Matt Bishop

Email: mabishop@ucdavis.edu

Office: 2209 Watershed Sciences

Phone: (530) 752-8060

Office Hours: Tu 12:00pm–1:30pm, Th 2:30pm–3:30pm, F 2:30pm–3:00pm; by appointment, or by chance

I will hold Tuesday's office hours over Zoom. I have posted the link on Canvas, in Announcements. Please feel free to use that. I will hold the other office hours in 2203 Watershed Sciences.

When you send me email, please *begin* the Subject field with "ECS 235A" so I see that the letter has to do with the class. I receive lots of email and, while I look at it all, I sometimes fall behind. When that happens, I skim the Subject fields to see which letters are very important. Putting "ECS 235A" at the beginning of the Subject field will tell me it is very important.

Lectures and Discussion Section

Lecture: MWF 1:10pm–2:00pm in 1214 TLC

Discussion section: W 3:10pm–4:00pm in 1214 TLC; I will announce any discussion sections to be held.

Teaching Assistant

Lucen Li

Email: lcqli@ucdavis.edu

Office: 55 Kemper Hall

Office Hours: M 2:30pm–3:30pm, Th 10:00am–12:00pm

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*, Second Edition, Addison-Wesley, Boston, MA (2019). ISBN 978-0-321-71233-2

The text is available both in printed form and as an e-textbook. Amazon has both available here

<https://www.amazon.com/Computer-Security-2nd-Matt-Bishop/dp/0321712331>

The campus bookstore has the printed version, and may have the e-textbook. I don't know the prices.

Class Web Site

To access the class web site, go to Canvas (<http://canvas.ucdavis.edu>) and log in using your campus login and password. Then go to ECS 235A in your schedule. I 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-2024-04>, has everything except your grades, and you cannot submit work there.

Grading

There will be both homework and a project, which *tentatively* will each be weighted 50%. I reserve the right to change this. There will be no final examination.

UC Davis Student Resources

UC Davis has developed a web site of student resources. The resources cover academic support, health and wellness, career and internships, and the campus community. The web site is <https://ebeler.faculty.ucdavis.edu/resources/faq-student-resources/>. Please consult it whenever you feel necessary. And as always, feel free to reach out to me, too. If I can't help, I will suggest people and places that might be able to.

Academic Integrity

The UC Davis Code of Academic Conduct, available at <https://sja.ucdavis.edu/files/cac.pdf>, 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.

Remember to cite, and give the source for, anything you copy or paraphrase, as is standard academic protocol. Plagiarism is cheating and will be handled as such.

Any cheating will be reported to the Student Judicial Agency (the SJA).