

General Information

Course

Name: ECS 235A, Computer and Information Security

CRN: 52895

Instructor

Matt Bishop

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Office: 2209 Watershed Sciences

Phone: (530) 752-8060

Office Hours: Tu 10:00am–10:50am, W 3:10pm–4:00pm, F 2:10pm–3:00pm, by appointment, or by chance

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 9:00am–9:50am in 107 Cruess

Discussion section: W 10:00am–10:50am in 1 Wellman; I will announce any discussion sections to be held.

Teaching Assistant

Brian Perry

Email: bperry@ucdavis.edu

Office: 55 Kemper

Office Hours: TuTh 1:00pm–2:30pm

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

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-2021-04>, has all the handouts, assignments, and announcements. You cannot submit work, or see your grades there, though.

Grading

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

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.

Also, 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.

Public Health Expectations and Best Practices

Keeping our campus healthy takes all of us. You are expected to follow university public health requirements and pursue personal protection practices to protect yourself and the others around you. These include:

- Participate in the university's daily screening process.
Everyone must complete a Daily Symptom Survey (<https://symptomsurvey.ucdavis.edu/>) to access a university controlled facility.
- Participate in the university's testing program.
All students are required to participate in the COVID-19 testing program as required by their vaccination status — every four days for unvaccinated students and every 14 days for vaccinated students. You may test more frequently.
- Wear a well-fitted face covering that covers your nose and mouth at all times.
Everyone is required to wear face coverings indoors regardless of vaccination status. If you see someone not wearing a face covering or wearing it incorrectly, then kindly ask them to mask up.
- Monitor the daily potential exposure report.
Every day the university will update the potential exposure report with building and some classroom information and the dates of exposure.
- Assist in the contact tracing process.
If you're contacted by a case investigator, it means you have been identified as a close contact, please respond promptly. You must assist with identifying other individuals who might have some degree of risk due to close contact with individuals who have been diagnosed with COVID-19.