General Information

Instructor

Matt Bishop

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Office Hours: *to be arranged*; or by appointment; or by chance

When you send me email, please *begin* the Subject field with "ECS 235B" 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 235B" at the beginning of the Subject field will tell me it is very important.

Lecture

Lecture: MWF 12:10pm–1:00am in 205 Olson

Course Outline

Theoretical foundations of methods used to protect data in computer and communication systems. Access control matrix and undecidability of security; policies; Bell-LaPadula, Biba, Chinese Wall models; non-interference and non-deducibility; information flow and the confinement problem.

Course Goals

- Learn about the access control matrix model and its variants, and how it is used to analyze the security of classes of systems;
- Learn about the mathematics underlying security policies;
- Understand the composition of policies;
- Learn about the confinement problem and information flow; and
- Explore other topics of interest.

Prerequisite

ECS 235A, Computer and Information Security or equivalent; ECS 150, Operating Systems, and ECS 120, Theory of Computation, or their equivalents, are strongly recommended

Text

M. Bishop, *Computer Security: Art and Science*, 2nd Edition, Addison-Wesley Professional, Boston, MA (2018). 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 with your campus login and password. Then go to ECS 235B 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/ecs235b-2019-01, has all the handouts, assignments, and announcements.

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.
Important. The grade E-NWS (sometimes called NWS or NS), which stands for "No Work Submitted", is *no longer a valid grade*. In cases where it would have been assigned in the past, we will give a grade of "F". So please be sure you *drop* this class rather than submit no work!

PTA Numbers

The department policy on issuing PTAs is available at http://www.cs.ucdavis.edu/blog/pta-policy/. If you need a PTA, please read that page, and follow the instructions there.

Important Dates

First day of instruction: January 3, 2022
10-day drop deadline: January 14, 2022
Last day to add: January 19, 2022
Last day to opt for P/NP grading: February 7, 2022
Last day of instruction: March 11, 2022

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 Office of Student Support and Judicial Affairs.

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.

Other Information

You can get more information about COVID and the campus on the Campus Ready web site. The web site Resource FAQ for Students also has useful information about the University for students .