

General Information

Instructor

Matt Bishop; *email*: bishop@cs.ucdavis.edu; *phone*: (530) 752-8060

web: <http://seclab.cs.ucdavis.edu/~bishop>

Office: 2209 Watershed Science; *hours*: Mon 11:00am–11:50am; Wed 2:10pm–3:00pm; Fri 12:10pm–1:00pm

Lectures

MWF 1:10pm–2:00pm in 1007 Giedt

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. ECS 150, Operating Systems, and ECS 120, Theory of Computation, are strongly recommended

Text

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

Class Web Site

To access the class web site, go to SmartSite (<http://smartsite.ucdavis.edu>) and log in using your campus login and password. Then go to ECS 235B in your schedule. Announcements, assignments, handouts, and grades will be posted there, and you *must* submit assignments there. The alternate web site, <http://nob.cs.ucdavis.edu/classes/ecs235b-2011-01>, has all the handouts, assignments, and announcements.

Homework

The handout **All About Homework** discusses homework.

Extra Credit

Extra credit is kept separate from regular scores. It counts in your favor if you end up on a borderline between two grades at the end of the course. But, not doing extra credit will never be counted against you, because grades are assigned on the basis of regular scores. You should do extra credit if you find it interesting and think that it might teach you something. Remember, though, it is not wise to skimp on the regular assignment in order to do extra credit!

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.