

General Information

Instructor

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Lectures

MWF 2:10PM–3:00PM in 1070 Banier

Course Outline

Introduce the 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 confidentiality and integrity policies;
- Understand the composition of policies;
- Learn about the confinement problem and information flow; and
- Explore special 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

The class web site is on SmartSite. To access it, go to <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-2009-01> has everything except grades, and you cannot submit work there.

Homework

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

Extra Credit

Extra credit is tallied separately from regular scores. If you end up on a borderline between two grades at the end of the course, extra credit will count in your favor. But, failure to do 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. In particular, for this course, all work submitted for credit must be your own. You may discuss your assignments with classmates, with the instructor, or with the teaching assistant in the course 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.