

General Information

Instructor	Matt Bishop; Office: 3059 Kemper Hall; Phone: 752-8060 Email: bishop@cs.ucdavis.edu ; Web: http://seclab.cs.ucdavis.edu/~bishop Office Hours: M 4:00—5:00PM, W12:30PM—1:30PM, by appointment, or by chance
Lectures	MWF 11:00–11:50 AM 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	Some goals we hope you achieve: <ol style="list-style-type: none"> 1. learn about the access control matrix, and how it is used to analyze the security of classes of systems; 2. learn about the mathematics underlying confidentiality and integrity policies, and especially the debate on their meaning; 3. understand how and why policies of those types are composed, with different balancing of the two types of requirements; 4. learn about non-interference and non-deducibility; 5. examine information flow issues and the confinement problem; and 6. learn about the theory of malicious logic.
Prerequisite	ECS 235A, Computer and Information Security. ECS 150, Operating Systems, and ECS 120, Introduction to the Theory of Computation, are recommended.
Text	M. Bishop, <i>Computer Security: Art and Science</i> , Addison-Wesley, Boston, MA (2003). ISBN 0-201-44099-7
Computers	All registered students have been given an account on the computer science instructional machines in the basement. If you have not done so already, please change your password from the default as soon as you can. If it is not changed within a week, your account will be disabled and you will have to see a system programmer to have it reset.
Class Web Site	The class web site is on MyUCDavis. To access it, go to http://my.ucdavis.edu and log in using your campus-wide login and password. Then go to ECS 289M in your schedule. Handouts and other documents will be posted there. We will also post announcements there. If you do not have access to MyUCDavis, you can go to the alternate web site at http://nob.cs.ucdavis.edu/classes/ecs289m-2006-02 . You can download the handouts from that site, but you cannot look at your grades there.
Class Discussion Board	Information about this class, homework assignments, and so forth, will be posted to the discussion board <i>ECS289M</i> on MyUCDavis. Check this discussion board daily! I will use it to put out important information. Feel free to post to this discussion board yourself, and I will try to respond as quickly as I can. You are welcome to respond to any postings there, of course, and I encourage you to do so.
Homework	All work is due at 11:55PM on the date stated on the homework, unless otherwise stated. See the handout All About Homework for more information.
Extra Credit	Extra credit in this course will be 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. However, 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.....50% Project..... 50%

Integrity

Please see the *Spring 2006 Class Schedule and Room Directory* for a general discussion of this. In particular, for this course, all work submitted for credit must be your own. You may discuss your assignments with classmates or with me to get ideas or a critique of your ideas, but the ideas and words you submit must be your own. You must write up your own solutions and may neither read nor copy another student's solutions. Unless ***explicitly*** stated otherwise, collaboration is considered cheating and will be dealt with accordingly.

A good analogy between appropriate discussion and inappropriate collaboration is the following: you and a fellow student work for competing software companies developing different products to meet a given specification. You and your competitor might choose to discuss product specifications and general techniques employed in your products, but you certainly would not discuss or exchange proprietary information revealing details of your products. Ask the instructor for clarification beforehand if the above rules are not clear.