General Information

Instructor Matt Bishop, 3059 Engineering Unit II; phone: 752-8060;
email: bishop@cs.ucdavis.edu; web page: http://seclab.cs.ucdavis.edu/~bishop
Office hours: Tu 2:00–3:00PM, W 11:00–12:00PM, by appointment or by chance

Teaching Assistant Tom Walcott, 3082 Engineering Unit II
email: walcott@cs.ucdavis.edu
Office hours: M 7:00–9:00PM, Th 3:00–5:00PM

Lecture TuTh 12:10PM – 1:30PM in 107 Cruess Hall

Discussion Section F 11:00–11:50AM in 1115 Hart Hall
We will use these to make up some classes. Material presented here ***will be*** on exams.

Course Outline Introduce principles, mechanisms, and implementations of computer security; learn how attacks work, how to defend against them, and how to design systems to withstand them

Course Goals Some goals we hope you achieve:

1. learn about security in the UNIX system and programming environments;
2. learn how to attack a system, and to defend it by analyzing the system for vulnerabilities and ameliorating those problems;
3. understand the strengths, and weaknesses of cryptography as a tool of security'
4. learn how access to systems, resources, and data can be controlled;
5. learn the basics of writing security-related programs;
6. learn about security in networks;

Prerequisites The prerequisite for this course is ECS 150, Operating Systems. Students who have not taken this course are at a serious disadvantage in this class. Students who have not taken the prerequisite will be ***dropped*** to make room for those who have had the prerequisites.

Text We shall use parts of the text *Computer Security: Art and Science*. Readings from this text will be distributed in class. A recommended supplementary text is:

- S. Garfinkel and E. Spafford, *Practical UNIX & Internet Security*, Second Edition, O'Reilly and Associates, Inc., Sebastopol, CA. ©1996.

Computers All registered students have been given an account on the computer science instructional machines in the basement. ***Change your password 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.***

Course Handouts Course handouts, programs, and samples will be available in the directory *~cs153* on any of the CSIF workstations, and from *myucdavis*. To use the latter, go to http://my.ucdavis.edu and log in using your campus-wide login and password. Then go to ECS 153 in your schedule.

Class Newsgroup Information about this class, homework assignments, and so forth, will be posted to the newsgroup *ucd.class.ecs153*. Read this newsgroup daily! **You are responsible for everything posted to this newsgroup.** We'll use it to put out important information. Please do not post to this newsgroup. If you want to post things about the class, please use the discussion newsgroup *ucd.class.ecs153.d*. Discussing something in that newsgroup is perfectly fair.

Homework Homework is due at noon on the date stated on the homework. 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

30% Homework	25% Midterm exam
20% Term Project	25% Final exam

Exams

Midterm — Thursday, November 9, 2000 in class
Final examination — Tuesday, December 12, 2000
These are open book/open notes exams. No early or late exam will be given; if you miss an exam for medical reasons (you ***must*** document this; no other excuses are acceptable), you may be allowed or required to take a make-up exam, or the other parts of the course will be counted proportionally more (the choice is the instructor's). In particular, forgetting the time or place of an exam is ***not*** an excuse for missing it!

Academic Integrity

Please see the *Fall 2000 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, with instructors, or with teaching assistants or readers 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 ***in the assignment***, collaboration is considered cheating and will be dealt with accordingly.
- For written homework, you must write up your own solutions and may neither read nor copy another student's solutions.
- For programs, you must create and type in your own code and document it yourself. ***Note that you are free to seek help while debugging a program once it is written***.

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 or a teaching assistant for clarification ***beforehand*** if the above rules are not clear.