

Syllabus
CS 136
UCLA
Winter 2017

The textbook for this course will be *Computer Security: Art and Science*, by Matt Bishop.

The due dates listed here for the lab exercises and the date of the midterm are tentative, and may be adjusted after the course starts. **DO NOT COUNT ON THEM BEING EXACTLY AS SHOWN IN THE SYLLABUS! IF YOU MISS THE MIDTERM OR AN ASSIGNMENT DUE DATE BECAUSE IT DIFFERS THAN WHAT IS SHOWN HERE, YOU WILL NOT BE GIVEN AN OPPORTUNITY TO MAKE IT UP!** Check the dates listed on the class web site (http://www.lasr.cs.ucla.edu/classes/136_winter17) for definitive information, bearing in mind that due dates may be adjusted as the class progresses. If you attend class and pay attention to what's posted on this web page, you will have no trouble with knowing the dates.

Week 1 (January 9 –15)

Lecture 1: Introduction: Class Description and the Security Problem

Lecture 2: Security Principles, Policies, and Mechanisms

Deter Lab 1: Introduction to Deter due January 13

Week 2 (January 16 - 22)

Lecture 3: Introduction to Cryptography

Lecture 4: Cryptography, Continued

Week 3 (January 23 - 29)

Lecture 5: Cryptographic Keys

Lecture 6: Security Protocols

Deter Lab 2: Permissions and Firewalls due January 27

Week 4 (January 30 – February 5)

Lecture 7: Authentication

Lecture 8: Operating System Security

Deter Lab 3: Software Exploits due February 3

Week 5 (February 6 - 12)

Lecture 9: Network Security

Lecture 10: Network Security, Continued

Deter Lab 4: Computer Forensics due February 10

Week 6 (February 13 – 19)

Midterm exam on February 14

Lecture 11: Intrusion Detection Systems

Week 7 (February 20 - 26)

Lecture 12: Malware

Lecture 13: Secure Programming

Deter Lab 5: Man in the Middle Attacks due February 24

Week 8 (February 27 – March 5)

Lecture 14: Secure Programming, Continued

Lecture 15: Evaluating System Security

Week 9 (March 6 – 12)

Lecture 16: Web Security

Lecture 17: Privacy

Deter Lab 6: TCP SYN Flood due March 10

Week 10 (March 13 – 19)

Lecture 18: Securing Your System

Lecture 19: TBA

Final exam: Monday, March 20, 3:00 PM - 6:00 PM