Syllabus

CS 136

UCLA

Spring 2016

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_spring16) 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 (March 27 – April 2)

Lecture 1: Introduction: Class Description and the Security Problem

Lecture 2: Security Principles, Policies, and Mechanisms

Deter Lab 1: Introduction to Deter due April 1

Week 2 (April 3 - 9)

Lecture 3: Introduction to Cryptography

Lecture 4: Cryptography, Continued

Week 3 (April 10 - 16)

Lecture 5: Cryptographic Keys

Lecture 6: Security Protocols

Deter Lab 2: Permissions and Firewalls due April 15

Week 4 (April 17 –23)

Lecture 7: Authentication

Lecture 8: Operating System Security

Deter Lab 3: Software Exploits due April 22

Week 5 (April 24 - April 30)

Lecture 9: Network Security

Lecture 10: Network Security, Continued

Deter Lab 4: Computer Forensics due April 29

Week 6 (May 1 – 7)

Midterm exam on May 3

Lecture 11: Intrusion Detection Systems

Week 7 (May 8 - 14)

Lecture 12: Malware

Lecture 13: Secure Programming

Deter Lab 5: Man in the Middle Attacks due May 13

Week 8 (May 15 – 21)

Lecture 14: Secure Programming, Continued

Lecture 15: Evaluating System Security

Week 9 (May 22 – 28)

Lecture 16: Web Security

Lecture 17: Privacy

Deter Lab 6: TCP SYN Flood due May 27

Week 10 (May 29 – June 3)

Lecture 18: Securing Your System

Lecture 19: TBA

Final exam: Friday, June 10, 10:30 AM - 1:30 PM