CS236, Computer Security - Lecture Plans

Peter Reiher
MS Online Program
Spring, 2017

I will be lecturing on the following subjects, in this order. Lectures will be available the week in which they are to be given, or at the end of the previous week.
Reading assignments and other class materials can be found on the class web page.
There will be five practical security assignments during the quarter, plus a simple introductory assignment. The TA will provide full details on these, but the general subject and due dates are shown in the syllabus below.

Week 1:

Lectures:
Introduction, Class Description and the Security Problem
Security Principles, Policies, and Tools

Assignment: Introduction to Deterlab

Week 2:

Lectures:
Introduction to Cryptography
More on Cryptography

Week 3:

Lectures:
Cryptographic Keys
Security Protocols

Assignment: Permissions and Firewalls

Week 4:

Lectures:
Authentication
Operating System Security

Assignment: Software Exploits

Week 5:

Lectures:
Network Security
Network Security, Continued

Assignment: Computer Forensics

Week 6:

Midterm

Lectures:
Intrusion Detection Systems

Week 7:

Lectures:
Malware
Secure Programming

Assignment: Man-in-the-Middle Attacks

Week 8:

Lectures:
Secure Programming, Continued
Evaluating System Security

Week 9:

Lectures:
Web Security
Privacy

Assignment: Botnets

Week 10:

Lectures:
Securing the Internet Infrastructure
Securing Your System