Outline for May 14, 2007

1. Greetings and felicitations!
   a. The laboratory for today from 12–3 is cancelled for reasons beyond our control. Students in this lab should go to another lab (they are at M3–6, W 12–3, and W 3–6). If that is not possible, please try to work the exercises in an open laboratory, and if you have problems please come see me.

2. How antivirus software works
   a. Signature scanners
   b. Heuristic detectors look for code triggered by events, or disk writes bypassing the OS.
   c. Memory resident monitor for virus actions.

3. Spam
   a. What is it
   b. How they find you ... or do they?

4. How antispam software works
   a. Black list
   b. Content filtering
   c. Bayesian filter of content for spam characteristics
   d. White list

5. How firewalls work
   a. Block ports
   b. Packet filtering based on source and destination, and packet patterns.
   c. Mail filtering
   d. Security monitoring

6. Cryptography
   a. Classical ciphers: sharing a key
   b. Public key ciphers: a public and private key
   c. Digital signatures

7. Introduction to the Python programming language
   a. Running the interpreter
   b. Program that prints “hello world”
   c. Example of syntax errors
   d. Comments
   e. Spaces