## March 1, 2019 Outline

**Reading:** *text*, §17.6.2, 14, 18.1 **Assignments:** Homework 4, due March 8, 2019

- 1. Examples
  - a. Firewalls
- 2. Principles of secure design
  - a. Principle of least privilege
  - b. Principle of fail-safe defaults
  - c. Principle of economy of mechanism
  - d. Principle of complete mediation
  - e. Principle of open design
  - f. Principle of separation of privilege
  - g. Principle of least common mechanism
  - h. Principle of least astonishment
- 3. Confinement problem
  - a. What it is
  - b. Covert channels
  - c. Rule of transitive confinement
  - d. Difficulty of preventing leaking
- 4. Isolation: virtual machines
  - a. What it is