

## March 7, 2022 Outline

**Reading:** *text*, §18.3, 14

**Assignments:** Homework 4, due March 9

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### Module 59

1. Capacity
  - (a) When is bandwidth of covert channel?
  - (b) Analysis
  - (c) Measuring capacity

### Module 60

2. Mitigating covert channels
  - (a) Preallocation and hold until process terminates
  - (b) Impose uniformity
  - (c) Randomize resource allocation
  - (d) Efficiency/performance vs. security

### Module 61

3. 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