

## Outline for May 24, 2006

*Reading:* text, §17.3.2.2–17.5, 22.1–22.2

1. Greetings and felicitations!
2. Measuring capacity
  - a. Intuitive, formal definitions of capacity
  - b. Example
3. Analyzing capacity of a noisy covert channel
  - a. Distributed database using 2-phase commit
  - b. Covert channel using 2-phase commit
  - c. Computation of capacity
4. Mitigating covert channels
  - a. Preallocation and hold until process terminates
  - b. Impose uniformity
  - c. Randomize resource allocation
  - d. Efficiency/performance vs. security
  - e. The pump
  - f. Analyzing the pump's performance and security
5. Types of malicious logic
  - a. Trojan horses
  - b. Replicating Trojan horses