## **Midterm Study Guide**

This is simply a guide of topics that I consider fair game for the midterm. I don't promise to ask you about them all, or about any of these in particular; but I may very well ask you about any of these.

- 1. Fundamentals
  - a. What is security?
  - b. Basics of risk analysis
  - c. Relationship of security policy to security
  - d. Policy vs. mechanism
  - e. Assurance and security
- 2. Saltzer's and Schroeder's Principles of Secure Design
- 3. Robust Programming
- 4. Penetration Studies
  - a. Flaw Hypothesis Methodology
  - b. Using vulnerabilities models
- 5. Vulnerabilities Models
  - a. RISOS
  - b. PA
  - c. NRL
  - d. Aslam
- 6. Policies
  - a. Mandatory Access Control (MAC)
  - b. Discretionary Access Control (DAC)
  - c. Originator-Controlled Access Control (ORCON)
  - d. Role-Based Access Control (RBAC)
- 7. Confidentiality Models
  - a. Bell-LaPadula Model
  - b. Lattices and the BLP Model