

## Outline for May 24, 2005

1. ORCON
  - a. Originator controls distribution
  - b. DAC, MAC inadequate
  - c. Solution is combination
2. Role-based Access Control (RBAC)
  - a. Definition of role
  - b. Partitioning as job function
  - c. Containment
3. What is a cryptosystem?
  - a.  $(\mathcal{M}, C, \mathcal{K}, \mathcal{D}, \mathcal{E})$
  - b. Attacks: known ciphertext, known plaintext, chosen plaintext
4. Classical Ciphers
  - a. Transposition ciphers
  - b. Substitution ciphers
  - c. DES
5. Public-Key Cryptography
  - a. Properties
  - b. Diffie-Hellman
  - c. RSA
6. Cryptographic Hashes
7. Access Control Mechanisms
  - a. Access control lists
  - b. Capabilities
  - c. Locks and Keys
  - d. Type checking
  - e. Ring-based access control
  - f. PACLs