

## Outline for November 13, 2006

**Reading:** §9.2–9.3

1. Greetings and felicitations!
  - a. Quick discussion of midterm
2. Product ciphers: DES
3. Public-Key Cryptography
  - a. Basic idea: 2 keys, one private, one public
  - b. Cryptosystem must satisfy:
    - i. Given public key, computationally infeasible to get private key;
    - ii. Cipher withstands chosen plaintext attack;
    - iii. Encryption, decryption computationally feasible [note: commutativity not required]
  - c. Benefits: can give confidentiality or authentication or both