Outline for April 13, 2000

1. Greetings and felicitations!
   a. Web site up and running
   b. Homeworks back via UCDisk
2. Policy
   a. Define *security policy*, *secure system*, *breach of security* formally
   b. Security models
   c. Confidentiality, integrity policies; distinguish from military, commercial policies
   d. Role of trust in modeling
   e. DAC vs. MAC
   f. Policy languages: high level, low level
3. Lattice models
   a. poset, ≤ the relation
   b. highest and lowest
   c. Set of classes SC is a partially ordered set under relation ≤ with GLB (greatest lower bound), LUB (least upper bound) operators
   d. Note: is reflexive, transitive, antisymmetric
   e. Examples: (A, C) ≤ (A', C') iff A ≤ A' and C is a subset of C';
      LUB((A, C), (A', C')) = (max(A, A'), ∪(C, C')), GLB((A, C), (A', C')) = (min(A, A'), ∩(C, C'))
4. Bell-LaPadula Model
   a. Go through security levels, categories, compartments
   b. Describe simple security property (no reads up) and *-property (no writes down)
   c. State Basic Security Theorem: if it's secure and transformations follow these rules, it's still secure
   d. Add in discretionary security policy