Outline for April 27, 2004

**Reading:** Chapters 2, 3.1–3.2, 4.1–4.5

**Outline for the Day**

1. **Access Control Matrix**
   a. Subjects, objects, and rights
   b. Primitive commands: create subject/object, enter right, delete right, destroy subject/object
   c. Copy flag
   d. Attenuation of privileges
2. **HRU Result**
   a. Notion of leakage in terms of ACM
   b. Determining security of a generic system with generic rights is undecidable
   c. Meaning: can’t derive a generic algorithm; must look at (sets of) individual case
3. **Policy**
   a. Sets of authorized, unauthorized states
   b. Secure systems in terms of states
   c. Mechanism vs. policy
4. **Types of Policies**
   a. Military/government vs. confidentiality
   b. Commercial vs. integrity
5. **Types of Access Control**
   a. Mandatory access control
   b. Discretionary access control
   c. Originator-controlled access control
6. **High-Level Policy Languages**
   a. Characterization
   b. Example: DTEL