CS590U
Access Control: Theory and Practice

Lecture 22 (April 13)
Other Topics in Access Control & Review of the Course
Database Access Control

- Grant/Revoke
- Roles
- Stored procedures
- Fine grained access control
Firewalls

- Firewalls do access control at packet level
- Typical firewall policies are specified using a ordered ruleset
  - understanding a rule is difficult, as it interacts with other rules before it
  - analysis tool
- Similar techniques are used in many places, e.g., ordered ACL in IBM Tivoli, MS Windows
- Decision Diagrams Provide an alternative to ordered rulesets
Other Topics

- XACML
- Workflow systems
Review of The Course
Access control exist in many settings

- Operating systems
  - dynamic: processes
  - static: users sharing resources
- Database systems
- Mobile code
- Distributed systems
- Enterprise information systems
- Almost any information systems
Access Control

- Theory of access control consists of scattered, often loosely connected, and occasionally useful pieces
  - just like the information security field in general

- Access control in real-world systems use some basic ideas from theory, and can be complicated and inelegant
Topics We Have Covered

- See the syllabus
Next Lecture

- Project presentations