1. Attendance cards

2. Quiz #2 is scheduled today (1:25 p.m.)

3. Quiz #3 is scheduled on May 30th

4. Midterm exam
   - Scheduled on June 1st
   - Three types of questions
     • **CAT-I Questions**: Quiz questions (all questions in the previous quiz question lists will be covered)
     • **CAT-II Questions**: Exercise questions (all questions in the previous handouts will be covered)
     • **CAT-III Questions**: Challenging questions (CAT-III questions in the previous semesters)
     • **Questions about Project #1**
     • **You can use**: a calculator and a personal memo (“cheat sheet”) during the exam

5. Project #1 introduction (continued):
   - Managing semaphore and shared memory
     • semaphore and shared-memory keys assigned to each of you
     • ipcs and ipcrm commands
   - Suggested process synchronization algorithm
     • Possible boiler-men and safeguard starvation
     • No process deadlock
   - Academic dishonesty issues

6. Process deadlock
   - General concept
   - Three primary causes for process deadlock
   - Deadlock avoidance (covered by Quiz #3 questions)
     • The four necessary conditions for “(I/O) process deadlocks”
     • Solutions
   - Deadlock prevention
• Banker’s algorithm
• Exercises

7. Threads (light-weight processes) – Project #2 covers “threads”
   - Introduction (the general concepts of “threads”)
   - The kernel-mode and application-mode threads