

# Announcements

- Program #1
  - Is on the web
  - Updates posted over weekend
- Reading
  - Chapter 6

# Selecting a process to run

- called scheduling
- can simply pick the first item in the queue
  - called round-robin scheduling
  - is round-robin scheduling fair?
- can use more complex schemes
  - we will study these in the future
- use alarm interrupts to switch between processes
  - when time is up, a process is put back on the end of the ready queue
  - frequency of these interrupts is an important parameter
    - typically 3-10ms on modern systems
    - need to balance overhead of switching vs. responsiveness

# CPU Scheduling

- **Manage CPU to achieve several objectives:**
  - maximize CPU utilization
  - minimize response time
  - maximize throughput
  - minimize turnaround time
- **Multiprogrammed OS**
  - multiple processes in executable state at same time
  - scheduling picks the one that will run at any give time (on a uniprocessor)
- **Processes use the CPU in bursts**
  - may be short or long depending on the job