Lecture 7: Algorithm Evaluation

Deterministic Modeling

• Analytic evaluation
• Optimize a certain parameter (i.e. average wait time)

Example/Exercise
Real Time Considerations

• Hard Real Time
  – Tasks are submitted with their requirements
  – If task requirements cannot be met → task is rejected.
  – Resource reservation is required to guarantee accepted tasks will complete on time.
  – No secondary storage or virtual memory can be handled by hard RT (non-deterministic).

• Soft Real Time
  – RT task must have the highest priorities
  – OS must be preemptive: a) “check points” or b) preemptive kernel.
  – Preemption: Conflict phase (release resources, context switch) and dispatch phase (move from ready to run state).
Assignment

• Read sections 12.4 – 12.6