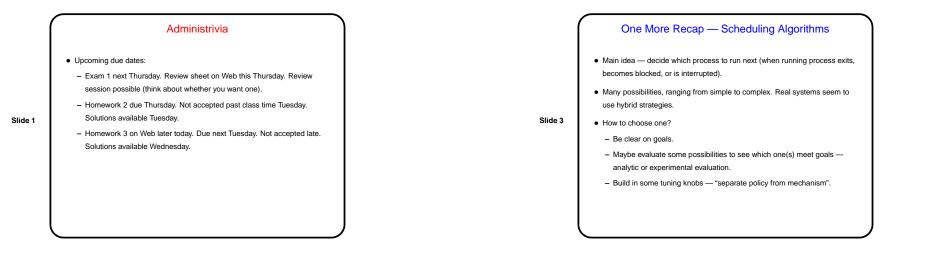
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Minute Essay From Last Lecture

 What's the most interesting thing you learned from reading chapter 2? Most common answers — "haven't read it all yet", something about scheduling algorithms.

Slide 2

Deadlocks — Introduction

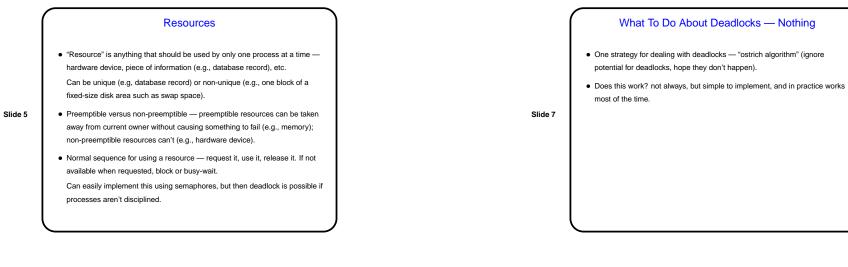
- Some resources should not be shared among processes, computers, etc.
- To enforce this, o/s (or whatever) provides mechanism to give one process at a time exclusive use, make others wait.
- Possibility exists that others will wait forever deadlock.

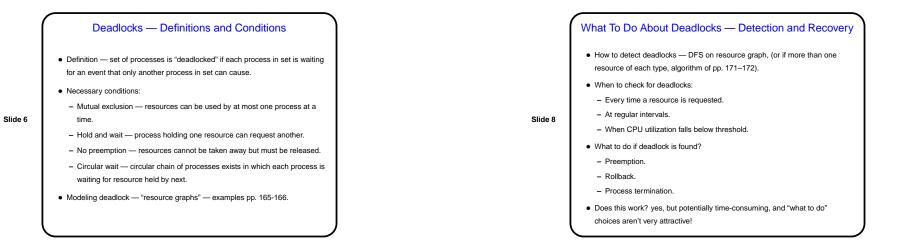
Slide 4

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What To Do About Deadlocks — Avoidance • Can base on idea of "safe" states (in which it's possible to schedule to avoid deadlock) versus "unsafe" states (in which it's not). Idea is to avoid unsafe states. • Banker's algorithm" (Dijkstra, 1965) — idea is to never satisfy request for resource if it leads to unsafe state. Details on pp. 178–179. • Does this work? yes, but not much used because it assumes a fixed number of processes, resource requirements known in advance.

