

Outline for April 8, 2022

Reading: *text*, §25, 27

Assignments: Homework and Extra Credit 1, due Apr 11
Lab Exercise and Extra Credit 1, due Apr 18

1. Announcements
2. Interprocess Communication: what is the problem?
3. Precedence, process flow graphs
4. Bernstein conditions
5. Basic parallel programming constructs
 - (a) *fork/join/quit*
 - (b) *parbegin, parend*
 - (c) Comparison
6. Producer-consumer problem
 - (a) Race condition: *counter* can be 4, 5, or 6
7. Critical section problem
 - (a) Solutions meet 3 criteria
 - i. Mutual exclusion
 - ii. Progress
 - iii. Bounded wait
 - (b) Analyze proposed software solutions