Foundations of Distributed Computing

CS625
Spring 2006
Prof. Rebecca N. Wright

Syllabus

17 January, 2006

Location, etc:
Place: 219 Lieb
Time: 5:00pm–7:30pm Tuesdays
Professor: Rebecca Wright, rwright@cs.stevens.edu
Office Hours: By appointment only—e-mail me, 216 Lieb

Textbook:

Syllabus:
January 17 Introduction, Synchronous networks: Leader Election
Reading: ch. 1–3

January 24 Synchronous networks: Distributed Consensus
Reading: ch. 6

January 31 Homework 1 due
Synchronous networks: Distributed Consensus, ctd.

February 7 Asynchronous shared memory model: Mutual Exclusion
Reading: ch. 8–10

February 14 Homework 2 due
Asynchronous shared memory model: Resource Allocation
(The Dining Philosopher’s Problem)
Reading: ch. 11

February 21 Monday schedule: No class

February 28 Midterm Exam (Closed book)

March 7 Asynchronous shared memory model: Distributed Consensus
Reading: ch. 12

March 14 Spring Break: No class
March 21  Asynchronous shared memory model: Distributed Consensus, ctd.

March 28  Homework 3 due  
Asynchronous shared memory model: Atomic Objects  
Reading: ch. 13

April 4  Asynchronous shared memory model: Atomic Objects, cont’d

April 11  Homework 4 due  
Asynchronous computing: Shared memory vs. networks  
Reading: ch. 14, 17

April 18  Asynchronous networks with process failures  
Reading: ch. 21 (Sections 21.1–21.3 only).

April 25  Homework 5 due  
Additional topics if time permits  
Reading: TBD

May 2  Final Exam (Open book)

**Grading:**

- Homework Assignments 40% (lowest score dropped)
- Midterm Exam 25%
- Final Exam 25%
- Class Participation 10%

**Late policy:**

Assignments are due at the *start* of class on their due dates. Late assignments will not be accepted. All exceptions must be cleared in advance.