

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:

Nancy Lynch, *Distributed Algorithms*, 1st Edition, Morgan Kaufmann Publishers, 1996.

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.