

CS441/541 - Advanced Operating Systems

Course Syllabus

Spring 2020

Instructor: Bob Rinker, (208)885-7378, rinker@cs.uidaho.edu

CdA - The Innovation Den, 418 E Lakeside, # 6, Moscow - JEB 235

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Text: *Distributed Systems: An Algorithmic Approach*, by Sukumar Ghosh, 2015, Chapman & Hall/CRC, ISBN 978-1466552975.

Lec	Day	Topic	Text/Ref
1	Jan 15	W Introduction, orientation, O/S Types	Chap 1
2	17	F Distributed System Concepts & Architectures	Chap 1
	20	M **** MLK - Human Rights Day - No Classes ***	
3	22	W Overview of Interprocess Communication	Chap 2
4	24	F Overview of Interprocess Communication	Chap 2
5	27	M Interprocess Communication	Chap 2
6	29	W Models for Communication - Message Passing	Chap 3
7	31	F Message Passing - MPI	Chap 3
8	Feb 3	M MPI	
9	5	W Models for Communication - Shared Memory	Chap 3
10	7	F Time in a distributed System	Chap 6
11	10	M Time - Logical Clocks	Chap 6
12	12	W Time - Vector Clocks	Chap 6
13	14	F Time - Clock Synchronization	Chap 6
	17	M **** Presidents' Day - No Classes	
15	19	W Mutual Exclusion	Chap 7
16	21	F Mutual Exclusion	Chap 7
14	24	M Mutual Exclusion	Chap 7
17	26	W Mutual Exclusion	Chap 7
	28	F *** Test 1 ***	
	Mar 2	M Exam Review	
18	4	W Distributed Snapshot	Chap 8
19	6	F Distributed Snapshot	Chap 8
20	9	M Distributed Snapshot	Chap 8
21	11	W Global State Collection	Chap 9
22	13	F Global State Collection	Chap 9
	16 - 20	****Spring Break - NO Classes****	
23	23	M Deadlock detection	Chap 9
24	25	W Deadlock detection	Chap 9
25	27	F Deadlock detection	Chap 9
26	30	M Coordination Algorithms	Chap 11
27	Apr 1	W Coordination Algorithms	Chap 11
28	3	F Coordination Algorithms	Chap 11
29	6	M Distributed Consensus	Chap 13
30	8	W Distributed Consensus	Chap 13
31	10	F Distributed Consensus	Chap 13
32	13	M Distributed Transactions	Chap 14
33	15	W Distributed Transactions	Chap 14
	17	F *** Test 2 ***	
	20	M Exam Review	
34	22	W Distributed Transactions	Chap 14
35	24	F Group Communication	Chap 14

Lec	Day	Topic	Text/Ref
36	27 M	Group Communication	Chap 14
37	29 W	Group Communication	Chap 14
38	May 1 F	Sensor Networks	Chap 20
39	4 M	Sensor Networks	Chap 20
40	6 W	Sensor Networks	Chap 20
41	8 F	Final Exam Review	

Final: Wednesday, May 13, 10:15am - 12:15 pm

Grading:

	CS441	CS541
Two Midterm Tests	50%*	40%
Final Exam	25%	20%
Assignments	25%	20%
Term Project	*	20%
Total	100%	100%

* - CS441 students may substitute a project in lieu of one of the midterm tests.

The letter grade you receive from the course will be determined as follows:

90%	-	100%	A
89.9%	-	80%	B
79.9%	-	70%	C
69.9%	-	60%	D
59.9%	-	0%	F

The instructor reserves the right to adjust these percentages lower if deemed necessary.

Disability Support Services Reasonable Accommodations Statement:

Reasonable accommodations are available for students who have documented temporary or permanent disabilities. All accommodations must be approved through Disability Support Services located in the Idaho Commons Building, Room 306 in order to notify your instructor(s) as soon as possible regarding accommodation(s) needed for the course.

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