15-418: Parallel Computer Architecture and Programming, Spring 2008 Schedule

Table 1: 15-418, Spring 2008.

Class	Date	Day	Topic	Reading	Assignments
1	1/15	Tue	Why Study Parallel Architecture?	1.1	
2	1/16	Wed	Evolution of Parallel Architecture	1.2	
3	1/17	Thu	Fundamental Design Issues	1.3-4	
4	1/22	Tue	Parallel Programming: Overview I	2.1-2	
5	1/23	Wed	Parallel Programming: Overview II	2.3-4	
6	1/24	Thu	Parallel Programming: Performance I	3.1	
7	1/29	Tue	Parallel Programming: Performance II	3.2	L1 Out
8	1/30	Wed	Parallel Programming: Performance III	3.3-4	
9	1/31	Thu	Par. Prog: Case Studies & Implications	3.5-6	
10	2/5	Tue	Workload-Driven Arch Evaluation I	4.1	
	2/6	Wed	*No Class*		
11	2/7	Thu	Workload-Driven Arch Evaluation II	4.2-3	L1 Due, L2 Out
12	2/12	Tue	Shared Memory Multiprocessors I	5.1	
13	2/13	Wed	Shared Memory Multiprocessors II	5.3	
14	2/14	Thu	Earthquake Simulation Case Study		
15	2/19	Tue	Shared Memory Multiprocessors III	5.4	
16	2/20	Wed	Directory-Based Cache Coherence I	8.1-5	
17	2/21	Thu	Directory-Based Cache Coherence II	8.6-7, 8.9-11	L2 Due
18	2/26	Tue	**Exam I**		L3 Out
19	2/27	Wed	Relaxed Memory Consistency Models	9.1	
	2/28	Thu	Snoop-Based Multiprocessor Design I	6.1	
20	3/4	Tue	Snoop-Based Multiprocessor Design II	6.2	
21	3/5	Wed	Snoop-Based Multiprocessor Design III	6.3-4	
22	3/6	Thu	Snoop-Based Multiprocessor Design IV	6.5, 6.7	L3 Due
			Spring Break		
23	3/18	Tue	Synchronization	5.5., 7.9, 8.8	
	3/19	Wed	*Meet regarding Project Proposals*		
24	3/20	Thu	Scalable Distributed Memory MPs I	7.1-3	Project Proposal
25	3/25	Tue	Scalable Distributed Memory MPs II	7.4-8	
26	3/26	Wed	Interconnection Network Design	10.1-10	
27	3/27	Thu	Latency Tolerance: Prefetching	11.1, 11.6	
28	4/1	Tue	Latency Tolerance: Multithreading	11.7-9	
	4/3	Thu	*Meet regarding Milestone 1 Progress*		Project Milestone 1
	4/15	Tue	**Exam II**		
	4/17	Thu	*Meet regarding Milestone 2 Progress*		Project Milestone 2
	4/30	Wed			Project Report Due
	5/1	Thu	**Project Poster Session**		