

	Name	PPTX	PDF		Lecturer	Assignment
Tue, Jan 21	Lecture 1: Introduction & Overview	PPTX	PDF		Kathy Yelick	Survey Due
Thu, Jan 23	Lecture 2: Memory Hierarchies and Matrix Multiplication	PPTX	PDF		Kathy Yelick	HW1 Out
Tue, Jan 28	Lecture 3: Shared Memory Parallelism	PPTX	PDF		Aydin Buluc	
Thu, Jan 30	Lecture 4: Roofline and Performance Modeling	PPTX	PDF		Kathy Yelick	Pre-proposal Due
Tue, Feb 4	Lecture 5: Sources of Parallelism and Locality (Part 1)	PPTX	PDF		Jim Demmel	
Thu, Feb 6	Lecture 6: Sources of Parallelism and Locality (Part 2)	PPTX	PDF		Jim Demmel	HW1 Due, HW2.1 Out
	Lecture 6: Communication-avoiding matrix multiplication	PPTX	PDF		Jim Demmel	
Tue, Feb 11	Lecture 7: Data Parallel Algorithms (aka, tricks with trees)	PPTX	PDF		Kathy Yelick	
Thu, Feb 13	Lecture 8: An Introduction to CUDA and Graphics Processors (GPUs)		PDF		John Owens	
Tue, Feb 18	Lecture 9: Distributed Memory Machines and Programming	PPTX	PDF		Aydin Buluc	
Thu, Feb 20	Lecture 10: Advanced MPI and Collective Communication Algorithms	PPTX	PDF		Aydin Buluc	HW2.1 Due, HW2.2 Out
Tue, Feb 25	Lecture 11: UPC++: Partitioned Global Address Space Languages	PPTX	PDF		Kathy Yelick	Code Examples
Thu, Feb 27	Lecture 12a: Domain Specific Languages (Halide)	PPTX	PDF		Alex Reinking	Halide web site
	Lecture 12b: Distributed Data Structures (BCL)		PDF		Ben Brock	BCL GitHub
Tue, Mar 3	Lecture 13: Parallel Matrix Multiply	PPTX	PDF		Jim Demmel	
Thu, Mar 5	Lecture 14: Dense Linear Algebra	PPTX	PDF		Jim Demmel	HW2.2 Due, HW2.3 Out
Tue, Mar 10	Lecture 15: Sparse-Matrix-Vector-Multiplication and Iterative Solvers	PPTX	PDF	video	Kathy Yelick	
Thu, Mar 12	Lecture 16: Structured Grids	PPTX	PDF	video	Jim Demmel	
	Main lecture starts ~24min in. Before that are Project ideas and HW3 hints (useful next week!)					
Tue, Mar 17	Lecture 17a: Machine Learning Part 1 (Supervised inc. Deep Learning)	PPTX	PDF	video	Aydin Buluc	
	Skip the first 8 minutes, Lecture starts at 8:35					
Thu, Mar 19	Lecture 17b: Machine Learning Part 2 (Unsupervised Learning)	PPTX	PDF	combined	Aydin Buluc	
	Lecture 18: Graph Partitioning	PPTX	PDF	video		
Tue, Mar 24	Spring Break					
Thu, Mar 26	Spring Break					
Tue, Mar 31	Lecture 19: Fast Fourier Transform	PPTX	PDF	video	Jim Demmel	
Thu, Apr 2	Lecture 20: Graph Algorithms	PPTX	PDF	video	Aydin Buluc	HW2.3 Due
Tue, Apr 7	Lecture 21: Cloud Computing and HPC	PPTX	PDF	video	Kathy Yelick	
Thu, Apr 9	Lecture 22: Big Bang, Big Data, Big Iron		PDF	video	Julian Borrill	
Tue, Apr 14	Lecture 23: Dynamic Load Balancing	PPTX	PDF	video	Kathy Yelick	
Thu, Apr 16	Lecture 24: Hierarchical Methods for the N-Body Problem	PPTX	PDF	video	Jim Demmel	
Tue, Apr 21	Lecture 25: Sorting and Searching	PPTX	PDF	video	Aydin Buluc	
Thu, Apr 23	Lecture 26: Computational Biology	PPTX	PDF	video	Aydin Buluc	
Tue, Apr 28	Virtual Poster Session					
Thu, Apr 30	Lecture 27: Quantum Computing	PPTX		video	Jonathan Carter	
Wed, May 13	Final project reports due					Final Report Due