

	Theme	Week #	Paper 1	Paper 2	Extra (Optional)	Notes	Slides		
Tue, 21 Jan	Introduction		1 <a href="#">Intro to Distributed Systems Design</a>	<a href="#">RPC and Threads (Prof Jinyang, NYU)</a>	<a href="#">How to Read a Paper</a>	Introduction to the class, and the practical nuts and bolts of distributed systems, and a taste of theory	<a href="#">All Class Slides together</a>		
Thu, 23 Jan	Common Knowledge (Part 1)		1 <a href="#">Knowledge and Common Knowledge in a Distributed Environment</a>			Tough but interesting material, might take two classes to cover. Introduces hierarchy of knowledge	<a href="#">Class Slides</a>		
Tue, 28 Jan	Common Knowledge (Part 2)		2 <a href="#">Knowledge and Common Knowledge in a Distribut</a> <a href="#">Jeff Dean Keynote at SOCC</a>			Continuing talk about common knowledge, some of Jeff Dean's kr	<a href="#">Class Slides</a>		
Thu, 30 Jan	Consistent Global States (Part 1)		2 <a href="#">Consistent Global States of Distributed Systems: F Lamport Clocks</a>			Consistent Global States and Snapshots (Part 1)	<a href="#">Class Slides</a>		
Tue, 4 Feb	Consistent Global States (Part 2)		3 <a href="#">Consistent Global States of Distributed Systems: Fundamental Concepts and Mechanisms</a>			Consistent Global States and Snapshots (Part 2)	<a href="#">Class Slides</a>		
Thu, 6 Feb	Distributed Snapshots		3 <a href="#">Distributed Snapshots: Determining Global States of Distributed Systems</a>			Chandy and Lamport Distributed Snapshot Algorithm	<a href="#">Class Slides</a>		
Tue, 11 Feb	Safety and Liveness (Class Cancelled)		4 <a href="#">Recognizing Safety and Liveness</a>			Sick	<a href="#">Class Slides</a>		
Thu, 13 Feb	Distributed Commit Protocols		4 <a href="#">Distributed Commit Protocols</a>		<a href="#">Useful Reference: Distributed DBMS model</a>	Discussed safety, liveness, 2PC	<a href="#">Class Slides</a>		
Tue, 18 Feb	Failure Detectors		5 <a href="#">Unreliable Failure Detectors for Reliable Distributed Systems (Focus on Sections 1-3)</a>			Intro to failure detectors, why they matter, how they help consensus	<a href="#">Class Slides</a>		
Thu, 20 Feb	Failure Detectors		5 <a href="#">Falcon (SOSP 2011)</a>	<a href="#">RAPID (ATC 18)</a>		FALCON and RAPID failure detectors	<a href="#">Class Slides</a>		
Tue, 25 Feb	Replication		6 <a href="#">Chain Replication (OSDI 04)</a>	<a href="#">Remus: High Availability via Asynchronous Virtual Machine Replication (NSDI 08)</a>			<a href="#">Class Slides</a>		
Thu, 27 Feb	Consensus		6 <a href="#">Impossibility Result (JACM 85)</a>	<a href="#">Paxos Made Simple</a>	<a href="#">Async Consensus</a>		<a href="#">Class Slides</a>		
Tue, 3 Mar	Consensus		7 <a href="#">Prof. Paul Paul Krzyzanowski's slides on Paxos</a>	<a href="#">Paxos Made Live - An Engineering Perspective</a>			<a href="#">Class Slides</a>		
Thu, 5 Mar	Consensus		7 <a href="#">Viewstamped Replication Revisited</a>			Unfortunately, the Microsoft guest lecture was cancelled due to co	<a href="#">Class Slides</a>		
Tue, 10 Mar	Consensus		8 <a href="#">RAFT (ATC 14)</a>	<a href="#">Flexible Paxos</a>	<b>Project 1 due Wed Mar 11</b>	<a href="#">Raft Replay Visualization Tool</a>	<a href="#">The Secret Lives of Data - Raft</a>	<a href="#">Ricon West 2013 RA</a>	<a href="#">Flexible Paxos (S</a>
Thu, 12 Mar	Midterm 1	8							
Tue, 17 Mar	Spring Break	9							
Thu, 19 Mar	Spring Break	9							
Tue, 24 Mar	Spring Break	10							
Thu, 26 Mar	Spring Break	10							
Tue, 31 Mar	Consensus		11 <a href="#">Zookeeper (ATC 10)</a>	<a href="#">ZAB (DSN 2011)</a>		<a href="#">Zoom recording</a>			
Thu, 2 Apr	Spanner		11 <a href="#">Spanner (OSDI 12)</a>						
Tue, 7 Apr	Byzantine Generals		12 <a href="#">The Byzantine Generals Problem</a>	<a href="#">Practical Byzantine Fault Tolerance</a>	<a href="#">The Saddest Moment</a>				
Thu, 9 Apr	<b>Karthik Ranganathan (Co-founder/CTO Yugabyte): Making Postgres Behave like Spanner!</b>		13 <a href="#">Video recording</a>						
Tue, 14 Apr	<b>Kartik Nayak (Duke Guest Lecture): Synchronous Byzantine Consensus</b>		13 <a href="#">Video recording</a>						
Thu, 16 Apr	Paradigms: MapReduce and Spark		13 <a href="#">MapReduce</a>	<a href="#">Spark</a>	<b>Project Proposal Due Fri April 17</b>				
Tue, 21 Apr	Distributed File Systems		14 <a href="#">Coda</a>	<a href="#">NFS</a>					
Thu, 23 Apr	Google's distributed systems		14 <a href="#">GFS</a>	<a href="#">BigTable</a>					
Tue, 28 Apr	Datacenters		15 <a href="#">Datacenter as a Computer (Chapters 1 and 2)</a>						
Thu, 30 Apr	<b>Marc Brooker (AWS, High Availability for Bad Days)</b>		15 <a href="#">Video recording</a>						
Tue, 5 May	<b>Vasile Kalavri (Boston University, Distributed Streaming)</b>		16 <a href="#">Video recording</a>						
Thu, 7 May	<b>Elaine Shi (Cornell Guest Lecture, Streamlet: Textbook Streamlined Blockchains)</b>		16 <a href="#">Video recording</a>						
May 3 - May 15	Schedule out-of-class appointments for project presentations								
Fri, 15 May	<b>Research Project Report due Fri May 15 (11:59 PM CST)</b>								
			<b>Extra Material</b>						
	Hashing		<a href="#">Consistent Hashing</a>	<a href="#">Chord</a>					
	Distributed key-value stores		<a href="#">Dynamo</a>	<a href="#">RAMCloud</a>					