CSE 3251: DISTRIBUTED SYSTEMS [3104]

Distributed system, Design Goals, Architectural Styles, Middleware Organization, System Architecture, Example Architectures, Hadoop, MapReduce, The Hadoop Distributed Filesystem, YARN, How MapReduce Works, Coordination, Clock synchronization, Logical clocks, Mutual exclusion, Election algorithms, Communication, Foundations, Remote procedure call, Message-oriented communication, Multicast communication, Naming, Names, Identifiers and Addresses, Flat naming, Structured naming, Consistency & Replication, Introduction, Data-centric consistency models, Client-centric consistency models, Replica management, Consistency protocols.

References:

1. Maarten van Steen and Andrew S. Tanenbaum, *Distributed Systems (3e)*, 2017.
2. Tom White, *Hadoop The Definitive Guide (4e)*, Oreilly Publication.
3. Coulouris G., Dollimore J., and Kindberg T., *Distributed Systems* (4e), Pearson, 2009.
4. Chuck Lam, *Hadoop in Action*, Manning Publication Co.
5. Ajay D. Kshemkalyani, and Mukesk Singhal, *Distributed Computing: Principles, Algorithms, and Systems*, Cambridge University Press; Reissue edition, March 2011.
6. Mei- Ling Liu, *Distributed Computing: Principles and Application*, Pearson Education, Inc. New Delhi. 2004.