# Syllabus: Distributed and Cloud Computing

Instructor: Thomas Schwarz, SJ

Website: https://tschwarz.mscs.mu.edu/

Office Hour: TTh 15:30-16:30 and by appointment

# Preliminary Plan of Studies COSC 6060 Distributed and Cloud Computing

Week 1: Design goals. Distributed System Architectures.

Week 2: Communication

Week 3: Coordination, Naming

Week 4: Scalable Distributed Data Structures

Week 5: Consistency and Replication

Week 6: Fault Tolerance

Week 7: Remote Storage

Week 8: Security

Week 9: Virtualization, Elasticity

Week 10: Data Centers

Week 11: Containers, Docker

Week 12: Automation

Week 13: Cloud-based Algorithms and Data Structures (Map Reduce)

Week 14: Hadoop and Hadoop-based eco-system

## Textbooks:

Comer: The Cloud Computing Book, CRC Press

van Steen, Tanenbaum: Distributed Systems, Pearson (available online via request)

### **Evaluation:**

Quizzes 5% Homeworks 45% Final 50%

#### Zoom:

For those enrolled in the long-distance version of the class:

Thomas Schwarz is inviting you to a scheduled Zoom meeting.

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Topic: Distributed Systems
Time: Aug 27, 2024 06:30 PM Central Time (US and Canada)
Every week on Tue, Thu, until Dec 10, 2024, 31 occurrence(s)
Aug 27, 2024 06:30 PM
Aug 29, 2024 06:30 PM
Sep 3, 2024 06:30 PM
Sep 5, 2024 06:30 PM
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Sep 10, 2024 06:30 PM Sep 12, 2024 06:30 PM Sep 17, 2024 06:30 PM Sep 19, 2024 06:30 PM Sep 24, 2024 06:30 PM Sep 26, 2024 06:30 PM

Oct 1, 2024 06:30 PM Oct 3, 2024 06:30 PM Oct 8, 2024 06:30 PM

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Nov 21, 2024 06:30 PM

Nov 26, 2024 06:30 PM Nov 28, 2024 06:30 PM

Dec 3, 2024 06:30 PM

Dec 5, 2024 06:30 PM

Please download and import the following iCalendar (.ics) files to your calendar system. Weekly: https://us02web.zoom.us/meeting/tZwkcu-grzlpEtMDQmNcl04i6s6wChyS-vWA/ics?icsToken=98tyKuGgpz4sEtWcsxGARpw-

HY\_4M\_zzmFhej7dwuC7oLSNfMlf\_YPEUJZF3Ceud&meetingMasterEventId=tvOptCJFSUqRR PjcaQ35CQ

Join Zoom Meeting

https://us02web.zoom.us/j/88956819387?pwd=0mjab5cKOL3e2gJAMWXua50YLj6mQa.1

Meeting ID: 889 5681 9387 Passcode: 987123