

香港中文大學

The Chinese University of Hong Kong

CSCI5550 Advanced File and Storage Systems

Special Arrangements for Online Teaching

Ming-Chang YANG



Course Information



- CSCI5550 Advanced File and Storage Systems
- Course Time and Place
 - Lecture (*3)
 - MON 09:30~10:15 (ZOOM)
 - TUE 13:30~15:15 (**ZOOM**)
 - Tutorial (*1)
 - MON 10:30~11:15 (ZOOM)
 - New: Online Q & A
 - MON 11:15~12:00 (**ZOOM**)

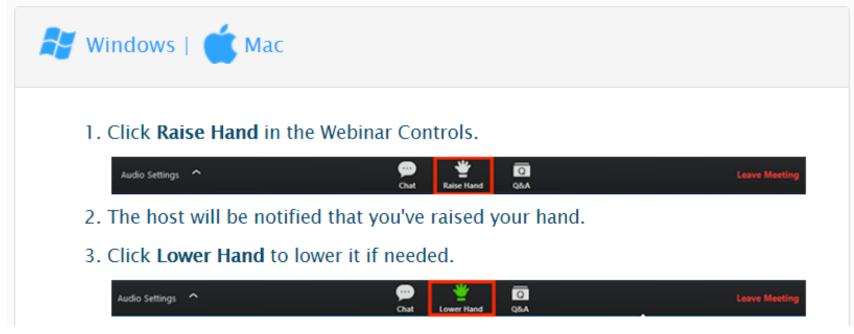


The recordings will be available at course website. (passwd: same as ZOOM)

- Course Website
 - http://www.cse.cuhk.edu.hk/~mcyang/csci5550/2020S/csci5550.html

Tips: Raise Hand and In-meeting Chat 🎉

- To have good quality of online sessions, I will mute everyone by default.
- Questions? Raise Hand (before Unmute)



Questions? In-meeting Chat



Course Instructor & Teaching Assistant

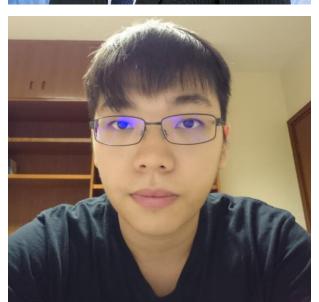
Course Instructor

- Prof. Ming-Chang YANG (楊明昌)
 - Office: SHB 906 (3943-8405)
 - Office Hours: requested by email
 - Email: mcyang@cse.cuhk.edu.hk



Teaching Assistant

- Tsun-Yu YANG (楊尊宇)
 - Office Hours: MON 10:30~12:00 (ZOOM)
 - Email: yangty@cse.cuhk.edu.hk



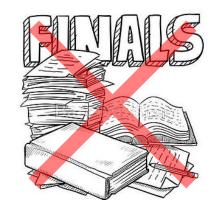
Course Assessment (w/ Final)



- Programming Project (40%)
 - Group of 1-2 students
- Literature Survey & Presentation (30%)
 - A literature survey and presentation to prove your knowledge in file and storage systems
 - Group of 1-2 students
- Final Exam (30%)
- Bonus (5%)







New: Course Assessment (w/o Final)



- Programming Project (40%)
 - Individual
- Literature Survey & Presentation (30%)
 - A literature survey and presentation to prove your knowledge in file and storage systems
 - Group of 1-2 students
- Research Proposal (30%)
 - A research proposal to show your knowledge in identifying important research problems and proposing potential solutions in file and storage systems
 - Group of 1-2 students
- Bonus (5%)

New: CSCI5550 Course Schedule



| 1 | W | Date | Lecture | Suggested Readings | Tutorial |
|-----------|----|------------|--|----------------------|----------------|
| BASIC — | 1 | Jan 6, 7 | Lec01: I/O Devices | OSTEP 36, 37 | - |
| | 2 | Jan 13, 14 | Lec02: RAID and Data Integrity | OSTEP 38, 45 | - |
| | 3 | Jan 20, 21 | Lec03: File System Basics | OSTEP 39~42 | - |
| | 4 | Jan 27, 28 | Lunar New Year Vacation | No class | - |
| | 5 | Feb 17, 18 | Lec03: File System Basics | OSTEP 39~42 | - |
| | 6 | Feb 24, 25 | Lec04: File System Designs | OSTEP 43, FAT, Ext4 | HW1 Released |
| | 7 | Mar 2, 3 | Lec05: Distributed File Systems | OSTEP 49, GFS, Ceph | (online Q & A) |
| | 8 | Mar 9, 10 | Lec06: Solid-State Drives | F2FS | (online Q & A) |
| CE | 9 | Mar 16, 17 | Lec07: New Hard Disk Drives | SMR, IMR | (online Q & A) |
| AN | 10 | Mar 23, 24 | Lec08: Memory Storage | NVM, PMFS, UBJ | HW1 Due |
| -ADVANCED | 11 | Mar 30, 31 | Lec08: Memory Storage (Cont'd) | LevelDB, WiscKey | - |
| | 12 | Apr 6, 7 | Lec09: Advanced Storage Systems | GraphChi, FlashGraph | HW2 Released |
| | 13 | Apr 13, 14 | Easter / Survey Presentation | | (online Q & A) |
| | 14 | Apr 20, 21 | Literature Survey Presentation | | (online Q & A) |
| | 15 | Apr 27, 28 | Literature Survey Presentation | | (online Q & A) |
| i | * | May 12 | Group-based Research Proposal Due & Individual HW2 Due | | |