Topic 1: OS Structure (Weeks 1-4)

Due Week 1 (April 4):
• The Nucleus of a Multiprogramming System Per Brinch Hansen Communications of the ACM 13(4), April 1970.

Due Week 2 (April 9):

Due Week 3 (April 16):
• Paul Barham, Boris Dragovic, Keir Fraser, Steven Hand, Tim Harris, Alex Ho, Rolf Neugebauer, Ian Pratt, and Andrew Warfield. 2003. Xen and the art of virtualization. In Proceedings of the nineteenth ACM symposium on Operating systems principles (SOSP '03), ACM, New York, NY, USA, 164-177.
• Manco, Filipe et al, My VM is Lighter (and Safer) than your Container, SOSP 2017

Due Week 4 (April 23):
• Philip Levis, Experiences from a Decade of TinyOS Development. 10th USENIX Symposium on Operating Systems Design and Implementation (OSDI ’12).
• Christopher Dall, Jason Nieh, KVM/ARM: The Design and Implementation of the Linux ARM Hypervisor. Proceedings of the 19th international conference on Architectural support for programming languages and operating systems (ASPLOS ’14), March 2014.
• Felix Xiaozhu Lin, Zhen Wang, and Lin Zhong, K2: A Mobile Operating System for Heterogeneous Coherence Domains. ASPLOS ’14, March 1–4, 2014, Salt Lake City, Utah, USA.

Topic 2: Resource Management and Scheduling

Due Week 5 (April 30):

Due Week 6 (May 7):
• Eli Cortez (Microsoft); Anand Bonde (Microsoft Research); Alexandre Muzio (ITA, Brazil); Mark Russinovich, Marcus Fontoura (Microsoft); Ricardo Bianchini (Microsoft Research), Resource Central: Understanding and Predicting Workloads for Improved Resource Management in Large Cloud Platforms. SOSP 2017.

Topic 3: Synchronization

Due Week 7 (May 14):
• Sanidhya Kashyap, Changwoo Min, and Taesoo Kim, Scalable NUMA-aware Blocking Synchronization Primitives. USENIX ATC 2017.

Topic 4: Security

Due Week 8 (May 21):
• Brian Delgado and Karen L. Karavanic, EPA-RIMM.
• John Criswell, Nathan Dautenhahn, Vikram Adve, "Virtual Ghost: protecting applications from hostile operating systems." Proceedings of the 19th international conference on Architectural support for programming languages and operating systems (ASPLOS '14), March 2014.

**Topic 5: Consistency and Fault Tolerance**
*Due Week 9 (May 30):*

• **NOTE no class on May 28 due to University Holiday**
• Ang Chen and Hanjun Xiao and Andreas Haeberlen and Linh Thi Xuan Phan, Fault Tolerance and the Five-Second Rule, 15th Workshop on Hot Topics in Operating Systems (HotOS XV) 2015.

**Topic 6: Memory and Storage**
*Due Week 10 (June 4):*

• Jian Xu, Lu Zhang, Amirsaman Memaripour, Akshatha Gangadharaiiah, Amit Borase, Tamires Brito Da Silva (UC San Diego); Andy Rudoff (Intel); Steven Swanson (UC San Diego), NOVA-Fortis: A Fault-Tolerant Non-Volatile Main Memory File System, SOSP 2017

**Final Project Presentations (Week 11: Monday June 11 5:30pm – 7:20 pm)**
*All groups will present their final projects during the final exam slot.*
*Please notify Prof. Karavanic if you have a conflict with another final exam.*