Topic 1: OS Structure (Weeks 2-4)

Due Week 2 (Oct 9):


Due Week 3 (Oct 16):

- Manco, Filipe et al, My VM is Lighter (and Safer) than your Container, SOSP 2017

Due Week 4 (Oct 23):

- Philip Levis, Experiences from a Decade of TinyOS Development. 10th USENIX Symposium on Operating Systems Design and Implementation (OSDI ’12).
- 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 4 (Oct 23):

Due Week 5 (Oct 30):

- 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 6 (Nov 6):


**Topic 4: Security**

Due Week 7 (Nov 13):

- 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.

**Note Week 8 (Nov 20): Project Meetings ** No Quiz ** No Assigned Readings **
**Topic 5: Consistency and Fault Tolerance**

*Due Week 9 (Nov 27):*


**Topic 6: Memory and Storage**

*Due Week 10 (Dec 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)**

*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.*