CSYE: 6230: Operating Systems
FALL SEMESTER 2019

INSTRUCTOR: Ashish
ashish@northeastern.edu or ashishsingh@gmail.com

Office Hours: After class or by appointment

Class Timing: 10:15 AM- 1:15 PM Sundays

TA's: To be announced.

TA Hours: Hours and locations are TBA.

Course Description: In this course, we will learn what is Operating Systems. We would learn the basics of Computer architecture and how Operating systems help users interact with Hardware. We would learn about processes, threads, parallel programming, Memory systems, File systems. Security, Virtual Machines, Cloud computing among other topics. This course would have ~40% programming and 60% theoretical concepts. We would write code for Processes, Threads, Cloud/Distributed programming. We would learn about Kubernetes and other modern topics.

Grading: TA's would be grading all the assignments and tracking attendance.

Assignments: 50% (One assignment every week)

Mid Term: 20% (Two Midterms Take home)

Final Project 30%

Academic Honesty: The Northeastern University academic integrity policy applies to your work in this course. All students are expected to adhere to this policy. For more information on academic integrity policy, please visit website: http://www.northeastern.edu/osccr/academicintegrity/index.html

Attendance policy: The Information Systems Department has a strict class attendance policy. Students who miss two or more Classes will automatically receive one letter grade lower in their final grade.

Course Schedule:

Date	**Topic**
8th September	Introduction to Operating Systems, History and concepts
15th September	Processes, Threads
22nd September	Processes Threads
29th September	Concurrent threads, Parallel Programming
6th October	Locks and semaphores
13th October	Deadlocks
20th October	Mid Term + Scheduling, Linking, Dynamic Linking
27th October	Virtual Memory
3rd November	Dynamic Storage Management
10th November	File Systems
17th November	Performance, Distributed Programming
24th November	Security
1st December	Internet of things, Quantum COmputing
8th December	Advanced Topics/ Anything else
15th December	Dockers/ Scalability/ Virtual Machines
17th December	Final Grade