Operating Systems
CSE 3008-43
Fall 2019

Instructor: Hee Yong Youn, Rm 23424, 031-290-7147, youn7147@skku.edu

TA: Seung eon Yoo, Rm 23403A, 031-290-7949, seyoo90@skku.edu

Lec/Lab/Credit: 3:0:3

Office Hour: Instructor: T 15:00 - 17:00 (or by appointment)

TA: T 10:00 – 12:00

Lecture type: English

Course Description: This course covers main functions and components of operating systems, including process synchronization, job scheduling, memory management, I/O systems, and deadlocks, etc.

Objectives: Computer operating system is one of the most complex software objects created by human being. It allows multiple users to share the machine simultaneously, protect data from unauthorized access, and manage several independent devices correctly and efficiently. In order to well understand the operation mechanism of computer system and construct a cost effective and powerful computer system, thus, it is inevitable to thoroughly grasp the main functions and components of operating system. This course is for introducing the fundamental issues related to operating systems which allow proper design, operation, and evaluation of computer system. The objectives are achieved through not only the study on generic operating systems but also manipulation of an existing popular operating system, Linux. Team project will be conducted for consolidating the materials covered by the lectures and also providing team work experience.

Prerequisites: Programming language and computer organization, or consent of instructor.

Textbook: Abraham Silberschatz, Peter Baer Galvin, Greg Gagne, ``Operating System Concepts,'' 9th edition 2014 (or 10th ed. 2019), John Wiley & Sons.

References:
- Andrew S. Tanenbaum and Albert S. Woodhull, ``Operating Systems Design and Implementation,'' 3rd edition, Prentice-Hall, 2006.
- Arman Danesh, ``Red Hat Linux 6,'' Sybex, 1999.

- Andrew S. Tanenbaum, ``Modern Operating Systems,'' 3rd edition, Prentice Hall, 2008

Grading policy:

Midterm Exam	25%
Final Exam	35%
Homework	20%
Project	10%
Attendance	10%

Total	100%

Schedule:

Week	Subject	Remark
1	Introduction & computer-system structures	
2	OS structures	Project assignment
3	Process management	
4	Synchronization	
5	Deadlock	
6	Scheduling	
7	Review and project presentation	
8	**Midterm exam** (10/22, Tue)	Open book and note
9	Memory management	
10	File system interface	
11	I/O Systems	
12	Secondary storage structure	
13	Network structure	
14	Distributed OS	
15	Review and project presentation	
16	**Final exam** (12/17, Tue)	Open book and note

Remark:

- The lecture notes can be downloaded from http://mobile.skku.ac.kr
- 10% penalty per each day for late submission of the assignments.
- Honor code violation such as copying the assignments results in **F** grade for all the students involved.
- The exams are open book and notes.
- Correspondence through the web site, http://mobile.skku.ac.kr and http://icampus.ac.kr