Istanbul Bilgi University
Department of Computer Engineering
Spring 2019

Course Name: Operating Systems, (L)CMPE312
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Books:
'Operating System Concepts', 7th edition, by Silberschatz, Galvin and Gagne (SGG), Ed: Wiley, ISBN: 0-471-69466-5

Recommended Readings:
'Computer Organization and Architecture', by William Stallings, 9th Ed: Prentice Hall, ISBN-13: 978-0-273-76919-4
'Operating Systems Internals and Design Principles', 6th edition, by William Stallings (WS), Ed: Prentice Hall, ISBN-10: 0-13-603337-7
'Modern Operating Systems', 3th edition, by Andrew S. Tanenbaum, Ed: Prentice Hall, ISBN: 0-13-813459-6
'Linux Programming Bible', by John Goerzen, Ed: IDG Books, ISBN: 0-7645-4657-0
'The Linux Kernel Book', by Remy Card, Eric Dumas, Franck Mevel, Ed: John Wiley & Sons, ISBN: 0-471-98141-9
'Linux Kernel Internals', by Michael Beck, Harald Bohme, Mirko Dziadzka, Ulrich Kunitz, Robert Magnus, Dirk Verworner, Ed: Addison Wesley, ISBN: 0-201-33143-8
Prerequisite: CMPE 232 - Advanced Data Structure and Algorithms and CMPE 321 - Computer Architecture

Course Description: Operating systems are an essential part of any computer system. Similarly a course on operating system (OS) is an essential part of any computer-science education. Contents include: OS concepts, processes and threads, deadlocks, memory management, input/output, file systems. Case study on the Linux operating system.

<u>Tentative Schedule:</u>

Introduction
A Top-Level View of Computer Function and Interconnection (William Stalling)
System Calls
Processes
Threads
CPU scheduling
Process Synchronization
Deadlock
Main Memory
Virtual Memory

The classes are dedicated to the complementary and fundamental execution of projects. You will be graded on how well your implementation works and how well your are able to answer the TA's questions about your code. Quizzes done during the classes' hours will be announced one week in advance by the TA. A missed quiz worth "0" point and affects your average with the TA.

Important announcements will be put on Bilgi Learn, so, please, check it regularly and read your e-mail frequently.

Performance Evaluation:
In order to be eligible to pass this course, it is mandatory to attend at least 70% of lectures and classes. You are also required to submit original and acceptable work for ALL the course's projects. You will be graded on how well your implementation works and how well your are able to answer the TA's questions about your program.

Exam	Percentage
Midterm	35
Final	45
Project	20