



College of Engineering Technology
Computer Science Department

Course Outline

Comp 431

Fall 2020/2021

Instructors :

Dr. Ali Jaber

Munib Al-Masri building , Room : 319

Text book:-

Title : Operating Systems Concepts – 7th or 8th Edition

Autor : Silberschatz & Galvin

Publisher : Addison Wesley

References:-

- (1) Title : Modern Operating Systems
Author : Tanenbaum
Publisher : Prentice Hall
- (2) Title : Operating Systems : Design and Implementation
Author : Tanenbaum
Publisher : Prentice Hall

Evaluation:

Due to COVID-19 crises, I can't decid exactly the evaluation methods and their percentage, it might include homeworks and assignments, take home exams, online exams and may be face to face exams. We will see what will happen in the future and decide.

Office hours:

Please check instructor's istructions on Ritaj web page or instructor's office door. If you want to meet one of the instructors outside their office hours please request an appointment by email, Ali Jaber (alij@birzeit.edu).

Overview

The course provides an overview of the organization of operating systems for general-purpose computers. Students will be exposed to different aspects of operating systems including: Introduction and Overview of OS , Processes , process synchronization , Scheduling , Deadlocks , memory and virtual memory Management , File system Management.

Course Objectives

By the end of the course the student should be able:

1. To understand the services provided by and the design of an operating system.
2. To understand the structure and organization of the file system.
3. To understand what a process is and how processes are synchronized and scheduled.
4. To understand different approaches to memory management.
5. Students should understand the data structures and algorithms used to implement an OS.

Schedule:

<i>Week #</i>	<i>Chapters</i>
Week 1	Chapter 1 Introduction & Basic Concepts
Week 2	Chapter 2 Operating system Structures
Week 3-4	Chapters 3+4 Processes + Threads
Week 5-6	Chapters 5 CPU scheduling
Week 7-8	Chapter 6 concurrency & process synchronization
Week 9	Chapter 7 Deadlocks
Midterm Exam	
Week 10-11.5	Chapter 8 Memory Management
Week 11.5-12	Chapter 9 Virtual Memory Management
Week 13-14	Chapters 10 + 11+ 12 File system Interface + File system implementation
Week 15	Chapter 13 I/O systems
Final Exam	

Student Responsibilities

- **Class participation and independent work.** Students are expected to actively participate in all classes and allows perform independent work.
- **Academic Honesty.** Individual work must be each student's own work. Plagiarism or cheating will result in official University disciplinary review.
- **Homeworks.** Homeworks must be worked independently unless stated otherwise, and no homework **will** be accepted after the deadline.

Important Note:

Attendance is mandatory according to the university rules and regulations and this will be strictly enforced, you are allowed to skip only 4 classes, you will be forced to drop the course if you miss more than 4. I advise you if you are planning **not** to attend, please drop the course immediately.