



Prince Sultan University

College of Computer and Info Sciences / Department of Computer Science

Term 251

Second Semester 2025 - 2026

COURSE SYLLABUS

Mission Statement of the Bachelor of Computer Science Program(s): Provide high quality, computer science education to prepare top graduates through an environment that promotes innovative thinking, ethical behavior, lifelong learning, research, and service to the community.

1. **Course number and name:** CS330 Introduction to Operating Systems
2. **Credits and contact hours:** 3 (3, 1, 0)
3. **Instructor's or course coordinator's name:** Dr. Souad Larabi-Marie-Sainte
 - a. **Scheduled Office Hours:**
Sunday 12am- 2pm
Monday 1pm – 2pm
Tuesday 1am – 2pm
Wednesday 1am-2am
 - b. **Office Location:** R306
 - c. **Email:** slarabi@psu.edu.sa
4. **Text book, title, author, and year**
 - a. **Primary Text:** Operating System Concepts: With Java, 10th Edition, by Avi Silberschatz, Peter Baer Galvin, Greg Gagne John Wiley & Sons, ISBN: 978-1-119-32091-3.
 - b. **Other References:** Class notes, Internet resources
 - c. **Course Website [Optional]:** N/A.
 - d. **Learning Management System:** Moodle available at <https://lms.psu.edu.sa>
5. **Specific course information**
 - a. **Brief description of the content of the course (catalog description):** This course explores the evolution, services, and structures of operating systems. It covers the basic concepts of operating system design and implementation and management of system resources such as Central Processing Unit (CPU), Input/output (I/O) devices, memory, and software. Examples given from modern operating systems such as Unix and Windows-driven operating systems are scrutinized.
 - b. **Prerequisites or co-requisites:** CS175, CS210
 - c. **Indicate whether a required, elective, or selected elective (as per Table 5-1) course in the program:** Required



6. Specific goals for the course

a. Specific outcomes of instruction. The student will be able to:

CLO1: Describe the objectives, major components, and functions of a modern operating system. (Chap1 & 2)

CLO2: Demonstrate an understanding of concepts related to processes, threads, scheduling, and synchronization. (Chap3,4,5,6)

CLO3: Apply memory management and virtual memory techniques to solve basic memory allocation problems in operating systems. (Chap8,9)

CLO4: Apply concepts of mass storage structure, file system interfaces and implementation to manage and organize files and directories effectively (Chap10,11,12)

CLO5: Demonstrate understanding of operating system concepts by developing practical skills through individual experience using Unix and contributing effectively to team-based problem-solving activities.

b. Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course. The course addresses ABET CS-SOs 1, 2, and 6, SE-SOs 1, 2, and 5, IS-SOs 1,5 and 6.

Course Learning Outcomes (CLOs)	Student Outcomes (SOs)		
	Computer Science	Information Systems	Software Engineering
1	1	1	1
2	1	1	1
3	6	2	6
4	6	2	6
5	5	5	5

7. Brief list of topics to be covered

Week No.	Topics	CLOs	Assessments
1-2	Chapter 1 - Introduction to Operating Systems	CLO1	Assignment
3-4	Chapter 2 - Operating System Services	CLO1	Assignment Quiz 1
5	Chapter 3 - Process Management	CLO2	Assignment
6	Chapter 4 - Threads	CLO2	Assignment
7	Chapter 5 – CPU Scheduling	CLO2	Assignment Quiz 2
8	Chapter 6 - Synchronization	CLO2	Assignment



9	Chapter 8 – Memory Management	CLO3	Assignment Major Exam
15	Chapter 9 – Virtual Memory	CLO3	Assignment Quiz 3
16	Chapter 10 - Mass Storage Structure	CLO4	Assignment
17	Chapter 11 - File-System Interface	CLO4	Assignment
18 -19	Chapter 12 - File System Implementation	CLO4	Assignment Quiz 4
20	Course Project Presentation	CLO5	

8. Weight of Assessments

Final Exam – 40%

Major Exam – 20% - **Mond 13 Oct 2025**

Quizzes (20%, 4 quizzes)

- ✓ Quiz1 - Week 3 – Monday 01/09/2025
- ✓ Quiz2 - Week 7 – Monday 29/09/2025
- ✓ Quiz3 - Week 15 – Monday 27/10/2025
- ✓ Quiz4 - Week18 – Monday 17/11/2025

Assignments (5%)

Attendance and Participation – 5%.

Projects (10%): Guided Project using Linux (3%) + teamwork project (7%)

Guided Project – Coursera :

<https://www.coursera.org/programs/college-of-law-rgwf5/learn/codio-unix-system-basics?authProvider=princesultanuniversity&source=search>

9. Additional Information

Plagiarism and Academic Dishonesty: “Plagiarism can be defined as unintentionally or deliberately using another person’s writing or ideas as though they are one’s own. Plagiarism includes, but is not limited to, copying another individual’s work and taking credit for it, paraphrasing information from a source without proper documentation, and mixing one’s own words with those of another author without attribution. In addition, buying a paper or project, or downloading a paper from the Internet, and submitting them as your own are also plagiarism. The penalty for academic dishonesty will bring course expulsion and failure, or even suspension” (Academic Integrity and Syllabus Acknowledgement Form).

Attendance Policies: The University attendance policy will be strictly followed. Students are expected to attend all class sessions and be in class on-time. Missing a class session is a student’s responsibility. Missed classes will not be repeated.

It is the student’s responsibility to periodically check course website/Moodle for course content, projects assignments, updates and notifications.



Exam Policies: The university rules for exams will be followed. **There will be no repeat Quizzes** – **The makeup exam for the Major will be performed based on the CCIS rules.**

Assignment/Project Policies: Late submissions will result in deduction of marks. One mark deducted for each day after the deadline; submission will not be accepted after three days from the deadline.