Course Description Form

1. Course Name:
Operating System1
2. Course Code:
CSCL4136
3. Semester / Year:
First Semester/2025-2025
4. Description Preparation Date:
2025
5. Available Attendance Forms:
In classroom
6. Number of Credit Hours (Total) / Number of Units (Total)
60 hours/3 units
7. Course administrator's name (mention all, if more than one name)
Name: Rana Mohammed Hasan Zaki Rehab Flih hassan Email: rana.m.zaki@uotechnology.edu.iq rehab.f.hassan@uotechnology.edu.iq

8. Course Objectives	
Course Objectives	• What Operating Systems Do • Operating-System Structure • CPU scheduling • memory- management algorithms

9. Teaching and Learning Strategies	
Strategy	-Theoretical lectures - practical laboratories – methodological books - resources (Internet) -Using modern devices to deliver the material to students using data show in addition to the smart board

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 theoretical 2 laboratories	1,3,5,6,7	Introduction to Operating Systems	Theoretical lectures and practical application	Attendance Discussions Tests
2	2 theoretical 2 laboratories	1,3,5,6,7	Operating-System Structure	Theoretical lectures and practical application	Attendance Discussions Tests
3	2 theoretical 2 laboratories	1,3,5,6,7	Operating-System Services	Theoretical lectures and practical application	Attendance Discussions Tests
4	2 theoretical 2 laboratories	1,3,5,6,7	Operating-System Services	Theoretical lectures and practical application	Attendance Discussions Tests
5	2 theoretical 2 laboratories	1,3,5,6,7	CPU Scheduling Scheduling Algorithms Preemptive and Nonpreemptive Scheduling	Theoretical lectures and practical application	Attendance Discussions Tests
6	2 theoretical 2 laboratories	1,3,5,6,7	Dispatcher Scheduling Criteria	Theoretical lectures and practical application	Attendance Discussions Tests

7	2 theoretical 2 laboratories	1,3,5,6,7	First-Come, First-Served Scheduling Advantage and disadvantage	Theoretical lectures and practical application	Attendance Discussions Tests
8	2 theoretical 2 laboratories	1,3,5,6,7	- Shortest-Job-First Scheduling SJF (non-preemptive) - Shortest-Job-First Scheduling SJF (preemptive) Advantage and disadvantage Of this algorithm	Theoretical lectures and practical application	Attendance Discussions Tests
9	2 theoretical 2 laboratories	1,3,5,6,7	Round-Robin Scheduling Advantage and disadvantage Of this algorithm	Theoretical lectures and practical application	Attendance Discussions Tests
10	2 theoretical 2 laboratories	1,3,5,6,7	Middle Course Exam	Theoretical lectures and practical application	Quiz Homework Attendance Exam Project assessmen
11	2 theoretical 2 laboratories	1,3,5,6,7	Priority Scheduling	Theoretical lectures and practical application	Attendance Discussions Tests
12	2 theoretical 2 laboratories	1,3,5,6,7	Main Memory	Theoretical lectures and practical application	Attendance - Discussions Tests

13	2 theoretical 2 laboratories	1,3,5,6,7	Address Binding Fragmentation Segmentation	Theoretical lectures and practical application	Attendance - Discussions Tests
14	2 theoretical 2 laboratories	1,3,5,6,7	Process Synchronization	Theoretical lectures and practical application	Attendance - Discussions Tests
15	2 theoretical 2 laboratories	1,3,5,6,7	Final Exam	Theoretical lectures and practical application	Exam

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

5 marks of attendance
5 marks Assignments and reports
15 marks for mid-course exam (mid)
15 marks for the laboratory exam. Implementing programs for algorithms and file management
60 marks for the end-of-course exam (first semester)

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Not required
Main references (sources)	Operating System Concepts – 9^{th} Edition
Recommended books and references (scientific journals, reports…)	Operating System Concepts – 10^{th} Edition Operating System Concepts – 11^{th} Edition
Electronic References, Websites	power point for Operating System Concepts – 9^{th} Editic