Course Description Form

Course Description

The student must Inspire the course characteristics and expected learning outcomes of the students. Requiring This course description provides a brief overview. be able to achieve the learning opportunities available. This must be linked to a description of whether he has made the most of the opportunities available. Our program prover.

.1 Educational institution	Shatt al - **Arab University College**
.2 Scientific Department/Center	Computer science
.3 Course Name/Code	Operating systems
4. Available forms of attendance	My presence
.5 Semester/Year	annual
6. Number of study hours (total)	60
.7 Date this description was prepared	27/9/2024
8. Course objectives	
Enabling fourth-year students, both morning and evening studies, to understand the basics of different operating systems, their structure and differences. تمكين طلبة المرحلة الرابعة للدراستين من فهم هيكلية و اسا سيات عمل انظمة التشغيل المتنوعة واختلافاتها	

9. Course outcomes, teaching, learning and assessment methods

A- Cognitive objectives

A-1 To describe the basic organization of computer systems

A-2 To provide a grand tour of the main components of operating systems

A-3 To give an overview of many types of computing environments

A-4 To explore many open source operating systems

A-5 Memory Management

A-6 Operations Management

B - Course specific skill objectives

B1 - What do operating systems do?

B2 - Operating System Processes

B3 - Computer System Storage Management

B-4 Operating System Structure

Teaching and learning methods,

theoretical and scientific lectures

Evaluation methods

Final Exam	The project	Daily exams	laboratory	semester
60	-	3	5	12

C- Emotional and value goals

C-1 To describe the basic organization of computer systems

C-2 To provide a comprehensive tour of the main components of operating systems.

C-3 To give an overview of many types of computing environments

C-4 To explore many open source operating systems

Teaching and learning methods

Theoretical and scientific lectures

Evaluation methods

Final Exam	The project	Daily exams	laboratory	semester
60	-	3	5	12

D - General and transferable skills (other skills related to employability and personal development).

D-1 Operating System Structure

D-2 Memory Management

D-3 Storage Management

D-4 Operations Management

10. Course structure					
Teaching method	Evaluation method	Unit name/topic	Required learning outcomes	watches	The week
		cd: Change directory or display current directory Delete: path + cls The window.	Operating System Definition + Computer System Structure + Computer Startup	2	1
		Storage Structure Directory: Displays a list of the contents of the current directory.	Common functions of interrupts + Interrupt handling + I/O structure + Storage structure directory: Display a list of the contents of the current directory.	2	2
		Access structure type: Displays the contents of a text file. Assoc: Displays or modifies filename extension associations. attrib: Displays or changes file attributes.	Storage device hierarchy + direct memory	2	3
		Call a system interface: To call a batch program file from another file. chkdsk: Checks the disk and displays a status report. chkntfs: Displays or modifies the disk check at startup.	Operating System Services	2	4
		Color: Sets the text and background colors. comp: Compares the contents of two files or groups of files. Copy: To copy one or more files to another location. See also: xcopy	System Calls + Types of System Calls	2	5
		Date: Displays or sets the computer's date. See also: time Delete (or erase): Deletes a file. One or more.	OS Structure + OS Early architecture (simple monolithic) + multi-layer approach architecture for the operating system	2	6
		md (or mkdir): Creates a directory.	Operating system structure Microkernel + OS module architecture + OS virtual machine architecture	2	7
		rd (or rmdir): Removes a directory.	Concept of process + process in memory + process condition	2	8
		Time: Displays or sets the computer's time. See also: Date	process control block)PCB)+ CPU swap from Processing + Context Switching	2	9
		Tree: Graphically displays the structure of	Process scheduling + representation		10

		The directory for the drive or directory.	The process Scheduling + Process Creation	2	
		xcopy: Copy files and directory trees. See also: copy	End process + cooperating processes	2	11
		config: Defragment one or more files (instead of the entire drive).	Producer-consumer problem	2	12
		du: Displays disk usage for selected files or directories.	threads	2	13
		Chains: Find all chains with a specified minimum length.	One topic	2	14
		whois: Find domain ownership information.	multi-threaded applications	2	15
		help: Display a list of commands or help about a command.	Multiple models	2	16
		LS	First come, first served (FCFS) Schedule 2-1		17
		CD	Mission short-A- • Scheduling 2)SJF(and A	2	18
		mkdir	• Non-proactive SJF+ SJF Proactive	2	19
		cat	• Round Robin (RR)	2	20
		cp	Dead End + Dead End Description + Ways to Deal with Dead End	2	21
		mv	Prevent stagnation + Avoid stagnation	2	22
		rm *	Uncovering the stalemate + recovering from the stalemate	2	23
		Info	Swap + Allocate Contiguous Memory	2	24
		whatis	fragmentation + migration	2	25
		less	Page table structure	2	26
		less - N	Base and boundary records + Device address protection	2	27
		rm -i *	Mass Storage n Architecture Overview + Disk Architecture + Disk Attachment	2	28
		rm -rf	Disk Scheduling + Disk Management	2	29
		cat - n	Switch Space Management + Structure RAID+ stable storage implementation	2	30

.11 Infrastructure	
Operating System Concepts 8th Edition	Required prescribed books -1
Operating System Principles Paperback – January 1, 2004	)Main Sources References -2
Operating Systems: Three Easy Pieces Remzi Arpaci-Dusseau	Recommended references A((books) Scientific journals, reports,
	b) Electronic references, websites ,

12. Curriculum Development Plan
Modern mobile devices A study can be added on the operating systems used in -1 **2- The course requires supporting sources.**

Dean of the College

Head of Department

Subject lecturer