

نموذج رقم (١٢)

جامعة: دمياط
كلية: العلوم
قسم : الرياضيات

توصيف مقرر دراسي فصل أول

١- بيانات المقرر		
الرمز الكودي : ٣٠٤ س	اسم المقرر : نظم التشغيل	المستوى: الثالث
البرنامج : علوم الحاسب	عدد الوحدات الدراسية : ٣ ساعات معتمدة	نظري 2 عملي : 2

<p>By the end of this course the student must be able to:</p> <ol style="list-style-type: none"> 1. Discuss the concepts and components of general purpose operating systems. 2. Provides the frame of reference of how an operating system works involves an understanding of HW structures and SW structures. 3. Use the LINUX operating system. 4. Explain the concepts of LINUX OS. 5. Discuss the laboratory assignment of process/thread synchronization, process communication and memory management. 6. Explain Deadlock handling, mass-storage structure and Disk scheduling. 	٢- هدف المقرر :
٣- المخرجات التعليمية المستهدفة من المقرر:	
<p>By the end of this course the student must be able to:</p> <ol style="list-style-type: none"> a1 Describe the structure of an operating system and know the major parts of an OS. a2 Describe most important HW structure upon which an OS is based. a3 Differentiate between processes and threads. a4 Explain the operation of memory management and virtual memory. a5 Demonstrate various scheduling algorithms and OS schedules tasks. 	أ. المعلومات والمفاهيم :
<p>By the end of this course the student must be able to:</p> <ol style="list-style-type: none"> b1 Specify the design of computer systems. b2 Develop scheduling algorithms and OS schedules tasks. b3 Design multithreaded & concurrent programs. b4 Simulate memory management. b5 Simulate virtual memory. 	ب. القدرة الذهنية:
<p>By the end of this course the student must be able to:</p> <ol style="list-style-type: none"> c1 Write programs that create processes and thread. c2 Write multithreaded programs. c3 Apply different synchronization mechanism to solve synchronization problem. c4 Use basic Linux commands and utilities. c5 Program in Linux environment. c6 Assess the usage of API for S/W development. 	ج. المهارات المهنية الخاصة بالمقرر:

By the end of this course the student must be able to:

- d1 Work as a part of a team to produce reports.
- d2 Work as a part of a team to find a solution for practical problems and projects.
- d3 Write structural reports.
- d4 Develop oral communication skills by making reports presentation.
- d5 Appreciate the need for life-long learning of different Oss

د. المهارات العامة :

Part I:

م	المحتويات	أسبوع	نظري	تمرين	عملي	مجموع
registration						
2	Introduction to computer system and structure.	2	2	0	0	2
3	Operating Systems structures: (system components and services, virtual machines)	3	2	0	0	2
4	Process management	4	2	0	0	2
5	Threads	5	2	0	0	2
6	CPU scheduling: Scheduling concepts, performance criteria, scheduling algorithm.	6	2	0	0	2
Midterm Exam						
8	Synchronization	8	2	0	0	2
9	Memory organization and management for single user and multi-user system.	9	2	0	0	2
10	Secondary storage management	10	2	0	0	2
11	Virtual memory	11	2	0	0	2
12	Deadlock handling	12	2	0	0	2
13	Mass storage structure	13	2	0	0	2
14	Disk scheduling	14	2	0	0	2

٤- محتوى المقرر :

Part II: Practical

م	المحتويات	أسبوع	نظري	تمرين	عملي	مجموع
registration						
2		2	2	0	2	3
3		3	2	0	2	3
3		4	2	0	2	3
5		5	2	0	2	3
6		6	2	0	2	3
Midterm Exam						
8		8	2	0	2	3
9		9	2	0	2	3
10		10	2	0	2	3
11		11	2	0	2	3
12		12	2	0	2	3
13		13	2	0	2	3
14		14	2	0	2	3

1. Lectures 2. Practical 3. Discussion 4. Projects			٥- أساليب التعليم والتعلم :
لقاءات فردية – تيسيرات علمية – تعاون شخصي – نقاش علمي			٦- أساليب التعليم والتعلم للطلاب نوى القدرات المحدودة: ٧- تقويم الطلاب :
	Types	Assessment	أ. الأساليب المستخدمة :
	Oral exam	d1,d2,d3,d4,d5,d6	
	Practical exam	c1,c2,c3,c4,c5	
	Final exam	a1,a2,a3,a4,b1,b2,b3,b4,b5	
Assessment 1	Midterm exam	Week 7	ب. التوقيت:
Assessment 2	Oral exam	Week 15-17	
Assessment 3	Practical exam	week 14	
Assessment 4	Final exam	Week 15-17	
Oral examination:	5 %		ج. توزيع الدرجات
Practical/laboratory examination:	25 %		
Mid term examination:	10 %		
Final term examination:	60 %		
Total:	100 %		
			٨- قائمة الكتب الدراسية والمراجع :
Lecture notes prepared by academic staff members in the department.			أ. مذكرات :
A. Silberschatz et. Al., Operating systems concepts (9th ed.), Addison Wesley, 2010.			ب. كتب ملزمة :
			ج. كتب مقترحة:
			د. دوريات علمية أو نشرات ... الخ

