

١- بيانات المقرر		
المستوى: الثالث	أسم المقرر : Operating Systems	كود المادة : Math 345
عدد الوحدات الدراسية: ٣ ساعة معتمدة	نظري: ٢	عملي: ٢
		التخصص : الإحصاء وعلوم الحاسب

For students undertaking this course, the aims are to: <ul style="list-style-type: none"> • Know fundamental concepts of operating systems. • Understand process management. • Understand memory management. • Understand file system management. • Understand I/O management. • Understand basics of protection and security. • Has some programming experience with the UNIX operating system. • Enhance self-learning capability of computer systems. 		٢- هدف المقرر:
٣- المستهدف من التدريس المقرر:		
a- Knowledge and Understanding : On completing this course, students will be able to: a1- Describe the principle of the computer system and its component. a2- Recognize the concepts used by computer and how they work. a3- Identify the different type of memories, processors and mother boards. a4- Identify the protocols of processors and mother board and how the work together.		أ-المعلومات والمفاهيم:
b- Intellectual Skills: On completing this course, students will be able to: b1- Develop lines of argument and appropriate judgments in accordance with scientific theories and concepts. b2- Evaluate the quality of a given system by testing its processor and memory.		ب-المهارات الذهنية
c-Professional and Practical Skills: On completing this course, students will be able to: c1- Identify and criticize the different methods used in producing a system. c2- try to find a more convenient method for developing system. c3- design a digital circuits for motherboard.		ج- المهارات المهنية الخاصة بالمقرر:
d-General and Transferable Skills: On completing this course, students will be able to: d1- Test the circuits for best results. d2- Employ various mathematical and computational skills when appropriate.		د- المهارات العامة :
<ul style="list-style-type: none"> – A tour of computer systems, representing and manipulating information, information storage, integer representations, integer arithmetic, floating point – Machine-level representation of programs, accessing information, control, procedures, array allocation and access – Optimizing program performance, the memory hierarchy, storage technologies, cache memories – Exceptional control flow , exception processes , virtual memory , – network programming 		٤- محتوى المقرر:

<ul style="list-style-type: none"> - Lectures - Tutorial 	٥ - أساليب التعليم والتعلم:
The same as normal students, only skeletal disabilities are allowed in the Faculty of Science.	٦ - أساليب التعليم والتعلم للطلاب ذوي القدرات المحدودة:
٧ - تقويم الطلاب :	
1- Final exam to assess 2- Oral exam to assess 3- Mid-Term Exam to assess 4- Practical Exam to assess	أ - الأساليب المستخدمة :
1- Final exam week 16 2- Oral exam week 16 3- Mid-Term Exam week 7 4- Practical Exam week	ب - التوقيت :
- Mid-Term Examination 10% - Final-Term Examination 60% - Oral Examination 10% - Practical Examination 20% Total 100%	ج - توزيع الدرجات :
٨ - قائمة الكتب الدراسية والمراجع :	
	أ - مذكرات:
- silberschatz, A., Galvin, P. & Gange, G., Applied Operating System concepts, First edition, New York: John Wiley & Sonces, Inc., 2000. - gray J. Nutt, Operating Systems, Third edition, Pearson / Addison Wesley, 2003.	ب - كتب ملزمة
Computer Systems: An Integrated Approach to Architecture and Operating Systems by Umakishore Ramachandran and William D. Leahy Jr.	ج - كتب مقترحة :
	د - دوريات علمية أو نشرات..

(أ) مصفوفة المعارف والمهارات المستهدفة من المقرر الدراسي

المحتويات للمقرر	أسبوع الدراسة	المعارف الرئيسية	مهارات ذهنية	مهارات مهنية	مهارات عامة
A tour of computer systems, representing and manipulating information, information storage, integer representations, integer arithmetic, floating point	1-4	a1,a2,a3			
Machine-level representation of programs, accessing information, control, procedures, array allocation and access	5-7	a2,a3	b1	c2	d1
Optimizing program performance, the memory hierarchy, storage technologies, cache memories	8-10	a3		c1,c3	
Exceptional control flow , exception processes , virtual memory	11-13	a4	b2	c3	d4
network programming	14		b1	c1,c2	d1

أستاذ المادة : د. / محمود محمد أحمد عبد اللطيف
رئيس مجلس القسم العلمي : أ.د. مجدى الياس فارس