

توصيف مقرر دراسي فصل ثان

١- بيانات المقرر:		
المستوى: الثالث	اسم المقرر: تآليفات خوارزمية	الرمز الكودي: ٣٠٧ س
تمارين: ١	نظري: ٢	عدد الوحدات الدراسية: ٢
		التخصص: علوم الحاسب

By the end of the course the student must be able to: 1. Provide foundation of combinatorial optimization. 2. Introduce important ideas, theoretical results, and algorithms in combinatorial optimization. 3. Identify the fundamentals of graph theory, linear and integer programming, and complexity theory.	٢- هدف المقرر:																																										
٣- المخرجات التعليمية المستهدفة من المقرر:																																											
By the end of the course the student must be able to: a1. Describe programming ideas in solving algorithms. a2. Define standard strategies to solve combinatorial problems. a3. Apply ideas to related problems. a4. Explain basic concepts of graph theory.	أ. المعرفة والفهم:																																										
By the end of the course the student must be able to: b1. Identify appropriate method of combinatorial optimization. b2. Evaluate and formulate possible solutions to problems and select the chosen solution. b3. Identify a problem and analysis it in terms of its significant parts.	ب. القدرة الذهنية:																																										
By the end of the course the student must be able to: c1. Develop recursive algorithms as they apply to trees and graphs. c2. Understand different programming design methods. c3. Exercise creatively in designing efficient algorithms.	ج. مهارات مهنية وعملية:																																										
By the end of the course the student must be able to: d1. Apply time-management skills. d2. Demonstrate the ability to use a variety of learning resources and information. d3. Demonstrate the ability to continue professional development. d4. Work within and contribute to a team using management skills.	د. المهارات العامة والقابلة للنقل:																																										
Part I: Theoretical	٤- محتويات المقرر:																																										
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Assessment ٤	Final exam	Week 15-17	
Oral examination:	5%		ج. توزيع الدرجات:
Midterm examination:	25 %		
Final term examination:	70%		
Total:	100 %		

٨- قائمة الكتب الدراسية والمراجع:

Lecture notes prepared by academic staff members in the department.	أ. مذكرات
Combinatorial Optimization, Theory and Algorithms by Bernhard Korte and Jens Vygn, Fifth edition.	ب. كتب ملزمة
Combinatorial Optimization Polyhedra and Efficiency by Alexander Schrijver, 2002.	ج. كتب مقترحة
	د. دوريات علمية أو نشرات... الخ