Republic of Iraq
The Ministry of Higher Education
& Scientific Research

University: University of Technology
College: Computer Science
Department:Multimedia Branch
Stage:3th
Lecturer name: Muna Ghazi A- Sahib
Academic Status: Assistant Lecturer
Qualification:Master
Place of work: University of Technology/ Computer Science

Course Weekly Outline

Course Instructor	**Muna Ghazi Abdul Sahib**				
E_mail	**munaalkhiat@yahoo.com**				
Title	**Algorithms and Complexity**				
Course Coordinator					
Course Objective	**Describe some algorithms and explain how compute time and space complexity**				
Course Description	**Algorithms and Complexity**				
Textbook	**Introduction to algorithms, Thomas H. Cormen ,Charles E. Leiserson, Ronald L. Rivest,2001**				
References	**1-Algorthims design technique and analysis,M.H.Alsuwaiyel,2002** 2- **some websites**				
Course Assessment	Term Tests	Laboratory	Quizzes	Project	Final Exam
	25%	20%	5%	----	50%
General Notes					

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week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1	9/2014	Introduction	Introduction	
2	9/2014	Algorithm Properties	Executing some algorithms	
3	9/2014	Eulerian Tour & Hamiltonian Tour	Executing some algorithms	
4	10/2014	Map Colorability	Executing some algorithms	
5	10/2014	Longest Path & Shortest Path	Executing some algorithms	
6	10/2014	Time &Space complexity	Executing some algorithms	
7	10/2014	Ω, and O notation	Executing some algorithms	
8	11/2014	Explain some Examples	Executing some algorithms	
9	11/2014	Running Time Functions	Executing some algorithms	
10	11/2014	Running Time Functions	Executing some algorithms	
11	11/2014	Quiz	Quiz	
12	12/2014	Greedy Algorithms	Greedy Algorithms Examples	
13	12/2014	Greedy Algorithms Examples	Greedy Algorithms Examples	
14	12/2014	Divide and Conquer Algorithm	Divide and Conquer Examples	
15	12/2014	Divide and Conquer Examples	Divide and Conquer Examples	
16	1/2015	Quiz of first course	Quiz of first course	
Half-year Break				
17	2/2015	Dynamic Programming	Dynamic Programming,	

			Examples	
18	2/2015	Dynamic Programming, Examples	Dynamic Programming, Examples	
19	3/2015	Network Flow	Algorithms for the network flow problem	
20	3/2015	Algorithms for the network flow problem	Algorithms for the network flow problem	
21	3/2015	Approximation Algorithms	Approximation Algorithms	
22	3/2015	Traveling Salesman Problem	Approximation Algorithms	
23	3/2015	The Vertex Cover Problem	Approximation Algorithms	
24	4/2015	The Knapsack Problem	Approximation Algorithms	
25	4/2015	Searching	Searching Examples	
26	4/2015	Searching	Searching Examples	
27	4/2015	String Matching Algorithm	String Matching Examples	
28	5/2015	String Matching Algorithm	String Matching Examples	
29	5/2015	Randomized Algorithm	Examples	
30	5/2015	Genetic Algorithm	Examples	
31	5/2015	Quiz of second course	Quiz of second course	
32	6/2015	Final	Final	

Instructor Signature: **Dean Signature:**