



Course Weekly Outline

Course Name: Algorithms

Course Instructor	Nawar Ahmed Irsan				
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Title	Algorithms				
Course Coordinator	Dr. Mohammed Salah Ibrahim				
Course Objective	<ul style="list-style-type: none"> -Implementation of multiple algorithms, the purpose of which is to see these algorithms and indicate the best ones in terms of execution speed and storage quality. - A student is also prepared with the ability to understand the problems to be solved and find the desired goal represented by the solution to these problems through data collection and analysis. 				
Course Description					
Textbook	Algorithms, 4th Edition, 2011 Robert Sedgewick, Princeton University, Kevin Wayne - Data Structures and Algorithms in Java™, Sixth Edition, Michael T. Goodrich,				
References					
Course Assessments	Term Tests	Laboratory	Quizzes	Project	Final Exam
	25	15	5	5	50
General Notes					



Course Weekly Outline

Week	Date	Topics Covered	Lab. Experiment Assignments	Notes
1		Introduction Algorithm Design Techniques & Linear Search Problem		
2		Binary Search Problem		
3		Selection Sort		
4		Insertion Sort		
5		Solve of problems		
6		Why Analyze Algorithms & Generalizing Running Time		
7		Analyzing Running Time & Analyzing Some Simple Programs		
8		Exam1		
9		Divide and Conquer Introduction		
10		Binary Search		
11		Merging Two Sorted Lists & Bottom-Up Merge Sorting		
12		Quicksort & Comparison of Sorting Algorithms		
13		Graph Algorithms & Representation of Graphs		
14		Searching Graphs (Depth-first search & Breadth-First Search)		
15		Exam2		

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Instructor Signature:

Dean Signature: