

Course Number		Lecture number		Lecture	Introduction to Data Structures	Credit	3
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Objective	<ul style="list-style-type: none"> - Understand the most important data structures to be used in basic algorithm designs - Learn basic algorithms on sorting and graphs - Get a solid programming skills in C++
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Textbook	<ol style="list-style-type: none"> 1. Fundamentals of data structures in C++, Horowitz, et al. 2nd Edition (Silicon Press) 2. Introduction to Algorithms, Cormen et al., 4th Edition (The MIT Press)
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Grading	Attendance	Project	Midterm Exam	Final Exam	Total
	3 %	25 %	30 %	42%	100%
	Note				

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Policy for Cheating	Will be punished based on the policy of SNU and our department
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	Week	Topics Covered
Lecture Contents	1	Scheme Language
	2	Scheme Language and Interpreter
	3	Algorithm analysis and Amortized Analysis
	4	Arrays & Hashing
	5	Stacks & Queues
	6	Linked-list
	7	Trees
	8	Heaps & Disjoint Sets
	9	Implementation of Scheme Interpreter & Elementary Graph Algorithms
	10	Minimum Spanning Tree & fibonacci Heap
	11	Red-Black-Tree and B-tree
	12	Single-source Shortest Path
	13	Single-source Shortest Path
	14	All-Pairs Shortest Path
	15	Sorting