

B15 CS2223 Syllabus

Oct 27 Day01		BinaryArraySearch	MaxFinder pp.3-7,9,25,36-41 pp.47,172-175	Data Abstraction Bag, Queue, Stack pp. 96-99 pp. 121-129
Nov 02 Day04 HW 1	Algorithm Analysis Array Structures pp. 132-141 pp. 176-183	Linked List Type	Sorting Variations pp. 243-257	MergeSort HW1 Due pp. 271-287
Nov 09 Day08 HW 2	Quicksort pp. 288-307	Heap Data Type Priority Queue pp. 308-314	HeapSort pp. 315-327	Symbol Table Data Type HW2 Due pp. 361-374
Nov 16 Day12 HW 3 Exam 1	Hash Tables pp. 458-463	Linear Probing pp. 469-477	EXAM 1	BinaryTree HW3 Due pp. 396-414
Nov 23 Day16	BinaryTree Traversals	Balanced BSTs AVL	Thanksgiving Break	
Nov 30 Day18 HW4	Balanced BSTs AVL	Undirected Graphs pp. 515-527	Undirected Graphs DFS pp. 528-537	Undirected Graphs BFS HW4 Due pp. 538-542 pp. 548-556
Dec 07 Day22 HW5	Directed Graphs pp. 566-583	Dynamic Programming	Directed Graphs MST Prim pp. 604-623	Shortest Path HW5 Due pp. 638-657
Dec 14 Day26 Exam 2 HW6	Shortest Path pp. 668-683	Review HW6 Due*	EXAM 2	

Each homework assesses the material presented in lectures and found in readings. Homeworks are due electronically by 2PM on the day the assignment is due. There is a 25% late penalty until 6PM. After 6PM no further submissions are allowed.

HW1 – Recursion, Counting operations, Fundamental Data Types, Mathematical models

HW2 – Sorting

HW3 – Searching / Hash Table

HW4 – Searching / BST / Balanced BST

HW5 – Graphs / DFS / BFS

HW6* – Shortest Path Algorithms / Dynamic Programming (Due Wednesday December 16th)