

LESSON PLAN

| Period | Date (Tentative) | Topic | Unit No. | Teaching Methodology | Remarks | Corrective Action Upon Review |
|--------|------------------|---|----------|----------------------|---------|-------------------------------|
| 1 | 2/9 | Efficiency of algorithm | 1 | CR | | |
| | | thms | | | | |
| 2 | 4/9 | A Priori Analysis | | CR | | |
| | | Asymptotic Notations | | | | |
| 3 | 5/9 | Time complexity of algorithm | | CR | | |
| | | Using O notation | | | | |
| 4 | 6/9 | Polynomial vs Exponential Alg | | CR | | |
| | | Av4, Best, and worst case | | | | |
| 5 | 9/9 | Complexities | | CR | | |
| 6 | 17/10 | Analyzing recursive Programs. | | CR | BLK | |
| | | | | | | |
| 7 | 18/10 | Stack ADT, Stack | 2 | CR | | |
| | | model implementation of | | | | |
| 8 | 21/10 | Stacks | | CR | | |
| 9 | 23/10 | Applications of Stacks Infix, Pre-fix, and Postfix | | CR | | |
| 10 | 24/10 | Queue ADT, Queue model | | CR | | |
| 11 | 25/10 | Array Implementation of Queues, | | CR | | |
| 12 | 28/10 | Implementation of | | CR | BLK | |

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| 13 | 30/10 | Linked Lists. | | CR | | |
| 14 | 31/10 | Circular linked lists | | CR | | |
| 15 | 1/11 | cursor implementation of | | CR | | |
| 16 | 4/11 | linked lists. | | CR | | |
| 17 | 6/11 | Polynomial addition and | | CR | | |
| 18 | 7/11 | multiplication, garbage | | CR | | |
| 19 | 8/11 | collection & compaction | | CR | BLW | |
| 20 | 18/11 | Selection sort, insertion | 3 | CR | | |
| | | - sorting technique. | | | | |
| 21 | 20/11 | Bubble Sort, Shell sort | | CR | | |
| 22 | 21/11 | Radix sort, Quick sort | | CR | | |
| 23 | 22/11 | Merge sort, heap sort | | CR | | |
| 24 | 25/11 | bucket sorting, extene) | | CR | | |
| 25 | 27/11 | Worstcase and average | | CR | | |
| | | Lowerbound Sorting using comparison | | | BLW | |
| 26 | 28/11 | Basic Terminology | 4 | CR | | |
| | | Binary trees and types | | | | |
| 27 | 29/11 | strict, complete, Full | | CR | | |

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| 28 | 2/12 | binary expression tree | | CR | | |
| | | Representation of binary tree | | | | |
| 29 | 4/12 | Static and dynamic | | CR | | |
| | | Traversal algorithms | | | | |
| 30 | 5/12 | Recursive - Non-Recursive | | CR | | |
| 31 | 6/12 | Threaded binary tree | | CR | | |
| | | Representation and application | | | | |
| 32 | 9/12 | Binary search tree | 5 | CR | | |
| | | operation in BST | | | | |
| 33 | 11/12 | AVL tree basic operations | | CR | | |
| 34 | 12/12 | M-Way tree, B-Tree | | CR | | |
| | | Basic operations | | | | |
| 35 | 13/12 | B ⁺ Trees, Application | | CR | | |
| | | Heap sort, Max and Min heap. | | | | |
| 36 | 16/12 | Set Implementation | 6 | CR | | |
| | | Basic operation on set | | | | |
| 37 | 18/12 | Priority Queue | | CR | | |

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| 38 | 19/12 | Graphs. Directed | | CR | | |
| | | Graphs. Shortest path | | | | |
| 39 | 20/12 | Undirected Graph | | CR | | |
| | | Spanning Trees | | | | |
| | | Graph Traversals | | | | |
| 40 | 23/12 | Hash-table representation | | CR | | |
| | | Hash-functions | | | | |
| 41 | 24/12 | Collision resolution | | CR | | |
| | | Separate chaining | | | | |
| 42 | 27/12 | open addressing | | CR | | |
| 43 | 30/12 | Linear Probing | | CR | | |
| 44 | 1/1 | Quadratic Probing | | CR | | |
| 45 | 2/1 | Double hashing | | CR | | |
| 46 | 3/1 | Rehashing | | CR | BDW | |
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