

**BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK**  
**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**  
**LESSON PLAN**

Discipline:IT	Semester: 4th	No. Of period available	Name of the Teaching Faculty: D Susmita
Subject: <b>Data Structure</b>	No. Of Days/per week class allotted: 4 periods per week (Mon,Tue,Wed,Thurs)		From Date: 15/09/2022 To Date: 22/12/2022 No. Of Weeks: 14 weeks
<b>WEEK</b>	<b>CLASS DAY</b>		<b>Topics to be covered</b>
1st	15/09/2022	1	1.0 INTRODUCTION: 1.1 Explain Data, Information, data types
2nd	19/09/2022	1	1.2 Define data structure & Explain different operations
	20/09/2022	1	1.3 Explain Abstract data types 1.4 Discuss Algorithm & its complexity
	21/09/2022	1	1.5 Explain Time, space trade-off
	22/09/2022	1	2.0 STRING PROCESSING 2.1 Explain Basic Terminology, Storing Strings
3rd	26/09/2022	1	2.2 State Character Data Type, 2.3 Discuss String Operations
	27/09/2022	1	3.0 ARRAYS 3.1 Give Introduction about array, 3.2 Discuss Linear arrays,
	28/09/2022	1	3.2 Representation of linear array In memory
	29/09/2022	1	3.3 Explain traversing linear arrays, inserting & deleting elements
4th	10/10/2022	1	3.4 Discuss multidimensional arrays,
	11/10/2022	1	3.4 Representation of two dimensional arrays in memory (row major order & column major order), and pointers
	12/10/2022	1	3.4 Representation of two dimensional arrays in memory (row major order & column major order), and pointers
	13/10/2022	1	3.5 Explain sparse matrices.
5th	17/10/2022	1	4.0 STACKS & QUEUES 4.1 Give fundamental idea about Stacks and queues
	18/10/2022	1	<b>Assignment 1 cum Doubt Clearing</b>
	19/10/2022	1	<b>Class Test 1</b>
	20/10/2022	1	4.2 Explain array representation of Stack 4.3 Explain arithmetic expression

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6th	25/10/2022	1	4.4 Discuss application of stack, recursion
	26/10/2022	1	4.5 Discuss queues, circular queue, priority queues.
	27/10/2022	1	5.0 LINKED LIST 5.1 Give Introduction about linked list
7th	01/11/2022	1	5.2 Explain representation of linkedlist in memory
	02/11/2022	1	5.3 Discuss traversing a linked list, searching,
	03/11/2022	1	5.4 Discuss garbage collection
8th	07/11/2022	1	5.5 Explain Insertion into a linked list,
	09/11/2022	1	5.5 Deletion from a linked list, header linked list
	10/11/2022	1	<b>Assignment 2 cum Doubt Clearing</b> <b>Class Test 2</b>
9th	14/11/2022	1	6.0 TREE 6.1 Explain Basic terminology of Tree
	15/11/2022	1	6.2 Discuss Binary tree,
	16/11/2022	1	6.2 Its representation and traversal,
	17/11/2022	1	6.2 Binary search tree, searching
10th	21/11/2022	1	6.3 Explain insertion & deletion in a binary search trees.
	22/11/2022	1	7.0 GRAPHS 7.1 Graph terminology & its representation
	23/11/2022	1	7.2 Explain Adjacency Matrix, Path Matrix
	24/11/2022	1	7.2 Explain Adjacency Matrix, Path Matrix
11th	28/11/2022	1	7.2 Explain Adjacency Matrix, Path Matrix
	29/11/2022	1	8.0 SORTING SEARCHING & MERGING 8.1 Discuss Algorithms of Bubble sort, Quick sort,
	30/11/2022	1	8.1 Discuss Algorithms of Bubble sort, Quick sort,
	01/12/2022	1	8.2 Merging
12th	05/12/2022	1	8.3 Linear searching, Binary searching.
	06/12/2022	1	8.3 Linear searching, Binary searching.
	07/12/2022	1	9.0 FILE ORGANIZATION 9.1 Discuss Different types of files organization
	08/12/2022	1	9.1 Discuss Different types of files organization



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13th	12/12/2022	1	9.1 Discuss their access method,
	13/12/2022	1	9.2 Introduction to Hashing, Hash function,
	14/12/2022	1	9.2 Collision resolution, open addressing.
	15/12/2022	1	<b>Class Test 3</b>
14th	19/12/2022	1	<b>REVISION AND PERVIOUS YEAR QUESTION DISCUSSION</b>
	20/12/2022	1	<b>REVISION AND PERVIOUS YEAR QUESTION DISCUSSION</b>
	21/12/2022	1	<b>REVISION AND PERVIOUS YEAR QUESTION DISCUSSION</b>
	22/12/2022	1	<b>REVISION AND PERVIOUS YEAR QUESTION DISCUSSION</b>