BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF INFORMATION TECHNOLOGY
LESSON PLAN

Discipline: IT	Semester: 3thd	No. Of period available	Name of the Teaching Faculty: **D. Susmita**
Subject: **Data Structure**	No. Of Days/per week class allotted: 4 periods per week (Tue,Wed,Thurs,Fri)		From Date01/07/2024 To Date: 08/11/2024 No. Of Weeks: 19 weeks

WEEK	CLASS DAY		Topics to be covered
1st	02/07/2024	1	Interaction with Students. Reference Books
	03/07/2024	1	Syllabus Discussion
	04/07/2024	1	1.0 INTRODUCTION: 1.1 Explain Data, Information, data types
	05/07/2024	1	1.2 Define data structure & Explain different operations
2nd	09/07/2024	1	1.3 Explain Abstract data types 1.4 Discuss Algorithm & its complexity
	10/07/2024	1	1.5 Explain Time, space trade-off
	11/07/2024	1	2.0 STRING PROCESSING 2.1 Explain Basic Terminology, Storing Strings
	12/07/2024	1	2.2 State Character Data Type, 2.3 Discuss String Operations
3rd	16/07/2024	1	3.0 ARRAYS 3.1 Give Introduction about array, 3.2 Discuss Linear arrays,
	18/07/2024	1	3.2 Representation of linear array In memory
	19/07/2024	1	3.3 Explain traversing linear arrays, inserting & deleting elements
4th	23/07/2024	1	3.3 Explain traversing linear arrays, inserting & deleting elements
	24/07/2024	1	3.4 Discuss multidimensional arrays,
	25/07/2024	1	3.4 Representation of two dimensional arrays in memory (row major order & column major order), and pointers 3.5 Explain sparse matrices.
	26/07/2024	1	4.0 STACKS & QUEUES 4.1 Give fundamental idea about Stacks and queues
5th	30/07/2024	1	4.1 Give fundamental idea about Stacks and queues
	31/07/2024	1	4.1 Give fundamental idea about Stacks and queues

	01/08/2024		Assignment 1 cum Doubt Clearing
	02/08/2024		Class Test 1
6th	06/08/2024	1	4.2 Explain array representation of Stack
			4.3 Explain arithmetic expression
	07/08/2024	1	4.4 Discuss application of stack, recursion
	08/08/2024	1	4.5 Discuss queues, circular queue, priority queues.
	09/08/2024	1	5.0 LINKED LIST
			5.1 Give Introduction about linked list
7th	13/08/2024		5.2 Explain representation of linked list in memory
	14/08/2024		5.3 Discuss traversing a linked list, searching,
	16/08/2024		5.4 Discuss garbage collection
8th	20/08/2024		5.5 Explain Insertion into a linked list,
	21/08/2024		5.5 Deletion from a linked list, header linked list
	22/08/2024		Assignment 2 cum Doubt Clearing
			Class Test 2
	23/08/2024		6.0 TREE
			6.1 Explain Basic terminology of Tree
9th	27/08/2024	1	6.2 Discuss Binary tree,
	28/08/2024	1	6.2 Discuss Binary tree,
	29/08/2024	1	6.2 Its representation and traversal
	30/08/2024	1	6.2 Its representation and traversal
10th	03/09/2024	1	6.2 Its representation and traversal
	04/09/2024	1	6.2 Binary search tree, searching
	05/09/2024	1	6.2 Binary search tree, searching
	06/09/2024	1	6.2 Binary search tree, searching
11th	10/09/2024	1	Internal Exam
	11/09/2024	1	Internal Exam
	12/09/2024	1	6.3 Explain insertion & deletion in a binary search trees.
	13/09/2024	1	6.3 Explain insertion & deletion in a binary search trees.

12th	17/09/2024	1	7.0 GRAPHS 7.1 Graph terminology &its representation
	18/09/2024	1	7.2 Explain Adjacency Matrix, Path Matrix
	19/09/2024	1	7.2 Explain Adjacency Matrix, Path Matrix
	20/09/2024	1	7.2 Explain Adjacency Matrix, Path Matrix
13th	24/09/2024	1	8.0 SORTING SEARCHING & MERGING 8.1 Discuss Algorithms of Bubble sort, Quick sort,
	25/09/2024	1	8.1 Discuss Algorithms of Bubble sort, Quick sort,
	26/09/2024	1	8.2 Merging
	27/09/2024	1	8.3 Linear searching, Binary searching.
14th	01/10/2024	1	8.3 Linear searching, Binary searching.
	03/10/2024	1	9.0 FILE ORGANIZATION 9.1 Discuss Different types of file organization
	04/10/2024	1	9.1 Discuss Different types of file organization
15th	07/10/2024 to 12/10/2024	1	**PUJA HOLIDAY**
16th	15/10/2024	1	9.1 Discuss their access method,
	17/10/2024	1	9.2 Introduction to Hashing, Hash function,
	18/10/2024	1	9.2 Collision resolution, open addressing.
17th	22/10/2024	1	**Class Test 3**
	23/10/2024	1	**REVISION AND PERVIOUS YEAR QUESTION DISCUSSION**
	24/10/2024	1	**REVISION AND PERVIOUS YEAR QUESTION DISCUSSION**
	25/10/2024	1	**REVISION AND PERVIOUS YEAR QUESTION DISCUSSION**
18th	29/10/2024	1	**REVISION AND PERVIOUS YEAR QUESTION DISCUSSION**
	30/10/2024	1	**REVISION AND PERVIOUS YEAR QUESTION DISCUSSION**
	01/11/2024	1	**REVISION AND PERVIOUS YEAR QUESTION DISCUSSION**
19th	05/11/2024	1	**REVISION AND PERVIOUS YEAR QUESTION DISCUSSION**
	06/11/2024	1	**REVISION AND PERVIOUS YEAR QUESTION DISCUSSION**
	07/11/2024	1	**REVISION AND PERVIOUS YEAR QUESTION DISCUSSION**
	08/11/2024	1	**REVISION AND PERVIOUS YEAR QUESTION DISCUSSION**