SWAMI VIVEKANANDA SCHOOL OF ENGINEERING & TECHNOLOGY
LESSION PLAN (WINTER 2021)

Discipline- Computer Science & Engineering	Semester- 3rd	Faculty Name- Bharati nayak
Subject- Data Structure	No of days/ per week class alloted-4	Semester from date- 01.08.2023 to 30.11.2023 No of weeks-19
Week	**Class day**	**Theory Topics**
Aug 1ST	01-08-23	Explain Data, Information, data types
	02-08-23	Define data structure & Explain different operations Explain Abstract data types
	03-08-23	Discuss Algorithm & its complexity
	04-08-23	Discuss Algorithm & its complexity
AUG 2ND	08-08-23	Explain Time, space tradeoff
	09-08-23	Explain Time, space tradeoff
	10-08-23	CLASS TEST
	11-08-23	Doubt Clearing Class
AUG 3RD	15-08-23	Explain Basic Terminology, Storing Strings
	16-08-23	State Character Data Type
	17-08-23	Discuss String Operations
	18-08-23	Give Introduction about array,
AUG 4TH	22-08-23	Discuss Linear arrays, representation of linear array In memory
	23-08-23	Explain traversing linear arrays, inserting & deleting elements
	24-08-23	Explain traversing linear arrays, inserting & deleting elements
	25-08-23	Discuss multidimensional arrays, representation of two dimensional arrays in memory (row major order & column major order), and pointers
AUG 5TH	29-08-23	Discuss multidimensional arrays, representation of two dimensional arrays in memory (row major order & column major order), and pointers
	30-08-23	Explain sparse matrices.
	31-08-23	Give fundamental idea about Stacks and queues
SEP 1ST	01-09-23	Explain array representation of Stack
SEP 2ND	05-09-23	Explain arithmetic expression ,polish notation & Conversion
	06-09-23	Discuss application of stack, recursion
	07-09-23	Discuss queues, circular queue, priority queues
SEP 3RD	12-09-23	Doubt Clearing Class
	13-09-23	Discuss application of stack, recursion
	14-09-23	Give Introduction about linked list Explain representation of linked list in memory
	15-09-23	Discuss queues, circular queue, priority queues
SEP 4TH	20-09-23	Discuss searching a linked list
	21-09-23	Discuss garbage collection
	22-09-23	Explain Header linked list
SEP 5TH	26-09-23	Doubt Clearing Class
	27-09-23	Discuss traversing a linked list
	28-09-23	Explain Basic terminology of Tree
	29-09-23	Discuss searching a linked list
	03-10-23	Explain Basic terminology of Tree

OCT 1ST	04-10-23	Explain Insertion into a linked list
	05-10-23	Discuss Binary tree, its representation and traversal, binary search tree, searching
	06-10-23	Explain Deletion from a linked list
OCT 2ND	10-10-23	Discuss Binary tree, its representation and traversal, binary search tree, searching
	11-10-23	Explain insertion & deletion in a binary search trees
	12-10-23	Explain insertion & deletion in a binary search trees
	13-10-23	Doubt Clearing Class
OCT 3RD	17-10-23	Explain graph terminology & its representation
	18-10-23	Discuss Binary tree, its representation and traversal, binary search tree, searching
	19-10-23	Discuss Binary tree, its representation and traversal, binary search tree, searching
	20-10-23	Explain graph terminology & its representation
OCT 5TH	31-10-23	Explain graph terminology & its representation
NOV 1ST	01-11-23	Explain Adjacency Matrix, Path Matrix
	02-11-23	Explain Adjacency Matrix, Path Matrix
	03-1102023	Doubt Clearing Class
NOV 2ND	07-11-23	Introduction to Sorting, Searching and Merging
	08-11-23	Discuss Algorithms for Bubble sort, Quick sort
	09-11-23	Discuss Algorithms for Bubble sort, Quick sort
	10-11-23	Explain Adjacency Matrix, Path Matrix
NOV 3RD	14-11-23	Merging
	15-11-23	Merging
	16-11-23	Linear searching, Binary searching
	17-11-23	Linear searching, Binary searching
NOV 4TH	21-11-23	Discuss Algorithms for Bubble sort, Quick sort
	22-11-23	Doubt Clearing Class
	23-11-23	Discuss Different types of files organization and their access method
NOV 5TH	29-11-23	Discuss Different types of files organization and their access method
	30-11-23	Introduction to Hashing, Hash function, collision resolution, open addressing

Total no. of Classes: **63**
No. of Theory Classes: **48**
No. of Tutorial Classes: **5**
No. of Digital Classes: **5**
No. of PPT Classes: **5**

H.O.D. **DEAN (ACADEMICS)** **PRINCIPAL**