

ABES Engineering College			
Session 2020-21 Training Program			
Data Structure			
S No.	Topic	Sub Topics	Hours of Coverage
1	Algorithm and Complexity	Concept of Algorithm, Time and space complexity for set pattern	2
2	Array	Introduction to Array	3
		1 D array	
		2 D Array, Matrix operation in Array	
		Various Operation in Array(insertion, deletion, traversal)	
3	String	Basics concept of String	4
		String operations	
		Problems on String	
4	Structure & union	Memory scheme for structure	2
		Nested Structure/self referential structure	
		Memory scheme for union	
		Array of structures	
5	Stack and Queue	Introduction to Stack	5
		Number Conversion using Stack	
		String operations using Stack	
		Working with Multi stack	
6	Queue	Linear Queue	2
		Circular Queue	
5	Pointer	Pointer basics	4
		Pointer to Array	
		Array of Pointers	
		Pointer to Pointer	
		Returning and accepting addresses through functions	
6	Dynamic Memory Allocation	Introduction to DMA	1
		Malloc, calloc, realloc, free	
		Creating array through malloc/calloc	
7	Linked List	Linear Linked List Insertion, Deletion, Traversal	7
		Circular Linked List	
		Doubly Linked List	
		Application and operations on Linked List	
		Priorty Queue	
8	Binary Tree	Binary Tree, Traversal, Level Order Traversal	10
		Binary Search Tree	
		AVL Tree	
		B-Tree	
		Huffman Coding	
Total Hours			40