

Lesson Plan

Name of Professor: Manisha Saini

Subject code and Name: BCA – 241 ADVANCED DATA STRUCTURE

Month	Topics covered
01/01/2020 To 31 /01/2020	UNIT – I Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks, Binary search trees: introduction, storage, Searching, Insertion and deletion in a Binary search tree, Huffman’s algorithm, General trees.
01/02/2020 To 29/02/2020	UNIT – II Graph: Introduction, Graph theory terminology, Sequential and linked representation of graphs, operations on graphs, traversal algorithms in graphs and their implementation, Warshall’s algorithm for shortest path, Dijkstra algorithm for shortest path.
01/03/2020 To 31/03/2020	UNIT – III Sorting: Internal & external sorting, Radix sort, Quick sort, Heap sort, Merge sort, Tournament sort, Comparison of various sorting and searching algorithms on the basis of their complexity.
01/04/2020 To 18/04/2020	UNIT – IV Files: Introduction Attributes of a file, Classification of files, File operations, Comparison of various types of files, File organization: Sequential, Indexed-sequential, Random-access file. Hashing: Introduction, Collision resolution.

Lesson Plan

Name of Professor: Manisha saini

Subject code and Name: BCA – 121 /Advanced Programming in C

Month	Topics covered
01/01/2020 To 31 /01/2020	UNIT – I Strings in 'C': Introduction, Declaration and initialization of string, String I/O, Array of strings, String manipulation functions: String length, copy, compare, concatenate, search for a substring. Structure and Union: Introduction, Features of structures, Declaration and initialization of structures, Structure within structure, Array of structures, Structure and functions. Union: Introduction, Union of structures. Typedef, Enumerations.
01/02/2020 To 29/02/2020	UNIT – II Pointers: Introduction, Pointer variables, Pointer operators, Pointer assignment, Pointer conversions, Pointer arithmetic, Pointer comparison, Pointers and arrays, Pointers and functions, Pointers and strings, Pointer to pointer, dynamic allocation using pointers.
01/03/2020 To 31/03/2020	UNIT – III Files: Introduction, File types, File operations, File I/O, Structure Read and write in a file, Errors in file handling, Random-access I/O in files.
01/04/2020 To 18/04/2020	UNIT – IV Preprocessor: Introduction, #define, macros, macro versus functions, #include, Conditional compilation directives, undefining a macro. Command line arguments: defining and using command line arguments.