

TECNIA INSTITUTE OF ADVANCED STUDIES

Grade 'A' Institute

Department of Information, Communication & Technology

Master Of Computer Applications (MCA)

Scheme and Syllabus (w.e.f. Academic Session 2020-21 onwards)

Course Code: MCA- 102

Course Name: Data and File Structure

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LEARNING OBJECTIVES:

In this course, the learners will be able to develop expertise related to the following: -

1. Familiarization of fundamentals of data and file structures and their operations like, insertion, deletion, searching and sorting.
2. Understanding and implementation of data structures like arrays, linked lists, stacks, queues, trees, graphs and files.
3. Identification of a suitable data structure to model data used in real world applications

PRE-REQUISITES:

- 1.. Discrete Structures
2. Programming Skills

COURSE OUTCOMES (COs):

After completion of this course, the learners will be able to:

CO#	Detailed Statement of the CO	BT Level	Mapping to PO #
CO1	Recall different type of data structures.	BTL1	PO1
CO2	Explain the fundamentals of an Abstract Data Type (ADT).	BTL2	PO1, PO2
CO3	Apply linear and nonlinear data structures to solve real time problems.	BTL3	PO1, PO2, PO3, PO4, PO6, PO10
CO4	Appraise and determine the correct data structure for any given real-world problem.	BTL5	PO1, PO2, PO3, PO4, PO6, PO10, PO11
CO5	Create innovative solutions for real world problems.	BTL6	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO10, PO11