# TECNIA INSTITUTE OF ADVANCED STUDIES
## Grade 'A' Institute
## Department of Information, Communication & Technology
# Bachelor of Computer Applications (BCA)
## Scheme and Syllabus (w.e.f. Academic Session 2021-22)
### (Dec 2022): GGSIP University, Delhi

**COURSE CODE: BCA 106**
**COURSE NAME: DATA STRUCTURE AND ALGORITHM USING 'C'**

**LEARNING OBJECTIVES:**

The objective of this course is to provide the learners with the following:

1. Understanding of the basic concepts of data structures and their operations like, insertion, deletion, searching and sorting
2. Design algorithms and pseudo codes of various linear and non-linear data structures.

**PRE-REQUISITES:**

1. C Programming Skills
2. Discrete Mathematics

**COURSE OUTCOMES (COs):**

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

| CO # | Detailed Statement of the CO |
|------|------------------------------|
| CO1 | Familiarize the basics of data structures and algorithms. |
| CO2 | Understand and apply linear and nonlinear data structures and their operations. |
| CO3 | Compare and implement searching, sorting and hashing techniques. |
| CO4 | Appraise and determine the correct data structure for any given real world problem. |