

**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 2024-25)  
As per UGC Curriculum & Credit Framework for Undergraduate Programme (CCFUP)  
(Dec 2022): GGSIP University, Delhi

**COURSE CODE: BCA 104T**

**COURSE NAME: OBJECT ORIENTED PROGRAMMING USING JAVA**

**LEARNING OBJECTIVES:**

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

1. Learn how to implement Object Oriented concepts through Java.
2. Identify and apply the Java thread model to program Java applications.
3. Develop GUI applications using Java swings

**PRE-REQUISITES:**

1. Programming fundamental
2. Object-Oriented concepts

**COURSE OUTCOMES (COs):**

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

CO #	Detailed Statement of the CO
CO1	Illustrate the Object-Oriented paradigm and Java language constructs
CO2	To inculcate concepts of inheritance to create new classes from existing ones and design the Classes needed given a problem specification. To familiarize the concepts of packages and interfaces.
CO3	To manage input output using console and files
CO4	To facilitate students in handling exceptions and defining their own exceptions. To apply the Java Thread model to develop multithreading applications.

Course Outcomes	Program Outcomes (Scale – 1: Very Low, 2: Low,3:Medium,4:High)									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	4	4	4	2	-	2	1	-	-	2
CO2	4	4	4	2	-	2	1	-	-	2
CO3	4	4	4	2	-	2	1	-	-	2
CO4	4	4	4	2	-	2	1	-	-	2