TECNIA INSTITUTE OF ADVANCED STUDIES

NAAC GRADE "A" INSTITUTE (CYCLE-1)

Approved by AICTE, Ministry of Education Govt. of India,
Affiliated to G.G.S.I.P. University & Recognized Under Sec. 2(f) of UGC Act 1956.

INSTITUTIONAL AREA, MADHUBAN CHOWK, ROHINI, DELHI-110085

Department of Information, Communication & Technology

Bachelor of Computer Applications (BCA) 4Yrs.

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 OUTCOMES (COs)

FIRST SEMESTER (Practical)

C.CODE	COURSE	L	T/P	CREDITS	C.CODE	COURSE	L	T/P	CREDITS
BCA 101P	Prog. for Problem Solving using C Lab	-	4	2	BCA 103P	Fundamental of Information Technology Lab	-	4	2
BCA105P#	Web Technologies#	4	-	4					

COURSE OUTCOMES (COs)

C.CODE: BCA 101P | COURSE: Prog. for Problem Solving using C Lab

CO#	THE COURSE OUTCOMES	BTL	MAPPING
CO1	Develop programming skills by learning the fundamentals of structured programming using C Language.	BTL3	PO1,PO2,PO3
CO2	Design and develop programs using arrays, storage classes ,functions and to understand memory management through pointers	BTL4	PO1,PO2,PO3
CO3	Critically analyze real world problems using structures, unions and develop applications for handling text and binary files.	BTL5	PO1,PO2,PO3, PO4,PO5
CO4	Explore the use of command line arguments, string manipulation and standard libraries.	BTL5	PO1,PO2,PO4

C.CODE: BCA 103P | COURSE: Fundamental of Information Technology Lab

CO#	THE COURSE OUTCOMES	BTL	MAPPING
CO1	Work with basic DOS Commands and Windows Explorer.	BTL3	PO1,PO2
CO2	Create Word Documents using advanced features of MS Word.	BTL3	PO1,PO2
CO3	Create Worksheet using advanced features of MS Excel.	BTL3	PO1,PO2
CO4	Create interactive Presentation using advanced features of MS Power-point.	BTL3	PO1,PO2

C.CODE: BCA105P# | COURSE: Web Technologies#

CO#	THE COURSE OUTCOMES
CO1	Develop static web pages through HTML, JavaScript, CSS and Bootstrap
CO2	Implement different constructs and programming techniques provided by JavaScript.
CO3	Adapt HTML, Javascript, CSS and Bootstrap syntax and semanticsto build web pages.
CO4	Develop Client-Side Scripts using JavaScript to display the contents dynamically

Head of the Department
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COURSE OUTCOMES (COs)

SECOND SEMESTER (Practical)

C.CODE	COURSE	L	T/P	CREDITS	C.CODE	COURSE	L	T/P	CREDITS
BCA102P#	DBMS Lab	-	2	1	BCA106P	Data Structures and algorithms Lab	-	2	1
BCA104P	Object Oriented Programming using Java Lab	-	4	2	BCA108P	Software Engineering Lab	-	2	1

COURSE OUTCOMES (COs)

C.CODE: BCA102P# | COURSE: DBMS Lab

CO#	THE COURSE OUTCOMES	BTL	MAPPING
CO1	Understand the structure and design of relational databases.	BTL2	PO3
CO2	Write DDL statements in SQL to create, Modify and remove database objects	BTL1, BTL3, BTL4	PO3, PO5
CO3	Use constraints for the database	BTL1, BTL2, BTL3	PO3, PO5
CO4	Write DML statements in SQL to insert, Modify and remove data from database	BTL4	PO3, PO5
CO5	Write SQL statements to retrieve data based on the conditions provided by the user	BTL1, BTL2, BTL3	PO3, PO5
CO6	Use index and Views in database	BTL2	PO3, PO5
CO7	Use structured query language (SQL) to an intermediate /advanced level	BTL5, BTL6	PO4

C.CODE: BCA106P | COURSE: Data Structures and algorithms Lab

CO#	THE COURSE OUTCOMES	BTL	MAPPING
CO1	Implement basic operations on static linear data structures.	BTL3	PO1,PO2, PO3,PO4
CO2	Implement various operations on dynamic linear data structures.	BTL6	PO1,PO2, PO3,PO4, PO5
CO3	Implement basic operations on non-linear data structures	BTL3	PO1,PO2, PO3,PO4, PO5
CO4	Implement searching techniques on linear and nonlinear data structures.	BTL4	PO1,PO2, PO3,PO4
CO5	Implement sorting techniques on one dimensional array.	BTL4	PO1,PO2, PO3,PO4

C.CODE: BCA104P | COURSE: Object Oriented Programming using Java Lab

CO#	THE COURSE OUTCOMES	BTL	MAPPING
CO1	Illustrate the Object-Oriented paradigm and Java language constructs	BTL2	PO3
CO2	To inculcate concepts of inheritance to create new classes from existing ones and design the Classes needed given a problem specification.	BTL3	PO3
CO3	To apply various functions of String class	BTL3	PO4
CO4	To facilitate students in handling exceptions and defining their own exceptions.	BTL4	PO4
CO5	To manage input output using console and files	BTL4	PO4
CO6	To apply the Java Thread model to develop multithreading applications.	BTL5	PO4
CO7	To understand and apply the concepts of GUI programming using swings.	BTL6	PO5,PO6

C.CODE: BCA108P | COURSE: Software Engineering Lab

CO#	THE COURSE OUTCOMES	BTL	MAPPING
CO1	To apply the software engineering lifecycle by demonstrating competence in communication, planning, analysis, design, construction, and deployment.	BTL2	PO3
CO2	Demonstrate an understanding of and apply current theories, models, and techniques that provide a basis for the software lifecycle.	BTL3	PO3
CO3	Analyzing and developing a software product along with its complete documentation.	BTL3	PO4
CO4	Work as an individual and as part of a multidisciplinary team to develop and deliver quality software in one or more significant application domains.	BTL4	PO4
CO5	Demonstrate an ability to use the techniques and tools necessary for engineering practice	BTL4	PO4

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