

**REVISED DETAILED STRUCTURE OF
BCA Programme**

with effect from Session 2022-23

**Bachelor of Computer Applications (BCA)
THREE YEAR COURSE**



Centre of Computer Education & Training

Institute of Professional Studies

University of Allahabad

Prayagraj-211002

SEMESTER I								
S.No.	Course Code	Course Title	Credit					
			L	T	P	C	Int.	Ext.
1	BCA101	Mathematics -I	2	1	0	3	40	60
2	BCA102	Statistics	2	1	0	3	40	60
3	BCA103	Digital Electronics	2	1	0	3	40	60
4	BCA104	Fundamentals of Programming with 'C'	2	1	0	3	40	60
5	BCA105	Communication Skills	2	1	0	3	40	60
6	BCA106	Discrete Structures & Graph Theory	2	1	0	3	40	60
7	BCA231	Lab I: Programming in C	0	1	3	4	40	60
	BCA232	Lab II : Digital Electronics	0	1	3	4	40	60
			12	2	12	26		

SEMESTER II								
S.No.	Course Code	Course Title	Credit					
			L	T	P	C	Int.	Ext.
1	BCA107	Mathematics -II	2	1	0	3	40	60
2	BCA108	Database Management System	2	1	0	3	40	60
3	BCA109	Computer Organization & Architecture	2	1	0	3	40	60
4	BCA110	Data Structures	2	1	0	3	40	60
5	BCA111	Software Engineering	2	1	0	3	40	60
6	BCA112	Principles of Management	2	1	0	3	40	60
7	BCA233	Lab I : DBMS	0	1	3	4	40	60
	BCA234	Lab II : Data Structures	0	1	3	4	40	60
			12	2	12	26		

SEMESTER III								
S.No.	Course Code	Course Title	Credit					
			L	T	P	C	Int.	Ext.
1	BCA113	Core Java	2	1	0	3	40	60
2	BCA114	Design & Analysis of Algorithms	2	1	0	3	40	60
3	BCA115	Introduction to System Software	2	1	0	3	40	60
4	BCA116	Principles of Programming Languages	2	1	0	3	40	60

5	BCA117	Fundamentals of Computer Networks	2	1	0	3	40	60
6	BCA118	LINUX & Shell Programming	2	1	0	3	40	60
7	BCA235	Lab I: Core Java	0	1	3	4	40	60
	BCA236	Lab II: LINUX & Shell Programming	0	1	3	4	40	60
			12	2	12	26		

SEMESTER IV								
S.No.	Course Code	Course Title	Credit					
			L	T	P	C	Int.	Ext.
1	BCA119	Operating Systems	2	1	0	3	40	60
2	BCA120	Machine Learning Techniques	2	1	0	3	40	60
3	BCA121	Compiler Design	2	1	0	3	40	60
4	BCA122	Introduction to Artificial Intelligence	2	1	0	3	40	60
5	BCA123	OOPS using PYTHON	2	1	0	3	40	60
6	BCA124	Principles of Cryptography and Cyber Security	2	1	0	3	40	60
7	BCA237	Lab I: Machine Learning Lab	0	1	3	4	40	60
	BCA238	Lab II: PYTHON Programming Lab	0	1	3	4	40	60
			12	2	12	26		

SEMESTER V								
S.No.	Course Code	Course Title	Credit					
			L	T	P	C	Int.	Ext.
1	BCA125	.Net Framework & C#	2	1	0	3	40	60
2	BCA126	Optimization Techniques	2	1	0	3	40	60
3	BCA127	Computer Graphics	2	1	0	3	40	60
4	BCA128	Fundamentals of Data Science	2	1	0	3	40	60
5	BCA129 (A/B/C)	Elective I	3	1	0	4	40	60
6	BCA239	Lab in C#	0	1	3	4	40	60
	BCA240	Mini Project	0	2	6	8	40	60
			11	3	14	28		

SEMESTER VI								
S.No.	Course Code	Course Title	Credit					
			L	T	P	C	Int.	Ext.

1	BCA130	Data Warehousing & Data Mining	3	1	0	4	40	60
2	BCA131 (A/B/C)	Elective II	3	1	0	4	40	60
3	BCA241	Main Project	0	0	20	20	40	60
			6	2	20	28		

Elective I:

S. No.	Course Code	Course Title
1.	BCA129 – A	Digital Image Processing
2.	BCA129 – B	Cyber Ethics
3.	BCA129 – C	Artificial Neural Networks & Deep Learning

Elective II:

S. No.	Course Code	Course Title
1.	BCA131 – A	Computer Vision
2.	BCA131 - B	Parallel Computing
3.	BCA131 – C	Distributed Systems