

**UNIVERSITY SCHOOL
OF
INFORMATION AND COMMUNICATION TECHNOLOGY**

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAMME STRUCTURE

**BACHELOR OF COMPUTER APPLICATIONS (BCA)
3 YEAR PROGRAMME**

2020-23



**GAUTAM BUDDHA UNIVERSITY
GAUTAM BUDH NAGAR, GREATER NOIDA, U.P.**

SEMESTER I

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	BCA101	Computer Fundamentals and Programming	3	0	0	3	C1
2	BCA103	Fundamental of Operating System	3	0	0	3	C2
3	BCA105	Introduction to Internet Technology	3	0	0	3	C3
4	BCA107	Logical Organization of Computer	3	0	0	3	C4
5	MA151	Mathematical Foundation of Computer Science-I	3	1	0	4	GE1
6	EN101	English Proficiency	2	0	0	2	GE2
7	BCA181	Operating System Lab	0	0	3	2	L1
8	BCA183	Internet Technology Lab	0	0	3	2	L2
9	GP	General Proficiency	Non Credit				
Total Hours and Credits			17	1	6	22	

SEMESTER II

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	BCA102	Problem Solving Using C	3	0	0	3	C5
2	BCA104	Basics of Artificial Intelligence	3	0	0	3	C6
3	BCA106	System Analysis and Design	3	0	0	3	C7
4	BCA108	Digital Logic	3	0	0	3	C8
5	MA152	Mathematical Foundation of Computer Science-II	3	1	0	4	GE3
6	ES101	Environmental Studies	4	0	0	4	GE4
7	BCA182	C Programming Lab	0	0	3	2	L3
8	BCA184	ProLog Lab	0	0	3	2	MP1
9	GP	General Proficiency	Non Credit				
Total Hours and Credits			19	1	6	24	

SEMESTER III

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	BCA201	Python Programming	3	0	0	3	C9
2	BCA203	Software Engineering Fundamentals	3	0	0	3	C10
3	BCA205	Introduction to Data Base Management System	3	0	0	3	C11
4	BCA207	Fundamental of Data Structure	3	0	0	3	C12
5	BCA209	Discrete Structure	3	0	0	3	C13
6	BCA211	Basics of Digital Marketing	3	0	0	3	C14
8	BCA281	Python Programming Lab	0	0	3	2	L4
9	BCA283	Data Base Management System Lab	0	0	3	2	L5
10	GP	General Proficiency	Non Credit				
Total Hours and Credits			18	0	6	22	

SEMESTER IV

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	BCA202	Fundamentals of Java Programming	3	0	0	3	C15
2	BCA204	Fundamental of Machine Learning	3	0	0	3	C16
3	BCA206	Introduction to Information Security	3	0	0	3	C17
4	BCA208	Basics of Theory of Computation	3	0	0	3	C18
5	BCA210	Data Analytics Fundamentals	3	0	0	3	C19
6	BCA212	Introduction of Soft Computing	2	0	0	2	C20
7	BCA282	Java Programming Lab	0	0	3	2	L6
8	BCA292	Minor Project	0	0	10	5	MP1
9	GP	General Proficiency	Non Credit				
Total Hours and Credits			17	0	13	24	

SEMESTER V

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	BCA301	PHP	3	0	0	3	C19
2	BCA303	Introduction to Compiler Design	3	0	0	3	C20
3	BCA305	Basics of Computer Graphics	3	0	0	3	C21
4	BCA307	Computer Networks Fundamentals	3	0	0	3	C22
5		Elective -1	3	0	0	3	E1
6		Elective -2	3	0	0	3	E2
7	BCA381	PHP Lab	0	0	3	2	L7
8	BCA383	Compiler Design Lab	0	0	3	2	L8
9	GP	General Proficiency	Non Credit				
Total Hours and Credits			18	0	6	22	

SEMESTER VI

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	BCA302	.NET Technology	3	0	0	3	C23
2	BCA304	Basics of Internet of Things	3	0	0	3	C24
3		Elective-3	3	0	0	3	E3
4		Elective-4	3	0	0	3	E4
5	BCA382	.NET Technology Lab	0	0	3	2	L9
6	BCA384	Internet of Things Lab	0	0	3	2	L10
7	BCA392	Major Project	0	0	16	8	MP2
8	GP	General Proficiency	Non Credit				
Total Hours and Credits			12	0	22	24	

GRAND TOTAL OF CREDITS = 138

ELECTIVES FROM USICT

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	BCA309	Fundamentals of Cloud Computing	3	0	0	3	E1
2	BCA311	Introduction to Fuzzy Logic	3	0	0	3	E1
3	BCA313	Basics of Natural Language Processing	3	0	0	3	E1
4	BCA315	Fundamentals of Cyber Security	3	0	0	3	E1
5	BCA317	Basics of Expert Systems	3	0	0	3	E2
6	BCA319	Introduction to Multimedia System	3	0	0	3	E2
7	BCA321	Information Security Fundamentals	3	0	0	3	E2
8	BCA323	Fundamental of Evolutionary Computing	3	0	0	3	E2
9	BCA306	Computer Network Security	3	0	0	3	E3
10	BCA308	Concepts of Mobile Computing	3	0	0	3	E3
11	BCA310	Basics of Blockchain	3	0	0	3	E3
12	BCA312	Introduction to Wireless Technology	3	0	0	3	E3
13	BCA314	Fundamentals of Optimization Techniques	3	0	0	3	E4
14	BCA316	Introduction to Computer Vision	3	0	0	3	E4
15	BCA318	Basics of Data Science	3	0	0	3	E4
16	BCA320	Fundamental of Digital Image Processing	3	0	0	3	E4

Minor and Major Project will be in a group and It will be evaluated as per University Examination Rules.

USICT will provide a **mentor/supervisor** for minor and major projects.

BCA Bachelor of Computer Applications

C Compulsary Course from USICT

GE General Elective from other Deptt./School

E Elective from USICT

L Lab from USICT

MP Minor / Major Project