UNIVERSITY SCHOOL
OF
INFORMATION AND COMMUNICATION TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAMME STRUCTURE

BACHELOR OF COMPUTER APPLICATIONS (BCA)
3 YEAR PROGRAMME
2019-2022

GAUTAM BUDDHA UNIVERSITY
GAUTAM BUDH NAGAR, GREATER NOIDA, UP, INDIA

SEMESTER I

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	BCA101	Computer Fundamentals	3	0	0	3	CC1 /FC
2	BCA103	Computer Application & Office Automation	3	0	0	3	CC2 / FC
3	BCA105	Introduction to Internet Technology	3	0	0	3	CC3 / SEC
4	BCA107	Logical Organization of Computer	3	0	0	3	CC4
5	MA151	Mathematical Foundation of Computer Science-I	3	1	0	4	GE1
6	EN101	English Proficiency	2	0	0	2	OE1 / AECC
7	BCA181	Internet Technology Lab	0	0	3	2	CC-L1 / SEC
8	BCA183	Computer Fundamental Lab	0	0	3	2	CC-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	CC5 / SEC
2	BCA104	System Analysis and Design	3	0	0	3	CC6
3	BCA106	Fundamental of Operating System	3	0	0	3	CC7 / FC
4	BCA108	Digital Logic	3	0	0	3	CC8
5	MA152	Mathematical Foundation of Computer Science-II	3	1	0	4	GE2
6	ES101	Environmental Studies	4	0	0	4	OE2 / AECC
7	BCA182	C Programming Lab	0	0	3	2	CC-L3 /SEC
8	BCA184	Operating System Lab	0	0	3	2	CC-L4
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	CC9 / SEC
2	BCA203	Software Engineering Fundamentals	3	0	0	3	CC10
3	BCA205	Introduction to Data Base Management System	3	0	0	3	CC11 / FC
4	BCA207	Data Structure	3	0	0	3	CC12 / SEC
5	BCA209	Discrete Structure	3	0	0	3	CC13
6	BCA211	Fundamental of Digital Marketing	3	0	0	3	CC14
7	BCA281	Python Programming Lab	0	0	3	2	CC-L5 / SEC
8	BCA283	Data Base Management System Lab	0	0	3	2	CC-L6
9	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	CC15 / SEC
2	BCA204	Basics of Artificial Intelligence	3	0	0	3	CC16
3	BCA206	Introduction to Information Security	3	0	0	3	CC17
4	BCA208	Theory of Computation	3	0	0	3	CC18
5	BCA210	Data Analytics	3	0	0	3	CC19 / SEC
6	BCA212	Basics of Soft Computing	2	0	0	2	CC20
7	BCA282	Java Programming Lab	0	0	3	2	CC-L7 / SEC
8	BCA292	Minor Project	0	0	10	5	MP1 /E
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	C21 /SEC
2	BCA303	Introduction to Compiler Design	3	0	0	3	CC22
3	BCA305	Basics of Computer Graphics	3	0	0	3	CC23
4	BCA307	Computer Networks Fundamentals	3	0	0	3	CC24
5		Elective -1	3	0	0	3	E1 / DSE
6		Elective -2	3	0	0	3	E2 / DSE
7	BCA381	PHP Lab	0	0	3	2	CC-L8 /SEC
8	BCA383	Compiler Design Lab	0	0	3	2	CC-L9
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	CC25
2	BCA304	Basics of Internet of Thing	3	0	0	3	CC26
3		Elective-3	3	0	0	3	E3 / DSE
4		Elective-4	3	0	0	3	E4 / DSE
5	BCA382	.NET Technology Lab	0	0	3	2	CC-L10 / SEC
6	BCA384	Internet of Things Lab	0	0	3	2	CC-L11 / SEC
7	BCA392	Major Project	0	0	16	8	MP2 /E
8	GP	General Proficiency		Non Credit			
		Total Hours and Credits	**12**	**0**	**22**	**24**	

GRAND TOTAL OF CREDITS　=　138

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ELECTIVES FROM DCSE

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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

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OPEN AND GENERIC ELECTIVES FROM OTHER SCHOOLS

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S.No.	Course Code	Course Name	L	T	P	Credits	Types
17	EN101	English Proficiency	2	0	0	2	OE1
18	ES101	Environmental Studies	4	0	0	4	OE2
19	MA151	Mathematical Foundation of Computer Science-I	3	1	0	4	GE1
20	MA152	Mathematical Foundation of Computer Science-II	3	1	0	4	GE2

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	**DSE**	Discipline Specific Course
CC	Core Course from USICT for Type of Course	**SEC**	Skil Enhancement Course
GE	General Elective from related discipline of other Deptt./School	**E**	Elective from USICT
OE	Open Elective from other discipline of other Deptt./School	**CC-L**	Core Course Lab from USICT
AECC	Ability Enhancement Compulsary Course	**MP**	Minor / Major Project