

# **SCHOOL OF INFORMATION AND COMMUNICATION TECHNOLOGY**

## **COURSE STRUCTURE**

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



**GAUTAM BUDDHA UNIVERSITY  
GAUTAM BUDH NAGAR, GREATER NOIDA**

**SEMESTER-I**

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	BCA101	Computer Fundamentals	3-0-0	3
2	BCA103	Computer Application & Office Automation	3-0-0	3
3	BCA105	Introduction to Internet Technology	3-0-0	3
4	BCA107	Logical Organization of Computer	3-0-0	3
5	MA151	Mathematical Foundation of Computer Science-I	3-1-0	4
6	EN101	English Proficiency	2-0-0	2
7	BCA181	Internet Technology Lab	0-0-3	2
8	BCA183	Computer Fundamental Lab	0-0-3	2
9	GP111	General Proficiency	Non Credit	
<b>Total Credits</b>			<b>22</b>	
<b>Total Contact Hours</b>			<b>17-1-6 = 24</b>	

**SEMESTER-II**

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	BCA102	Problem Solving Using C	3-0-0	3
2	BCA104	System Analysis and Design	3-0-0	3
3	BCA106	Fundamental of Operating System	3-0-0	3
4	BCA108	Digital Logic	3-0-0	3
5	MA152	Mathematical Foundation of Computer Science-II	3-0-0	3
6	ES101	Environmental Studies	4-0-0	4
7	BCA182	C Programming Lab	0-0-3	2
8	BCA184	Operating System Lab	0-0-3	2
9	GP122	General Proficiency	Non Credit	
<b>Total Credits</b>			<b>23</b>	
<b>Total Contact Hours</b>			<b>19-0-6 = 25</b>	

**SEMESTER-III**

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	BCA201	C++ Programming	3-0-0	3
2	BCA203	Software Engineering Fundamentals	3-0-0	3
3	BCA205	Introduction to Data Base Management System	3-0-0	3
4	BCA207	Data Structure	3-0-0	3
5	BCA209	Introduction To Artificial Intelligence	3-0-0	3
6		<b>Open Elective-1</b>	3-0-0	3
7	BCA281	Data Structure Using C++ Lab	0-0-3	2
8	BCA285	Data Base Management System Lab	0-0-3	2
9	GP231	General Proficiency	Non Credit	
<b>Total Credits</b>			<b>22</b>	
<b>Total Contact Hours</b>			<b>18-0-6 = 24</b>	

**SEMESTER-IV**

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	BCA202	JAVA Programming	3-0-0	3
2	BCA204	Discrete Structure	3-0-0	3
3	BCA206	Information Security	3-0-0	3
4	BCA208	Theory of Computation	3-0-0	3
5	BCA210	Data Analytics	3-0-0	3
6		<b>Open Elective-2</b>	3-0-0	3
7	BCA282	JAVA Programming Lab	0-0-3	2
8	BCA292	Minor Project	0-0-6	3
9	GP242	General Proficiency	Non Credit	
<b>Total Credits</b>			<b>23</b>	
<b>Total Contact Hours</b>			<b>18-0-9 = 27</b>	

**SEMESTER-V**

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	BCA301	PHP	3-0-0	3
2	BCA303	Introduction to Compiler Design	3-0-0	3
3	BCA305	Computer Graphics	3-0-0	3
4	BCA307	Computer Networks	3-0-0	3
5		<b>Elective -1</b>	3-0-0	3
6		<b>Elective -2</b>	3-0-0	3
7	BCA381	PHP Lab	0-0-3	2
8	BCA383	Compiler Design Lab	0-0-3	2
9	GP351	General Proficiency	Non Credit	
<b>Total Credits</b>			<b>22</b>	
<b>Total Contact Hours</b>			<b>18-0-6 = 24</b>	

**ELECTIVE -1**

S. No.	Courses Code	Courses	L-T-P	Credits
1	BCA309	Machine Learning	3-0-0	3
2	BCA311	Fuzzy Logic	3-0-0	3
3	BCA313	Natural Language Processing	3-0-0	3
4	BCA315	Soft Computing Technique	3-0-0	3

**ELECTIVE -2**

S. No.	Courses Code	Courses	L-T-P	Credits
1	BCA317	Cyber Security	3-0-0	3
2	BCA319	Multimedia System	3-0-0	3
3	BCA321	Optimization Techniques	3-0-0	3
4	BCA323	Bioinformatics	3-0-0	3

**SEMESTER-VI**

Sr. No.	Courses Code	Courses	L-T-P	Credits
1	BCA302	.NET Technology	3-0-0	3
2	BCA304	Basics of Internet of Thing	3-0-0	3
3		<b>Elective-3</b>	3-0-0	3
4		<b>Elective-4</b>	3-0-0	3
5	BCA382	.NET Technology Lab	0-0-3	2
6	BCA391	Major Project	0-0-16	8
7	GP252	General Proficiency	Non Credit	
<b>Total Credits</b>			<b>22</b>	
<b>Total Contact Hours</b>			<b>12-0-19 = 31</b>	

**ELECTIVE -3**

S. No.	Courses Code	Courses	L-T-P	Credits
1	BCA306	Computer Network Security	3-0-0	3
2	BCA308	Python Programming	3-0-0	3
3	BCA310	Cloud Computing	3-0-0	3
4	BCA312	Introduction to Wireless Technology	3-0-0	3

**ELECTIVE -4**

S. No.	Courses Code	Courses	L-T-P	Credits
1	BCA314	OOAD using UML	3-0-0	3
2	BCA316	Client-Server Computing	3-0-0	3
3	BCA318	Data Networks	3-0-0	3
4	BCA320	Mobile Computing	3-0-0	3

**GRAND TOTAL CREDITS = 134**