## Galgotias University School of Computer Applications and Technology Curriculum BCA & BCA IOP 2024-27

	Semester 1						
S No.	Name of the Course	L	T	P	S	C	Н
1	Open Elective-I	3	0	0	0	3	3
2	Linear Algebra	3	0	0	0	3	3
3	Computer System Organisation	3	0	0	0	3	3
4	Programming for Problem Solving	3	0	1	1	5	8
5	Vocational Elective-I	3	0	1	0	4	5
	Total Credits (BCA & BCA Spl)	15	0	1	1	18	20

	Semester II											
SN	Name of the Course	L	T	P	S	C	Н					
1	Open Elective-II	3	0	0	0	3	3					
2	Probability and Statistics	3	0	0	0	3	3					
3	Data Structures	3	0	1	0	4	5					
4	Object Oriented Programming using C++	3	0	1	1	5	8					
5	Database Management Systems	3	0	1	0	4	5					
6	Vocational Elective-II	3	0	1	0	4	5					
	Total Credits (BCA & BCA Spl)	18	0	4	1	23	29					

	Semester III											
SN	Name of the Course	L	T	P	S	C	Н					
1	Co-Curricular-I	2	0	0	0	2	2					
2	Operating Systems	3	0	1	0	4	5					
3	Discrete Mathematics	3	0	0	0	3	3					
4	Python Programming	3	0	1	1	5	8					
5	Elective-I	3	0	0	0	3	3					
6	Specialization Core-I	2	0	1	0	3	4					
	Total Credits (BCA & BCA Spl)	14	0	3	1	17	27					

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	Semester IV						
Sl No	Name of the Course	L	Т	P	S	C	Н
1	Co-Curricular-II	2	0	0	0	2	2
2	Machine Learning	3	0	1	1	5	8
3	Software Engineering and Testing	3	0	0	0	3	3
4	Computer Networks	3	0	1	0	4	5
5	Java Programming	3	0	1	1	5	8
	Elective-II	3	0	0	0	3	3
6	Specialization Core-II	2	0	1	0	3	4
	Total Credits (BCA & BCA Spl)	17	0	3	2	22	27

	Semester V						
SN	Name of the Course	L	Т	P	S	C	Н
1	Data Science	3	0	0	0	3	3
2	Mobile Application Development	3	0	1	1	5	8
3	Design and Analysis of Algorithms	3	0	1	1	5	8
4	Professional Readiness	0	0	2	0	2	3
5	Minor Project	0	0	0	0	5	0
6	Internship	0	0	0	0	5	0
	Total Credits (BCA & BCA Spl)	10	0	4	1	25	24

	Semester VI										
Sl No	Name of the Course	L	T	P	S	C	Н				
1	Capstone Project	0	0	0	0	15	15				
	Total Credits (BCA & BCA Spl)	0	0	0	0	15	0				

Credits	I	II	Ш	IV	V	VI
Total Credits (BCA & BCA Spl)	18	23	17	22	25	15

## Curriculum BCA & BCA IOP (Hons with Research) 2024-28

	Semester VII						
SN	Name of the Course	L	T	P	S	C	Н

1	Research Methodology	2	0	0	0	2	2
2	Optimization Techniques	3	0	0	0	3	3
3	Advanced Data Structures and Algorithms	3	0	1	0	4	5
4	Elective -III	2	0	1	0	3	4
5	Research Project-I	0	0	0	8	8	8
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	Total Credits (BCA)	13	0	3	4	20	27

	Semester VIII						
Sl No	Name of the Course	L	T	P	S	C	Н
1	Colloquium	0	0	0	0	5	10
2	Research Project -II (Scopus Indexed Research Paper)	0	0	0	0	15	20
	Total Credits (BCA)	0	0	0	0	20	30
	Total Credits upto VIII Semester					160	

	Open Elective-I & II for I & I	I sen	n				
SN	Name of the Course	L	T	P	S	C	Н
1	Environmental Literature	3	0	0	0	3	3
2	Understanding India	3	0	0	0	3	3
3	Report Writing	3	0	0	0	3	3
4	Environmental Studies	3	0	0	0	3	3
5	Introduction to Japanese language and cultu	3	0	0	0	3	3
6	Principles of Management	3	0	0	0	3	3
7	Introduction to Japanese language and c	3	0	0	0	3	3
8	Maths and Puzzles	3	0	0	0	3	3
9	Yoga and Meditation	1	0	2	0	3	3

List of Vocatioanl-I for Semester- I										
SN	Name of the Course	L	T	P	S	C	Н			

1	Web Design	3	0	1	0	4	5
2	Office Automation Tools	3	0	1	0	4	5

List of Vocatioanl-II for Semester- II										
SN	Name of the Course	L	T	P	S	C	Н			
1	Full Stack Development using React and N	3	0	1	0	4	5			
2	System Administration	3	0	1	0	4	5			

	Co-Curricular-I & II for III & IV sem										
SN	Name of the Course	L	T	P	S	C	Н				
1	Food, Nurtician anf Hygine	2	0	0	0	2	2				
2	First Aid and Health	2	0	0	0	2	2				

	List of Electives-I for Semester- III										
SN	Name of the Course	L	T	P	S	C	Н				
1	Computer Graphics	3	0	0	0	3	3				
2	Internet of Things	3	0	0	0	3	3				

	Co-Curricular-I & II for III & IV sem										
SN	Name of the Course	L	T	P	S	C	Н				
1	Food, Nurtician anf Hygiene	2	0	0	0	2	2				
2	First Aid and Health	2	0	0	0	2	2				

List of Electives-II for Semester- V										
SN	Name of the Course	L	T	P	S	C	Н			
1	Data Mining and Web Algorithms	3	0	0	0	3	3			
2	BigData	3	0	0	0	3	3			

Specializations Core-I (III sem)									
Sl No Name of the Electives (Choose one) L T P S C						Н			
1	Data Analysis & Data Visualization	2	0	1	0	3	4		

2	Data Analytics	2	0	1	0	3	4
3	Cryptography	2	0	1	0	3	4
4	Non Linear Editing	2	0	1	0	3	4
5	Cloud Computing and Virtualisation	2	0	1	0	3	4

Specializations Core-II (IV Sem)										
Sl No	Name of the Electives (Choose one)	L	T	P	S	C	Н			
1	Natural Language Processing	2	0	1	0	3	4			
2	Advanced Data Analytics	2	0	1	0	3	4			
3	Network Security	2	0	1	0	3	4			
4	Graphic Designing	2	0	1	0	3	4			
5	Advances in Cloud Computing and Virtuali	2	0	1	0	3	4			

	List of Electives-III for Semester- VII										
SN	Name of the Course	L	T	P	S	C	Н				
1	Digital Image Processing	2	0	1	0	3	4				
2	R Programming	2	0	1	0	3	4				
3	Numerical Methods	2	0	1	0	3	4				