

Jaypee University Anoopshahr

Faculty of Engineering



Course Curriculum

Batchelor of Computer Application (BCA)

Academic Batches: 2023 Onwards

**Department of Computer Science and
Engineering**

JAYPEE UNIVERSITY ANOOPSHAHR

As we are going to align BCA curriculum from academic session 2023-24. Following structure for BCA is adopted. Please approve the same

3 year BCA. degree Course - w.e.f. 2023-24 Batch

First Semester								
Sr. No.		Course		Contact Hours				Credits
		Code	Name	L	T	P	Total	
1	Major Core	23H11CA101	Fundamentals of programming	3	1	0	4	4
2	Minor Core	23H11CA102	Web Technology	2	0	0	2	2
3	MDC	23H11MA101	Fundamentals of Mathematics-I	2	1	0	3	3
4	AEC	23H11HS101	English	2	0	0	2	2
5	SEC	23H11CA103	Multimedia Technology-1	2	0	0	2	2
6	Minor Lab	23H17CA192	Web Technology Lab	0	0	2	2	1
7	Major Lab	23H17CA191	Fundamentals of Programming Lab	0	0	2	2	1
8	SEC Lab	23H17CA193	Multimedia Technology Lab-1	0	0	2	2	1
9	Value Added	23H11VA101	Introduction to Digital Technologies	2	0	0	2	2
10	Value Added	23H11VA102	Environmental Science	2	0	0	2	2
Total							23	20

Fourth Semester									
Sr. No.		Course			Contact Hours				Credits
		Code	Code	Name	L	T	P	Total	
1	Major Core	23 H11CA 401		Algorithm and Programming	3	0	0	3	3
2	Major Core	23 H11CA 402		Fundamentals of Software Engineering	3	0	0	3	3
3	Major Choice	XXXX		Elective	3	0	0	3	3
4	Major Choice	XXXX		Elective	3	0	0	3	3
5	Minor Core	23 H11CA 403		Computer Network	3	1	0	4	4
6	Major Lab	23H17CA 491		Algorithm and Programming Lab	0	0	2	2	1
7	Minor Lab	23H17CA 492		Computer Network Lab	0	0	2	2	1
8	AEC	23H11HS 401		Soft Skills-II	2	0	2	2	2
Total								22	20

Second Semester								
Sr. No.		Course		Contact Hours				Credits
		Code	Name	L	T	P	Total	
1	Major Core	23H11CA201	Object Oriented Programming	3	1	0	4	4
2	Minor Core	23H11CA202	Principle of Digital Electronics	3	1	0	4	4
3	MDC	23H11MA201	Fundamentals of Mathematics-II	3	0	0	3	3
4	Major Lab	23H17CA291	Object Oriented Programming Lab	0	0	2	2	1
5	Minor Lab	23H17CA292	Digital Electronics Lab	0	0	2	2	1
6	AEC	23H11HS201	Soft Skills-I	2	0	0	2	2
7	SEC	23H11VO201	Finance for non-finance people	2	1	0	0	3
8	Value Added	23H11VA103	Yoga and Wellness	2	0	0	2	2
Total							19	20

Fifth Semester								
Sr. No.		Course		Contact Hours				Credits
		Code	Name	L	T	P	Total	
1	Major Core	23H11CA501	Computer Architecture	3	0	0	3	3
2	Major Core	23H11CA502	Principle of Operating System	3	0	0	3	3
3	Major Choice	XXXX	Elective	3	0	0	3	3
4	Major Lab	23H17CA591	Principle of Operating System Lab	0	0	2	2	1
5	Major Choice	XXXX	Elective	3	0	0	3	3
6	Minor Choice	XXXX	Indian Knowledge system	3	0	0	3	3
7	Summer	XXXX	Summer Internship	0	0	0	0	4
Total							17	20

Third Semester

Sr. No.		Course		Contact Hours				Credits
		Code	Name	L	T	P	Total	
1	Major Core	23H17CA301	Database systems	3	0	0	3	3
2	Major Core	23H17CA302	Fundamentals of Data Structure	3	0	0	3	3
3	Minor Core	23H17CA303	Python Programming	3	0	0	3	3
4	MDC	23H17CA304	Electronics Devices and Circuits	3	0	0	3	3
5	Major Lab	23H17CA391	Database systems Lab	0	0	2	2	1
6	Major Lab	23H17CA392	Fundamentals of Data Structure Lab	0	0	2	2	1
7	Minor Lab	23H17CA393	Python Programming Lab	0	0	2	2	1
8	AEC	23B11HS312	Basics of Economics	2	0	0	2	2
9	SEC	23H11MA301	Statistics and R	2	0	0	2	2
10	SEC	23H17MA301	R programming Lab	0	0	2	2	1
Total							24	20

Sixth Semester

Sr. No.	Course			Contact Hours				Credits
	Code	Code	Name	L	T	P	Total	
1	Major Core	23H11CA 604	E-commerce	3	0	0	3	3
2	Major Core	23H11CA 601	Human Computer Interaction	3	0	0	3	3
3	Major Core	24H11CA 602	Big Data Analytics	3	0	0	3	3
4	Major Core	25H11CA 603	Block Chain & Applications	3	0	0	3	3
5	Major Choice	XXXX	Elective	2	0	2	4	3
6	Minor Choice	XXXX	Elective	3	1	0	3	4
7	Major Lab	23H17CA 691	Data Analytics Lab	0	0	2	2	1
Total							21	20

Major Electives:

AI/ML		
S.No	Subject Names	Codes
1	Artificial Intelligence & Application	23H11ACA101
2	Machine Learning & Applications	23H11ACA102
3	Soft Computing & Applications	23H11ACA103
4	Vision intelligence and Machine learning	23H11ACA104
5	Natural Language processing	23H11ACA105
6	Deep Learning and Neural Networks	23H11ACA106
7	Reinforcement Learning	23H11ACA107

Cyber Security		
S.No	Subject Names	Codes
1	Fundamental of information Theory	23H11ACA201
2	Database security and access control	23H11ACA202
3	Introduction to cryptography	23H11ACA203
4	Python Programming and AI for cyber security	23H11ACA204
5	Computer and Network security	23H11ACA205
6	Security Assessment & Risk analysis	23H11ACA206
7	Cyber Threat intelligence	23H11ACA207

Data Science and Data Analytics		
S.No	Subject Names	Codes
1	Machine Learning Basics	23H11ACA301
2	Fundamentals of Cloud computing	23H11ACA302
3	Data Mining and Analytics	23H11ACA303
4	Artificial Intelligence & Application	23H11ACA304
5	Data Modelling and Visualization	23H11ACA305
6	Social Media and Text Analytics	23H11ACA306
7	Introduction to Data Science	23H11ACA307
8	Big data Analytics -Advance	23H11ACA308

Minor Electives

S.No	Subject Names	Codes
1	Indian Knowledge system	23H11ACA151
2	Knowledge Management	23H11ACA152
3	Mobile application Development	23H11ACA153
4	Java Application Development	23H11ACA154

Assoc. Dean Academic

Vice Chancellor