

Program - BCA (Bachelor of Computer Applications)

Program Structure 2023-24

S. No.	Major Discipline	Minor Discipline (Full Stack Development)
1	AI/ML	Web Application Development
2	Cyber Security	Java Application Development
3	Data Analytics	Mobile Application Development

Major Choices			
S. No.	AI/ML	Cyber Security	Data Analytics
1	Fundamentals of Artificial Intelligence	Fundamentals of Information Theory	Introduction to Big Data
2	Machine Learning Basics	Database Security and Access Control	Machine Learning Basics
3	Fuzzy Logic and Neural Network	Introduction to cryptography	Web Data Mining
4	Python Programming-II for Machine Learning	Python Programming-II & AI for Cyber Security	Python Programming-II for Data Science
5	Applications of AI	Computer and Network Security	BIG DATA FRAMEWORKS
6	ML in NLP	Security Assessment and Risk Analysis	Fundamental of Cloud Computing
7	Principles of Deep Learning	Cyber Threat Intelligence	Applications of Big Data Analytics

Category-wise Distribution of the Credits across the Programme

Semester	Major	Minor	Multi-disciplinary	Ability Enhancement	Skill Enhancement	Value Added	Summer Internship	Research Project / Dissertation	Total Credits
I	5	3	3	2	3	4	0	0	20
II	5	5	3	2	3	2	0	0	20
III	7	5	3	2	3	0	0	0	20

Third Semester								
S. No.	Course Code	Course Discipline	Course Title	Credit Structure				Contact Hours
				L	T	P	Credits	
1	23xxxxxxxx	Major Core	Algorithm and Problem Solving (APS)	3	0	1	4	5
2	23xxxxxxxx	Major Core	Probability and Statistics	3	0	0	3	3
3	23xxxxxxxx	Minor Core	Object Oriented Programming (C++)	3	1	1	5	6
4	23xxxxxxxx	MDC	Digital Logic	3	0	0	3	3
5	23xxxxxxxx	AEC	Soft Skills -II	2	0	0	2	2
6	23xxxxxxxx	SEC	Multimedia Technology-II	2	0	1	3	4
Total credits							20	23

Fourth Semester								
S. No.	Course Code	Course Discipline	Course Title	Credit Structure				Contact Hours
				L	T	P	Credits	
1	23xxxxxxxx	Major Core	Software Engineering	3	0	1	4	5
2	23xxxxxxxx	Major Core	Operating System	3	0	0	3	3
3	23xxxxxxxx	Major Choices	Major Choices-I	3	0	0	3	3
4	23xxxxxxxx	Major Choices	Major Choices-II	3	0	0	3	3
5	23xxxxxxxx	Minor Core	Java Full Stack Development-I (Core Java)	3	1	1	5	6
6	23xxxxxxxx	AEC	Life skills	2	0	0	2	2
Total credits							20	22

Fifth Semester								
S. No.	Course Code	Course Discipline	Course Title	Credit Structure				Contact Hours
				L	T	P	Credits	
1	23xxxxxxxx	Major Core	Computer Organization and Architecture	3	1	0	4	4

2	23xxxxxxx	Major Core	Computer Networks	3	0	0	3	3
3	23xxxxxxx	Major Choices	Major Choices-III	2	0	1	3	4
4	23xxxxxxx	Major Choices	Major Choices-IV	3	0	0	3	3
5	23xxxxxxx	Minor Choices	Full Stack Developer-I(Web development/Java/Mobile)	2	0	1	3	4
6	23xxxxxxx	Summer	Summer Internship	0	0	0	4	0
Total credits							20	18

Sixth Semester								
S. No.	Course Code	Course Discipline	Course Title	Credit Structure				Contact Hours
				L	T	P	Credits	
1	23xxxxxxx	Major Core	Introduction to Blockchain	3	1	0	4	4
2	23xxxxxxx	Major Core	Cloud Computing	3	1	0	4	4
3	23xxxxxxx	Major Core	Agile Software Development	3	0	0	3	3
4	23xxxxxxx	Major Core	IOT Analytics	3	0	0	3	3
5	23xxxxxxx	Major Choices	Major Choices -V	2	0	1	3	4
6	23xxxxxxx	Minor Choices	Full Stack Developer-II(Web development/Java/Mobile)	2	0	1	3	4
Total credits							20	22

Total Program Credits upto 3 years	120
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Seventh Semester								
S. No.	Course Code	Course Discipline	Course Title	Credit Structure				Contact Hours
				L	T	P	Credits	
1	23xxxxxxx	Major Core	Large Scale graph Analysis	3	1	0	4	4
2	23xxxxxxx	Major Core	Game Theory	3	1	1	5	6
3	23xxxxxxx	Major Core	Meta heuristic optimization	3	0	1	4	5

4	23xxxxxxx	Major Choices	Major Choices -VI	3	0	0	3	3
5	23xxxxxxx	Minor Core	Information Retrieval	3	1	0	4	4
Total credits							20	22

Eighth Semester								
				Credit Structure				
S. No.	Course Code	Course Discipline	Course Title	L	T	P	Credits	Contact Hours
1	23xxxxxxx	Major Core	Introduction to Devops	2	0	0	2	2
2	23xxxxxxx	Major Choices	Major Choices -VII	2	0	0	2	2
3	23xxxxxxx	Minor Core	Social Network Analysis	3	1	0	4	4
4		Project	Research Project / Dissertation	0	0	0	12	-
Total credits							20	8

Total Program Credits upto 4 years	160
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*Note: Proposed Curriculum, subject to approval from academic council/BOS