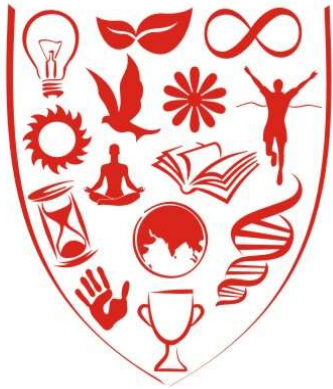




JECRCTM
UNIVERSITY
BUILD YOUR WORLD

School of Computer Applications
Scheme & Syllabus
of
Bachelor of Computer Applications (BCA)
3 Years Full time program
Specialization- AI Devops and Cloud Automation
(Federation University)
Academic Program--July
2026-29

JECRC University, Jaipur
Plot No. IS-2036 to IS-2039 Ramchandrapura Industrial Area Jaipur, Sitapura, Vidhani,
Rajasthan 303905

SEMESTER I							
S. No.	Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
1	BCA152B	Web Technologies-I	2	0	0	2	COR E
2	BCA925 A	Programming in C	2	0	0	2	COR E
3	BCA926 A	Programming in C Lab	0	0	4	2	COR E
4	BCA255B	Project Lab Using Web Technologies	0	0	4	2	COR E
5	DCH010 A	Environmental Education	2	0	0	2	VAC
6	BCO570 A	Digital Data and AI Literacy	0	0	4	2	SEC
7	DEN001C /D	Communication Skills/ Communication Skills Lab	1	0	2	2	AEC
8	JIC002A	Entrepreneurship Development	0	0	2	1	SEC
9	BCA113B	Operating System	4	0	0	4	COR E
Total			11	0	16	19	

SEMESTER II							
S. No.	Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
1	BCA114B	Database Management Systems	3	0	0	3	CORE
2	BCA126B	Object Oriented Programming Using C++	2	0	0	2	CORE
3	BCA130B	Project Lab Using C++	0	0	4	2	CORE
4	BCA118B	Database Management Systems Lab	0	0	4	2	CORE
5		Subjects I (AI Devops-Cloud)	3	0	4	5	S
6		Foundation Course in IKS	2	0	0	2	VAC
7	DCO018A	Advance Excel	0	0	4	2	SEC
8	DEN002C/ DEN002D	Professional Skills / Lab	1	0	2	2	AEC
Total			11	0	18	20	

SEMESTER III							
S.No.	Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
1	BCA305A	Data Structures and Algorithms -I	3	0	0	3	CORE
2		Subjects I (AI Devops-Cloud)	3	0	4	5	S
3	BCA133B	Programming in JAVA	3	0	0	3	CORE
4	BCA306A	Data Structures and Algorithms -I Lab	0	0	4	2	CORE
5	BCA136B	Project Lab using JAVA	0	0	4	2	CORE
6		Mathematics in India	2	0	0	2	VAC
7		Leadership and Management Skills	1	0	2	2	AEC
8		Generative Artificial Intelligence Tools	0	0	4	2	SEC
9		Open Elective/MOOC	3	0	0	3	MD
		Total	15	0	18	24	

SEMESTER IV							
S. No.	Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Cre dits	Type
1	BCA300 A/BCA 301A	Python Programming/Lab	3	0	4	5	CORE
2		Subjects I (AI Devops-Cloud)	3	0	4	5	S
3		Universal Human Values	2	0	0	2	AEC
5		Health and Yoga	1	0	2	2	VAC
6		Prompt Engineering for coding	0	0	4	2	SEC
7		Departmental Elective --4	3	0	2	4	E
8	Open Elective/MOOC		3	0	0	3	MD
Total			15	0	16	23	

SEMESTER V							
S. No	Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Cre dits	Type
1	BCA135A	Computer Network	3	0	0	3	CORE
2	BCA147B	Major Project (IOT/Mobile app/AI ML/Soft) (IOT/Mobile app/AI ML/Soft) (IOT/Mobile app/AI ML)	0	0	6	3	CORE
3	Departmental Elective 5		3	0	0	3	DE
4	Departmental Elective 6		2	0	2	3	DE
5	Departmental Elective 5		3	0	0	3	DE
6	Open Elective/MOOC		3	0	0	3	MD
Total			14	0	8	18	

Semester – VI					
Course Code	Course Name	L (Hr.)	P (Hr.)	Credits	Type
BCA165A	Industrial Training/Internship	0	0	16	CORE

SEMESTER VII							
S. No.	Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
1	BCA522A	Literature Review	3	0	0	3	CORE
2	BCA523A	Statistical Analysis using R	3	0	4	5	CORE
3	BCA524A	Data Analytics	3	0	4	5	CORE
4	BCA525A	Scientific Paper Writing	3	0	0	3	CORE
5	BCA526A	Research Project-I/ Research Internship Report and viva voce	0	0	8	4	CORE
Total			12	0	16	20	

Semester – VIII					
Course Code	Course Name	L (Hr.)	P (Hr.)	Credits	Type
BCA527A	Research Project/Capstone Project/ Dissertation (For Research Track)	0	40	20	CORE