



JECRCTM
UNIVERSITY
BUILD YOUR WORLD

School of Computer Applications
Scheme & Syllabus
of
Bachelor of Computer Applications (BCA)
Specialization- Cloud Computing
(In Association with AWS Academy)
Academic Program
July 2026

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

Cloud AWS Specializations Subjects (BCA)							
Semester	Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
I	BC246B	Cloud Computing Fundamental	3	0	0	3	S
III	BCA248A	Cloud Security	4	0	0	4	S
IV	BCA249A	AWS Academy Cloud Foundation Course	3	0	0	3	S
IV	BCA247A	Introduction to Cloud Architecture	4	0	0	4	S
V	BCA250A	AWS Academy Cloud Developing	4	0	0	4	S
			18			18	

SEMESTER I							
S. No.	Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
1	BCA246 B	Cloud Computing Fundamental	3	0	0	3	S
2	BCA925 A	Programming in C	2	0	0	2	CORE
3	BCA926 A	Programming in C Lab	0	0	4	2	CORE
4	DCH010 A	Environmental Education	2	0	0	2	VAC
5	BCO570 A	Digital Data and AI Literacy	0	0	4	2	SEC
6	DEN001 C/D	Communication Skills/ Communication Skills Lab	1	0	2	2	AEC
7	BCA113 B	Operating System	4	0	0	4	CORE
8	BCA106 A	Office Automation Tools Lab	0	0	2	1	CORE
9	JIC002A	Entrepreneurship Development	0	0	2	1	SEC
Total			12	0	14	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		Departmental Elective 1	3	0	0	3	E
4		Departmental Elective 2	3	0	0	3	E
5	BCA130B	Project Lab Using C++	0	0	4	2	CORE
6	BCA118B	Database Management Systems Lab	0	0	4	2	CORE
7	IKS001A	Inculcation of Human Values and Professional Ethics in Higher Education Institutions	2	0	0	2	VAC
8	DCO018A	Advance Excel	0	0	4	2	SEC
9	DEN002C /DEN002D	Professional Skills / Lab	1	0	2	2	AEC
Total			14	0	14	21	

SEMESTER III							
S.No .	Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Cred its	Type
1	BCA305 A	Data Structures and Algorithms - I	3	0	0	3	COR E
2	BCA228 A	Cloud Security	4	0	0	4	S
3	BCA133 B	Programming in JAVA	3	0	0	3	COR E
4	BCA306 A	Data Structures and Algorithms - I Lab	0	0	4	2	COR E
5	BCA136 B	Project Lab using JAVA	0	0	4	2	COR E
6		Mathematics in India	2	0	0	2	VAC
7		Leadership and Managemnet 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	16	0	14	23	

SEMESTER IV							
S. No.	Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
1	BCA300A	Python Programming	3	0	0	3	CORE
2	BCA115C	Computer Organization Architecture	3	0	0	3	CORE
3		Universal Human Values	2	0	0	2	VAC
4		Health and Yoga	1	0	2	2	AEC
5		Prompt Engineering for coding	0	0	4	2	SEC
6	BCA247A	Introduction to Cloud Architecture (BCA247A)	4	0	0	4	S
7	BCA249A	AWS Academy Cloud Foundation Course (BCA249A)	3	0	0	3	S
8	Open Elective/Mooc		3	0	0	3	MD
		Total	19	0	6	22	

SEMESTER V							
S. No.	Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	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)	0	0	6	3	CORE
3	BCA250A	AWS Academy Cloud Developing (BCA250A)	3	0	0	3	S
4	Departmental Elective –5		3	0	2	4	DE
5	Departmental Elective –6		2	0	2	3	DE
6	Open Elective/Mooc		3	0	0	3	MD
		Total	14	0	10	19	

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		Literature Review	3	0	0	3	CORE
2		Statistical Analysis using R	3	0	4	5	CORE
3		Data Analytics	3	0	4	5	CORE
4		Scientific Paper Writing	3	0	0	3	CORE
5		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
	Research Project/Capstone Project/ Dissertation (For Research Track)	0	40	20	CORE