



JECRCTM
UNIVERSITY
BUILD YOUR WORLD

School of Computer Applications
Scheme & Syllabus
of
Bachelor of Computer Applications (BCA)
Specialization- Cyber Security
(In Association with EC-Council)
Academic Program
July 2026

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

EC Council Specializations Subjects (BCA)							
Semester	Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
II	BCA202A	EC Certified Security Specialist (ECSS) (400)	4	0	0	4	S
III	BCA203A	Certified Network Defender (400)	4	0	0	4	S
IV	BCA204A	Certified Ethical Hacker (800)	0	0	8	8	S
			8		8	16	

SEMESTER I							
S. No.	Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
1	BCA152 B	Web Technologies	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	BCA255 B	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	DEN001 C/D	Communication Skills/ Communication Skills Lab	1	0	2	2	AEC
8	JIC002A	Entrepreneurship Development	0	0	2	1	SEC
9	BCA113 B	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 /BCA 130C	Object Oriented Programming Using C++/Project Lab using C++	2	0	4	4	CORE
3		Departmental Elective 1	3	0	0	3	E
4	BCA118B	Database Management Systems Lab	0	0	4	2	CORE
5	IKS001A	Inculcation of Human Values and Professional Ethics in Higher Education Institutions	2	0	0	2	VAC
6	DCO018A	Advance Excel	0	0	4	2	SEC
7	DEN002C /D	Professional Skills / Lab	1	0	2	2	AEC
8	BCA202A	EC Certified Security Specialist (ECSS) (400)	4	0	0	4	S
Total			15	0	14	22	

SEMESTER III							
S.No	Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
1	BCA305 A	Data Structures and Algorithms	3	0	0	3	CORE
2	BCA3203 A	Certified Network Defender (400)	4	0	0	4	SP
3	BCA133 B	Programming in JAVA	3	0	0	3	CORE
4	BCA306 A	Data Structures and Algorithms Lab	0	0	4	2	CORE
5	BCA136 B	Project Lab using JAVA	0	0	4	2	CORE
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	BCA300 A/BCA3 01A	Python Programming /Lab	3	0	4	5	COR E
2	BCA115 C	Computer Organization Architecture	3	0	0	3	COR E
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		Certified Ethical Hacker (800)- BCA204A	8	0	0	8	S
7	Open Elective/Mooc		3	0	0	3	MD
Total			20	0	10	25	

SEMESTER V							
S. No.	Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
1	BCA147B	Major Project (IOT/Mobile app/AI ML/Soft)	0	0	6	3	CORE
2	BCA135A	Computer Network	3	0	0	3	CORE
3	Departmental Elective –6		2	0	2	3	E
4	Departmental Elective –7		3	0	0	3	E
5	Open Elective/Mooc		3	0	0	3	GE
	Total		11	0	08	15	

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