



School of Computer Applications

Scheme & Syllabus

Master of Computer Applications-

Cyber Security

(In Association with EC-Council)

Academic Programme

July 2026

JECRC University, Jaipur

Plot No. IS-2036 to IS-2039 Ramchandrapura Industrial Area, Sitapura, Vidhani,

Jaipur, Rajasthan 303905

MCA

Semester wise Credit				Total Credits	Minimum Credits Required for Degree
I	II	III	IV		
22	25	17	16	80	80

EC Council Specializations Subjects (MCA)							
Semester	Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
I	MCA210B	Certified Network Defender	5	0	0	5	S
II	MCA453A	Certified Ethical Hacker (500)	5	0	0	5	S
III	MCA453B	Certified Ethical Hacker (Practicals)	5	0	0	5	S
			15	0	0	15	

Semester –I

Course Code	Course name	Lecture Credits (Hrs.)	Tutorial Credits (Hrs.)	Practical Credits (Hrs.)	Total Credits (Hrs.)	Course Category
MCA125A	Competitive Programming (Using C++)	3	0	0	3	CORE
MCA129B	Competitive Programming (Using C++) Lab	0	0	4	2	CORE
MCA210B	Certified Network Defender	5	0	0	5	S
MCA121C	Advance Data Structures and Algorithms	3	0	0	3	CORE
MCA201B	Advance Operating Systems	3	0	0	3	CORE
MCA203B	Advance Data Structures Lab	0	0	4	2	CORE
JIC001A	Entrepreneurship Development	0	0	2	1	SEC
	Departmental Elective 1	3	0	0	3	DE
Total Credits		17	0	10	22	

Semester –II

Course Code	Course name	Lecture Credits (Hrs.)	Tutorial Credits (Hrs.)	Practical Credits (Hrs.)	Total Credits (Hrs.)	Course Category
MCA144c	Programming in Python	3	0	0	3	CORE
MCA118A	Advance Database Management System	3	0	0	3	CORE
MCA147A	Project Lab in Python	0	0	4	2	CORE
MCA124A	Project Lab in Advance Database Management Systems	0	0	4	2	CORE
MCA130B	Advance Java	3	0	0	3	CORE
	Departmental Elective – 2	3	0	2	4	DE
MCA600A	Technical Research Paper Writing	0	0	2	1	CORE
MCA202B	Advance Java Lab	0	0	4	2	CORE
MCA453A	Certified Ethical Hacker (500)	5	0	0	5	S
Total Credits		17	0	16	25	

Semester –III

Course Code	Course name	Lecture Credits (Hrs.)	Tutorial Credits (Hrs.)	Practical Credits (Hrs.)	Total Credits (Hrs.)	Course Category
MCA312A	Web Technology	3	0	0	3	CORE
MCA313A	Web Technology Lab	0	0	4	2	CORE
MCA314B/ 315B	Information Security and Hacking	3	0	2	4	CORE
MCA316A	Project	0	0	6	3	CORE
MCA453B	Certified Ethical Hacker (Practicals)	5	0	0	5	S
Total Credits		11	0	12	17	

Semester -IV

Course Code	Course name	Lecture Credits (Hrs.)	Tutorial Credits (Hrs.)	Practical Credits (Hrs.)	Total Credits (Hrs.)	Course Category
MCA175A	Industrial Training/Internship/Dissertation Capstone Project Presentation	0	0	0	16	CORE