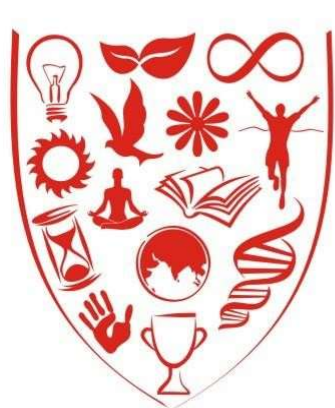




JECRCTM
UNIVERSITY
BUILD YOUR WORLD

School of Computer Application

Scheme& Syllabus

Master of Computer Applications (MCA)-

Cloud Computing Full-stack

Development (In Association with IBM)

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		
19	24	21	16	80	80

Cloud Computing Full-stack Development-IBM							
Specializations Subjects (MCA)							
Semester	Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
I	MCA213A	Web Development Using HTML (8), Java Script (8) and Node JS (12)*	2	0	0	2	S
II	MCA214B	IBM Cloud Fundamental (32)	3	0	0	3	S
II	MCA215A	Web Services (32)	2	0	2	3	S
II	MCA216A	Angular JS (32) and Spring Framework (32)	2	0	2	3	S
III	MCA217B	DevOps Fundamentals and Design Thinking (32) **	3	0	0	3	S
III	MCA218A	Dockers and Kubernetes Implementation (28)**	2	0	2	3	S
III	MCA219A	Deployment of Private Cloud and IBM Watson Studio (32)	3	0	0	3	S
			17	0	6	20	

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
MCA213A	Web Development Using HTML (8), Java Script (8) and Node JS (12)*	2	0	0	2	S
MCA121C	Advance Data Structures and Algorithms	3	0	0	3	CORE
MCA201B	Advance Operating Systems	3	0	0	3	CORE
JIC001A	Entrepreneurship Development	0	0	2	1	SEC
MCA203B	Advance Data Structures Lab	0	0	4	2	CORE
	Departmental Elective 1	3	0	0	3	DE
Total Credits		14	0	10	19	

Semester –II

Course Code	Course name	Lecture Credits (Hrs.)	Tutorial Credits (Hrs.)	Practical Credits (Hrs.)	Total Credits (Hrs.)	Course Category
MCA214B	IBM Cloud Fundamental (32)	3	0	0	3	S
MCA118A	Advance Database Management System	3	0	0	3	CORE
MCA215A	Web Services (32)	2	0	2	3	S
MCA124A	Project Lab in Advance Database Management Systems	0	0	4	2	CORE
MCA130B	Advance Java	3	0	0	3	CORE
MCA202B	Advance Java Lab	0	0	4	2	CORE
MCA600A	Technical Research Paper Writing	0	0	2	1	CORE
	Departmental Elective – 2	3	0	2	4	DE
MCA216A	Angular JS (32) and Spring Framework (32)	2	0	2	3	S
Total Credits		16	0	16	24	

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/ 315A	Information Security and Hacking	3	0	2	4	CORE
MCA217B	DevOps Fundamentals and Design Thinking (32) **	3	0	0	3	S
MCA 316A	Project	0	0	6	3	core
MCA218A	Dockers and Kubernetes Implementation (28)**	2	0	2	3	S
MCA219A	Deployment of Private Cloud and IBM Watson Studio (32)	3	0	0	3	S
Total Credits		14	0	14	21	

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