JECRC UNIVERSITY

BUILD YOUR WORLD

Faculty of IT & Computer Application

Scheme

of

Master of Computer Applications (MCA)

(Specialization in Cloud Computing& Full Stack Development)

(Specialization in Artificial Intelligence & Machine Learning)

(In Association with IBM)

Academic Programme

July 2020-21

MCA

Total Credits for the MCA Batch 2020-22 = 112 Credits

1. **Minimum Credits required = 102 Credits**
2. **Total Relaxation = 10 Credits**
3. **No relaxation in subjects of type Core and Foundation.**
4. **Theory exams duration will be of 03 hours and Practical exams will be of 02 hours.**
5. **Internal Assessment will be of 50 marks and End Term Assessment will be of 50 marks for theory and lab courses.**

Semester wise Credit				Total Credits	Minimum Credits Required for Degree
III	IV	V	VI		
28	28	28	28	112	102

Semester – I

Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
MCA119A	Programming in C++	3	0	0	3	CORE
MCA120B	Computer Networks	3	1	0	4	CORE
MCA121B	Advance Data Structures and Algorithms	2	1	0	3	CORE
MCA123B	Business Communication Skills	2	0	0	2	F
MCA125A	Programming in C++ Lab	0	0	2	2	S
MCA126A	Advance Data Structures and Algorithms Lab	0	0	2	2	S
MCA127B	Business Communication Skills Lab	0	0	2	2	S
MCA176A	Designing Lab (Photoshop and CorelDraw)	0	0	2	2	S
MIBM101 Specialization	AI & ML / Cloud & Full Stack Developer	4	0	0	4	CORE
MIBM102 Specialization	AI & ML / Cloud & Full Stack Developer	4	0	0	4	CORE
	Total	**18**	**2**	**08**	**20**	

- **F- Foundation, ID- Interdisciplinary, S- Specialization (Skill Enhance Courses)**
- **L- Lecture, T- Tutorial, P- Practical**

Semester – II

Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
MCA182A	Soft Skills	3	0	0	3	F
MCA130A	Advance Java	3	0	0	3	CORE
MCA132B	PHP & MYSQL	3	0	0	3	CORE
MCA118A	Advance Database Management Systems	3	0	0	3	CORE
MCA133A	Advance Java Lab	0	0	2	2	S
MCA134B	PHP & MYSQL Lab	0	0	2	2	S
MCA124B	Advance Database Management Systems Lab	0	0	2	2	S
MCA136A	Minor Project	0	0	2	2	S
MIBM103 Specialization	AI & ML / Cloud & Full Stack Developer	4	0	0	4	CORE
MIBM104 Specialization	AI & ML / Cloud & Full Stack Developer	4	0	0	4	CORE
	Total	**20**	**0**	**08**	**28**	

- **F- Foundation, ID- Interdisciplinary, S- Specialization (Skill Enhance Courses)**
- **L- Lecture, T- Tutorial, P- Practical**

Semester –III

Course Code	Course Name	L (Hr.)	T (Hr.)	P (Hr.)	Credits	Type
MCA129A	Accounting Principles and Practices	3	0	0	3	ID
MCA183A	Agile Software Development	3	0	0	3	F
MCA138A	Information Security & Cyber Law	3	0	0	3	CORE
MCA184A	Data Science & Analytics	3	0	0	3	S
MCA185A	Data Science & Analytics Lab	0	0	2	2	S
MCA177A	Cloud Computing Lab	0	0	2	2	S
MIBM105 Specialization	AI & ML / Cloud & Full Stack Developer	4	0	0	4	CORE
MIBM106 Specialization	AI & ML / Cloud & Full Stack Developer	4	0	0	4	CORE
MIBM107 Specialization	AI & ML / Cloud & Full Stack Developer	4	0	0	4	CORE
	Total	**20**	**0**	**8**	**20**	

- **F- Foundation, ID- Interdisciplinary, S- Specialization (Skill Enhance Courses)**
- **L- Lecture, T- Tutorial, P- Practical**

Semester – IV

Course Code	Course Name	Credits	Type
MCA175A	Industrial Training/Project Presentation	28	CORE

List of Courses

Specialization in Cloud Computing& Full Stack Development

SNo	Course Name	Credits
1	JSP & Servlets	4
2	IBM Cloud Fundamentals – Services	4
3	Angular	4
4	Spring framework	4
5	Web Services & REST API Development	4
6	Agile, Design thinking and DevOps	4
7	Automated Testing Using Selenium	4
8	Set up of Private Cloud	4
9	Cloud Security	4

Note:

1. **Students have to select any 7 Courses from attached list of 9 courses for IBM Specialization in Clouding Computing & Full Stack Development.**
2. **The credits of these courses will be considered on submission of copy of course completion certificate.**

List of Courses

Specialization in AI & Machine Learning

SNo	Course Name	Credits
1	Predictive Analytics Modeler	4
2	Python	4
3	Text Analytics	4
4	Data Visualization	4
5	Rapid Development for AI - Watson Services	4
6	AI Services	4
7	Machine Learning Services with Watson Studio	4
8	Python for Data Science, Machine Learning with Python, Data Visualization with Python	4
9	Deep Learning Fundamentals, Deep Learning with TensorFlow, Accelerating Deep Learning with GPU	4

Note:

1. **Students have to select any 7 Courses from attached list of 9 courses for IBM Specialization in AI & Machine Learning.**
2. **The credits of these courses will be considered on submission of copy of course completion certificate.**