Curriculum for
Master Of Computer Application
2021

Program Summary

Duration of the Programs: 2 Years - 4 Semesters

Program Vision
To nurture youth with strong competence in the field of Computer Application and Information Technology
Program Outcome

- **Basic Knowledge/Skills**
  An Individual with a positive attitude with strong Communication, Presentation, Leadership Skills and professional Competence.

- **Technical Knowledge/Skills**
  Problem solving Capabilities with Logical Thinking

- **Software Skill and Project Skills**
  Program Development and Problem Solving Skills with Knowledge of Programming Language like C, C++, Python, Database Management, Computer Networking etc

Credit Scheme

Semester I						
S. No.	Subject Code	Course Titles	Hours/week			Total Credits
			L	T	P	
1	MCA-DC101	Computer Organization & Architecture	2	1	2	4
2	MCA-DC102	Database Management System	2	1	2	4
3	MCA-DC103	Operating Systems	3	1	0	4
4	MCA-DC104	Mathematical Foundation of Computer Science (MFCS)	3	1	0	4
5	MCA-DC105	Principles of Programming Language with Python	3	1	2	5
6	MCA-PR101	Minor Project – I	0	0	4	2
7	MCA-AE101	Professional Communication	2	0	0	2
8	MCA-SE101	MOOC Course^ (Self Study -1)	0	0	0	1
Total			**15**	**5**	**10**	**26**

^Counted as a minimum of 2 hours per week online self-study hours outside the time-table

Semester II						
S. No.	**Subject Code**	**Course Titles**	**Hours/week**			**Total Credits**
			L	**T**	**P**	
1	MCA-DC201	Data Structures & Algorithms Design	3	1	4	6
2	MCA-DC202	Software Engineering	2	1	0	3
3	MCA-DC203	Mobile & Web Applications Design & Development	3	1	2	5
4	MCA-DC204	Computer Network	2	1	2	4
Students will be required to select one of the Electives from Elective-I						
5	MCA-EC201	Linux Administration	2	1	2	4
6	MCA-EC202	Advanced Database Management Systems				
7	MCA-EC203	Data Warehousing and Data Mining				
8	MCA-EC204	Compiler Design & Construction				
9	MCA-EC205	Introduction to Cloud Computing				
Students will be required to select one of the following from 10 and 11:						
10	MCA-PR201	Minor Project – II	0	0	4	2
11	MCA-SE201	Technical Paper Writing*	0	0	4	2
12	MCA-SE202	MOOC Course (Self Study -2)	0	0	0	1
Total			**12**	**5**	**18**	**25**

*It is suggested to have Technical Paper be published in a journal

Semester III						
S. No.	Subject Code	Course Titles	Hours/week			Total Credits
			L	T	P	
1	MCA-DC301	Computer Graphics & Animation	2	1	2	4
2	MCA-DC302	Artificial Intelligence & Machine Learning	2	1	0	3
3	MCA-DC303	Internet of Things & Application Development	3	1	2	5
Core Elective - II (Choose any One)						
4	MCA-EC301	Big Data Analytics	2	1	2	4
5	MCA-EC302	Enterprise Computing with JAVA				
6	MCA-EC303	Enterprise Architecture using C# (.Net)				
7	MCA-EC304	Web Server & Network Administration				
8	MCA-EC305	Object Oriented Analysis , Design and Project Management				
9	MCA-EC306	Multimedia Technologies				
Core Elective - III (Choose any One)						
10	MCA-EC307	Advance Computer Architecture & Parallel Processing	3	1	0	4
11	MCA-EC308	Digital Marketing and Social Media Management				
12	MCA-EC309	Information Security				
13	MCA-EC310	ERP				
14	MCA-EC311	Software Testing & Quality Management				
15	MCA-EC312	Management Information System & Organization Behavior				
16	MCA-EC313	Software Project Management				
17	MCA-PR301	Minor Project – III	0	0	4	2
18	MCA-FW301	Entrepreneurship Development	2	0	0	2
19	MCA-SE301	MOOC Course (Self Study -3)	0	0	0	1
Total			**14**	**5**	**10**	**25**

Semester IV						
S. No.	**Subject Code**	**Course Titles**	**Hours/week**			**Total Credits**
			L	**T**	**P**	
1	MCA-PR401	Dissertation (Major Project)	0	0	32	16
2	MCA-SM401	Professional Proficiency – IV (Seminar and Progress Report)	0	0	12	6
3	MCA-SE401	MOOC Course (Self Study -4)	0	0	0	2
Total			**0**	**0**	**44**	**24**