

DEPARTMENT OF COMPUTER APPLICATIONS, MIT Manipal
M.C.A (MASTER OF COMPUTER APPLICATIONS)
Course Structure (Applicable to 2019-20 admission onwards)

Year	First Semester						Second Semester					
	Sub Code	Subject Name	L	T	P	C	Sub Code	Subject Name	L	T	P	C
I	MAT 4151	Computational Mathematics	4	0	0	4	MCA 4253	Java Programming	4	0	0	4
	MCA 4152	Object Oriented Programming	4	0	0	4	MCA 4252	Data Structures and Algorithms	4	0	0	4
	MCA 4154	Software Engineering	3	0	0	4	MCA 4254	Web Technologies	4	0	0	4
	MCA 4151	Database Management System	4	0	0	3	MCA 4251	Data Analytics	4	0	0	4
	MCA 4153	Operating Systems	3	0	0	3		Program Elective I	3	0	0	3
	MCA 4161	Database Management System Lab	0	0	3	1	MCA 4262	Java Programming Lab	0	1	3	2
	MCA 4163	Object Oriented Programming Lab	0	1	3	2	MCA 4261	Data Structures and Algorithms Lab	0	0	3	1
	MCA 4162	Linux Programming Lab	0	1	3	2	MCA 4263	Web Technologies Lab	0	0	3	1
		Total	18	1	9	23			19	0	9	22
II	Third and Fourth Semesters											
	Sub Code	Subject Name	L	T	P	C	Sub Code	Subject Name	L	T	P	C
	MCA 5152	Machine Learning	4	0	0	4	MCA 5298	Project Work	0	0	0	12
	MCA 5151	Computer Networks	4	0	0	4						
		Program Elective II	3	0	0	3						
		Program Elective III	3	0	0	3						
	MCA 5164	Seminar	0	0	6	2						
	MCA 5161	Machine Learning Lab	0	0	3	1						
	MCA 5162	Mobile Application Development Lab	0	1	3	2						
	MCA 5163	Network Lab	0	1	3	2						
		Total	14	2	15	21		Total	0	0	0	12
		Total Credits										77

Program Electives			
Code	TITLE	Code	TITLE
Program Electives - I		Program Electives - II & III	
MCA 5036	Internet of Things	MCA 5042	Semantic Web
MCA 5039	Object Oriented Analysis and Design	MCA 5043	Service Oriented Architecture
MCA 5037	Management Information Systems	MCA 5030	Cyber Forensics
MCA 5028	Computational Intelligence	MCA 5026	Big Data Analytics
MCA 5029	Computer Organization and Architecture	HUM 5043	Human Resource Management
MCA 5038	NoSQL Database Systems	MCA 5034	Information and Network Security
		MCA 5035	Information Storage and Management
		MCA 5041	Pattern Recognition Techniques and Applications
		MCA 5040	Optimization Techniques
		MCA 5027	Cloud Computing
		MCA 5031	Design and Analysis of Algorithms
		MCA 5044	Software Project Management
		MCA 5033	Game Programming
		MCA 5032	Ethical Hacking