

Curriculum for Master of Computer Applications

FIRST YEAR FIRST SEMESTER

Theoretical Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Paper-I	CSE/MCA/T/111A	Introduction to Programming	4			100		3
Paper-II	CSE/MCA/T/112A	Digital Systems	4			100		3
Paper-III	CSE/MCA/T/113A	Management Information Systems	3			100		3
Paper - IV	CSE/MCA/Math/T/114A	Mathematical Foundations I	4			100		3
Paper - V	CSE/MCA/Math/T/115A	Mathematical Foundations II	4			100		3

Sessional Courses	Subjects		Periods/Weeks			Marks		Credit Points	
	Subject Code	Subject Name	L	T	P	Examination	Sessional		
Sessional-I	CSE/MCA/S/111	Programming Practice I			3		100	2	
Sessional -II	CSE/MCA/S/112	Digital Logic Lab			3		100	2	
Sessional – III	CSE/MCA/Hum/S/113	Communication Skills and Language Lab			2		50	1	
Sessional-IV	CSE/MCA/S/114	Application Software Lab			2		50	1	
			19		10		500	300	21

Total Period/Week = 29

Total Marks = 800

FIRST YEAR SECOND SEMESTER

Theoretical Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Paper-VI	CSE/MCA/T/121A	Numerical methods	3			100		3
Paper-VII	CSE/MCA/T/122A	Data and File Structure	3			100		3
Paper-VIII	CSE/MCA/T/123A	Microprocessors and Assembly Language	3			100		3
Paper-IX	CSE/MCA/T/124A	Computer Organization and Architecture	3			100		3
Paper-X	CSE/MCA/T/125A	Software Project Management	3			100		3

Sessional Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Sessional-V	CSE/MCA/S/121	Numerical Methods Lab			3		100	2
Sessional-VI	CSE/MCA/S/122	Data and File Structure Lab			3		100	2
Sessional-VII	CSE/MCA/S/123	Microprocessor Lab			3		100	2
			15		9	500	300	21

Total Period/Week = 24

Total Marks = 800

SECOND YEAR FIRST SEMESTER

Theoretic al Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Paper-XI	CSE/MCA/T/211A	Operating Systems	3			100		3
Paper-XII	CSE/MCA/T/212A	Object Oriented Programming	3			100		3
Paper-XIII	CSE/MCA/T/213A	Optimization Techniques	3			100		3
Paper - XIV	CSE/MCA/T/214A	Graph theory and Combinatorics	3			100		3
Paper - XV	CSE/MCA/T/215A	Software Engineering	3			100		3

Sessional Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Sessional- VIII	CSE/MCA/S/211	Operating Sysytem Lab			3		100	2
Sessional- IX	CSE/MCA/S/212	Object Oriented Programming Lab			3		100	2
Sessional-X	CSE/MCA/S/213	Software Engineering Lab			3		100	2
			15		9	500	300	21

Total Period/Week = 24

Total Marks = 800

SECOND YEAR SECOND SEMESTER

Theoretical Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Paper - XVI	CSE/MCA/T/221A	Database Management Systems	3			100		3
Paper - XVII	CSE/MCA/T/222A	Computer Graphics	3			100		3
Paper - XVIII	CSE/MCA/T/223A	Data Communication and Computer Networks	3			100		3
Paper - XIX	CSE/MCA/T/224A	Theory of Computing	3			100		3
Paper - XX	CSE/MCA/T/225A	Design and Analysis of Algorithms	3			100		3

Sessional Courses	Subjects		Periods/Weeks			Marks		Credit Points	
	Subject Code	Subject Name	L	T	P	Examination	Sessional		
Sessional- XI	CSE/MCA/S/221	Database Management Systems Lab			3		100	2	
Sessional- XII	CSE/MCA/S/222	Computer graphics lab			3		100	2	
Sessional- XIII	CSE/MCA/S/223	Computer Networks Lab			3		100	2	
			15		9		500	300	21

Total Period/Week = 24

Total Marks = 800

THIRD YEAR FIRST SEMESTER

Theoretical Courses	Subjects		Periods/Weeks			Marks		Credit Points
	Subject Code	Subject Name	L	T	P	Examination	Sessional	
Paper - XXI	CSE/MCA/T/311A	System Software and Compiler	3			100		3
Paper - XXII	CSE/MCA/T/312A	Artificial Intelligence and Applications	3			100		3
Paper - XXIII	CSE/MCA/T/313A	Web Technologies	3			100		3
Paper - XXIV	CSE/MCA/T/314	Elective I	3			100		3
Paper - XXV	CSE/MCA/T/315	Elective II	3			100		3

Sessional Courses	Subjects		Periods/Weeks			Marks		Credit Points	
	Subject Code	Subject Name	L	T	P	Examination	Sessional		
Sessional- XIV	CSE/MCA/S/311	Web Technology Lab			3		100	2	
Sessional- XV	CSE/MCA/S/312	Seminar			3		100	2	
Sessional- XVI	CSE/MCA/S/313	Artificial Intelligence Lab			3		100	2	
			15		9		500	300	21

Total Period/Week = 24

Total Marks = 800

THIRD YEAR SECOND SEMESTER

Sessional Courses	Subjects		Periods/Weeks		Marks		Credit Points
			Lecture	Sessional	Examination	Sessional	
Sessional-XVII	CSE/MCA/S/321	Project		9		300	6
			00	9	00	300	6

Total Period/Week = 9

Total Marks = 300

List of electives

	<u>Elective 1</u>		<u>Elective II</u>
CSE/MCA/T/314A	Image Processing	CSE/MCA/T/315A	Programming Language paradigms
CSE/MCA/T/314B	Distributed computing	CSE/MCA/T/315B	Information Retrieval and Web Mining
CSE/MCA/T/314C	IT Security	CSE/MCA/T/315C	Management Economics
CSE/MCA/T/314D	Industrial Quality Assurance	CSE/MCA/T/315D	Mobile Computing
CSE/MCA/T/314E	ERP	CSE/MCA/T/315E	Parallel Computing
CSE/MCA/T/314F	Coding Theory	CSE/MCA/T/315F	Pattern Recognition
CSE/MCA/T/314G	Combinatorial Algorithm	CSE/MCA/T/315G	Multimedia
CSE/MCA/T/314H	Cryptography	CSE/MCA/T/315H	Computational Geometry
CSE/MCA/T/314J	Machine Learning	CSE/MCA/T/315J	Bio Informatics
CSE/MCA/T/314K	Soft Computing	CSE/MCA/T/315K	Data Warehousing and Data Mining
CSE/MCA/T/314L	Biometric Systems	CSE/MCA/T/315L	Network Security