

SCHOOL OF INFORMATION AND COMMUNICATION TECHNOLOGY

COURSE STRUCTURE

MASTER OF COMPUTER APPLICATIONS (MCA) 3 YEAR PROGRAMME



**GAUTAM BUDDHA UNIVERSITY
GAUTAM BUDH NAGAR, GREATER NOIDA**

SEMESTER I

S. No.	Courses Code	Courses	L-T-P	Credits
1	MCA101	Computer Fundamental and C Programming	3-0-0	3
2	MCA103	Computer Organization and Architecture	3-0-0	3
3	MCA105	Artificial Intelligence	3-0-0	3
4	MCA107	Discrete Mathematics	3-1-0	4
5	MCA109	Concepts of Operating System	3-0-0	3
6	MCA111	Computer Networks	3-0-0	3
7	MCA181	C Programming Lab	0-0-3	2
8	MCA183	Operating System Lab	0-0-3	2
9	GP111	General Proficiency	Non Credit	
Total Credits			23	
Total Contact Hours			18-1-6 = 25	

SEMESTER II

S. No.	Courses Code	Courses	L-T-P	Credits
1	MCA102	Object Oriented Analysis and Design	3-0-0	3
2	MCA104	Data Structure and Algorithms	3-0-0	3
3	MCA106	Data Base Management System	3-0-0	3
4	MCA108	Computer Graphics & Animation Modeling	3-0-0	3
5	MCA110	Theory of Automata	3-0-0	3
6	MCA112	E-Commerce	3-0-0	3
7	MCA182	Data Structure and Algorithms Lab	0-0-3	2
8	MCA184	Data Base Management System Lab	0-0-3	2
9	GP122	General Proficiency	Non Credit	
Total Credits			22	
Total Contact Hours			18-0-6 = 24	

SEMESTER III

S. No.	Courses Code	Courses	L-T-P	Credits
1	MCA201	JAVA Programming	3-0-0	3
2	MCA203	Software Engineering	3-0-0	3
3	MCA205	Data Communication and Networks	3-0-0	3
4	MCA207	Analysis and Design of Algorithm	3-0-0	3
5	MCA209	Compiler Design	3-0-0	3
6		Open Elective-1	3-0-0	3
7	MCA281	JAVA Programming Lab	0-0-3	2
8	MCA285	Analysis and Design of Algorithm Lab	0-0-3	2
9	GP231	General Proficiency	Non Credit	
Total Credits			22	
Total Contact Hours			18-0-6 = 24	

SEMESTER IV

S. No.	Courses Code	Courses	L-T-P	Credits
1	MCA202	Software Architecture and Design	3-0-0	3
2	MCA204	Machine Learning	3-0-0	3
3		Elective -1	3-0-0	3
4		Elective -2	3-0-0	3
5		Open Elective-2	3-0-0	3
6	MCA282	Machine learning Lab	0-0-3	2
7	MCA292	Minor Project	0-0-10	5
8	GP242	General Proficiency	Non Credit	
Total Credits				22
Total Contact Hours			15-0-13 =	28

ELECTIVE -1

S. No.	Courses Code	Courses	L-T-P	Credits
1	MCA206	Pattern Matching	3-0-0	3
2	MCA208	Natural Language Processing	3-0-0	3
3	MCA210	Software Project Management	3-0-0	3
4	MCA212	Mobile Computing	3-0-0	3

ELECTIVE -2

S. No.	Courses Code	Courses	L-T-P	Credits
1	MCA214	Fuzzy Logic	3-0-0	3
2	MCA216	Evolutionary Computing	3-0-0	3
3	MCA218	Knowledge Engineering	3-0-0	3
4	MCA220	Expert System	3-0-0	3

SEMESTER V

S. No.	Courses Code	Courses	L-T-P	Credits
1	MCA301	Big Data Analytics	3-0-0	3
2	MCA303	Soft Computing Techniques	3-0-0	3
3	MCA305	Information Security	3-0-0	3
4		Elective-3	3-0-0	3
5		Elective-4	3-0-0	3
6	MCA381	Big Data Analytics Lab	0-0-3	2
7	MCA383	Soft Computing Techniques Lab	0-0-3	2
8	GP351	General Proficiency	Non Credit	
Total Credits			19	
Total Contact Hours			15-0-6 = 21	

ELECTIVE -3

S. No.	Courses Code	Courses	L-T-P	Credits
1	MCA307	Speech Processing	3-0-0	3
2	MCA309	Digital Image Processing	3-0-0	3
3	MCA311	Internet of Things	3-0-0	3
4	MCA313	Neural Network	3-0-0	3

ELECTIVE -4

S. No.	Courses Code	Courses	L-T-P	Credits
1	MCA315	Computer Vision	3-0-0	3
2	MCA317	Data Science	3-0-0	3
3	MCA319	Cloud Computing	3-0-0	3
4	MCA321	Component Based Software Engineering	3-0-0	3

SEMESTER VI

S. No.	Courses Code	Courses	L-T-P	Credits
1	MCA391	Project	-----	22
2	GP252	General Proficiency	Non Credit	
Total Credits			22	

GRAND TOTAL CREDITS = 130