

Master of Computer Application

(MCA)

(W. E. F. 2020-21)

DURATION: 2 years (4 semester)

Revised course codes (approved in 15th BOS)

MAULANA AZAD NATIONAL URDU UNIVERSITY
SCHOOL OF TECHNOLOGY DEPARTMENT OF CS&IT

PROGRAMME STRUCTURE

Course Type	Abbreviation	Credits
Program Core Course	PCC	54
Discipline Specific Elective	DSE	09
Generic Elective (Interdisciplinary)	GE	04
Foundation Course	FC	03
Ability Enhancement Course	AEC	02
Projects	PROJ	16
Total Credits		88

L-T-P stands for number of contact hours as Lecture-Tutorial-Practical in a week.

Semester – I

Course Code	Course Title	Course Type	Marks			L-T-P	Credits
			Internal Assessment	Semester Exam	Total		
MMCA111FCT	Statistical Analysis	FC	30	70	100	3-0-0	3
MMCA111PCT	Software Engineering	PCC	30	70	100	3-1-0	4
MMCA112PCT	Computer Network	PCC	30	70	100	3-1-0	4
MMCA113PCT	Operating Systems	PCC	30	70	100	3-1-0	4
	Generic Elective	GE	30	70	100	3-1-0	4
MMCA160AEP	English Language & Communication Lab	AEC	50	50	100	0-0-4	2
Total						15-4-8	21

Generic Elective	
PGCS131GET	English for Research Paper Writing
PGCS132GET	Disaster Management
PGCS133GET	Sanskrit for Technical Knowledge
PGCS134GET	Value Education

Semester – II

Course Code	Course Title	Course Type	Marks			L-T-P	Credits
			Internal Assessment	Semester Exam	Total		
MMCA211PCT	Data Structure & Algorithms	PCC	30	70	100	3-1-0	4
MMCA212PCT	Data Base Management System	PCC	30	70	100	3-1-0	4
MMCA213PCT	Java Programming	PCC	30	70	100	3-1-0	4
MMCA214PCT	Computer System Architecture	PCC	30	70	100	3-1-0	4
	DSE – 1	DSE	30	70	100	3-0-0	3
MMCA260PCP	Data Structure & Algorithms Lab	LAB	50	50	100	0-0-4	2
MMCA261PCP	Data Base Management System Lab	LAB	50	50	100	0-0-4	2
MMCA262PCP	Java Programming Lab	LAB	50	50	100	0-0-4	2
Total						15-4-8	25

Semester – III

Course Code	Course Title	Course Type	Marks			L-T-P	Credits
			Internal Assessment	Semester Exam	Total		
MMCA311PCT	Data Science	PCC	30	70	100	3-1-0	4
MMCA312PCT	Formal Language & Automata Theory	PCC	30	70	100	3-1-0	4
MMCA313PCT	Blockchain Technology	PCC	30	70	100	3-1-0	4
MMCA314PCT	Machine Learning	PCC	30	70	100	3-1-0	4
	DSE – 2	DSE	30	70	100	3-0-0	3
	DSE – 3	DSE	30	70	100	3-0-0	3
MMCA360PCP	Data Science Lab	LAB	50	50	100	0-0-4	2
MMCA361PCP	Blockchain Technology Lab	LAB	50	50	100	0-0-4	2
Total						18-4-12	26

Semester – IV

Course Code	Course Title	Course Type	Marks			L-T-P	Credits
			Internal Assessment	Semester Exam	Total		
MMCA470PCP	Industrial/Major Project	PROJ	200	200	400	0-0-32	16
Total						0-0-32	16

Grand Total of Credits = 88

Discipline Specific Electives (DSE)

DSE – 1	
MMCA211PET	Digital Forensics
MMCA212PET	Component based Software Engineering
MMCA213PET	Cryptography & Cyber Security
MMCA214PET	Software Testing & Quality Assurance

DSE – 2	
MMCA311PET	Cloud Computing and Virtualization
MMCA312PET	Distributed Systems
MMCA313PET	Computer Graphics
MMCA314PET	Artificial Intelligence
MMCA315PET	Data Mining
MMCA316PET	Digital Marketing
MMCA317PET	Internet of Things
MMCA318PET	Compiler Design
MMCA319PET	Pattern Recognition

DSE – 3	
MMCA321PET	Web Technology
MMCA322PET	Artificial Neural Network
MMCA323PET	Semantics Web
MMCA324PET	PHP Programming
MMCA325PET	Soft Computing
MMCA326PET	Deep Learning
MMCA327PET	Web Mining
MMCA328PET	Natural Language Processing

M.C.A Bridge Course- PAPER CODES
(if applicable)

Revised course codes (approved in 15th BOS)

Course Code	Course Title	Course Type	Marks			L-T-P	Credits
			Internal Assessment	Semester Exam	Total		
MMCA121FCT	Discrete Mathematics	BC	30	70	100	3-1-0	4
MMBC122PCT	Information & Communication Technology	BC	30	70	100	3-1-0	4
MMBC123PCT	Introduction to Computer System & Hardware	BC	30	70	100	3-1-0	4
MMBC161PCP	Problem Solving using 'C' Language Lab	BC	50	50	100	0-0-4	2
Total						9-3-4	14