

**REVISED DETAILED STRUCTURE OF
MCA CURRICULUM**

with effect from Session 2022-23

**Master of Computer Applications (MCA)
TWO YEAR COURSE**



Centre of Computer Education & Training

Institute of Professional Studies

University of Allahabad

Prayagraj-211002

SEMESTER I								
S.No.	Course Code	Course Title	Credit					
			L	T	P	C	Int.	Ext.
1	MCA540	Programming in 'C' with Data Structures	2	1	0	3	40	60
2	MCA541	Database Management System	2	1	0	3	40	60
3	MCA542	Computer Organization & Architecture	2	1	0	3	40	60
4	MCA543	Principles of Management	2	1	0	3	40	60
5	MCA544	Software Engineering & CASE Tools	2	1	0	3	40	60
6	MCA545	Discrete Structures & Graph Theory	2	1	0	3	40	60
7	MCA650	Lab I: Data Structures in C & Assembly Language	0	1	3	4	40	60
	MCA651	Lab II : DBMS & Software Engineering	0	1	3	4	40	60
			12	2	12	26		

SEMESTER II								
S.No.	Course Code	Course Title	Credit					
			L	T	P	C	Int.	Ext.
1	MCA546	Theory of Computation	2	1	0	3	40	60
2	MCA547	OOPS with PYTHON	2	1	0	3	40	60
3	MCA548	Artificial Intelligence & Robotics	2	1	0	3	40	60
4	MCA549	Design and Analysis of Algorithms	2	1	0	3	40	60
5	MCA550	Operating System & LINUX Shell Programming	2	1	0	3	40	60
6	MCA551	Data Communication & Networks	2	1	0	3	40	60
7	MCA652	Lab I : PYTHON	0	1	3	4	40	60
	MCA653	Lab II : Shell Programming & Data Communication Networks	0	1	3	4	40	60
			12	2	12	26		

SEMESTER III								
S.No.	Course Code	Course Title	Credit					
			L	T	P	C	Int.	Ext.
1	MCA552	.Net Framework with C#	2	1	0	3	40	60
2	MCA553	Principles of Cryptography and Cyber Security	2	1	0	3	40	60
3	MCA554	Compiler Design	2	1	0	3	40	60
4	MCA555	Optimization Techniques	2	1	0	3	40	60
5	MCA556	Machine Learning Techniques	2	1	0	3	40	60
6	MCA557 A/B/C	Elective I (BUCKET 1/2/3)	2	1	0	3	40	60
7	MCA654	Lab in C#	0	1	3	4	40	60
	MCA655	Project : Phase I(Bucket Oriented)	0	1	5	6	40	60
			12	2	14	28		

SEMESTER IV								
S.No.	Course Code	Course Title	Credit					
			L	T	P	C	Int.	Ext.
1	MCA558	Mobile Computing & Applications	3	1	0	4	40	60
2	MCA559 A/B/C	Elective II (BUCKET 1/2/3)	3	1	0	4	40	60
3	MCA656	Project : Phase II(Bucket Oriented)	0	4	16	20	40	60
			6	6	16	28		

Elective Bucket 1	Elective Bucket 2	Elective Bucket 3
MCA557 A : Computational Complexity	MCA557 B : Core and Advanced Java Script	MCA557 C : Core and Advanced Java Script
MCA559 A : Data Compression	MCA559 B : Web development using Django and Web Deployment using Web Services	MCA559 C : Android App Development using Flutter Framework