

PERIYAR MANIAMMAI INSTITUTE OF SCIENCE & TECHNOLOGY
FACULTY OF COMPUTING SCIENCE AND APPLICATIONS
DEPARTMENT OF COMPUTER APPLICATIONS
M.C.A.
CURRICULUM - REGULATIONS 2024

Category of courses and minimum credit requirements according to the AICTE / UGC Guidelines on Curriculum and Credit Framework for Post Graduate (PG) degree programme is outlined below:

Sl. No.	Course Category	Credits
1.	Foundation Courses	04
2.	Professional Core Courses	43 - 46
3.	Professional Elective Courses	12
4.	Online Courses	03 - 06
5.	Employability Enhancement Courses (Internship / Field Visit / Professional Practices / Project / Research / Thesis / Dissertation)	20 - 24
6.	Value Added / Value Addition Courses (IKS, Community Engagement, Research Methodology and IPR)	08
Total Credits		90 - 100

SEMESTER I

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
Theory						
1	P24CA101	Mathematical Foundations for Computer Applications	3	1	0	4
2	P24CA102	Modern Databases	3	0	0	3
3	P24CA103	Software Engineering	3	0	0	3
4	P24CA104	Advanced Data Structures	3	0	0	3
5	P24CA105	Computer Networks	3	0	0	3
6	P24CA106	Programming Paradigms	3	1	0	4
Practical						
7	P24CA107	Programming Paradigms Laboratory	0	0	4	2
8	P24CA108	Modern Databases Laboratory	0	0	4	2
Total			18	2	8	24

SEMESTER II

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
Theory						
1	P24CA151	Big Data Analytics	3	0	0	3
2	P24CA152	Artificial Intelligence and Machine Learning	3	0	0	3
3	P24CA153	Blockchain Technology	3	0	0	3
4	P24CA154	Optimization Techniques	3	0	0	3
5	P24CA155	Cyber Security and Ethical Hacking	3	0	0	3
6	P24CA9XX	Professional Elective – I	3	0	0	3
7	P24RD001	Research Methodology	3	0	0	3
Practical						
8	P24CA156	Big Data Analytics Laboratory	0	0	4	2
9	P24CA157	Artificial Intelligence and Machine Learning Laboratory	0	0	4	2
Internship / Field Visit						
10	P24VA002	Community Engagement and Social Responsibility	1	0	2	2
Total			22	0	10	27

SEMESTER III

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
Theory						
1	P24CA201	Deep Learning	3	0	0	3
2	P24CA202	DevOps and Agile Methodology	3	0	0	3
3	P24CA203	Cloud Computing and Virtualization	3	0	0	3
4	P24CA9XX	Professional Elective – II	3	0	0	3
5	P24CA9XX	Professional Elective – III	3	0	0	3
6	P24VA011	Ancient Computer Knowledge	3	0	0	3
Practical						
7	P24CA204	Deep Learning Laboratory	0	0	4	2
8	P24CA205	DevOps and Agile Methodology Laboratory	0	0	4	2
Internship / Field Visit						
9	P24EM203	Mini Project	0	0	2	1
10	P24EM201	Internship	0	0	4	2
Total			18	0	14	25

SEMESTER IV

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
Theory						
1	P24CA8XX	Online Course	3	0	0	3
2	P24CA251	Generative AI and Prompt Engineering	3	0	0	3
3	P24CA9XX	Professional Elective - IV	3	0	0	3
Project Work						
4	P24EM252	Project	0	0	24	12
Total			9	0	24	21

Professional Elective - I

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	P24CA951	Foundation of Decision Processes	3	0	0	3
2	P24CA952	Corporate Planning	3	0	0	3
3	P24CA953	Management of Software Projects	3	0	0	3
4	P24CA954	Investment Technology	3	0	0	3
5	P24CA955	Managerial Economics	3	0	0	3
6	P24CA956	Business Intelligence	3	0	0	3

Professional Elective - II

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	P24CA901	Theory of Computation	3	0	0	3
2	P24CA902	Image Processing	3	0	0	3
3	P24CA903	Data Communication and Networks	3	0	0	3
4	P24CA904	Full Stack Development	3	0	0	3
5	P24CA905	Quantum Computing	3	0	0	3
6	P24CA906	BioInformatics	3	0	0	3

Professional Elective - III

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	P24CA907	Reinforcement Learning	3	0	0	3
2	P24CA908	Pattern Recognition	3	0	0	3
3	P24CA909	Healthcare Analytics	3	0	0	3
4	P24CA910	Advanced Java Programming	3	0	0	3
5	P24CA911	Data Engineering	3	0	0	3
6	P24CA912	Human Computer Interaction	3	0	0	3

Professional Elective - IV

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	P24CA957	Applied Predictive Analytics	3	0	0	3
2	P24CA958	Computer Vision	3	0	0	3
3	P24CA959	Cryptography and Network Security	3	0	0	3
4	P24CA960	Mobile Applications Development	3	0	0	3
5	P24CA961	Edge Computing	3	0	0	3
6	P24CA962	Augmented and Virtual Reality	3	0	0	3

Value Added Courses

Sl. No.	Course Code	Course Name	Credits			
			L	T	P	C
1	P24RD001	Research Methodology	3	0	0	3
2	P24VA002	Community Engagement and Social Responsibility	1	0	2	2
3	P24VA011	Ancient Computer Knowledge	3	0	0	3

Semester wise Credit Distribution (In all Categories of Courses)

MCA

Sl. No.	Category of Courses	Credits	I	II	III	IV
1.	Foundation Courses	04	4	-	-	-
2.	Professional Core Courses	50	14	19	13	3
3.	Professional Elective Courses	12	-	3	6	3
4.	Online Courses	03	-	-	-	3
5.	Employability Enhancement Courses (Internship / Field Visit / Professional Practices / Project / Research / Thesis / Dissertation)	21	6	-	3	12
6.	Value Added / Value Addition Courses (IKS, Community Engagement, Research Methodology and IPR)	07	-	5	3	-
Total		97	24	27	25	21