Maulana Azad National Institute of Technology
Bhopal – 462003

Computer Science and Engineering Department

M.Tech. Advance Computing (Full Time)

Proposed Scheme (w.e.f. July 2024)

First Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
FAC24511	Advanced Data Structures	3	-	-	3
FAC24512	Architecture of Large Systems	3	-	-	3
FAC24513	Quantum Computing	3	-	-	3
	Department Elective - 1	3	-	-	3
	Department Elective - 2	3	-	-	3
FAC24514	Lab-1(Core subjects Lab)	-	-	2	1
FAC24515	Lab-2 (Elective subjects Lab)	-	-	2	1
FAC24516	Seminar-1	-	-	2	1
FAC24517	Project-1(Self Learning)	-	-	-	2
HUM24511	Communication Skills	2	-	-	0
Total Hours: 23 Total Credits: 20		**Total Semester Credits**			**20**

- Communication Skill will be Audit Course of 2 credits which will be not counted in SCPA/CGPA calculation.

Second Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
FAC24521	High Performance Computing	3	-	-	3
FAC24522	Parallel Algorithms	3	-	-	3
	Department Elective - 3	3	-	-	3
	Department Elective - 4	3	-	-	3
	Open Elective	3	-	-	3
FAC24523	Lab-3(Core subjects Lab)	-	-	2	1
FAC24524	Lab-4 (Elective subjects Lab)	-	-	2	1
FAC24525	Seminar-2	-	-	2	1
FAC24526	Project-2 (Self Learning)	-	-	-	2
Total Hours: 23 Total Credits: 40		**Total Semester Credits**			**20**

Third Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
FAC24611	Dissertation Phase-I	-	-	40	20
Total Hours:40 **Total Credits: 60**		**Total Semester Credits**			**20**

Fourth Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
FAC24621	Dissertation Phase-II	-	-	40	20
Total Hours: 40 **Total Credits: 80**		**Total Semester Credits**			**20**

List of Department Elective		List of Open Elective	
FAC24551	Statistical Methods	ARP24581	Introduction to Urban Planning
FAC24552	Machine Learning	BSE24581	Bioprocess Engineering
FAC24553	Soft Computing	BSE24582	Biophysics Tool and Engineering
FAC24554	Wireless Networking	CHE24581	Analytical Techniques
FAC24555	Cryptography		
FAC24556	Computer Network and Security	CHE24582	Green Technology and Processes
FAC24557	Research Methodology	CE24581	Solid Waste Management
FAC24558	Cloud Computing	CE24582	Basic Concept of GIS
FAC24559	Cluster & Grid Computing	CE24583	Road Safety
FAC24560	Web Search & Information Retrieval	PHY24581	Nanotechnology and Nanoscience
FAC24561	Embedded Systems	EE24581	Electric Machines and Applications
FAC24562	Deep Learning	EE24582	Control and Instrumentation
FAC24563	Computer Vision	ECE24581	Introduction to Fuzzy Logic
FAC24564	Stochastic Process and queuing Theory	ECE24582	Neural Networks and Applications
FAC24565	Graph Theory and Network Algorithms	EC24581	Energy Resource Technologies
FAC24566	Privacy and Database Security	HUM24581	Intellectual Property Rights for Engineers
FAC24567	Optimization Techniques	HUM24582	Applied Psychology: Human Centered Design and Engineering
FAC24568	Operating System & Design	MTH24581	Advanced Operations Research
FAC24569	Distributed Systems	MTH24582	Computing Technologies
FAC24570	Big Data Technologies	ME24581	Value Engineering
FAC24571	Heterogeneous Computing	ME24582	Design thinking
FAC24572	Internet Of Things	ME24583	Mechatronics and NDT Engineering
FAC24573	Sensors, Microcontrollers and Embedded System	MME24581	Advanced Instrumentation Methods for Material Analysis
FAC24574	Fundamental of Robotics	MME24582	Smart Materials and Their Applications
		MBA24581	Engineering Startup Management