



Maulana Azad National Institute of Technology
Bhopal – 462003

Scheme M.Tech. (Full Time) (w.e.f.: July-2025)
Computer Science and Engineering Department

M.Tech. in Advance Computing (Full Time)

First Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
CS AC 1101	Advanced Data Structures	3	-	-	3
CS AC 1102	Architecture of Large Systems	3	-	-	3
CS AC 1103	Quantum Computing	3	-	-	3
CS AC 1151 - 59	Department Elective - 1	3	-	-	3
CS AC 1161 - 69	Department Elective - 2	3	-	-	3
CS AC 1104	Lab-1(Core and Elective Subjects Lab)	-	-	2	1
CS AC 1105	Lab-2 (Programming Lab-1)	-	-	2	1
CS AC 1106	Seminar-1	-	-	2	1
CS AC 1107	Project-1(Self Learning)	-	-	-	2
HSPG 1101	Communication Skills	2	-	-	0
Total Hours: 23		Total Semester Credits			20
Total Cumulative 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	
CS AC 1201	High Performance Computing	3	-	-	3
CS AC 1202	Parallel Algorithms	3	-	-	3
CS AC 1251 - 59	Department Elective - 3	3	-	-	3
CS AC 1261 - 69	Department Elective - 4	3	-	-	3
	Open Elective	3	-	-	3
CS AC 1203	Lab-3(Core and Elective Subjects Lab)	-	-	2	1
CS AC 1204	Lab-4 (Programming Lab-2)	-	-	2	1
CS AC 1205	Seminar-2	-	-	2	1
CS AC 1206	Project-2 (Self Learning)	-	-	-	2
Total Hours: 23		Total Semester Credits			20
Total Cumulative Credits: 40					

Third Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
CS AC 2101	Dissertation Phase-I	-	-	40	20
Total Hours:40 Total Cumulative Credits: 60		Total Semester Credits			20

Fourth Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
CS AC 2201	Dissertation Phase-II	-	-	40	20
Total Hours: 40 Total Cumulative Credits: 80		Total Semester Credits			20

Department Elective Subjects List

List of Department Elective -1		List of Department Elective -3	
CS AC 1151	Statistical Methods	CS AC 1251	Generative AI
CS AC 1152	Machine Learning and Deep Learning	CS AC 1252	Biometric
CS AC 1153	Soft Computing	CS AC 1253	Computer Vision
CS AC 1154	Distributed Systems	CS AC 1254	Internet Of Things
CS AC 1155	Cloud Computing	CS AC 1255	Natural Language Processing
CS AC 1156	Cluster and Grid Computing	CS AC 1256	Optimization Techniques
CS AC 1157	Fundamental of Robotics		
List of Department Elective -2		List of Department Elective -4	
CS AC 1161	Wireless Networking	CS AC 1261	Heterogeneous Computing
CS AC 1162	Cryptography	CS AC 1262	Operating System and Design
CS AC 1163	Ethical Hacking	CS AC 1263	Graph Theory and Network Algorithms
CS AC 1164	Computer Network and Security	CS AC 1264	Stochastic Process and Queuing Theory
CS AC 1165	Malware Analysis and Forensic	CS AC 1265	Cybercrime & Information Warfare
CS AC 1166	Web Search and Information Retrieval	CS AC 1266	Big Data Technologies
CS AC 1167	TCP/IP,	CS AC 1267	Digital Forensics
CS AC 1168	Sensors, Microcontrollers and Embedded Systems	CS AC 1268	Privacy and Database Security

List of Open Elective Subjects	
Introduction to Urban Planning	Neural Networks and Applications
Bioprocess Engineering	Energy Resource Technologies
Biophysics Tool and Engineering	Intellectual Property Rights for Engineers
Analytical Techniques	Applied Psychology: Human Centered Design and Engineering
Green Technology and Processes	Advanced Operations Research
Solid Waste Management	Computing Technologies
Basic Concept of GIS	Value Engineering
Road Safety	Design thinking
Nanotechnology and Nanoscience	Mechatronics and NDT Engineering
Electric Machines and Applications	Advanced Instrumentation Methods for Material Analysis
Control and Instrumentation	Smart Materials and Their Applications
Introduction to Fuzzy Logic	Engineering Startup Management