

MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY, BHOPAL-462003
DEPARTMENT OF MATHEMATICS, BIO-INFORMATICS & COMPUTER
APPLICATIONS
SCHEME FOR M.Tech. (AGILE SOFTWARE ENGINEERING)

FIRST SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
MTH 511 CC	Applied Mathematical Analysis	3	-	-	3
SE 512	Software Architecture and Design	3	-	-	3
SE 513	Design Thinking	3	-	-	3
SE 514	Project Management for Agile Development	3			3
HUM 511	Communication Skill	2			2
	Elective -1 (A)	3	-	-	3
	Elective -2 (B)	3	-	-	3
SE 515	Lab-I	-	-	2	1
SE 516	Seminar-I	-	-	2	1
Total Hours :24		20		04	
Total Credits					22

SECOND SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
SE 521	Data Science & Analytics	3	-	-	3
SE 522	DevOps Tool Chains	3	-	-	3
SE 523	Agile Software Testing - Techniques and Tools	3	-	-	3
	Elective-3 (A)	3	-	-	3
	Elective-4 (B)	3	-	-	3
	Elective-5 (C)	3	-	-	3
MTH 524	Research Methodology	1	1		2
SE 525	Lab-II	-	-	2	1
SE 526	Seminar-II	-	-	2	1
Total Hours :24		19	01	04	22
Total Credits (Cumulative)					44

THIRD SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
SE 611	Dissertation Phase-I	-	-	32	16
Total Hours :32				32	16
Total Credits(Cumulative)					60

FOURTH SEMESTER:

Course Code	Course Name	Scheme of Studies Periods per week			Credits
		L	T	P	
SE 621	Dissertation Phase-II	-	-	40	20
Total Hours :40				40	20
Total Credits(Cumulative)					80

LIST OF PROGRAMME ELECTIVES**List of Program Elective A**

SE 551	User Interface Design
SE 552	Design Patterns
SE 553	Mobile Computing and Application Development
SE 554	Internet of Things
SE 555	Machine Learning
SE 556	Data Warehousing and Data Mining
SE 557	Quantum Computing
SE 558	Neural Network
SE 559	Cloud Native Architecture
SE 560	Information Retrieval
SE 561	Agile Software Development

List of Department Elective B

SE 571	Software Quality Engineering
SE 572	Service Oriented Architecture
SE 573	Requirement Engineering
SE 574	Deep learning
SE 575	Edge Computing
SE 576	Cloud Security
SE 577	Enterprise Resource Planning
SE 578	Block Chain

List of Open Electives C

ARP 581	Introduction to Urban Planning
BSE 581	Bioprocess Engineering
BSE 582	Biophysics Tools and Techniques
CHE 581	Analytical Techniques
CHE 582	Green Technology & Processes
CE 581	Solid Waste Management
CE 582	Basic Concept of GIS
CE 583	Road Safety
CSE 581	Machine Learning
CSE 582	Advanced Data Structures and Algorithms
PHY 581	Nanotechnology and Nanoscience
EE 581	Electric Machines & Applications
EE 582	Control and Instrumentation
ECE 581	Introduction to Fuzzy Logic
ECE 582	Neural Networks and its Applications
EC 581	Energy Resource Technologies
HUM 581	Intellectual Property Rights for Engineers
HUM 582	Applied Psychology: Human Centered Design and Engineering
ME 581	Value Engineering
ME 582	Design Thinking

SE 579	Multimedia & Virtual Reality
SE 580	Cloud Computing using IOT
SE 581	Robotic Process Automation
SE 582	Software Agents

ME 583	Mechatronics and NDT in Engineering
MME 581	Advanced Instrumentation Methods for Material Analysis
MME 582	Smart Materials and their Application
MBA 581	Engineering startup Management