



**MAULANA AZAD
NATIONAL INSTITUTE OF TECHNOLOGY, BHOPAL-462003**
Computer Science and Engineering Department
M.Tech. in Information Security
SCHEME OF STUDY (w.e.f. July 2022)

First Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
IS511	Mathematical Foundations of Information Security	3	-	-	3
IS512	Computer & Network Security	3	-	-	3
IS513	Cybercrime & Information Warfare	3	-	-	3
IS514	Malware Analysis & Reverse Engineering	3	-	-	3
HUM 511	Communication Skills	2	-	-	2
	Elective-1 (A)	3	-	-	3
	Elective-2 (B)	3	-	-	3
IS 515	Lab-I	-	-	2	1
IS 516	Seminar-I	-	-	2	1
Total Hours: 24 Total Credits: 22		Total Semester Credits			22

Second Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
IS521	Cryptography	3	-	-	3
IS522	Database Security & Access Control	3	-	-	3
IS523	Digital Forensics	3	-	-	3
	Elective-3(A)	3	-	-	3
	Elective-4(A)	3	-	-	3
	Elective-5(C)	3	-	-	3
MTH524	Research Methodology	1	1	-	2
IS525	Lab-II	-	-	2	1
IS526	Seminar-II	-	-	2	1
Total Hours: 24 Total Credits: 44		Total Semester Credits			22

Third Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
IS 611	Dissertation Phase-I	-	-	32	16
Total Hours: 32 Total Credits: 60		Total Semester Credits			16

Fourth Semester:

Course No.	Subject	Schemes of studies periods per week			Total Credits
		L	T	P	
IS 621	Dissertation Phase-II	-	-	40	20
Total Hours: 40 Total Credits: 80		Total Semester Credits			20

List of Program Electives A		List of Open Electives C	
IS 551	Biometric	ARP 581	Introduction to Urban Planning
IS 552	Privacy: Data & User Protection	BSE 581	Bioprocess Engineering
IS 553	Secure Software Engineering	BSE 582	Biophysics Tool and Engineering
IS 554	Steganography & Digital Watermarking	CHE 581	Analytical Techniques
IS 555	Security Threats & Modelling	CHE 582	Green Technology and Processes
IS 556	Penetration Testing and Vulnerability Analysis	CE 581	Solid Waste Management
IS 557	Ethical Hacking	CE 582	Basic Concept of GIS
IS 558	Security Operations and Incidence Response	CE 583	Road Safety
IS 559	Internet Security, Tools and Techniques	PHY 581	Nanotechnology and Nanoscience
IS 560	Information Risk Management and Compliance	EE 581	Electric Machines and Applications
IS 561	Intellectual Property and Espionage	EE 582	Control and Instrumentation
		ECE 581	Introduction to Fuzzy Logic
		ECE 582	Neural Networks and Applications
List of Departmental Electives B		EC 581	Energy Resource Technologies
AC 512	Advanced Data Structures	HUM 581	Intellectual Property Rights for Engineers
AC 514	Soft Computing	HUM 582	Applied Psychology: Human Centered Design and Engineering
AI 513	Machine Learning	MTH 581	Advanced Operations Research
AI 552	Reinforcement Learning	MTH 582	Computing Technologies
CN 514	Wireless Networking	ME 581	Value Engineering
CN 555	Information Theory and Coding	ME 582	Design thinking
		ME 583	Mechatronics and NDT Engineering
		MME 581	Advanced Instrumentation Methods for Material Analysis
		MME 582	Smart Materials and Their Applications
		MBA 581	Engineering Startup Management