



MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY BHOPAL – 462003

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

M.Tech. Information Security Part Time

Proposed Scheme

First Semester:

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
CS IS 1101	Cryptography	3	-	-	3
CS IS 1102	Computer & Network Security	3	-	-	3
CS IS 1151 - 59	Department Elective-1	3	-	-	3
CS IS 1104	Lab-1(Core and Elective subjects Lab)	-	-	2	1
CS IS 1106	Seminar-I	-	-	2	1
CS IS 1107	Project- I (Self Learning)	-	-	-	2
HSPG 1101	Communication Skills	-	-	-	0
Total Hours:13 Total Credits:13		Total Semester Credits			13

Second Semester:

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
CS IS 1201	Privacy and Database Security	3	-	-	3
CS IS 1202	Digital Forensics	3	-	-	3
CS IS 1251 - 59	Department Elective-3	3	-	-	3
CS IS 1203	Lab-II (Core and Elective subjects Lab)	-	-	2	1
CS IS 1205	Seminar-2	-	-	2	1
CS IS 1206	Project- II (Self Learning)	-	-	-	2
	Research Methodology (from NPTEL)	-	-	-	0
Total Hours:13 Total Credits:13		Total Semester Credits			13



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Third Semester:

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
CS IS 1103	Malware Analysis & Reverse Engineering	3	-	-	3
CS IS 1161 - 69	Department Elective-2	3	-	-	3
CS IS 1105	Lab-III (Programming Lab 1)	-	-	2	1
CS IS 2102	Pre-Dissertation Phase-I	-	-	12	6
TotalHours:20 TotalCredits:13		Total Semester Credits			13

Fourth Semester:

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
CS IS 1261 - 69	Department Elective-4	3	-	-	3
***	Open Elective	3	-	-	3
CS IS 1204	Lab –IV (Programming Lab 2)	-	-	2	1
CS IS 2202	Pre-Dissertation Phase-II	-	-	12	6
Total Hours:20 TotalCredits:13		Total Semester Credits			13



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Fifth Semester:

Subject Code	Subject	Scheme of studies periods per week			Total Credits
		L	T	P	
CS IS 2101	Dissertation Phase-I	-	-	28	14
Total Hours:28 Total Credits:14		Total Semester Credits			14

Sixth Semester:

Subject Code	Subject	Periods Per Week			Total Credits
		L	T	P	
CS IS 2201	Dissertation Phase-II	-	-	28	14
Total Hours:28 Total Credits:14		Total Semester Credits			14
Total Credits I, II, III, IV, V, VI Semester					80



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Department Elective 1		List of Open Electives	
CS IS 1151	Statistical Methods		Introduction to Urban Planning
CS IS 1152	Machine Learning and Deep Learning		Bioprocess Engineering
CS IS 1153	Soft Computing		Biophysics Tool and Engineering
CS IS 1154	Distributed Systems		Analytical Techniques
CS IS 1155	Cloud Computing		Green Technology and Processes
CS IS 1156	Cluster and Grid Computing		Solid Waste Management
CS IS 1157	Fundamentals of Robotics		Basic Concept of GIS
Department Elective 2			Road Safety
CS IS 1161	Architecture of Large Systems		Nanotechnology and Nanoscience
CS IS 1162	Quantum Computing		Electric Machines and Applications
CS IS 1163	Advanced Data Structure		Control and Instrumentation
CS IS 1164	TCP/IP		Introduction to Fuzzy Logic
CS IS 1165	Wireless Networking		Neural Networks and Applications
CS IS 1166	Ethical Hacking		Energy Resource Technologies
CS IS 1167	Internet Security, Tools and Techniques		Intellectual Property Rights for Engineers
CS IS 1168	Web Search and Information Retrieval		
Department Elective 3			Applied Psychology: Human Centered Design and Engineering
CS IS 1251	Generative AI		Advanced Operations Research
CS IS 1252	Biometric		Computing Technologies
CS IS 1253	Computer Vision		Value Engineering
CS IS 1254	Internet of Things		Design thinking
CS IS 1255	Natural Language Processing		Mechatronics and NDT Engineering
CS IS 1256	Optimization Techniques		Advanced Instrumentation Methods for Material Analysis
Department Elective 4			Smart Materials and Their Applications
CS IS 1261	Parallel Algorithms		Engineering Startup Management
CS IS 1262	Operating Systems and Design		
CS IS 1263	Graph Theory & Network Algorithms		
CS IS 1264	Stochastic Process and queuing Theory		
CS IS 1265	Cybercrime & Information Warfare		



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CS IS 1266	High Performance Computing		
CS IS 1267	Big data Technologies		
CS IS 1268			
CS IS 1269	Steganography & Digital Watermarking		
CS IS 1270	Penetration Testing and Vulnerability Analysis		
CS IS 1271	Security Threats and Modelling		
CS IS 1272	Information Risk Management and Compliance		