

SHANTABEN NAGINDAS KHANDWALA COLLEGE OF SCIENCE

Programme: Master of Science Computer Science (Specialization in Cybersecurity)

Academic year: 2025-26

Curriculum Framework of First Year under NEP

Level	Sem.	Major		Minor	OE	VSC, SEC (VSEC)	EC, VEC, IKS	OJT, FP, CEP, CC, RP	Credits	Cumulative Credits
		Mandatory	Electives (Choose Any One)							
	I	Advanced Database Management Systems (04)	Data Security and Network Security (04) OR Software Security (04)	Research Methodology (04)	----	----	----	----	4+4+4+2+ 4+4= 22	44
		Cybersecurity Fundamentals (04)								
		Advanced Data Structures and Algorithms (04)								
		Mathematical Foundations For Cybersecurity (02)								
	II	Security and Risk Management (04)	Securing the cloud (04) OR Defense in depth (04)		---	---	---	Internship (04)	4+4+4+2+ 4+4= 22	
		Ethical Hacking (04)								
		Cryptography and Biometrics (04)								
		Software Engineering Concepts and Methodologies (04)								
	Cum Cr.	28	8		----	----	----	4	44	

* Exit Option: Award of UG Certificate in Major with 80-88 credits and an additional 4 credits core NSQF Course/Internship or Continue with Major and Minor

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Level	Sem.	Major		Minor/ RM	OJT/ FP	RP	Credits	Cumulative Credits
		Mandatory	Electives (Choose Anyone)					
6.5	III	Cyber Security Incident Response Management (04)	Cyber Crisis Management (04) OR Vulnerability Management (04)	-	-	Research Project (04)	4+4+4+2+4 +4= 22	88
		Advanced Network Security (04)						
		Database Security (04)						
		Research Paper Writing (02)						
	Credits	14	4	0	0	4	22	
	IV	Malware Analysis (04)	Digital Forensics and Investigations (04) OR Memory Forensics (04)	-	-	Research Project (06)	4+4+4+4+6 = 22	
		IT Governance, Risk and Compliance (04)						
		IPR and Cyber Laws (04)						
Credits	12	4	0	0	6	22		
Total credits in 2 nd year	26	8	0	0	10	44		
Cum Cr. Of 1st and 2nd year	54	16	4	4	10	88		