M.Sc. in Cyber Security Programme Structure

Semester I		
Sl. No	**Course Name**	**Credits**
	Hard Core	
1	CSCH 401 : Introduction to Cybersecurity	4
2	CSCH 402 :Unix and Shell Programming	4
3	CSCH 403 : Data Structure	4
	Soft Core	
4	CSCS 404 : Mathematical Foundations	3
5	CSCS 405 : Problem Solving using Python	
6	CSCS 406 : E-Commerce and E-Governance	
7	CSCS 407 : Computer Networks	
8	CSCS 408 : Foundation of Cryptography	
	Practicals	
9	CSCP 409 : Data Structures Laboratory	2
10	CSCP 410 : Unix & Shell Programming Laboratory	2
	Total	**22**

Semester II		
Sl. No	**Course Name**	**Credits**
	Hard Core	
1	CSCH 451 : Design and Analysis of Algorithms	4
2	CSCH 452 : Network Security	4
3	CSCH 453 : Data Communication	4
	Soft Core	
4	CSCS 454 : Design of Cryptographic Algorithms	3
5	CSCS 455 : Cyber Threat Intelligence	
6	CSCS 456 : Cloud Computing and Security	
7	CSCS 458 : Internet of Things	
	Practicals	
8	CSCP 459 : Network Security Laboratory	2
9	CSCP 460 : Data and Analysis of Algorithms Laboratory	2
	Seminar	
10	CSCS 461: Seminar on latest trends and techniques in Cybersecurity	1
	Open Choice	
11	CSCO 462 : Introduction to Cybersecurity	3
	Total	**26**

Semester III		
Sl. No	**Course Name**	**Credits**
Hard Core		
1	CSCH 501 : Digital Forensics	4
2	CSCH 502 : Ethical Hacking	4
3	CSCH 503 : Introduction to BlockChain	4
Soft Core		
4	CSCS 505 : Intrusion Detection System	
5	CSCS 506 : Cyber Laws	
6	CSCS 507 : Application Security	3
7	CSCS 508 : Big Data Analytics	
Practicals		
8	CSCP 509 : Ethical Hacking Laboratory	2
9	CSCP 510 : Block Chain Technology Laboratory	2
Seminar		
10	CSCS 511: Seminar on latest trends and techniques in Cybersecurity	1
Open Choice		
11	CSCO 512 : Cyber Laws	3
	Total	**26**

Semester IV		
Sl No	**Course Name**	**Credits**
1	CSCH 551 : Industry Internship / Project Work	18

Credit Distribution

Semester	Main Course Credits	Open Choice Credits
I	22	0
II	23	03
III	23	03
IV	18	0
Total	86	06
-	**Grand Total**	**92**

Scheme of Examination for M.Sc. in Cyber Security

Semester I

Course Code	Title of the Course	Credits	Hours per week	Duration of the Exam	Marks		
					IA	Exam	Total
Hard Core (All are Compulsory)							
CSCH 401	Introduction to Cyber Security	04	04	3 hours	30	70	100
CSCH 402	Unix and Shell Programming	04	04	3 hours	30	70	100
CSCH 403	Data Structures	04	04	3 hours	30	70	100
Soft Core (two to be chosen by the student)							
CSCS 404	Mathematical Foundations	03	03	3 hours	30	70	100
CSCS 405	Problem solving using Python	03	03	3 hours	30	70	100
CSCS 406	E-Commerce andE-Governance	03	03	3 hours	30	70	100
CSCS 407	Computer Networks	03	03	3 hours	30	70	100
CSCS 408	Foundations of Cryptography	03	03	3 hours	30	70	100
Practicals							
CSCP 409	Data Structures Laboratory	02	04	03 hours	30	70	100
CSCP 410	Unix and Shell Programming Laboratory	02	04	03 hours	30	70	100
Total		**-**	**-**	**-**	**210**	**490**	**700**

Semester II

Course Code	Title of the Course	Credits	Hours per week	Duration of the Exam	Marks		
					IA	Exam	Total
Hard Core (All are Compulsory)							
CSCH 451	Design and Analysis of Algorithms	04	04	3 hours	30	70	100
CSCH 452	Network Security	04	04	3 hours	30	70	100
CSCH 453	Data Communications	04	04	3 hours	30	70	100
Soft Core							
CSCS 454	Design of Cryptographic Algorithms	03	03	3 hours	30	70	100
CSCS 455	Cyber Threat Intelligence	03	03	3 hours	30	70	100
CSCS 456	Cloud Computing and Security	03	03	3 hours	30	70	100
CSCS 458	Internet of Things	03	03	3 hours	30	70	100
Practicals							
CSCP 459	Network Security Laboratory	02	04	03 hours	30	70	100
CSCP 460	Design and Analysis of Algorithms Laboratory	02	04	03 hours	30	70	100
Seminar							
CSCS 461	Seminar on latest trends and techniques in Cybersecurity	01	01	-	15	35	50

Open Choice							
CSCO 462	Introduction to Cyber Security	03	03	3 hours	30	70	100
Total					**255**	**595**	**850**

Semester III

Course Code	Title of the Course	Credits	Hours per week	Duration of the Exam	Marks		
					IA	Exam	Total
Hard Core (All are Compulsory)							
CSCH 501	Digital Forensics	04	04	3 hours	30	70	100
CSCH 502	Ethical Hacking	04	04	3 hours	30	70	100
CSCH 503	Introduction to Block Chain	04	04	3 hours	30	70	100
Soft core (two to be chosen by the student)							
CSCS 505	Intrusion Detection System	03	03	3 hours	30	70	100
CSCS 506	Cyber Laws	03	03	3 hours	30	70	100
CSCS 507	Application Security	03	03	3 hours	30	70	100
CSCS 508	Big Data Analytics	03	03	3 hours	30	70	100
Practicals							
CSCP 509	Ethical Hacking Laboratory	02	04	03 hours	30	70	100
CSCP 510	Block Chain Technology Laboratory	02	04	03 hours	30	70	100
Seminar							
CSCS 511	Seminar on latest trends and techniques in Cybersecurity	01	01	-	15	35	50
Open Choice							
CSCO 512	Cyber Laws	03	03	3 hours	30	70	100
Total					**255**	**595**	**850**

Semester IV

Course Code	Title of the course	Credits	Marks		
			IA	Dissertation / Viva	Total
CSCH 551	Project Work / Industry internship Dissertation	12	100	300	400
	Literature Review	03	100	---	100
	Project Demonstration / Presentation	03	---	100	100
Total		**18**	**200**	**400**	**600**

Marks Distribution Semester Wise

Semester	Credits	Marks
I	22	700
II	26	850
III	26	850
IV	18	600
Total	**92**	**3000**