Department of Information Technology
M.Sc. in Cyber Security

SEMESTER I					
Code	**Course Title**	**Hours per week**			**Credits**
		L	**T**	**P**	
MITCS101	Program Core I ● Discrete Mathematics of Computer Science	3	0	0	3
MITCS102	Program Core II ● Advanced Data Structures and Algorithms	3	0	0	3
MITCS103	Program Core III ● Cryptology	3	0	0	3
MITCS104	Program Core IV ● Advanced Web Technology	3	0	0	3
MITCS 105	Research Methodology and IPR	2	0	0	2
MITCS106 A/B/C/D/E /F	Elective I A. Advanced Operating Systems B. Advanced DBMS C. Machine Learning D. Computer Graphics and Image Processing E. Sensor Networks and Internet of Things F. Cloud Computing	3	0	0	3
MITCS192	Laboratory 1 ● Advanced Data Structures and Algorithms	0	0	4	2
MITCS194	Laboratory 2 ● Advanced Web Technology Lab	0	0	4	2
MITCS196 A/B/C/D/E /F	Laboratory 3 ● Based on Elective I	0	0	4	2
Total Credits: 23					

SEMESTER II					
Code	**Course Title**	**Hours per week**			**Credits**
		L	**T**	**P**	
MITCS201	Program Core V ● Ethical Hacking	3	0	0	3
MITCS202	Program Core VI ● Network Security	3	0	0	3
MITCS203	Program Core VII ● Digital Forensics	3	0	0	3
MITCS204 A/B/C/D/E	Program Elective II A. Security Assessment and Risk Analysis B. Malware Detection C. ML for Security D. Image Processing and Security E. Cloud Computing security	3	0	0	3

MITCS205 A/B/C/D	Audit Course 2	2	0	0	0
MITCS291	Laboratory 1 ● Ethical Hacking Lab	0	0	4	2
MITCS292 A/B/C/D	Laboratory 2 ● Network Security Lab	0	0	4	2
MITCS293	Term Paper with Seminar	0	0	4	2
Total Credits: 18					

*Students be encouraged to go to Industrial Training/Internship for at least 2-3 months during semester break.

SEMESTER III					
Code	Course Title	Hours per week			Credits
		L	T	P	
MITCS301	Program Core IX ● Cyber Law and Cyber Crime Investigation	3	0	0	03
MITCS302	Open Elective ● Business Analytics ● Project Management & Entrepreneurship ● Industrial Safety ● Operations Research ● Cost Management of Engineering Projects ● Security Policy & Audit ● Waste to Energy	3	0	0	03
MITCS393	Dissertation-I /Industrial Project	0	0	20	10
Total Credits: 16					

*Students going for Industrial Project/Thesis will complete these courses through MOOCs.

Semester-IV					
Code	Course Title	Hours per week			Credits
		L	T	P	
MITCS491	Dissertation II	0	0	32	16
Total Credits: 16					

Total Credit: 73