

Curriculum Version 1.00
Master of Science (Cyber Security)
 (For AY2026-27 onwards)

Credit distribution among baskets (Minimum Credits to be earned = 80)		
Sl. No.	Baskets	Credit Contribution
1	School Core	18
2	Program Core	37
3	Discipline Elective	19
	Common Electives Basket	10
	Specialized Elective Baskets*	9
4	Open Elective	6
TOTAL CREDITS		80

Specialized Elective Baskets*		
Sl.No.	Name of the Basket	Minimum Credit Requirement
1	Artificial Intelligence and Machine Learning	3
2	Cloud Computing	3
3	Data Analytics	3
Total*		9

** Remaining Credits, if any, to satisfy Specialized Elective Baskets credit requirement can be taken from any Specialized Elective Basket*

Sl. No.	Course Code	Course Name	L	P	Credits
A. School Core - Minimum Credits to be earned from this basket (A+B+C) =					18
1	CSE5129	Computer Science Fundamentals (Bridge Course)*	3	0	3
2	MAT5009	Applied Statistics Using R	2	2	3
3	ENG5004	Technical Proficiency and Career Building	0	2	1
4	CSE6004	Research Paper	0	0	2
5	CSE6002	M.Sc. Dissertation	0	0	4
6	CSE6006	Corporateship	0	0	3
B. Foreign Languages Basket - Min. credits to be earned from this basket =					2
1	FRE1002	Communicative French	0	2	1
2	GER1002	Communicative German	0	2	1
C. Soft Skills Basket (All Courses in this basket are mandatory) - Minimum Credits =					3
1	SSK2002	Being Corporate Ready	0	2	1
2	SSK3002	Programming Skills for Employment	0	2	1
3	SSK3001	Problem Solving through Aptitude	0	2	1
D. Program Core - Minimum Credits to be earned from this basket =					37
1	CSE5009	Web Design and Development	2	2	3
2	CSE5007	Software Development Framework	3	0	3
3	CSE5055	Cloud Security	3	0	3
4	CSE5089	Data Security and Database Management	3	2	4
5	CSE5040	Intrusion Detection System	2	2	3
6	CSE5041	Penetration Testing, Incident Response and Forensics	2	2	3
7	CSE5028	Network System Administration and Security	2	2	3
8	CSE5060	Operating Systems and Virtual Machines	3	0	3
9	CSE5039	Ethical Hacking Techniques	2	2	3
10	CSE5064	Cryptography and Information Security	2	2	3
11	CSE5065	Linux Programming	2	2	3
12	CSE6010	Minor Project on Cyber Security	0	0	3
13	CSE5016	Data Mining and Predictive Modelling	3	0	3
E. Discipline Electives - Minimum Credits to be earned from both Common and Specialized elective baskets (F+G) =					19
F. Common Electives Basket - Minimum Credits to be earned from this basket =					10
1	CSE5010	Advanced Python	0	4	2
2	CSE5067	Advanced Data Structures and Algorithms	2	2	3
3	CSE5011	Advanced Java Programming	0	4	2
4	CSE5005	Advanced Computer Architecture	3	0	3
5	CSE5050	Artificial Intelligence and Machine Learning	2	2	3
6	CSE5044	Vulnerability Analysis in Network Protocols	2	2	3
7	CSE5043	Malware Analysis	2	2	3
9	CSE5088	Wireless Network Security	3	0	3
10	CSE5045	Data Analytics using Python	2	2	3
11	CSE5066	Research Methodologies	3	0	3
12	CSE5042	Blockchain Technology and Applications	3	0	3
13	CSE5034	DevOps Orchestration	2	2	3
14	CSE5068	Mobile Application Security	2	2	3

G. Specialized Electives Baskets - Minimum Credits to be earned from these baskets (H+I+J) =					9
H. Artificial Intelligence and Machine Learning Basket - Minimum Credits to be earned from this basket =					3
1	CSE5019	Deep Learning Techniques	2	2	3
2	CSE5020	Natural Language Processing Techniques	3	0	3
3	CSE5022	Image Processing for Artificial Intelligence	2	2	3
4	CSE5038	AI Generative Models	2	2	3
I. Cloud Computing Basket - Minimum Credits to be earned from this basket =					3
1	CSE5052	Data Center Operations and Management	3	0	3
2	CSE5053	Cloud Infrastructure, Services and APIs	2	2	3
3	CSE5035	Cloud Computing and Virtualization	3	0	3
4	CSE5056	Cloud Database Management System	3	0	3
5	CSE5057	Edge Computing	3	0	3
J. Data Analytics Basket - Minimum Credits to be earned from this basket =					3
1	CSE5045	Data Analytics using Python	2	2	3
2	CSE5046	Data Handling and Visualization	2	2	3
3	CSE5047	Analytics for Social Media	2	2	3
4	CSE5048	Data Analytics Using R	2	2	3
6	CSE5051	Big Data Analytics and Business Intelligence	2	2	3
Open Elective basket - Minimum Credits to be earned from this basket =					6
Any course from another 'eligible' curriculum					
Any unused Discipline Elective from his/ her 'own' curriculum					
Any stand-alone course declared as "Open Elective" by School for a specific 'eligible' degree program					
School approved NPTEL/ Swayam courses for a maximum of 3-credits					
* For non-CS background UG students admitted to PG programs; Credits and grades obtained in a bridge course are counted for the CGPA calculation, but the credits will not be counted towards the minimum credit requirements for the completion of the program.					