Master of Science (Statistics)

Curriculum Version 1.00
(For AY 2026-27 onwards)

Credit distribution among baskets
(Minimum Credits to be earned = 80)

Sl. No.	Baskets	Credit Contribution
1	School Core	12
2	Program Core	30
3	Discipline Elective (3A+3B)	32
3A	Common Electives Basket	20
3B	Specialized Elective Baskets*	12
4	Open Elective	6
	TOTAL CREDITS	**80**

Specialized Elective Baskets*		
Sl.No.	**Name of the Basket**	**Minimum Credit Requirement**
1	Global Health and Epidemiology	
2	Data Analytics	
3	Social Finance	
4	Industrial Statistics	
Total*		**12**

**** 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
I. School Core - Minimum Credits to be earned from this basket (A+B+C+D+E) =					**12**
A	MAT6001	Research Paper	-	-	**2**
B	MAT6002	M.Sc. Dissertation	-	-	**4**
C. Computational Skills Basket - Min. credits to be earned from this basket =					**2**
1	CSE1021	Python Programming	0	4	**2**
2	CSE5010	Advanced Python	0	4	**2**
3	CSE1019	Programming in C	0	4	**2**
D. English Basket - Min. credits to be earned from this basket =					**2**
1	ENG5001	English Language and Communication Skills	0	2	**1**
2	ENG5002	Technical Proficiency and Career Building	0	2	**1**
E. Soft Skills Basket - Min. credits to be earned from this basket =					**2**
1	SSK2002	Being Corporate Ready	0	2	**1**
2	SSK3003	Introduction to Soft Skills	0	2	**1**
3	SSK3004	Beyond Technical Skills	0	2	**1**
4	SSK3005	Leadership and Career Acceleration	0	2	**1**
II. Program Core - Minimum Credits to be earned from this basket =					**30**
1	MAT5003	Probability and Distributions	2	2	3
2	MAT5011	Sampling Theory and its Applications	3	0	3
3	MAT5012	Estimation Theory	3	0	3
4	MAT5013	Testing of Hypothesis	2	2	3
5	MAT5014	Linear Estimation and Regression Analysis	3	2	4
6	MAT5006	Time Series Analysis	2	2	3
7	MAT5004	Multivariate Methods	2	2	3
8	MAT5015	Stochastic Processes	2	2	3
9	CSE5050	Artificial Intelligence and Machine Learning	2	2	3
10	MAT6003	M.Sc Statistics Internship	-	-	2
III. Discipline Electives - Minimum Credits to be earned from both Common and Specialized elective baskets (3A+3B) =					**32**
IIIA. Common Electives Basket - inimum Credits to be earned from this basket =					**20**
1	MAT5016	Real Analysis	3	0	3
2	MAT5017	Matrix Algebra	3	0	3
3	MAT5018	Advanced Econometrics	2	2	3
4	MAT5008	Bayesian Data Analysis	3	0	3
5	MAT6004	Statistical Quality Control	3	2	4
6	MAT5019	Indian Statistical System	2	0	2
7	MAT5020	Optimization Techniques	3	0	3
8	MAT5021	Research Methodology for Statisticians	2	2	3
9	MAT5022	Climate Statistics	2	2	3
10	MAT5023	Official Statistics	2	2	3
11	MAT6005	Demography	3	0	3
12	MAT5024	Actuarial Statistics	2	2	3

IIIB. Specialized Electives Baskets -		Minimum Credits to be earned =			12
(i) Global Health and Epidemiology					
1	MAT5025	Statistical Methods in Biomedical Research	2	2	**3**
2	MAT5026	Survival Analysis	2	2	**3**
3	MAT5010	Advanced Biostatistics	2	2	**3**
4	MAT5027	Statistics in Epidemiology and Public Health	2	2	**3**
(ii). Data Analytics					
1	CSE5047	Analytics for Social Media	2	2	**3**
2	CSE5101	Social Media and Web Analytics	2	2	**3**
3	CSE5080	Quantitative Text Analysis	2	2	**3**
4	CSE5106	Smart City Data Analytics	2	2	**3**
(iii). Social Finance					
1	CSE5142	Machine Learning for Finance	2	2	**3**
2	ECO5001	Econometrics for Social Finance	2	2	**3**
3	MAT6007	Quantitative Risk Management	2	2	**3**
4	ECO5002	FinTech for Social Impact	2	2	**3**
(iv). Industrial Statistics					
1	MAT5028	Advanced Quality Methods & Applications	2	2	3
2	MAT5029	Statistical Methods for Total Quality Management	2	2	3
3	MAT6006	Experimental Design for Industry and Research	2	2	3
4	MAT5030	Reliability Analysis	2	2	3

4. 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/ Dept. for a specific 'eligible' degree program	
School approved NPTEL/Swayam courses for a maximum of 3 credits	