SVKM'S NMIMS School of Mathematics, Applied Statistics & Analytics
Proposed structure of B.Sc. (Hons) Mathematics
(Batch 2021-24)

First Year (Academic Year 2021-22)

Semester I			Semester II		
Course No	**Course**	**Credits**	**Course No**	**Course**	**Credits**
1	Elementary Calculus (Theory)	4	1	Topology of Metric Spaces (Theory)	4
2	Elementary Calculus (Practicals)	1	2	Topology of Metric Spaces (Practicals)	1
3	Linear Algebra (Theory)	4	3	Real Analysis (Theory)	4
4	Linear Algebra (Practicals)	1	4	Real Analysis (Practicals)	1
5	Elementary Number Theory (Theory)	4	5	Elementary Probability (Theory)	4
6	Elementary Number Theory (Practicals)	1	6	Elementary Probability (Practicals)	1
7	Algorithms and Problem Solving Techniques (Theory)	4	7	Discrete Mathematics and Graph Theory (Theory)	4
8	Algorithms and Problem Solving Techniques (Practicals)	1	8	Discrete Mathematics and Graph Theory (Practicals)	1
9	Numerical Methods (Theory)	4	9	Ordinary Differential Equations (Theory)	4
10	Numerical Methods (Practicals)	1	10	Ordinary Differential Equations (Practicals)	1
11	Research Writing and Communication Skills	1	11	Logic of Mathematics	1
12	Personal and people Management	1	12	Environmental Science	1
	Total Credits	**27**		**Total Credits**	**27**

Second (Academic Year 2022-23)

Semester III			Semester IV		
Course No	**Course**	**Credits**	**Course No**	**Course**	**Credits**
1	Complex Analysis (Theory)	4	1	Topology and Geometry (Theory)	4
2	Complex Analysis (Practicals)	1	2	Topology and Geometry (Practicals)	1
3	Multivariate Calculus (Theory)	4	3	Functional Analysis (Theory)	4
4	Multivariate Calculus (Practicals)	1	4	Functional Analysis (Practicals)	1
5	Theory of Optimization (Theory)	4	5	Vector Analysis (Theory)	4
6	Theory of Optimization (Practicals)	1	6	Vector Analysis (Practicals)	1
7	Abstract Algebra (Theory)	4	7	Statistics and Machine Learning	4
8	Abstract Algebra (Practicals)	1	8	Statistics and Machine Learning (Practicals)	1
9	Partial Differential Equations (Theory)	4	9	Microeconomics	1
10	Partial Differential Equations (Practicals)	1		_____	-
11	History of Mathematics	1		_____	-
	Total Credits	**26**		**Total Credits**	**21**

Dr.Sushil Kulkarni
Dean,SOMASA

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Academic Year 2022-23 (Batch 2021-24)

Third Year (Academic Year 2023-24)

Semester V			Semester VI		
Course No	Course	Credits	Course No	Course	Credits
1	Fourier and Wavelet Analysis (Theory)	4	1	Analytic Number Theory (Theory)	4
2	Fourier and Wavelet Analysis (Practicals)	1	2	Analytic Number Theory (Practicals)	1
3	Sequence: Statistical and Deep Learning Approaches (Theory)	4	3	Applied Linear Algebra (Theory)	4
4	Sequence: Statistical and Deep Learning Approaches (Practicals)	1	4	Applied Linear Algebra (Practicals)	1
5	Coding Theory (Theory)	4	5	Natural Language Processing (Theory)	3
6	Coding Theory (Practicals)	1	6	Natural Language Processing (Practicals)	1
7	Julia Programming (Theory)	3	7	Introduction to Blockchain Technology (Theory)	3
8	Julia Programming (Practicals)	1	8	Introduction to Blockchain Technology (Practicals)	1
9	Project Exploration (Practicals)	6	9	Final Project with open Defence (Practicals)	6
Total Credits		**25**	**Total Credits**		**24**

Total Credits	**150**
Total number of Subjects	**62**

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