

Intake: 2020 onwards		Specialization:									
Details of the Curriculum				Stream:							
Module Code	Module Name	Category C/E/O	Time allocation [Hours/Week]		Credits offered		Norm		Evaluation %		
			Lecture	Lab / Tute	GPA	NGPA	GPA	NGPA	CA	WE	
Semester 1		Specialization requirement				0.0					
MA1014	Mathematics	C	5/2	1	3.0					20	80
MA1113	Mathematics for Transport and Logistics I	C	5/2	1	3.0					40	60
		Total				6.0	0.0	0.0	0.0		
Semester 2		Specialization requirement				0.0					
MA1024	Methods of Mathematics	C	5/2	1	3.0					30	70
MA1122	Mathematics for Transport and Logistics II	C	5/2	1	3.0					40	60
		Total				6.0	0.0	0.0	0.0		
Semester 3		Specialization requirement				0.0					
MA2014	Differential Equations	E	2		2.0					30	70
MA2024	Calculus	E	2		2.0					30	70
MA2034	Linear Algebra	E	2		2.0					30	70
MA3014	Applied Statistics	E	2		2.0					30	70
MA3024	Numerical Methods	E	2		2.0					30	70
		Total				10.0	0	0	0		
Semester 4		Specialization requirement				0.0					
MA2034	Linear Algebra	E	2		2.0					30	70
MA2054	Graph Theory	E	2		2.0					30	70
MA3014	Applied Statistics	E	2		2.0					30	70
MA3024	Numerical Methods	E	2		2.0					30	70
		Total				8.0	0.0	0.0	0.0		
Semester 5		Specialization requirement				0.0					
MA2024	Calculus	E	2		2.0					30	70
MA3014	Applied Statistics	E	2		2.0					30	70
MA3024	Numerical Methods	E	2		2.0					30	70
MA3030	Operational Research	E	2		2.0					30	70
		Total				8.0	0.0	0.0	0.0		
Industrial Training		Specialization requirement				0.0					
		Total				0.0	0.0	0	0		
Semester 6		Specialization requirement				0.0					
		Total				0.0	0.0	0.0	0.0		
Semester 7		Specialization requirement				0.0					
MA4014	Linear Models and Multivariate Statistics	E	3		3.0					30	70
MA4090	Mathematical Statistics	E	3		3.0					30	70
MA4034	Time Series and Stochastic Process	E	3		3.0					30	70
MA4000	Experimental Design and Quality Control	E	3		3.0					30	70
MA4110	Finite Element Analysis	E	3		3.0					30	70
MA4120	Advanced Differential Equations	E	3		3.0					30	70
MA4130	Optimization	E	3		3.0					30	70
MA4144	Neural Networks and Fuzzy Logic	E	3		3.0					30	70
MA4150	Financial Mathematics	E	3		3.0					30	70
MA4160	Advanced Operational Research	E	3		3.0					30	70
MA4210	Mathematical Analysis and Special Functions	E	3		3.0					30	70
MA4220	Topics in Algebra and Topology	E	3		3.0					30	70
MA4230	Number Theory and Cryptography	E	3		3.0					30	70
MA4240	Mathematical Methods in Theoretical Physics	E	3		3.0					30	70
		Total				42.0	0.0	0.0	0.0		

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Semester 8				Specialization requirement				0.0			
MA4014	Linear Models and Multivariate Statistics	E	3		3.0				30	70	
MA4090	Mathematical Statistics	E	3		3.0				30	70	
MA4034	Time Series and Stochastic Process	E	3		3.0				30	70	
MA4000	Experimental Design and Quality Control	E	3		3.0				30	70	
MA4110	Finite Element Analysis	E	3		3.0				30	70	
MA4120	Advanced Differential Equations	E	3		3.0				30	70	
MA4130	Optimization	E	3		3.0				30	70	
MA4144	Neural Networks and Fuzzy Logic	E	3		3.0				30	70	
MA4150	Financial Mathematics	E	3		3.0				30	70	
MA4160	Advanced Operational Research	E	3		3.0				30	70	
MA4210	Mathematical Analysis and Special Functions	E	3		3.0				30	70	
MA4220	Topics in Algebra and Topology	E	3		3.0				30	70	
MA4230	Number Theory and Cryptography	E	3		3.0				30	70	
MA4240	Mathematical Methods in Theoretical Physics	E	3		3.0				30	70	
					Total	42	0	0.0	0.0		
					Grand Total	122.0	0.0	0.0	0.0		

Total credit requirement for the Specialization		0.0
Faculty/Specialization Electives beyond the specialization requirements [refer faculty electives table]*		
TOTAL CREDIT REQUIREMENT FOR GRADUATION		0.0

Service modules									
Code	Module Name	Semester	Time allocation [Hours/Week]		Credits		Offered to	Evaluation %	
			Lecture	Lab / Tute	GPA	NGPA		CA	WE