



Third year				
Code	Course details	Instructor	Other information	
MAT 303/MSM 401	Metric Spaces [3 0 0 3]	Jayanta Sarkar	Core for BS-MS & I2 3rd yr, MSc & IPHD 1st yr, <b>Protected Minor for 3rd year</b>	
MAT 304/MSM 402/MAT3504	Abstract Algebra [3 0 0 3]	Geetha Thangavelu and Saikat Chatterjee	Core for BS-MS 3rd yr, MSc & IPHD 1st yr, compulsory elective for I2	
MAT 313/MSM 404	Linear Algebra [3 0 0 3]	Jyothsnaa S	Core for BS-MS & I2 3rd yr, MSc & IPHD 1st yr	
MAT 314/MSM 405	Numerical Analysis [3 0 0 3]	Nagaiah Chamakuri	Core for BS-MS 3rd yr & I2, MSc & IPHD 1st yr; Core for Data Sc. 3rd yr with DSC Code	
MAT 321/MSM 403/MAT3521	Complex Analysis [3 0 0 3]	Viji Thomas	Core for BS-MS 3rd yr, MSc & IPHD 1st yr, compulsory elective for I2, <b>Protected Minor for 4th year</b>	
MAT 308/MSM 408	Mathematics Lab [0 0 2 1]	Nagaiah Chamakuri	Core for BS-MS 3rd yr & I2, MSc & IPHD 1st yr ; Core for Data Sc. 3rd yr with DSC Code	
I2M 322/MSM4522	Mathematical Modling [2 0 0 2]	Sudarshan Kumar K	Core for I2M 3rd yr, Elective for MSc & IPHD 1st yr	
I2M 4501/MSM 4501	Numerical Linear Algebra [3 0 0 3]	Sachindranath Jayaraman	Elective for MSc & IPHD 1st yr, 3rd & 4th yr maths major and i2M	
DSC 324	Machine Learning II [3 0 0 3]	Data Sc Faculty	Core for Data Sc 3rd yr., elective for I2M 3rd yr	

Fourth Year			
Code	Course details	Instructor	Other information
MAT407/MSM 511/MAT 6103:	Multivariable Analysis [3 0 0 3]	Abhijeet Ghanwat	Core for BS-MS 4th yr, MSc & IPhD 2nd yr, Elective for i2M, Stream Course for PhD; <b>Protected Minor for 4th and 5th year;</b>
MSM 514/MAT5514/MAT 6102	Commutative Algebra [3 1 0 4]	Mitra Koley	Core for MSc and IPhD 2nd yr; Elective for BS-MS 4th & 5th yr; Stream course for PhD
MAT421/MSM 512	Functional Analysis [3 1 0 4]	K R Arun	Core for BS-MS 4th yr & i2M; MSc & IPhD 2nd yr
MAT414/MSM 513/MAT4514/MAT 6104	Partial Differential Equations [3 1 0 4]	Dhanya Rajendran	Core for i2M 4th yr, MSc & IPhD 2nd yr; Elective for BS-MS 4th yr; Stream Course for PhD
i2M 411/MAT4511	Applied Stochastic Analysis [3 0 0 3]	Utpal Manna	Core for i2M 4th yr, Elective for MSc and IPhD 2nd yr, Elective for BS-MS 4th & 5th yr
i2M 404/MAT4504/MAT 6105	Numerical Solutions of Differential Equations [2 0 0 2]	Dharmatti Sheetal	Core for i2M 4th yr, Elective for MSc and IPhD 2nd yr, Elective for BS-MS 4th & 5th yr; Stream Course for PhD
i2M 405/MAT4505/MAT 6106	NSDE Lab [0 0 2 1]	Dharmatti Sheetal	Core for i2M 4th yr, Elective for MSc and IPhD 2nd yr, Elective for BS-MS 4th & 5th yr; Stream Course for PhD
MAT 5011/MSM 6011/MAT6512	Representation Theory [3 0 0 3]	Geetha Thangavelu and Saikat Chatterjee	Elective for BS-MS 4th yr & 5th yr, MSc and IPhD 2nd yr, elective for PhD
MAT 5012/MSM 5012/MAT6513	Geometric Measure Theory [3 0 0 3]	Shrihari Sridharan	Elective for BS-MS 4th yr & 5th yr, MSc and IPhD 2nd yr, elective for PhD
MAT 5013/MSM 5013/i2M 5013	Financial Engineering [3 0 0 3]	M P Rajan	Elective for i2M, BS-MS 4th yr & 5th yr, MSc and IPhD 2nd yr
DSC 421	Time Series Analysis [3 0 0 3]	Data Sc Faculty	Core for Data Sc. 4th yr, elective for i2M 4th and 5th yr
i2B 422	Bio-imaging and Processing [3 0 0 3]	Bio Faculty	Core for Data Sc. 4th yr, elective for i2M 4th and 5th yr
BIO 4025/6025	AI and ML in Biology [3 0 0 3]	Bio Faculty	Elective for BS-MS 4th year Bio, i2B fifth year, Msc/IPhD 2 year of Bio majors; Protected minor for all other schools

