NIT Jamshedpur Department of Mathematics M.Sc. Mathematics (New Course Structure) <u>Effective from July 2019</u>

1st Semester

Sl. No.	Course	Subject Name	L-T-P	Credit
	Code			
1	MA3101	Linear Algebra	4-0-0	4
2	MA3102	Real Analysis	4-0-0	4
3	MA3103	Probability and Statistics	4-0-0	4
4	MA3104	Ordinary Differential Equations	4-0-0	4
5	MA3105	C-Programming & Lab	4-0-0	4
			Total	20

2nd Semester

Sl. No.	Course	Subject Name	L-T-P	Credit
	Code			
1	MA3201	Complex Analysis	4-0-0	4
2	MA3202	Numerical Analysis & Lab	4-0-0	4
3	MA3203	Abstract Algebra	4-0-0	4
4	MA3204	Partial Differential Equations	4-0-0	4
5	MA3205	Measure Theory and Integration	4-0-0	4
			Total	20

3rd Semester

Sl. No.	Course	Subject Name	L-T-P	Credit
	Code			
1	MA3301	Topology	4-0-0	4
2	MA3302	Operations Research	4-0-0	4
3	MA3303	Mathematical Methods	4-0-0	4
4	MA330X	Elective - I	4-0-0	4
5	MA330X	Elective - II	4-0-0	4
			Total	20

4th Semester

Sl. No.	Course Code	Subject Name	L-T-P	Credit
1	MA3401	Functional Analysis	4-0-0	4
2	MA340X	Elective - I	4-0-0	4
3	MA340X	Elective - II	4-0-0	4
4	MA3405	Project	8-0-0	8
			Total	20

Note: (*I*) Any two out of MA3304, MA3305, MA3306 and MA3307 are to be chosen in 4th Semester.

List of Electives (Semester-III)

Sl. No.	Course Code	Subject Name	
1	MA3304	Commutative Algebra	
2	MA3305	Discrete Mathematics	
3	MA3306	Numerical Solution of Ordinary and Partial Differential Equations	
4	MA3307	Analysis of Variance and Design of Experiments	

Note: (II) Any two out of MA3402, MA3303 and MA3304 are to be chosen in 4th Semester.

List of Electives (Semester-IV)

Sl. No.	Course	Subject Name
	Code	
1	MA3402	Advanced Complex Analysis
2	MA3403	Number Theory & Cryptography
3	MA3404	Fluid Dynamics

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3rd Semester

Sl. No.	Course	Subject Name	L-T-P	Credit
	Code			
1	MAG6111	Abstract Algebra	4-0-0	4
2	MAG6112	Functional Analysis	4-0-0	4
3	MAG6113	General Topology	4-0-0	4
4	MAG6114	Numerical Analysis	4-0-0	4
5	MAG6115	Communication Skills	4-0-0	4
			Total	20

4th Semester

Sl. No.	Course Code	Subject Name	L-T-P	Credit
1		Elective-I	4-0-0	4
2		Elective-II	4-0-0	4
3		Elective-III	4-0-0	4
4	MAG6116	Project	8-0-0	8
			Total	20

Note: Any three out of MAG6131, MAG6132, MAG6133, MAG6134, MAG6135 and MAG6136 are to be chosen in 4th Semester.

List of Electives (Semester-IV)

Sl. No.	Course	Subject Name
	Code	
1	MAG6131	Operations Research
2	MAG6132	Sampling Theory
3	MAG6133	Differential Geometry
4	MAG6134	Fluid Dynamics
5	MAG6135	Number Theory & Cryptography
6	MAG6136	Fuzzy Sets & Their Applications