

MASTER OF SCIENCE MATHEMATICS

Programme Code: MTM

Duration: 2 Years

Detailed Syllabus with Scheme of Examination

SESSION: 2019-2020



**Department of Mathematics
Faculty of Life and Basic Sciences**

**CHHATRAPATI SHIVAJI MAHARAJ
UNIVERSITY PANVEL, NAVI MUMBAI**

SEMESTER I

Course Code	Course Name	L	T	P	IA	UE	Total Marks	Credits
MTMC101	Real Analysis	4	1	0	30	70	100	5
MTMC102	Advanced Calculus	4	1	0	30	70	100	5
MTMC103	Linear Algebra	4	1	0	30	70	100	5
MTMC104	Number Theory	4	1	0	30	70	100	5
MTMC105	Ordinary Differential Equations	4	1	0	30	70	100	5
	Total	20	5	0	150	350	500	25

SEMESTER II

Course Code	Course Name	L	T	P	IA	UE	Total Marks	Credits
MTMC201	General Topology	4	1	0	30	70	100	5
MTMC202	Differential Geometry	4	1	0	30	70	100	5
MTMC203	Groups and Rings	4	1	0	30	70	100	5
MTMC204	Complex Analysis	4	1	0	30	70	100	5
MTMC205	Partial Differential Equations	4	1	0	30	70	100	5
	Total	20	5	0	150	350	500	25

SEMESTER III

Course Code	Course Name	L	T	P	IA	UE	Total Marks	Credits
MTMC301	Graph Theory	4	1	0	30	70	100	5
MTMC302	Numerical Analysis	4	1	0	30	70	100	5
MTMC303	Advanced complex Analysis	4	1	0	30	70	100	5
MTMC304	Elective I	4	1	0	30	70	100	5
MTMC305	Elective II	4	1	0	30	70	100	5
	Total	20	5	0	150	350	500	25

SEMESTER IV

Course Code	Course Name	L	T	P	IA	UE	Total Marks	Credits
MTMC- 401	Mathematical Analysis	4	1	0	30	70	100	5
MTMC- 402	Nonlinear Programming	4	1	0	30	70	100	5
MTMC -403	Number Theory and Cryptography	4	1	0	30	70	100	5
	Project	-	-	-	-	-	200	8
	Total	12	3	0	90	210	500	23

Total Marks: 2000

Total Credit: 100

List of Elective and Special Papers:

NOTE: Students have to choose two elective subjects for Semesters III

Semester	Course Code (T+P)	Course Name	(L-T-P)	Credits
Elective Papers				
III	MTME301	Rings and Modules	5-0-1	6
III	MTME302	Algebraic Topology	5-0-1	6
III	MTME303	Lattice Theory	5-0-1	6
III	MTME304	Hydrodynamics	5-0-1	6