



BRAINWARE UNIVERSITY
School of Computational & Applied Sciences
Department of Mathematics
Master of Science in Mathematics 2021

Semester-I

Course Code	Course Title	Contact Hrs. L-T- P	Credits C
MSCMC101	Linear Algebra	4-1-0	4
MSCMC102	Real Analysis	4-1-0	4
MSCMC103	Mathematical Statistics	4-1-0	4
MSCMC104	Ordinary Differential Equations	4-1-0	4
MSCM(HU)191	English Communication Lab	0-0-4	2
	Total	24	18

Semester-II

Course Code	Course Title	Contact Hrs. L-T- P	Credits C
MSCMC201	Abstract Algebra	4-1-0	4
MSCMC202	Complex Analysis	4-1-0	4
MSCMC203	Partial Differential Equations	4-1-0	4
MSCMC204	Continuum Mechanics	4-1-0	4
MSCMC205	General Topology	4-1-0	4
MSCM(CS)201	Computer Programming	3-0-0	3
MSCM(CS)291	Computer Programming Lab	0-0-2	1
	Total	30	24

Semester-III

Course Code	Course Title	Contact Hrs. L-T- P	Credits C
MSCMC301	Functional Analysis	4-1-0	4
MSCMC302	Differential Geometry	4-1-0	4
MSCMC303	Integral Equations & Calculus of Variations	4-1-0	4
MSCME**	Elective I	4-0-0	4
MSCME**	Elective II	4-0-0	4
MSCM381	Project (Stage I)	0-0-8	4
	Total	31	24

Electives I & II – Third Semester

Group	Sl. No.	Course Code	Course Title	Contact Hrs. L-T-P	Credits C
Elective I	1.	MSCME301	Module Theory	4-0-0	4
	2.	MSCME302	Measure and Probability Theory	4-0-0	4
	3.	MSCME303	Analytical Number Theory	4-0-0	4
	4.	MSCME304	Harmonic Analysis	4-0-0	4
Elective II	1.	MSCME305	Algebraic Topology	4-0-0	4
	2.	MSCME306	Dynamical systems	4-0-0	4
	3.	MSCME307	Fluid Mechanics	4-0-0	4
	4.	MSCME308	Discrete Structures	4-0-0	4

Semester-IV

Course Code	Course Title	Contact Hrs. L-T-P	Credits C
MSCMC401	Operations Research	4-1-0	4
MSCMC402	Applied Numerical Analysis	3-1-0	3
MSCMC492	Applied Numerical Analysis Lab	0-0-2	1
MSCME**	Elective III	4-0-0	4
MSCME**	Elective IV	4-0-0	4

MSCM481	Project (Final)	0-0-12	6
MSCM482	Grand Viva	---	2
	Total	35	24

Electives III & IV – Fourth Semester

Group	Sl. No.	Course Code	Course Title	Contact Hrs. L-T-P	Credits C
Elective III	1.	MSCME401	Manifolds and Applications	4-0-0	4
	2.	MSCME402	Mathematical Modelling	4-0-0	4
	3.	MSCME403	Financial Mathematics	4-0-0	4
	4.	MSCME404	Coding Theory	4-0-0	4
Elective IV	1.	MSCME405	Finite Element method	4-0-0	4
	2a.	MSCME406	Computational Fluid Dynamics	3-0-0	3
	2b.	MSCME496	Computational Fluid Dynamics Lab	0-0-2	1
	3.	MSCME407	Stochastic Processes	4-0-0	4
	4.	MSCME408	Automata& Formal Languages	4-0-0	4
	5.	MSCME409	Cryptography	4-0-0	4

TOTAL CREDITS

M. Sc. (Mathematics): 90

Category	Core Course	Elective Course	Other Compulsory Courses	Total
Credits	68	16	6	90