

Galgotias University, Greater Noida

School of Basic and Applied Sciences

M.Sc(Mathematics)

Batch: 2019-22

Course Structure

S. No.	Category	Credits
1	Program Core (PC)	62
2	Discipline Specific Electives(DSE)	16
4	Ability Enhancement Courses(AEC)	2
5	Project	12
	Total Credits	92

SEMESTERWISE DISTRIBUTION OF COURSES & CREDITS

Courses/ (Credits)	Sem-I	Sem-II	Sem-III	Sem-IV	Total No. of Courses	Total credits
PC (Theory)	4	6	3	2	15	58
PC (Practical)	1	1	-	1	3	4
DSE	--	--	2	2	4	16
AEC	1	-	--	--	1	2
Project	-	-	1	1	2	12
Total No. of Course/ Sem.	6	7	6	6	25	-
Total Credits /Semester	20	24	24	24	---	92

Galgotias University, Greater Noida

Department of Mathematics(SBAS)

M.Sc(Mathematics)

Detailed Course Structure with Credits

FIRST SEMESTER

Course Code	Course Title	Contact Hrs. L-T- P	Credits C
MSCM5009	Linear Algebra	4-1-0	4
MSCM5010	Real Analysis	4-1-0	4
MSCM5011	Mathematical Statistics	4-1-0	4
MSCM5012	Mathematical Statistics Lab using R	0-0-4	2
MSCM5013	Ordinary Differential Equations	4-1-0	4
CENG5001	Professional Communication Skills	0-0-4	2
	Total	26	20

SECOND SEMESTER

Course Code	Course Title	Contact Hrs. L-T- P	Credits C
MSCM5014	Abstract Algebra	4-1-0	4
MSCM5015	Complex Analysis	4-1-0	4
MSCM5016	Partial Differential Equations	4-1-0	4
MSCM5017	Continuum Mechanics	4-1-0	4
MSCM5018	General Topology	4-1-0	4
MSCM5019	Computer Programming in Python	2-0-0	2
MSCM5020	Computer Programming Lab in Python	0-0-4	2
	Total	30	24

THIRD SEMESTER

Course Code	Course Title	Contact Hrs. L-T- P	Credits C
MSCM6012	Functional Analysis	4-1-0	4
MSCM6013	Differential Geometry	4-1-0	4
MSCM6014	Integral Equations & Calculus of Variations	4-1-0	4
MSCM*	Elective I	4-0-0	4
MSCM*	Elective II	4-0-0	4
MSCM9998	Project (Stage I)	0-0-4	4
	Total	27	24

Detailed Course Structure with Credits

Electives I & II – Third Semester

Group	Sl. No.	Code	Course Title	Contact Hrs. L-T-P	Credits C
Elective I	1.	MSCM6015	Module Theory	4-0-0	4
	2.	MSCM6016	Measure and Probability Theory	4-0-0	4
	3.	MSCM6017	Analytical Number Theory	4-0-0	4
	4.	MSCM6018	Harmonic Analysis	4-0-0	4
Elective II	1.	MSCM6019	Algebraic Topology	4-0-0	4
	2.	MSCM6020	Dynamical systems	4-0-0	4
	3.	MSCM6021	Fluid Mechanics	4-0-0	4
	4.	MSCM6022	Discrete Structures	4-0-0	4

FOURTH SEMESTER

Course Code	Course Title	Contact Hrs. L-T-P	Credits C
MSCM6023	Operations Research	4-1-0	4
MSCM6024	Applied Numerical Analysis	3-1-0	3
MSCM6025	Applied Numerical Analysis Lab	0-0-2	1
MSCM*	Elective III	4-0-0	4
MSCM*	Elective IV	4-0-0	4
MSCM9999	Project (Final)	0-0-8	8
	Total	27	24

Basket of Electives

Group	Sl. No.	Code	Course Title	Contact Hrs. L-T-P	Credits C
Elective III	1.	MSCM6026	Manifolds and Applications	4-0-0	4
	2.	MSCM6027	Mathematical Modelling	4-0-0	4
	3.	MSCM6028	Financial Mathematics	4-0-0	4
	4.	MSCM6029	Coding Theory	4-0-0	4
Elective IV	1.	MSCM6031	Finite Element method	4-0-0	4
	2a.	MSCM6032	Computational Fluid Dynamics	3-0-0	3
	2b.	MSCM6033	Computational Fluid Dynamics Lab	0-0-2	1
	3.	MSCM6034	Stochastic Processes	4-0-0	4
	4.	MSCM6035	Automata & Formal Languages	4-0-0	4
	5.	MSCM6036	Cryptography	4-0-0	4