

Syllabus w. e. f. Session 2021-22
Gurukula Kangri (Deemed to be University), Haridwar

M.Sc. MATHEMATICS

S.N	Subject Code	Subject Title	Period			Evaluation Scheme			Subject Total	
			L	T	P	Sessional		ESE		
			Credit	CT	TA					
M. Sc I Year										
Semester – I										
1	MMA-C111	Ordinary Differential Equations	5	2	-	6	20	10	70	100
2	MMA-C112	Mathematical Statistics	5	2	-	6	20	10	70	100
3	MMA-C113	Advanced Real Analysis	5	2	-	6	20	10	70	100
4	MMA-C114	Abstract Algebra	5	2	-	6	20	10	70	100
Total credit										24
Semester – II										
1	MMA-C211	Complex Analysis	5	2	-	6	20	10	70	100
2	MMA-C212	Topology	5	2	-	6	20	10	70	100
3	MMA-C213	Partial Differential Equations	5	2	-	6	20	10	70	100
4	MMA-C214	Optimization Techniques	5	2	-	6	20	10	70	100
Total credit										24
M. Sc II Year										
Semester – III										
1	MMA-C311	Functional Analysis	5	2	-	6	20	10	70	100
2	MMA- C312	Programming in C	3	2		4	20	10	70	100
3	MMA- C352	Lab Course with C			3	2	20	10	70	100
Elective Papers (Select any two)										
3	MMA-E311	Vedic and Ancient Mathematics	5	2	-	6	20	10	70	100
4	MMA-E312	Discrete Mathematics	5	2	-	6	20	10	70	100
5	MMA-E313	Mathematical Methods	5	2	-	6	20	10	70	100
6	MMA-E314	Number Theory	5	2	-	6	20	10	70	100
7	MMA-E315	Mechanics	5	2	-	6	20	10	70	100
8	MMA-E316	Neural Network	5	2	-	6	20	10	70	100
Total credit										24
Semester – IV										
1	MMA-C411	Numerical Analysis	5	2	-	6	20	10	70	100
2	MMA-C412	Mathematical Modeling	5	2	-	6	20	10	70	100
Elective Papers(Select any two)										
3	MMA-E411	Fuzzy Sets and Their Applications	5	2	-	6	20	10	70	100
4	MMA-E412	Fourier Transform & Wavelet Analysis	5	2	-	6	20	10	70	100
5	MMA-E413	Fluid Dynamics	5	2	-	6	20	10	70	100
5	MMA-E414	Differential Geometry	5	2	-	6	20	10	70	100
	MMA-E415	Cryptographic Mathematics	5	2	-	6	20	10	70	100
7	MMA-E416	Dissertation*	-	-	-	6				100
Total credit										24
Cryptographic Mathematics G Total (credit)										96

* Dissertation can be offered to those students securing more than 70% of marks upto IInd semester and the availability of the requisite resources/ facility.

L = Lecture

T = Tutorial

P = Practical

CT = Cumulative Test

TA = Teacher Assessment

ESE = End Semester Examination