

B.Sc. (Hons.) Mathematics

Year	FIRST SEMESTER						SECOND SEMESTER					
	Course Code	Course Name	L	T	P	C	Course Code	Course Name	L	T	P	C
I	MA1103	Calculus	3	1	0	4	MA1203	Differential Equations	3	1	0	4
	MA1104	Discrete Mathematics Structure	3	1	0	4	MA1204	Number Theory	3	1	0	4
	MA1105	Higher Trigonometry	3	1	0	4	MA1205	Abstract Algebra	3	1	0	4
	*****	SEC – I	1	1	0	2	MA1206	Three Dimensional Geometry	3	1	0	4
	*****	SEC – I Lab	0	0	2	1	*****	GE-II (A)	2	1	0	3
	CY1003	Environmental Science	2	1	0	3	*****	GE-II (A) Lab	-	-	2	1
	LN1106	Communicative English	1	0	2	2	*****	GE-II (B)	2	1	0	3
	*****	GE – I	2	1	0	3	*****	GE-II (B) Lab	-	-	2	1
	*****	GE – I Lab	-	-	2	1						
			15	6	6	24			16	6	4	24
Total Contact Hours (L + T + P)			27			Total Contact Hours (L + T + P)			26			
II	THIRD SEMESTER						FOURTH SEMESTER					
	MA2112	Real Analysis	3	1	0	4	MA2211	Multivariate Calculus	3	1	0	4
	MA2113	Ring & Field Theory	3	1	0	4	MA2212	PDE & System of ODE	3	1	0	4
	MA2114	Linear Programming Problems	3	1	0	4	MA2213	Linear Algebra	3	1	0	4
	*****	SEC – II	2	0	0	2	MA2218	Vector Calculus & Metric Space	3	1	0	4
	*****	SEC – III	2	0	0	2	MA2215	Mathematical Modeling	3	1	0	4
	*****	GE – III (A)	2	1	0	3	*****	DSE – I	3	1	0	4
	*****	GE – III (A) Lab	0	0	2	1	*****	Open Elective	2	1	0	3
	*****	GE – III (B)	2	1	0	3						
	*****	GE – III (B) Lab	0	0	2	1						
		17	5	4	24			20	7	0	27	
Total Contact Hours (L + T + P)			26			Total Contact Hours (L + T + P) + OE			24+3=27			
III	FIFTH SEMESTER						SIXTH SEMESTER					
	MA3101	Numerical Analysis	2	1	0	3	MA3201	Complex Analysis	3	1	0	4
	MA3103	Dynamics	3	1	0	4	MA3202	Riemann Integration & Series of Functions	3	1	0	4
	MA3104	Integral Transforms	3	1	0	4	MA3204	Statics	3	1	0	4
	MA3130	Lab on Numerical Analysis	0	0	2	1	*****	DSE – III (A)	2	1	0	3
	MA3170	Project	0	0	0	6	*****	DSE – III (B)	2	1	0	3
	*****	DSE – II (A)	2	1	0	3	*****	GE – IV	2	1	0	3
	*****	DSE – II (B)	2	1	0	3	*****	GE – IV Lab	0	0	2	1
							*****	Open Elective	2	1	0	3
			12	5	2	24			17	7	2	26
Total Contact Hours (L + T + P)			19			Total Contact Hours (L + T + P) + OE			23 +3 = 26			

<u>Discipline Specific Electives (DSE)</u>	<u>Generic Electives (GE)</u>	<u>Open Electives (OE) offered by the Department</u>
<u>DSE – I</u> - MA2240 Statistical Inference[#] - MA2230 Lab on Statistical Inference[#] - MA2241 Inventory Theory and Dynamic Programming - MA2242 Information Theory - MA2243 Introduction to Mathematical Finance	<u>GE – I & Lab</u> - MA1140 Descriptive Statistics - MA1130 Lab on Descriptive Statistics - CY1160 General Chemistry-I - CY1138 Organic Chemistry Laboratory - PY1160 Mechanics and STR - PY1136 General Physics Lab-I	- MA0051: Combinatorics and Probability - MA0052: Everyday Excel Part-1 - MA0053: Linear Algebra - MA2080: Introduction to Astronomical Science - MA2081: Regression Analysis and Forecasting - MA2082: Biostatistics - MA2083: Coding Theory - MA2084: Mathematical Modelling and Computation - MA3080: Marketing Research and Analysis - MA3081: Mathematical Methods for Quantitative Finance - MA3082: Modelling & Simulation - MA3083: Optimization Techniques
<u>DSE – II (A)</u> - MA3140 Basic Econometrics - MA3141 Modeling & Simulation	<u>GE – II (A) & Lab</u> - MA1240 Probability Theory & Random Variables - MA1230 Lab on Probability & Random Variables - CY1260 General Chemistry-II - CY1238 Inorganic Chemistry Laboratory - PY1261 Electromagnetism	
<u>DSE – II (B)</u> - MA3142 Reliability Modeling & Analysis - MA3143 Portfolio Optimization - MA3144 Operations Research	<u>GE – II (B) & Lab</u> - MA1241 Applied Statistics - MA1231 Lab on Applied Statistics - CY1261 General Chemistry-III - CY1239 Physical Chemistry Laboratory - PY1260 Oscillation and Wave Optics - PY1236 Optics Lab	
<u>DSE – III (A)</u> - MA3241 Multivariate Analysis - MA3242 Numerical Methods of Ordinary and Partial Differential Equations	<u>GE – III (A) & Lab</u> - MA2140 Distribution Theory - MA2130 Lab on Distribution Theory - CY2160 Analytical Chemistry - CY2138 Analytical Chemistry Laboratory - PY2161 Heat and Thermodynamics	
<u>DSE – III (B)</u> - MA3243 Mechanics - MA3245 Introduction to Graph Theory	<u>GE – III (B) & Lab</u> - MA2141 Sampling Theory - MA2131 Lab on Sampling Theory - CY2161 Structure of Materials - CY2139 Material Chemistry Laboratory - PY2160 Electronics	
<u>Skill Enhancement Courses (SEC)</u>		
<u>SEC – I</u> CA1170 Fundamentals of Computer		
<u>SEC – I Lab</u> CA1175 Fundamentals of Computer Lab		
<u>SEC – II</u> MA2115 Data Analysis using R		
<u>SEC – III</u> MA2116 Introduction to C Language	<u>GE – IV & Lab</u> - MA3240 Design of Experiment - MA3230 Lab on Design of Experiment - CY3260 Biophysical Chemistry - CY3238 Applied Chemistry Laboratory - PY3260 Modern Physics	

- Papers MA2240 and MA2230 can be opted together only, total credits remain same as mentioned for the DSE-I