

B.Sc. (Hons.) Mathematics

Structure of the Program

Total Credits: 134

FIRST SEMESTER

SN	Course Code	Course Title	Contact hours	Credits
1	BS1MA101	Algebra	3	3
2	BS1MA102	Calculus	4	4
3	BS1PH101	Mechanics and Relativity	4	4
4	BS1PH102	Waves & Sound	3	3
5	BS1CH101	Atomic Structure and Chemical Bonding	3	3
6	BS1CH102	Organic Chemistry I	3	3
7	BS1HS101	Presentation & Communication Skills	2	2
8	BS1CH171	Quantitative and Qualitative Analysis Lab	2	1
9	BS1PH171	Physics Lab I	2	1
		Total	26	24

SECOND SEMESTER

SN	Course Code	Course Title	Contact hours	Credits
1	BS1MA201	Linear Algebra	4	4
2	BS1MA202	Ordinary Differential Equations	4	4
3	BS1PH201	Electricity & Magnetism	4	4
4	BS1PH202	Heat and thermodynamics	3	3
5	BS1CH201	Inorganic Chemistry	3	3
6	BS1CH202	Physical Chemistry I	4	4
7	BS1CH271	Physical chemistry Lab	2	1
8	BS1PH271	Physics Lab II	2	1
9	BS1CI171	Introduction to Computers*	2	1
		Total	26	24

Note: *audit course

THIRD SEMESTER

SN	Course Code	Course Title	Contact hours	Credits
1	BS1MA301	Advanced Calculus	4	4
2	BS1MA302	3-Dimensional Geometry	4	4
3	BS1PH301	Optics & Laser Physics	4	4
4	BS1PH302	General Properties of matter	3	3
5	BS1CH301	Organic Chemistry II	3	3
6	BS1CH302	Physical Chemistry II	4	4
7	BS1CH371	Chemistry Lab	2	1
8	BS1PH371	Physics Lab III	2	1
		Total	26	24

FOURTH SEMESTER

SN	Course Code	Course Title	Contact hours	Credits
1	BS1MA401	Partial Differential Equations	4	4
2	BS1MA402	Vector and Tensor Analysis	4	4
3	BS1PH401	Atomic & Molecular Physics	4	4
4	BS1PH402	Quantum Mechanics	4	4
5	BS1CH401	Environmental Science	3	3
6	BS1CH402	Industrial Chemistry I	4	4
7	BS1CH471	Environmental Science Lab	2	1
		Total	25	24

FOR MATHEMATICS (HONS.)**FIFTH SEMESTER**

SN	Course Code	Course Title	Contact hours	Credits
1	BS1MA501	Analysis I	3	3
2	BS1MA502	Abstract Algebra	3	3
3	BS1MA503	Statics and Dynamics	3	3
4	BS1MA504	Discrete Mathematics	3	3
5	BS1CI501	Programming in C	3	3
6	BS1CI571	Programming Lab	2	1
7	BS2MA50X	Elective I	3	3
		Total	20	19

ELECTIVE – I

1. Number theory (BS2MA501)
2. Business Mathematics (BS2MA502)
3. Graph theory (BS2MA503)
4. Computational Mathematics (BS2MA504)

SIXTH SEMESTER

SN	Course Code	Course Title	Contact hours	Credits
1	BS1MA601	Analysis-II	3	3
2	BS1MA602	Differential Geometry	3	3
3	BS1MA603	Numerical Analysis	3	3
4	BS1MA604	Mechanics	3	3
5	BS1MA605	Operations Research	4	4
6	BS2MA60X	Elective II	3	3
		Total	19	19

ELECTIVE – II

1. Theory of Approximation and Splines (BS2MA601)
2. Probability theory and Statistics (BS2MA602)
3. Introduction to fuzzy Sets (BS2MA603)
4. Boundary value Problems (BS2MA604)