



Course Name:
B.Sc.(H)Mathematics
Course Structure (2018-19)

Faculty of Physical Sciences
Department of Mathematics
B.Sc. (H)- Mathematics

Scheme of Studies and Examination 1st

Semester

S No	Course Title	Course Code	Core/Program Elective/Generic Elective/AEC/SEC	Credits
1	Calculus	MATH1101	Core	4
2	Calculus lab	MATH1102	Core	2
3	Algebra	MATH1103	Core	6
4	English Communications	ENGL0103	AEC	2
5	Fundamental of computers	CSEN0306	Generic Elective	4
6	Fundamental of computers Lab	CSEN0307	Generic Elective	2
7	Foreign Language French\German \Spanish	LANF0101/LANF0102/ LANG0103	AEC	2
Total				22

2nd Semester

S No	Course Title	Course Code	Core/Program Elective/Generic Elective/AEC/SEC	Credits
1	Real Analysis	MATH1104	Core	6
2	Differential Equations	MATH1105	Core	4
3	Differential Equations Lab	MATH1106	Core	2
4	Environmental Sciences	ENVS0102	AEC	2
5	Introduction to programming	CSEN0328	Generic Elective	4
6	Introduction to programming Lab	CSEN0329	Generic Elective	2
7	Foreign Language French\German \Spanish	LANF0104/LANF0105/ LANG0106	AEC	2
Total				22

3rd Semester

S No	Course Title	Course Code	Core/Program Elective/Generic Elective/AEC/SEC	Credits
1	Theory of Real Functions	MATH2101	Core	6
2	Group Theory-I	MATH2102	Core	6
3	PDE & System of ODE	MATH2103	Core	4
4	PDE & System of ODE lab	MATH2104	Core	2
5	Skill Enhancement Course-I	SKILL0105	SEC	2
6	Database Management Systems	CSEN0304	Generic Elective	4
7	Database Management Systems lab	CSEN0305	Generic Elective	2
Total				26

4th Semester

S No	Course Title	Course Code	Core/Program Elective/Generic Elective/AEC/SEC	Credits
1	Numerical Methods	MATH2105	Core	4
2	Numerical Methods lab	MATH2106	Core	2
3	Riemann Integrations and Series of Functions	MATH2107	Core	6
4	Ring Theory and Linear Algebra I	MATH2108	Core	6
5	Skill Enhancement Course II	SKILL0106	SEC	2
6	Computer network and Internet	CSEN0330	Generic Elective	4
7	Computer network and Internet Lab	CSEN0331	Generic Elective	2
Total Grand Total				26

5th Semester

S No	Course Title	Course Code	Core/Program Elective/Generic Elective/AEC/SEC	Credits
1	Multivariate Calculus	MATH3101	Core	6
2	Group Theory II	MATH3102	Core	6
3	Portfolio Optimization (DSE-I)	MATH3205	Elective	6
4	Number Theory (DSE-I)	MATH3206	Elective	6
5	Analytical Geometry (DSE I)	MATH3207	Elective	6
6	Industrial Mathematics (DSE II)	MATH3208	Elective	6
7	Boolean Algebra and Automata Theory (DSE II)	MATH3209	Elective	6
8	Probability and Statistics (DSE II)	MATH3210	Elective	
Total Grand Total				24

*Choose one from (DSE-I)

MATH3205: Portfolio Optimization

MATH3206: Number Theory

MATH3207: Analytical Geometry

And one from(DSE-II)

MATH3208: Industrial Mathematics

MATH3209: Boolean Algebra and Automata Theory

MATH3210: Probability and Statistics

6^h Semester

S No	Course Title	Course Code	Core/Program Elective/Generic Elective/AEC/SEC	Credits
1	Metric Spaces and Complex Analysis	MATH3103	Core	6
2	Ring Theory and Linear Algebra II	MATH3104	Core	6
3	Theory of Equations (DSE III)	MATH3211	Elective	6
4	Bio Mathematics (DSE III)	MATH3212	Elective	6
5	Linear Programming (DSE III)	MATH3213	Elective	6
6	Mathematical Modelling (DSE IV)	MATH3214	Elective	6
7	Mechanics (DSE IV)	MATH3215	Elective	6
8	Differential Geometry (DSE IV)	MATH3216	Elective	
Total Grand Total				24

***Choose one from (DSE-III)**

MATH3211: Theory of Equations
MATH3212: Bio-Mathematics
MATH3213: Linear Programming

And one from(DSE-IV)

MATH3214: Industrial Mathematics
MATH3215: Boolean Algebra and Automata Theory
MATH3216: Probability and Statistics