**Scheme ofBSc (H) Mathematics 2021-24**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sem** | **Course 1** | | **Course 2** | | **Course 3** | **Course 4** | **Course 5** | **Course 6** | **Course 7** | **Comm. services** | **GP** | **Cont. hrs.** | **Credits** |
| I | CLL 101  Effective Communication-I  2.5(2-0-1) | | MAL 101N Fundamentals of Mathematics  4(3-1-0) | | PYL 102N Fundamentals of Physics  4(3-0-2) | MAL109 Introduction to Statistics  4(4-0-0) | CHL100 Environmental Studies  3(3-0-0) | CHL111 Fundamentals of Chemistry  4(3-0-2) |  | MAS  100  (70 hrs) | MAR  100  (1) | 24 | 22.5 |
| II | CLL 102  Effective Communication-II  2.5(2-0-1) | | MAL315 Number Theory  4(3-1-0) | |  | MAL209 Data Analysis  4(3-0-2) | MAL 106N Basics of Computer Programming  4(3-0-2) | BSL101 Entrepreneurship 3(2-0-2) | CLL 120 HVPE  2(2-0-0) | MAS  100  (70 hrs)  (2 Crdt) | MAR  110  (1) | 25 | 22.5 |
| III | MAL 102  Analysis I  4(3-1-0) | | MAL 313  Integral & Vector Calculus  4(3-1-0) | | PE 1  MAL105N Group Theory  4(3-1-0) | PE 2  MAL303 Linear Programming & applications  4(3-1-0) | Open Elective I  3(3-0-0) | MAL 304N  Probability and Statistics  4(3-1-0) |  | MAS  200  (35 hrs) | MAR  200  (1) | 23 | 24 |
| IV | MAL 104  Differential Equations I  4(3-1-0) | | PE 3  MAL307 Discrete Mathematics  4 (3-1-0) | | PE 4  MAL205N Higher Algebra  4 (3-1-0) | PE 5  MAL317 Mathematical Modeling  4(3-1-0) | Open Elective II  3(3-0-0) | Foreign Language  3(1-2-0) |  | MAS  200  (35 hrs)  (2 Crdt) | MAR  210  (1) | 22 | 25 |
|  | | MAI 240 Summer Internship 3(0-0-6) | | | | | | | | | | | |
| V | MAL 208  Linear Algebra  4(3-1-0) | | MAL 206 Mathematical Statistics  3(2-0-2) | | PE 6  MAL203 Differential Equations II 4(3-1-0) | PE 7  MAL321 Mathematical Methods  4 (3-0-2) | Open Elective III  3(3-0-0) | MAD 350  Project  4(0-0-8) |  | MAS  300  (70 hrs) | MAR  300  (1) | 20 | 23 |
| VI | MAL 310  Numerical Analysis  3(2-0-2) | | MAL 320  Creativity and innovation outcome  (1) | | PE 8  MAL311 Intro to complex Analysis  4(3-1-0) | PE 9  MAL201 Analysis II  4 (3-1-0) | Open Elective IV  3(3-0-0) | MAD 360  Project  4(0-0-8) |  | MAS  300  (70 hrs)  (2 Crdt) | MAR  310  (1) | 15 | 22 |
|  |  | |  | Total | | | | | | | | 127 | 142 |

**Scheme ofBSc (H) Mathematics 2020-23**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sem** | **Course 1** | | **Course 2** | | **Course 3** | **Course 4** | **Course 5** | **Course 6** | **Course 7** | **Comm. services** | **GP** | **Cont. hrs.** | **Credits** |
| I | CLL 101  Effective Communication-I  2.5(2-0-1) | | MAL 101N Fundamentals of Mathematics  4(3-1-0) | | PYL 102N Fundamentals of Physics  4(3-0-2) | ENL101 Statistics & Research Methodology-I 4(4-0-0) | CHL100 Environmental Studies  3(3-0-0) | PSL101 Understanding the Constitution 3(3-0-0) |  | MAS  100  (70 hrs) | MAR  100  (1) | 22 | 21 |
| II | CLL 102  Effective Communication-II  2.5(2-0-1) | | BSL102 FINE ARTS 2(1-0-2) | | PCL102 Psychology for living 3(2-1-0) | CHL111 Fundamentals of Chemistry  4(3-0-2) | MAL 106N Basics of Computer Programming  4(3-0-2) | BSL101 Entrepreneurship 3(2-0-2) | CLL 120 HVPE  2(2-0-0) | MAS  100  (70 hrs)  (2 Crdt) | MAR  110  (1) | 25 | 23.5 |
| III | MAL 102  Analysis I  4(3-1-0) | | MAL 313  Integral & Vector Calculus  4(3-1-0) | | PE 1  MAL105N Group Theory  4(3-1-0) | PE 2  MAL303 Linear Programming & applications  4(3-1-0) | Open Elective I  3(3-0-0) | MAL 304N  Probability and Statistics  4(3-1-0) |  | MAS  200  (35 hrs) | MAR  200  (1) | 23 | 24 |
| IV | MAL 104  Differential Equations I  4(3-1-0) | | PE 3  MAL201 Analysis II  4 (3-1-0) | | PE 4  MAL205N Higher Algebra  4 (3-1-0) | PE 5  MAL317 Mathematical Modeling  4(3-1-0) | Open Elective II  3(3-0-0) | Foreign Language  3(1-2-0) |  | MAS  200  (35 hrs)  (2 Crdt) | MAR  210  (1) | 22 | 25 |
|  | | MAI 240 Summer Internship 3(0-0-6) | | | | | | | | | | | |
| V | MAL 208  Linear Algebra  4(3-1-0) | | MAL 206 Mathematical Statistics  3(2-0-2) | | PE 6  MAL203 Differential Equations II 4(3-1-0) | PE 7  MAL321 Mathematical Methods/MAL 209 Data Analysis  4 (3-0-2) | Open Elective III  3(3-0-0) | MAD 350 Project  4(0-0-8) |  | MAS  300  (70 hrs) | MAR  300  (1) | 20 | 23 |
| VI | MAL 310  Numerical Analysis  3(2-0-2) | | MAL 320  Creativity and innovation outcome  (1) | | PE 8  MAL311 Intro to complex Analysis  4(3-1-0) | PE 9  MAL 307 Discrete Mathematic s/CSL 313 Machine Learning  4 (3-1-0/2-0-4) | Open Elective IV  3(3-0-0) | MAD 360  Project  4(0-0-8) |  | MAS  300  (70 hrs)  (2 Crdt) | MAR  310  (1) | 15 | 22 |
|  |  | |  | Total | | | | | | | | 127 | 142 |

**SCHEME OF B.Sc. (HONS) MATHS 2019-22**

|  |  |  |  |  |  |  |  |  |  |  |  |
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| **Sem** | | **Course 1** | **Course 2** | **Course 3** | **Course 4** | **Course 5** | **Course 6** | **GP** | **Comm. services** | **Cont hrs** | **Credits** |
| **I** | | MAL 101  Calculus and Geometry  3-1-0( 4) | MAL 103  Intro to Probability  3-1-0( 4) | MAL 105  Algebra I  3-1-0( 4) | CLL 101  Effective Comm.-I  1-0-2 (2) | CHL100  EVS  3-0-0 (3) | Foreign Language  Elective  (1-2-0)3 | MAR  100  (1) | MAS  100  (70 hrs) | 21 | **21** |
| **II** | | MAL 102  Analysis I  3-1-0( 4) | MAL 104  Differential Equations I  3-1-0( 4) | MAL 108  Algebra II  3-1-0( 4) | SML 150  Leadership  2-1-0(3) | CLL 102  Effective Comm.-II  1-0-2 (2) | CLL 120  Human Values  (2-0-0)2 | MAR  110  (1) | MAS  100  (70 hrs)  (2 Crdt) | 20 | **22** |
| **III** | | MAL 201  Analysis II  3-1-0( 4) | MAL 203  Differential Equations II  3-1-0( 4) | MAL 205  Algebra III  (3-1-0) 4 | MAL 207  Operations Research  (3-1-0) 4 | Open Elective I  3 (3) |  | MAR  200  (1) | MAS  200  (35 hrs) | 19 | **20** |
| **IV** | | SML300  Entrepreneurship  2-1-0 (3) | MAL 206  Mathematical  Statistics  3-1-0( 4) | MAL 308  Linear Algebra  (3-1-0) 4 | Prog. Elective II  3-0-2 (4)  *(Image Processing./*  *DBMS. /*  *Data Visual. Tech.)* | Prog. Elective I  3-0-2 (4)  *(Lin. Prog/ Math. Modelling/*  *Data Struc. Algos* | Open Elective II  3 (3) | MAR  210  (1) | MAS  200  (35 hrs)  **(2** Crdt) | 24 | **25** |
| **V** | | MAL 321  Mathematical Methods  3-1-0(4) | MAL 310  Numerical Analysis  2-1-2 (4) | MAL316  Data Analysis  (3-0-2) 4 | Prog. Elective III  (MOOC)  3-0-2 (4)  *(Mechanics/ Statis. Modeling./ Number theory)* | Open Elective III  3 (3) |  | MAR  300  (1) | MAS  300  (70 hrs) | 22 | **20** |
| **VI** | | MAL 311  Intro. to Complex Analysis  3-1-0( 4) | MAL 313  Integral & Vector Calculus  3-1-0( 4) | Prog. Elective IV  (MOOC)  3-0-2 (4)  *(Financial Maths/*  *Metric Space./*  *Predictive Analytics* | Open Elective IV  3 (3) | MAD 350  Project  (0-0-6)3 | Creativity and innovation outcome  (1)  MAL 320 | MAR  310  (1) | MAS  300  (70 hrs)  (2 Crdt) | 16 | **22** |
|  | Total | | | | | | | |  | 122 | 130 |