

## B.Sc. Data Sciences (2022-2025)

| Sem   | Course 1  | Course 2   | Course 3  | Course 4  | Course 5                                    | Course 6   | Course 7                 | Comm. services                            | GP                              | Cont. hrs. | Cred. |
|-------|---|--|---|---|---|--|--------------------------|---|---------------------------------|------------|-------|
| I     | CLL 101<br>Effective Communication-I<br>2.5(2-0-1)  | MAL 151<br>Engineering Maths1<br>4(3-0-2)                | PYL 102N<br>Fundamental of Physics<br>4(3-0-2)        | MAL109<br>Introduction to Statistics<br>(3-1-0)4                        | CHL100<br>Environmental Studies<br>3(3-0-0) | CSL106 FOC-P-I<br>4(2-0-4)                         |                          | MAS 101<br>CS-I                           | <b>GP-I</b><br>MAR 101<br>(1)   | 26         | 22.5  |
| II    | CLL 102<br>Effective Communication-II<br>2.5(2-0-1) | MAL 209<br>Data Analysis<br>4(3-0-2)                     |   | MAL 152<br>Engineering Maths II<br>4(3-0-2)                             | CSL108 FOC-P-II<br>(2-0-4)4                 | BSL101<br>Entrepreneurship<br>(2-0-2)3             | CLL 120 HVPE<br>2(2-0-0) | MAS 102<br>CS-II<br>(140hrs)*<br>2Credits | <b>GP-II</b><br>MAR 102<br>(1)  | 25         | 22.5  |
| III   | MAL102<br>Analysis I<br>4(3-1-0)                    | MAL 303<br>Linear Programming & Applications<br>4(3-1-0) | PE 1 CSL209 Data Structures<br>4(3-0-2)               | PE 2<br>CSL 225<br>Programming for Data Science<br>4 (2-0-4)            | Open Elective I<br>3(3-0-0)                 | MAL 304N<br>Probability and Statistics<br>4(3-1-0) |                          | MAS 201<br>CS-III                         | <b>GP-III</b><br>MAR 201<br>(1) | 26         | 24    |
| IV    | MAL 313<br>Integral & Vector Calculus<br>4(3-1-0)   | PE 3 MAL307<br>Discrete Mathematics<br>4(3-1-0)          | PE 4 DBMS 4(3-0-2)                                    | PE 5<br>CLL227<br>Applied Computational Statistics<br>4(2-0-4)          | Open Elective II<br>3(3-0-0)                | Foreign Language<br>3(1-2-0)                       |                          | MAS 202<br>CS-IV<br>(140hrs)*<br>2Credits | <b>GP-IV</b><br>MAR 202<br>(1)  | 25         | 25    |
|       | MAI 240 Summer Internship (0-0-6)3                  |  |   |   |   |  |                          |   |                                 |            | 3     |
| V`    | MAL 208<br>Linear Algebra 4(3-1-0)                  | MAL 206<br>Mathematical Statistics<br>3(2-0-2)           | PE 6 CSL236<br>Introduction to AI and ML<br>4 (3-0-1) | PE 7 CSL232<br>Business Intelligence and Data Visualization<br>4(2-0-4) | Open Elective III<br>3(3-0-0)               | MAD 350<br>Project<br>4(0-0-8)                     |                          | MAS 301<br>CS-V                           | <b>GP-V</b><br>MAR 301<br>(1)   | 21         | 23    |
| VI    | MAL 310<br>Numerical Analysis<br>3(2-0-2)           | CLP300<br>Campus to Corporate (1-0-0)1                   | PE 8 CSL313<br>Machine Learning<br>4(2-0-4)           | PE 9 CSL311 Big Data<br>4(2-0-4)  | Open Elective IV<br>3(3-0-0)                | MAL 318<br>Operations Research 4(3-1-0)            |                          | MAS 302<br>CS-VI<br>(140hrs)*<br>2Credits | <b>GP-VI</b><br>MAR 302<br>(1)  | 19         | 22    |
| Total |   |  |   |   |   |  |                          |   |                                 | 142        | 142   |

\*Students can utilize the entire year including the summer/break period for completing 140 community service hours.