



**Integral University, Lucknow**  
**Department of Mathematics & Statistics**  
**Study and Evaluation Scheme (w.e.f. 2025-26)**

**M. Sc. (Data Science)**

**I year / I Semester**

| S. No.                                      | Course code | Course Title                              | Type of Paper | Period Per<br>hr/week/sem |    |    | Evaluation Scheme |    |       |     | Sub.<br>Total | Credit | Total<br>Credits | Attributes    |                  |                   |                 |                              |             |                     |
|---------------------------------------------|-------------|-------------------------------------------|---------------|---------------------------|----|----|-------------------|----|-------|-----|---------------|--------|------------------|---------------|------------------|-------------------|-----------------|------------------------------|-------------|---------------------|
|                                             |             |                                           |               | L                         | T  | P  | CT                | TA | Total | ESE |               |        |                  | Employability | Entrepreneurship | Skill Development | Gender Equality | Environment & Sustainability | Human Value | Professional Ethics |
| THEORIES                                    |             |                                           |               |                           |    |    |                   |    |       |     |               |        |                  |               |                  |                   |                 |                              |             |                     |
| 1                                           | MT448       | Linear Algebra and Matrix Computing       | Core          | 03                        | 01 | 00 | 15                | 10 | 25    | 75  | 100           | 3:1:0  | 4                | √             |                  | √                 |                 |                              |             |                     |
| 2                                           | MT449       | Exploratory Data Analysis                 | Core          | 03                        | 01 | 00 | 15                | 10 | 25    | 75  | 100           | 3:1:0  | 4                | √             |                  | √                 |                 |                              |             |                     |
| 3                                           | CS443       | Data Visualization using TABLEAU/Power BI | Core          | 03                        | 01 | 00 | 15                | 10 | 25    | 75  | 100           | 3:1:0  | 4                | √             |                  | √                 |                 |                              |             |                     |
| 4                                           | CS440       | Data Base Management system               | Core          | 03                        | 01 | 00 | 15                | 10 | 25    | 75  | 100           | 3:1:0  | 4                | √             |                  | √                 |                 |                              |             |                     |
| 5                                           | CS518       | Soft Computing                            | Core          | 03                        | 01 | 00 | 15                | 10 | 25    | 75  | 100           | 3:1:0  | 4                | √             |                  | √                 |                 |                              |             |                     |
| PRACTICAL                                   |             |                                           |               |                           |    |    |                   |    |       |     |               |        |                  |               |                  |                   |                 |                              |             |                     |
| 6                                           | CS519       | Soft Computing Lab                        | Core          | 00                        | 00 | 04 | 15                | 10 | 25    | 75  | 100           | 0:0:2  | 2                | √             |                  | √                 |                 |                              |             |                     |
| 7                                           | CS441       | DBMS Lab                                  | Core          | 00                        | 00 | 04 | 15                | 10 | 25    | 75  | 100           | 0:0:2  | 2                | √             |                  | √                 |                 |                              |             |                     |
| At least 2/3 practical's (Kaggle Computing) |             |                                           |               |                           |    |    |                   |    |       |     |               |        |                  |               |                  |                   |                 |                              |             |                     |
| Total                                       |             |                                           |               | 15                        | 05 | 08 | 105               | 70 | 175   | 525 | 700           | 24     | 24               |               |                  |                   |                 |                              |             |                     |

**CT** = Class Test; **TA** = Teacher's Assessment; **ESE** = End Semester Examination; **Sessional** = CT + TA; **Subject Total** = Sessional + ESE



**Integral University, Lucknow**  
**Department of Mathematics & Statistics**  
**Study and Evaluation Scheme (w. e. f. 2025-26)**

**M. Sc. (Data Science)**

**I year / II Semester**

| S. No.    | Course code | Course Title                              | Type of Paper | Period<br>Per hr/week/sem |    |    | Evaluation Scheme |    |       |     | Sub. Total | Credit | Total Credits | Attributes    |                  |                   |                 |                              |             |                     |
|-----------|-------------|-------------------------------------------|---------------|---------------------------|----|----|-------------------|----|-------|-----|------------|--------|---------------|---------------|------------------|-------------------|-----------------|------------------------------|-------------|---------------------|
|           |             |                                           |               | L                         | T  | P  | CT                | TA | Total | ESE |            |        |               | Employability | Entrepreneurship | Skill Development | Gender Equality | Environment & Sustainability | Human Value | Professional Ethics |
| THEORIES  |             |                                           |               |                           |    |    |                   |    |       |     |            |        |               |               |                  |                   |                 |                              |             |                     |
| 1         | MT451       | Regression Analysis & Predictive Modeling | Core          | 03                        | 01 | 00 | 15                | 10 | 25    | 75  | 100        | 3:1:0  | 4             | √             |                  | √                 |                 |                              |             |                     |
| 2         | MT452       | Statistical Machine Learning- I           | Core          | 03                        | 01 | 00 | 15                | 10 | 25    | 75  | 100        | 3:1:0  | 4             | √             |                  | √                 |                 |                              |             |                     |
| 3         | CS444       | Data Structure and Algorithm in Python    | Core          | 03                        | 01 | 00 | 15                | 10 | 25    | 75  | 100        | 3:1:0  | 4             | √             |                  | √                 |                 |                              |             |                     |
| 4         | CS544       | Machine Learning: Theory & methods        | Core          | 03                        | 01 | 00 | 15                | 10 | 25    | 75  | 100        | 3:1:0  | 4             | √             |                  | √                 |                 |                              |             |                     |
| 5         | CS422       | Programming for Data Science with R       | Core          | 03                        | 01 | 00 | 15                | 10 | 25    | 75  | 100        | 3:1:0  | 4             | √             |                  | √                 |                 |                              |             |                     |
| PRACTICAL |             |                                           |               |                           |    |    |                   |    |       |     |            |        |               |               |                  |                   |                 |                              |             |                     |
| 6         | MT454       | Data Analytics with Python                | Core          | 00                        | 00 | 04 | 15                | 10 | 25    | 75  | 100        | 0:0:2  | 2             | √             |                  | √                 |                 |                              |             |                     |
| 7         | CS 545      | R Programming lab                         | Core          | 00                        | 00 | 04 | 15                | 10 | 25    | 75  | 100        | 0:0:2  | 2             | √             |                  | √                 |                 |                              |             |                     |
| Total     |             |                                           |               | 15                        | 05 | 08 | 105               | 70 | 175   | 525 | 700        | 24     | 24            |               |                  |                   |                 |                              |             |                     |