



**Integral University, Lucknow**

**Department of Mathematics & Statistics**

Study & Evaluation Scheme of UG & PG Program with Statistics, Mathematics & Physics as per NEP 2020  
w.e.f. Session 2022-23

**Certificate in Science (Statistics, Mathematics, Physics)**

**Year: First / Semester: First (Odd Semester)**

| S. N.        | Course Code    | Course Title  | Theory / Practical | Course Type                | Periods/ Per week |              |               | Continuous Assessment |                         |            | End Semester Examination (ESE) | Subject Total | Total Credit Points | Attributes    |                  |                   |                 |                              |             |                     | United Nations Sustainable Development Goals (SDGs) |   |  |  |  |
|--------------|----------------|---|--------------------|----------------------------|-------------------|--------------|---------------|-----------------------|-------------------------|------------|--------------------------------|---------------|---------------------|---------------|------------------|-------------------|-----------------|------------------------------|-------------|---------------------|---|---|--|--|--|
|              |                |   |                    |                            | Lecture (L)       | Tutorial (T) | Practical (P) | Class Test (CT)       | Teacher Assessment (TA) | Total      |                                |               |                     | Employability | Entrepreneurship | Skill Development | Gender Equality | Environment & Sustainability | Human Value | Professional Ethics |   |   |  |  |  |
| 1            | B030101T/MT136 | Differential Calculus & Integral Calculus                   | Theory             | Core Major (Compulsory)    | 3                 | 1            | 0             | 15                    | 10                      | 25         | 75                             | 100           | 04                  | ✓             |                  | ✓                 |                 |                              |             |                     |   |   |  |  |  |
| 2            | B010101T/PY113 | Mathematical Physics & Newtonian Mechanics                  | Theory             |                            | 3                 | 1            | 0             | 15                    | 10                      | 25         | 75                             | 100           | 04                  | ✓             |                  |                   |                 |                              |             |                     |   |   |  |  |  |
| 3            | B060101T/MT139 | Descriptive Statistics (Univariate) & Theory of Probability | Theory             |                            | 3                 | 1            | 0             | 15                    | 10                      | 25         | 75                             | 100           | 04                  | ✓             |                  | ✓                 |                 |                              |             |                     |   | ✓ |  |  |  |
| 4            | B030102P/MT137 | Practical using Mathematica /MATLAB                         | Practical          |                            | 0                 | 0            | 4             | 15                    | 10                      | 25         | 75                             | 100           | 02                  | ✓             |                  | ✓                 |                 |                              |             |                     |   |   |  |  |  |
| 5            | B010102P/PY114 | Mechanical Properties of Matter                             | Practical          |                            | 0                 | 0            | 4             | 15                    | 10                      | 25         | 75                             | 100           | 02                  | ✓             |                  | ✓                 |                 |                              |             |                     |   |   |  |  |  |
| 6            | B060102P/MT140 | Descriptive Data Analysis Lab (Univariate)                  | Practical          |                            | 0                 | 0            | 4             | 15                    | 10                      | 25         | 75                             | 100           | 02                  | ✓             |                  | ✓                 |                 |                              |             |                     |   | ✓ |  |  |  |
| 7            | I030103V/MT143 | Introduction to LaTeX                                       | Theory+ Practical  | Vocational                 | 2                 | 0            | 2             | -                     | -                       | -          | 100                            | 100           | 03                  | ✓             |                  | ✓                 |                 |                              |             |                     |   |   |  |  |  |
| 8            | Z010101T       | Food Nutrition and Hygiene                                  | Theory             | Co-curricular (Compulsory) | 2                 | 0            | 0             | 15                    | 10                      | 25         | 75                             | 100           | 02                  | ✓             | ✓                | ✓                 |                 | ✓                            | ✓           | ✓                   |   |   |  |  |  |
| <b>TOTAL</b> |                |   |                    |                            | <b>13</b>         | <b>3</b>     | <b>14</b>     | <b>105</b>            | <b>70</b>               | <b>175</b> | <b>625</b>                     | <b>800</b>    | <b>23</b>           |               |                  |                   |                 |                              |             |                     |   |   |  |  |  |



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w.e.f. Session 2022-23

**Certificate in Science (Statistics, Mathematics, Physics)**

**Year: First / Semester: Second (Even Semester)**

| S. N.        | Course Code     | Course Title   | Theory / Practical | Course Type                | Periods/ Per week |              |               | Continuous Assessment |                         |            | End Semester Examination (ESE) | Subject Total | Total Credit Points | Attributes    |                  |                   |                 |                              |              |                     |  | United Nations Sustainable Development Goals (SDGs) |  |  |
|--------------|-----------------|--|--------------------|----------------------------|-------------------|--------------|---------------|-----------------------|-------------------------|------------|--------------------------------|---------------|---------------------|---------------|------------------|-------------------|-----------------|------------------------------|--------------|---------------------|--|---|--|--|
|              |                 |  |                    |                            | Lecture (L)       | Tutorial (T) | Practical (P) | Class Test (CT)       | Teacher Assessment (TA) | Total      |                                |               |                     | Employability | Entrepreneurship | Skill Development | Gender Equality | Environment & Sustainability | Human Values | Professional Ethics |  |   |  |  |
| 1            | B030201T/MT138  | Matrices and Differential Equations & Geometry                 | Theory             | Core Major (Compulsory)    | 4                 | 2            | 0             | 15                    | 10                      | 25         | 75                             | 100           | 06                  | ✓             |                  | ✓                 |                 |                              |              |                     |  |   |  |  |
| 2            | B010201T/PY115  | Thermal Physics & Semiconductor Devices                        | Theory             |                            | 3                 | 1            | 0             | 15                    | 10                      | 25         | 75                             | 100           | 04                  | ✓             |                  |                   |                 |                              |              |                     |  |   |  |  |
| 3            | B060201T/MT141  | Descriptive Statistics (Bivariate) & Probability Distributions | Theory             |                            | 3                 | 1            | 0             | 15                    | 10                      | 25         | 75                             | 100           | 04                  | ✓             |                  | ✓                 |                 |                              |              |                     |  | ✓   |  |  |
| 4            | B010202P/PY116  | Thermal Properties of Matter & Electronic Circuits             | Practical          |                            | 0                 | 0            | 4             | 15                    | 10                      | 25         | 75                             | 100           | 02                  | ✓             |                  |                   |                 |                              |              |                     |  |   |  |  |
| 5            | B060202P/MT142  | Descriptive Data Analysis Lab (Bivariate)                      | Practical          |                            | 0                 | 0            | 4             | 15                    | 10                      | 25         | 75                             | 100           | 02                  | ✓             |                  | ✓                 |                 |                              |              |                     |  | ✓   |  |  |
| 6            | B150101T/EVS125 | Basics of Environmental Sciences                               | Theory             | Minor                      | 3                 | 1            | 0             | 15                    | 10                      | 25         | 75                             | 100           | 04                  | ✓             | ✓                | ✓                 |                 | ✓                            | ✓            | ✓                   |  |   |  |  |
| 7            | I030202V/MT144  | LaTeX – Scientific Writing                                     | Theory+ Practical  | Vocational                 | 2                 | 0            | 2             | -                     | -                       | -          | 100                            | 100           | 03                  | ✓             |                  | ✓                 |                 |                              |              |                     |  |   |  |  |
| 8            | Z020201         | First Aid and Health   | Theory             | Co-curricular (Compulsory) | 2                 | 0            | 0             | 15                    | 10                      | 25         | 75                             | 100           | 02                  | ✓             | ✓                | ✓                 |                 | ✓                            | ✓            | ✓                   |  |   |  |  |
| <b>TOTAL</b> |                 |  |                    |                            | <b>17</b>         | <b>5</b>     | <b>10</b>     | <b>105</b>            | <b>70</b>               | <b>175</b> | <b>625</b>                     | <b>800</b>    | <b>27</b>           |               |                  |                   |                 |                              |              |                     |  |   |  |  |