**B.Sc.(Hons.)  Data Science**

[Semester 1](https://www.sharda.ac.in/programmes/bsc-hons-data-science-analytics" \l "collapse0)

**I. Course Scheme:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S.No.** | **Course Code** | **Course Title** | **L** | **T** | **P** | **Credits** |
| 1 |  | Basic/ Intermediate English | 2 | 0 | 0 | 2 |
| 2 |  | Statistical I (Probability) | 3 | 1 | 1 | 5 |
| 3 |  | Calculus | 3 | 1 | 0 | 4 |
| 4 |  | Statistical II (Descriptive Statistics) | 3 | 1 | 1 | 5 |
| 5 |  | Foundation computer science | 3 | 1 | 1 | 5 |
| 6 |  | Statistical Structure in data Using R | 3 | 1 | 1 | 5 |
|  |  | Total Hours | 30 |  |  |  |
|  | **Credits in Semester 1** |  |  |  |  | 26 |

[Semester 2](https://www.sharda.ac.in/programmes/bsc-hons-data-science-analytics#collapse1)

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| **S.No.** | **Course Code** | **Course Title** | **L** | T | P | **Credits** |
| 1 |  | Linear Algebra | 3 | 1 | 1 | 5 |
| 2 |  | Statistical III (Sampling) | 3 | 1 | 1 | 5 |
| 3 |  | Discrete mathematics | 3 | 1 | 0 | 4 |
| 4 |  | Environmental Studies | 3 | 0 | 0 | 3 |
| 5 |  | Oops using Python | 3 | 1 | 1 | 5 |
| 6 |  | Data Based Management System | 3 | 0 | 1 | 4 |
|  |  | Total Hours | 30 |  |  |  |
|  | **Credits in Semester 2** |  |  |  |  | 26 |

[Semester 3](https://www.sharda.ac.in/programmes/bsc-hons-data-science-analytics#collapse2)

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| **S.No.** | **Course Code** | **Course Title** | **L** | **T** | **P** | **Credits** |
| 1 |  | Numerical Analysis | 3 | 1 | 1 | 5 |
| 2 |  | Data Visualization | 3 | 1 | 1 | 5 |
| 3 |  | Data Preparation | 3 | 1 | 1 | 5 |
| 4 |  | Text Analytics | 3 | 1 | 1 | 5 |
| 5 |  | Research Methodology | 2 | 0 | 0 | 2 |
| 6 |  | Community Connect | 0 | 0 | 2 | 2 |
|  |  | Total Hours | 30 |  |  |  |
|  | **Credits in Semester 3** | |  |  |  | 24 |

[Semester 4](https://www.sharda.ac.in/programmes/bsc-hons-data-science-analytics#collapse3)

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| **S.No.** | **Course Code** | **Course Title** | **L** | T | P |  |
| 1 |  | Ordinary Differential equation | 3 | 1 | 0 | 4 |
| 2 |  | Inference | 3 | 1 | 1 | 5 |
| 3 |  | Data Ware housing and Data mining | 3 | 0 | 1 | 4 |
| 4 |  | Time series, forecasting and Index numbers | 3 | 1 | 1 | 5 |
| 5 |  | Multivariate Analysis | 3 | 1 | 1 | 5 |
| 6 |  | Statistical Simulation | 3 | 0 | 0 | 3 |
|  |  | Total Hours | 30 |  |  |  |
|  | **Credits in Semester 4** | |  |  |  | 26 |

[Semester 5](https://www.sharda.ac.in/programmes/bsc-hons-data-science-analytics#collapse4)

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| **S.No.** | **Course Code** | **Course Title** | **L** | **T** | **P** | **Credits** |
| 1 |  | Statistical Analysis (Count Data and survival Analysis) | 3 | 1 | 1 | 5 |
| 2 |  | Recommender Systems | 3 | 1 | 1 | 5 |
| 3 |  | Machine learning | 3 | 1 | 1 | 5 |
| 4 |  | Big Data Analytics | 3 | 1 | 1 | 5 |
| 5 |  | Elective-I | 3 | 1 | 1 | 5 |
| 6 |  | Total Hours | 30 |  |  |  |
|  | **Credits in Semester 5** | |  |  |  | 25 |

[Semester 6](https://www.sharda.ac.in/programmes/bsc-hons-data-science-analytics#collapse5)

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| **S.No.** | **Course Code** | **Course Title** | **L** | T | P | **Credits** |
| 1 |  | Deep Learning | 3 | 0 | 1 | 4 |
| 2 |  | Elective-II | 3 | 0 | 1 | 4 |
| 3 |  | Elective-III | 3 | 0 | 1 | 4 |
| 4 |  | Elective-IV | 3 | 0 | 1 | 4 |
| 5 |  | Capstone project | 8 | 0 | 0 | 8 |
| 6 |  | Research report writing and Presentation | 0 | 0 | 1 | 1 |
|  |  | Total Hours | 30 |  |  |  |
|  | **Credits in Semester 6** | |  |  |  | 25 |

Total Credits: \_152

Minimum Credits essential for the Programme:\_\_\_\_\_