| Division | Faculty of Science & Health Science |
|---|---|
| School Name | School of Science & Environmental Studies |
| Department Name | Department of Mathematics and Statistics |
| Program Name | B. Sc. (Applied Statistics and Data Analytics) |

| Sem | Course Type | Sum of Total Credits |
|---|---|---|
| **I** | | |
| | **University Core** | |
| | Effective Communication | 1 |
| | Environment and Sustainability | 1 |
| | Foundations of Peace | 2 |
| | Indian Constitution | 1 |
| | Learning to Learn | 1 |
| | Yoga - I | 1 |
| | **University Core Total** | **7** |
| | **Program Foundation** | |
| | R Programming | 1 |
| | Descriptive Statistics-I | 3 |
| | Introduction to Probability Theory | 3 |
| | **Program Foundation Total** | **7** |
| | **Program Major** | |
| | Calculus | 3 |
| | Discrete Mathematics | 3 |
| | **Program Major Total** | **6** |
| **I Total** | | **20** |
| **II** | | |
| | **University Core** | |
| | Co-creation | 1 |
| | Critical Thinking | 1 |
| | Digital Literacy | 1 |
| | Financial Literacy | 1 |
| | Yoga - II | 1 |
| | **University Core Total** | **5** |
| | **Program Foundation** | |
| | Linear Algebra | 3 |
| | Introduction to Python | 1 |
| | Introduction to Number Theory | 3 |
| | Operations Research-I | 3 |
| | **Program Foundation Total** | **10** |
| | **Program Major** | |
| | Descriptive Statistics-II | 3 |
| | Continuous Distribution | 3 |
| | **Program Major Total** | **6** |
| **II Total** | | **21** |
| **III** | | |
| | **Program Capstone Project/Problem Based Learning/Seminar and Internships** | |
| | Project Based Learning - I | 1 |
| | **Program Capstone Project/Problem Based Learning/Seminar and Internships Total** | **1** |
| | **University Core** | |
| | Research Innovation Design Entrepreneurship (RIDE) | 1 |
| | Rural Immersion | 1 |
| | Spiritual and Cultural heritage: Indian Experience | 2 |
| | **University Core Total** | **4** |
| | **University Electives** | |

| | | | |
|---|---|---|---|
| III | | University Electives - I | 4 |
| | **University Electives Total** | | **4** |
| | | **Program Foundation** | |
| | | Introduction to Machine Learning | 2 |
| | **Program Foundation Total** | | **2** |
| | | **Program Major** | |
| | | Introduction to Sampling | 3 |
| | | Statistical Inference | 4 |
| | | Sampling Distribution | 3 |
| | **Program Major Total** | | **10** |
| **III Total** | | | **21** |
| **IV** | | | |
| | | **Program Capstone Project/Problem Based Learning/Seminar and Internships** | |
| | | Project Based Learning - II | 1 |
| | **Program Capstone Project/Problem Based Learning/Seminar and Internships Total** | | **1** |
| | | **University Electives** | |
| | | University Electives - II | 4 |
| | **University Electives Total** | | **4** |
| | | **Program Foundation** | |
| | | Introduction to DoE | 4 |
| | **Program Foundation Total** | | **4** |
| | | **Program Major** | |
| | | Testing of Hypothesis | 4 |
| | | Numerical Method | 3 |
| | | Operations Research-II | 4 |
| | **Program Major Total** | | **11** |
| **IV Total** | | | **20** |
| **V** | | | |
| | | **Program Capstone Project/Problem Based Learning/Seminar and Internships** | |
| | | Project Based Learning - III | 1 |
| | | Project Based on Regression Analysis | 1 |
| | **Program Capstone Project/Problem Based Learning/Seminar and Internships Total** | | **2** |
| | | **Program Electives** | |
| | | Program Elective - I | 4 |
| | **Program Electives Total** | | **4** |
| | | **University Core** | |
| | | Managing Conflicts Peacefully: Tools and Techniques | 2 |
| | **University Core Total** | | **2** |
| | | **University Electives** | |
| | | University Electives - III | 4 |
| | **University Electives Total** | | **4** |
| | | **Program Foundation** | |
| | | Introduction to Stochastic Process | 3 |
| | | Introduction to DBMS | 2 |
| | **Program Foundation Total** | | **5** |
| | | **Program Major** | |
| | | Regression Analysis | 3 |
| | **Program Major Total** | | **3** |
| **V Total** | | | **20** |
| **VI** | | | |
| | | **Program Capstone Project/Problem Based Learning/Seminar and Internships** | |
| | | Project Based Learning - IV | 1 |
| | | Project based on Sampling methods | 4 |
| | **Program Capstone Project/Problem Based Learning/Seminar and Internships Total** | | **5** |
| | | **Program Electives** | |

| | | |
|---|---|---:|
| VI | Program Elective - II | 4 |
| | **Program Electives Total** | **4** |
| | **University Core** | |
| | National Academic Immersion | 2 |
| | **University Core Total** | **2** |
| | **Program Foundation** | |
| | Introduction to Time Series | 2 |
| | Time Series Lab | 1 |
| | Data Mining Lab | 1 |
| | **Program Foundation Total** | **4** |
| | **Program Major** | |
| | Introduction to Data Mining | 3 |
| | Multivariate Analysis | 3 |
| | **Program Major Total** | **6** |
| **VI Total** | | **21** |
| **VII** | | |
| | **Program Capstone Project/Problem Based Learning/Seminar and Internships** | |
| | Project based on machine learning | 4 |
| | Project bsed on statistical infenece | 4 |
| | **Program Capstone Project/Problem Based Learning/Seminar and Internships Total** | **8** |
| | **Program Electives** | |
| | Program Elective - III | 4 |
| | **Program Electives Total** | **4** |
| | **Program Major** | |
| | Biostatistics | 3 |
| | Basics of Economics | 3 |
| | **Program Major Total** | **6** |
| **VII Total** | | **18** |
| **VIII** | | |
| | **Program Capstone Project/Problem Based Learning/Seminar and Internships** | |
| | Internship | 15 |
| | **Program Capstone Project/Problem Based Learning/Seminar and Internships Total** | **15** |
| | **Program Electives** | |
| | Program Elective - IV | 4 |
| | **Program Electives Total** | **4** |
| **VIII Total** | | **19** |
| **Grand Total** | | **160** |

| Semester | Course Name / Course Title | Program Electives |
|---|---|---|
| V | Deep Learning/Demography | Program Elective - I |
| VI | Data Analysis for HRM/ Statistical Computing Using R | Program Elective - II |
| VII | Business Analytics/ Survey Sampling Techniques | Program Elective - III |
| VIII | SQL/ Research Methodology | Program Elective - IV |