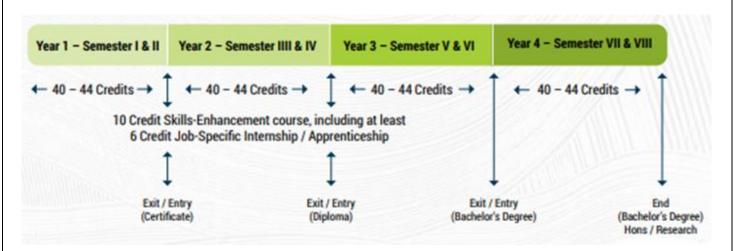
# B.Sc.(Hons') Statistics-Data Science (Specialization in Data Analytics & Biostatistics) In Association with TCS iON Industry Honour program (4 Years Undergraduate Degree Programme as per NEP 2020)

#### **Tentative Semester wise Course List**



### Year I: Semester I

- Statistics for Data Science
- Mathematics for Data Science
- Statistical Programming Tool using R and Python
- Descriptive Statistics
- Financial Literacy
- German/ Japanese-I
- NSS
- Capstone Project-I

## Year I: Semester II

- Probability Distributions
- Linear Algebra
- Data Structure & Analytics
- Probability Theory
- German/ Japanese-II
- Environmental Studies
- Capstone Project-II

### Year II: Semester III

- Statistical Inference
- Survey Techniques
- Database Management System
- Statistical Programming Tools
- Data Modelling and Visualization (TCS)
- Doddle Art/Paper Mache
- Constitutional Values, Gender Diversity and Inclusion
- Community Service-I

#### **Year II: Semester IV**

- Statistical Quality Control & Reliability
- Linear Model & Regression Analysis
- Artificial Intelligence
- Hypothesis Testing using Different Tools
- Practical Approach to Data Mining & Analytics (TCS)
- Constitution of India
- Content Creation
- Community Service-II

## Year III - Semester V

- Analysis of Experiment
- Specific Elective-I
- Research Methodology
- Big Data Analytics (TCS)
- Ethics and Values
- TCS Internship-I

### Year III - Semester VI

- Econometrics and Time Series Analysis
- Specific Elective-II
- Minor Track Project
- Machine Learning using Real World Application (TCS)
- Soft Skills
- TCS Internship-II

#### Year IV – Semester VII

- Multivariate Analysis
- Specific Elective-III
- Generalized Linear Model in Machine Learning
- Major Project/ Internship

## Year IV – Semester VIII

- Stochastic Process & Queuing Theory
- Specific Elective-IV
- Advanced Computational using Software
- Major Project/ Internship

## **Specialization (Data Analytics Track)**

- Object Oriented Programming
- Cloud Computing
- Deep Learning
- Web & Social Analytics

# **Specialization (Biostatistics Track)**

Demography

<ul> <li>Epidemiology</li> <li>Clinical Trial Designs</li> <li>Public Health for Biostatistics</li> </ul>
Note: Research components include Symposium, Research Project / Dissertation and Research Internship.