

# **SVKM's NMIMS**

## **School of Mathematics, Applied Statistics & Analytics**

### **M.Sc. – Statistics & Data Science**

#### **Course Structure**

##### **First Year**

###### **Semester – I**

Paper I – Probability Theory  
Paper II – Distribution Theory  
Paper III – Estimation Theory  
Paper IV – Linear Models & Design of Experiments  
  
Paper V – Real Analysis and Linear Algebra  
Paper VI – Data Management  
  
Paper VII – Programming Analytics  
Paper VIII-Statistical Computing I  
Paper IX - Research Treatise-I

###### **Semester – II**

Paper X – Regression Analysis  
Paper XI – Testing of Hypothesis  
  
Paper XII- Applied Multivariate Analysis  
Paper XIII – Machine Learning Techniques  
  
Paper XIV – Python for Data Analysis  
Paper XV – Reporting & Correspondence in Data Science  
Paper XVI – Statistical Computing II  
  
Paper XVII - Project Management  
Paper XVIII - Research Treatise – II

## **Second Year**

### **Semester – III**

Paper XIX– Stochastic Processes

Paper XX – Time Series Analysis

Paper XXI- Elective I

Paper XXII- Elective II

Paper XXIII- Introduction to Big Data Technologies & its applications

Paper XXIV – Predictive Modelling

Paper XXV – Statistical Computing III

Paper XXVI- Organizational Behaviour

Paper XXVII- Research Treatise – III

### **Semester – IV**

Industry Internship

### **List of Electives**

- a. Deep Learning Techniques
- b. Pricing & Revenue Optimization
- c. Stochastic Finance
- d. Survival Analysis
- e. Quality Management
- f. Nonparametric Inference