



## **AIONIOS LAB**

*Develop Skills for a Better Future*

[info@aionioslab.com](mailto:info@aionioslab.com)

+91 9205656365

### **Complete Data Science Using R –180 hours**

#### **Why R is essential?**

**R** has been developed specifically for Statistical Computing and predictive analysis. **R** has a steep learning curve .Once the basics are clear, one can easily go for advanced learning.

**CRAN** i.e. Comprehensive R Archive Network is a huge repository of R packages to which users, academicians and researchers can easily contribute. Huge number of Packages, readily usable tests and the advantage of using formula make it first choice for Data Analysis.

#### **Course Structure:**

##### **Basic Programming in R – 10 hours**

- Introduction to R
- Installing R
- Data Types & Operators
- Flow Control
- Functions & Packages
- Data Structure
- Import & Export Files

##### **Data Manipulation in R – 15 hours**

- Apply Function Family
- Select
- Mutate
- Filter
- Arrange
- Pipe
- Groupby
- Date

##### **Data Visualization in R–30 hours**

- Scatter Plot
- Mfrow
- Pch
- Color
- Line chart
- Bar chart
- Pie chart
- Histogram



**AIONIOS LAB**



## **AIONIOS LAB**

*Develop Skills for a Better Future*

[info@aionioslab.com](mailto:info@aionioslab.com)

+91 9205656365

- **Density Plot**
- **Box Plot**
- **Mosaic Plot**
- **Heat Map**
- **3D Plot**
- **Word Cloud**
- **Ggplot2**

### **Statistics in R – 35 hours**

- **Descriptive Statistics**
- **Inferential Statistics**
- **Hypothesis Testing**
- **Chi-Square Test**
- **ANOVA**
- **Multivariate Analysis**

### **Machine Learning in R–90 hours**

- **Business Case Understanding**
- **Data Pre-processing**
- **Data Exploration**
- **Supervised Learning**
- **Linear Regression**
- **Classification**
- **Logistic Regression**
- **SVM**
- **KNN**
- **Naïve-Bayes**
- **Decision Tree**
- **Random Forest**
- **DBScan Clustering**
- **Principal Component Analysis**
- **K-Means Clustering**
- **Hierarchical Clustering**
- **XGBoost**

**CASE STUDIES**

**CAPSTONE PROJECTS**

**CERTIFICATE OF COMPLETION**

**COURSE FEE : 30,000 INR**

**AIONIOS LAB**