

Data Science Math: Statistics, Regression & Classification

Learn to apply statistics, regression and classification techniques to analyse, model and interpret data.

COURSE OVERVIEW

This course covers descriptive statistics, including measures of central tendency, spread and distribution shape, along with outlier and anomaly detection. It moves into data visualisation and correlation analysis, followed by sampling methods, bias and hypothesis testing techniques such as A/B testing and permutation tests. The final part of the course addresses regression, classification methods including Naive Bayes and K-Nearest Neighbors, model evaluation with confusion matrices and ROC curves, and clustering with K-means.

WHO THIS COURSE IS FOR

Data Analysts**Data Scientists****Business Analysts****Statisticians****Machine Learning Engineers**

LEARNING OBJECTIVES

- Calculate measures of central tendency such as mean and median
- Identify outliers and anomalies within a dataset
- Interpret variance, standard deviation and interquartile range
- Analyse data distributions using histograms and boxplots
- Assess sampling methods and sources of bias
- Apply hypothesis testing techniques such as A/B testing
- Implement regression and classification models
- Evaluate classification performance using confusion matrices and ROC curves

36 Topics

TOPICS

- Overview
- Mean
- Weighted Mean
- Mode
- Median
- Weighted Median
- Trimmed Mean
- Outliers
- Anomaly Detection
- Deviations
- Variance
- Standard Deviation
- Percentiles
- Interquartile Range
- BoxPlot Analysis
- Histogram
- Correlation Coefficient
- Scatterplot
- Categorical and Numeric Data
- Sampling
- Bias
- Sample and Resample
- Normal Distribution
- A/B Testing
- Hypothesis Test
- Permutation
- P-Value
- Regression
- RMSA
- Classification
- NaiveBayes
- Confusion Matrix
- ROC Curve
- K-Nearest Neighbors
- Hyper Parameter
- K-means Clustering

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

Visit koenig-solutions.com

✉ info@koenig-solutions.com