London TDM

Artificial Intelligence and Data Science Training Courses

Course Venue: United Kingdom - London

Course Date: From 15 February 2026 To 19 February 2026

Course Place: London Paddington

Course Fees: 7,500 USD

Introduction

This 5-day intensive course on "Applied Statistics for Data Science" is designed for professionals who aim to enhance their data interpretation and decision-making skills using statistical methods. The course provides a practical understanding of statistical concepts and their applications in the field of data science, through interactive sessions and hands-on exercises. By the end of this course, participants will be equipped with the essential statistical tools needed to analyze data effectively and make data-driven decisions.

Objectives

- Understand key statistical concepts and how they apply to data science.
- Gain proficiency in statistical programming and data analysis.
- Learn to apply statistical methodologies to solve real-world problems.
- Develop skills in data visualization and interpretation of statistical results.
- Improve the ability to communicate findings and inform decision-making processes.

Course Outlines

Day 1: Foundations of Statistics in Data Science

- Introduction to Data Science and the Role of Statistics
- Descriptive Statistics: Measures of Central Tendency and Variability
- Probability Theory and Probability Distributions
- Exploratory Data Analysis (EDA) Techniques
- Data Collection Methods and Sampling Techniques

Day 2: Inferential Statistics and Hypothesis Testing

- Concepts of Inferential Statistics
- Point Estimation and Confidence Intervals
- Formulating and Testing Hypotheses
- t-Test, Chi-Square Test, and Analysis of Variance (ANOVA)
- Understanding p-values and Statistical Significance

Day 3: Regression Analysis and Predictive Modeling

- Introduction to Regression Analysis
- Simple Linear Regression and Multiple Regression
- Model Evaluation and Interpretation
- Handling Categorical Variables and Interaction Effects
- Introduction to Logistic Regression

Day 4: Advanced Statistical Modeling

- Time Series Analysis and Forecasting Methods
- Cluster Analysis and Principal Component Analysis (PCA)
- Support Vector Machines and Decision Trees
- Bayesian Statistics and Methods

- Model Selection and Validation Techniques

Day 5: Data Visualization and Statistical Communication

- Principles of Effective Data Visualization
- Tools for Data Visualization: Matplotlib, Seaborn, and Plotly
- Building Interactive Dashboards
- Communicating Statistical Findings to Stakeholders
- Case Studies and Applied Projects