



*Training Course:  
Applied Data Analysis Masterclass:  
Visualization, Statistics, and Advanced Tools*

*20 - 24 April 2025  
Manama (Bahrain)  
Fraser Suites*

## Training Course: Applied Data Analysis Masterclass: Visualization, Statistics, and Advanced Tools

Training Course code: SC235723 From: 20 - 24 April 2025 Venue: Manama (Bahrain) - Fraser Suites Training Course  
Fees: 4900 € Euro

### Introduction

In an era driven by data, the ability to effectively analyze, interpret, and communicate insights is critical for decision-making and strategic planning. The [Applied Data Analysis Masterclass](#) is designed to equip participants with practical skills in data visualization, statistical analysis, and the use of advanced programs. This intensive training program is tailored to provide hands-on experience, transforming raw data into actionable insights. Participants will explore various tools and techniques for analyzing complex datasets, creating compelling visualizations, and leveraging advanced software programs to streamline data analysis processes.

The masterclass will delve into critical aspects of data analysis, including descriptive and inferential statistics, data mining, and predictive modeling. It will also cover the use of industry-standard tools such as Microsoft Excel, Python, R, and Tableau, empowering participants to tackle real-world data challenges with confidence and efficiency. By the end of this program, attendees will be well-prepared to implement advanced data analysis strategies that drive organizational success and innovation.

### Target Audience

- Data analysts and scientists
- Business intelligence professionals
- Managers and decision-makers
- Researchers and academicians
- Professionals involved in strategic planning and reporting

### Objectives

By the end of this training, participants will:

1. Understand core statistical concepts and their application in real-world scenarios.
2. Develop proficiency in advanced data visualization techniques using tools like Tableau and Power BI.
3. Gain hands-on experience in data analysis using Python and R.
4. Learn how to effectively present data insights to stakeholders.
5. Apply predictive modeling and data mining techniques for strategic decision-making.

## Outlines

### Day 1:

#### Foundations of Data Analysis and Visualization

- Introduction to data analysis and its importance in decision-making
- Understanding types of data: qualitative vs. quantitative
- Core statistical concepts: mean, median, mode, variance, and standard deviation
- Fundamentals of data visualization: principles and best practices
- Hands-on session: Creating basic charts and graphs using Microsoft Excel

### Day 2:

#### Advanced Data Visualization Techniques

- Exploring advanced visualization tools: Tableau and Power BI
- Designing interactive dashboards for dynamic data presentation
- Customizing visualizations for enhanced storytelling
- Case study: Visualizing sales and marketing data
- Workshop: Building interactive dashboards in Tableau

### Day 3:

#### Statistical Analysis and Data Interpretation

- Inferential statistics: hypothesis testing, correlation, and regression
- Analyzing trends and patterns in large datasets
- Introduction to data mining and exploratory data analysis EDA
- Hands-on session: Performing regression analysis in Excel and R
- Practical application: Identifying business trends and insights

### Day 4:

#### Data Analysis Using Python and R

- Introduction to Python and R for data analysis

- Data manipulation with Pandas Python and dplyr R
- Visualizing data with Matplotlib, Seaborn Python, and ggplot2 R
- Case study: Predictive modeling in Python and R
- Workshop: Automating data analysis tasks with Python scripts

#### Day 5:

##### Predictive Analytics and Real-World Applications

- Introduction to predictive modeling: linear and logistic regression
- Time series analysis and forecasting techniques
- Case studies: Applying predictive analytics in finance and marketing
- Presenting data insights to stakeholders: Effective communication strategies
- Capstone project: Developing a data-driven business solution

## Registration form on the Training Course: Applied Data Analysis Masterclass: Visualization, Statistics, and Advanced Tools

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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