Arabian Institute For Training

Advanced Applied Data Analysis

INTRODUCTION

- This training course provides you with the Advanced Data Analysis skills to become an effective Data Analyst capable of making sound investment & financial decisions for your personal and organisational benefit. The training course will improve your ability to plan, monitor and control the performance of your organisation and investments. This will strengthen your ability within the workplace, allowing you to understand, produce and evaluate data to support you in your role for the benefit of yourself and your organisation.
- Delegates will work through practical case studies. With the aid of clear explanations, discussions and detailed material in both hard and soft copy, it will enable you to transfer advanced skills and knowledge to your workplace.

In this training course, participants will develop the following competencies:

- Advanced Analytical skills to improve your understanding and decision making
- Communication skills supported by graphical and statistical analysis
- Advanced Excel skills to aid presentation and analysis of business data
- An ability to forecast data
- Advanced Statistical knowledge and skills
- An ability to apply Data Analysis Techniques to the workplace

PROGRAMME OBJECTIVES

- Collect, Present, Analyse and Evaluate Data
- Develop and use Pivot Tables
- Analyse data using Data Analysis Tools in Excel
- Perform Linear Regression; Non-linear regression and Multiple Regression using Excel
- Apply Data Analysis Techniques to improve Project Management
- Apply Data Analysis Techniques to improve Financial Management

WHO SHOULD ATTEND?

- Professionals who wish to gain an Advanced knowledge of Data Analysis in order to improve their analytical skills and understanding of data
- Personnel in roles where they need to produce Advanced data analysis and / or use data to make decisions

TRAINING METHODOLOGY

- This training course makes extensive use of Excel and the Data Analysis Tools to provide you with Advanced Data Analysis skills. This combined with presentations, explanations, interactive practical exercises, supported by video materials will ensure delegates leave the programme as Advanced analysts.

PROGRAMME SUMMARY

- This training covers the Advanced Data Analysis Techniques in order to make meaningful business decisions and improve efficiency & profits. This will strengthen your ability within the workplace, allowing you to make a significant impact as an advanced analyst, providing, using or evaluating data to improve performance, efficiency and profit.

PROGRAM OUTLINE

Data Collection, Presentation and Analysis

- Data and Methods of Collecting Data
- Presentation of Data using Excel
- Statistical Analysis of Data – Mean, Median and Mode; Variance and Standard Deviation
- Probability – Binomial, Normal and Poisson Distribution
- The Limitations of Data and Data Analysis
- Confidence Intervals and Hypothesis Testing

Pivot Tables and Data Analysis Tools in Excel

- Pivot Tables – developing and using Pivot Tables to aid Decision Making
- Cross Tabulation and Chi-squared
- Data Analysis Tools in Excel – a detailed understanding
- ANNOVA, t-tests and Z scores
- Moving Average and Exponential Smoothing
- Advanced and Applied Solver and Goal Seek

Advanced Correlation and Regression

- Co-variance and Correlation
- Linear Regression
- Non-linear Regression
- Multiple Regression using Excel
- Statistically Testing Results
- Making Decisions – Project Planning, Estimating Costs; Reducing Risk

Project Management and Applied Data Analysis

- Forecasting Costs and Production levels
- Estimating Project Duration using Statistical estimates and P.E.R.T
- Network and Critical Path Analysis
- Economic Quantity Order Analysis – to optimise inventory levels
- Linear Programming and Optimisation Techniques to optimise resource allocation e.g. inventory and capital
- Earned Value Analysis – to identify Project Cost and Schedule Variances

Financial Management and Applied Data Analysis

- Analysing and Forecasting Volatility in the Market, e.g. Oil Prices
- Evaluating Suppliers, Competitors and Acquisition Targets using Data Analysis
- Developing Financial Models
- Cost, Volume, Profit Analysis
- Risk Management using Data Analysis
- Evaluating the impact of decisions on Return on Investment and Return on Equity

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