

Data Interpretation & Analysis

Course Duration: 2-day

Course Objective

This course provides the basic skills & techniques of gathering, presenting & interpreting data for troubleshooting analysis & continuous improvement.

Learning Benefits

The benefits are a sound grounding of using Excel for day to day reporting. Many advanced concepts and features of Excel are highlighted to the students. The key feature is the number of exercises and real life examples used in the 2 day workshop.

Target Audience

This course is intended for managers, data analysts and support staff from Sales, Service, Finance, Marketing and IT Departments assisting management in the presentation of charts, graphs, comparing past performance, doing forecasting, budgeting, trend analysis and decision making. How to conduct surveys, collect data, best practices in data collection, analysis and decision making are covered thoroughly.

Course Content

<p>Day 1</p> <p>Introduction</p> <ul style="list-style-type: none"> ▪ Quality & Decision Support Systems ▪ Modelling and its relationship to management ▪ Types of problems, planning a study ▪ Framing a hypothesis <p>Identifying Problems and Understanding Data</p> <ul style="list-style-type: none"> ▪ Data Handling ▪ Sampling design ▪ Surveys and their design aspects ▪ Discussions & Lab Exercises <p>Tables & Charts</p> <ul style="list-style-type: none"> ▪ Types of Charts, Tables ▪ Patterns & Behaviour ▪ Building Simple Models ▪ Pivot Tables and Advanced Excel Techniques <p>Descriptive Summary Measures</p> <ul style="list-style-type: none"> ▪ Correlation and Regression ▪ Correlation Analysis ▪ Correlation versus causation ▪ Summary Measures <p>Probability & Distributions</p> <ul style="list-style-type: none"> ▪ Statistical Analysis, Process & Control ▪ Application to Business / Management <p>Single Regression & Correlation</p> <ul style="list-style-type: none"> ▪ Stepwise Modelling ▪ Multiple and non-linear regression analysis ▪ Application of regression in Business ▪ Lab exercise ▪ Piecewise modeling ▪ Cusum & Differential Cusum analysis ▪ Application of Cusums in Business ▪ Lab exercise 	<p>Day 2</p> <p>Statistical Inferences</p> <ul style="list-style-type: none"> ▪ Time Series Analysis ▪ Filters ▪ Forecasting, prediction, estimation ▪ Cross correlogram ▪ Practical Application in Business / Management ▪ Lab exercise ▪ Classification techniques ▪ Cluster Analysis ▪ Application to Business / Management ▪ Lab exercise <p>Troubleshooting</p> <ul style="list-style-type: none"> ▪ Problem Simulation ▪ Sensitivity analysis ▪ Application to Business / Management ▪ Lab exercise ▪ Applications of Optimization ▪ What-if analysis ▪ Linear Programming ▪ Application to Business / Management ▪ Lab exercise ▪ Review of entire day ▪ Practical Issues in managing large data sets, estimation and statistical analysis <p>Continuous Improvement</p> <ul style="list-style-type: none"> ▪ Total Quality Management ▪ Kaizen ▪ Six Sigma ▪ Holistic Approach to Continuous Improvement. <p>General Discussion on Applications in the real world</p>
---	---

Training Methodology : Classroom based lecture with hands-on using MS Excel.

Certificate of Attendance will be issued to participants.