

BUSINESS ANALYTICS

Keshavamurthy. K

Course Directors

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Dr. Manjunath

Duration

60 hours (02 credits)

Fee

Rs. 3500/

Eligibility

Students from Arts, Commerce and Science

Phone

9880259384

Course Objectives

- Understanding the Data Science and usage of the data science software
- Summarise individual variables
- Analyse combinations of categorical & continuous data
- Create and edit charts
- Evaluate and apply appropriate principles, techniques, models and theories to data science problems.

Methodology

This program is essentially participative. There will **hands on practical sessions**, individual exercise, case studies, lectures. The course is designed to focus on the usage of **E - Views- SPSS- MS Excel**

Content

Module 1:

Introduction to Business Analytics

Why Analytics? Business Analytics: Data-Driven Decision Making
Types of Analytics, Descriptive Analytics, Predictive Analytics
Prescriptive Analytics
Classroom delivery-04 hours
Practical session-02 hours

Module 2

Descriptive Statistics

Introduction Data Types and Scales
Cross-sectional, Time Series and Panel Data, Types of Data,
Measurement Scale, Measures of Central Tendency
Concept of Percentile, Deciles and Quartile
Measures of Variation, Range, Inter Quartile Range
Variance and Standard Deviation, Measures of Shapes, Skewness
Kurtosis, Data Visualization Histogram Bar Chart Pie Chart Scatter
Plot Box Plot Decision Tree Map Maps Line Chart Simple Table
Complex Table
Classroom delivery-08 hours
Practical session-03 hours

Module 3

Introduction to Probability

Basic Concepts, Addition Rule Multiplication Rule Joint
Probability Marginal Probability Conditional Probability

Random Variables Discrete Random Variable
Continuous Random Variable Expected Value, Variance and
Standard Deviation of a Discrete Random Variable
Classroom delivery-08 hours
Practical session-03 hours

Module 4

Theoretical Distribution

Introduction
Binomial Distribution
Poisson distribution Geometric Distribution, Uniform Distribution
Normal Distribution Chi-Square Distribution Student's t
distribution F Distribution
Classroom delivery-10 hours
Practical session-05 hours

Module 5

Sampling and Sampling Distribution, Introduction to Estimation,
Confidence Interval Estimation, Hypothesis Testing
Classroom delivery-10 hours
Practical session-05 hours

Module 6

Introduction to Analysis of Variance (ANOVA), Multiple t-test for
Comparing Several Means, One-way Analysis of Variance
Two-Way Analysis of Variance
Classroom delivery-06 hours
Practical session-03 hours

Module 7

Correlation and Regression Analysis

Correlations: Indicator of Linear Relationships, Pearson
Correlation Coefficient, Spearman Rank Correlation, Simple
Linear Regression
Least Square Estimation, Standard Error of Estimation, The
Percentage of Variation Explained, Hypothesis Testing for
Regression Coefficient and P-value
Multiple Linear Regression
Classroom delivery-10 hours
Practical session-05 hours