

BUSINESS ANALYTICS Theory & Practice



Course Objectives

What will you learn after completion of this course?



- How to design an Analytical Framework for a given business problem
- Key statistical concepts and Hypothesis Testing
- Building Customer Segmentation
- Introduction to Campaign Design & Evaluation
- Linear & Logistic Regression and its application. Introduction to Statistical Modeling
- Other Techniques: RFM (Recency Frequency Monetary Segmentation), Market Basket Analysis and Look-alike segmentation
- Hands-on analytics experience guaranteed through solving various assignments, case studies & project work





Topics Covered

Business Analytics	What is Analytics, Need for Analytics, Growing Importance of Analytics, Its application in various domains
Designing Analytical Framework	Understanding the business problem, Breaking the problem into parts, Assessing Data Required & Framing Hypothesis
Intro to Key Statistical Concepts	Mean, Standard Deviation, Variance, Normal Distribution and its significance, ANOVA (Analysis of Variance)
Hypothesis Testing	Null & Alternative Hypothesis, One/Two tailed Test, Minimum Sample Size Calculation and other concepts
Build Segmentation	Need for Customer Segmentation, Various Segmentation Techniques (Decision Trees/Chaid, Clustering, CART etc.)
Intro to Campaigns	What are campaigns and its importance, How to design a campaign and how to evaluate the campaign
Linear & Logistic Regression	Introduction to Regression concepts, Overview of Linear & Logistic Regression, Its application in various domains



Topics Covered

Intro to Statistical Modeling	Modeling Steps: Univariate, Bivariate and Multivariate Analysis, In-time & Out of time validation & other concepts
Other Techniques	RFM (Recency, Frequency, Monetary) Segmentation, Market Basket Analysis, Conjoint Analysis, Look-alike segmentation and others
Real Life Case Study	A Case Study from Telecom Industry to be solved in the class
Project	A Project from 'Financial Services' Industry will be given to be solved & presented to the instructor

