Objective

The objective of this course is to make the students feel comfortable in business environment where there is an increasing use of qualitative analysis. The course emphasizes the application of mathematical techniques to cope up with the modern advancements and orientation according to modern requirements. The today's business students will be the decision maker's tomorrow and shall be better equipped if they are familiar with these concepts. Such familiarity can assist them in being better ‘critics’ and ‘users’ and hopefully better decision makers.

Course Contents

1. Introduction to Some Basic Concepts
   1.1 Real and Complex Number System
   1.2 Co-ordinate System in Two Dimensions, Simple Cartesian Curve, Function and Graphs
   1.3 Limits of Functions and Techniques For Finding Limit
   1.4 Continuous and Discontinuous Function and Their Graphical Representation

2. Differentiation
   2.1 The Chain Rule
   2.2 Higher Order Derivatives
   2.3 Differentiation of Logarithmic Functions
   2.4 Exponential and Trigonometric Functions.

3. Optimum : Methodology and Application
   3.1 Concavity and Inflection Points
   3.2 Identification of Maxima and Minima
   3.3 The First and Second Derivative Tests and Critical Points
   3.4 Curve Sketching and Restricted Domain Consideration
   3.5 Revenue, cost and profit applications
   3.6 Marginal Approach to Profit Maximization.

4. The Integral Calculus
   4.1 The Anti Derivative Concept
   4.2 Rules of Integration
   4.3 Integration by Parts, Integration of Trigonometric Functions
   4.4 Differential Equation
   4.5 Definition, Properties and Application of Definite Integral to Areas – Areas Between Function And X – axis and areas Between Curves.

5. Linear Programming
   5.1 Graphical Solution
5.2 Region of Feasible Solution
5.3 Corner-Point Method and Application of Linear Programming
5.4 The Simplex Method

6. Transportation Models, Assignments Models
   6.1 Solution to Transportation Model and Assignment Model

Recommended Books: