

Title: Business Statistics- II
Credit Hours: 3

Code: MGMT 333
Year /Semester: II/III

48 Hours

Course Objectives:

This course aims to make students familiar with the several tools and techniques of statistics so that they can correctly apply them for analyzing and making inferences about variables under considerations. This will enable students to apply these tools in managerial decision making as they assume professional career in the future.

Unit 1 Regression Analysis

10 Hours

Measures of Variation, Standard Error of Estimates and Its Interpretation, Coefficient of Determination, Estimation of Predicted Value, Assumptions on Regression Analysis

Unit 2 Decision Making

6 Hours

Payoffs and Regret Tables

Unit 3 Time Series and Index Number

10 Hours

Time Series: Meaning, Measurement of Time Series – Semi Average, Moving Average, Least square

Index Number: Rules, Problems Related to Wholesale Price and Cost of Living Index Numbers, Lesperyre's and Pasche Formulas

Unit 4 Sampling and Test of Hypothesis

12 Hours

Sampling-Introduction, Probability and Non-probability Sampling (types)

Testing of Hypothesis: Introduction, Type I and Type II error, Level of Significance, Degrees of Freedom, Standard Error of Mean, Confidence Interval, Test of Significance of Single Mean, Two Means (one and two tails, z, t –tests), Chi- square χ^2 -test for Independent of Attribute

Unit 5 Transportation and Assignment, CPM and PERT by Networking

10 Hours

Introduction, Basic initial feasible solution, test of optimality, Hungarian method, Network diagram, Critical Path, PERT

Reference Books:

1. Livine, David, M .Krebiel, Berenson and Viswanathan (2008). *Business Statistics: A first Course*, Third Edition. Pearson Education.
2. Taha ,Hamdy A . (206). *Operations Research: An introduction* (Seventh Edition), Prentice Hall.
3. Budnick, F.S (1993). *Applied Mathematics for Business and Economics and Social Sciences*. New Delhi : McGraw Hill, INC.