Choice-based course offered by the department

Statistical Methods (4)

Study design. Graphical representation of data. Features of frequency distribution, summary measures. Problems with outliers and extremes. Association, dependence, causality. Correlation and regression in bivariate and multivariate setups. Discrete data analysis. (16)

Probability. Basic results. Conditional probability and Bayes theorem. Random variables- expectation and variance. Discrete & Continuous Probability models. Computation of probability in various applied research. (17)

Basics of Statistical inference. Estimation and Hypothesis testing problems in special setups. Applications of statistical inference in applied research. (17)

References:

Goon A.M., Gupta M.K. and Dasgupta B. : Fundamentals of Statistics, Vol. I& II, 8th Ed.

Miller, Irwin and Miller, Marylees : John E. Freund's Mathematical Statistics with Applications, (7th Ed.),

Mood, A.M. Graybill, F.A. and Boes, D.C. : Introduction to the theory of Statistics, 3rd Ed.

Hogg, R.V., Tanis, E.A. and Rao J.M.: Probability and Statistical Inference, 7th Ed,

Ross, S. : A First Course in Probability, Prentice Hall.

Dunn, O.J. : Basic Statistics: A primer for the Biomedical Sciences.