Statistics

B.Com

(SEMESTER - II)

Course Code:

Course Title: **Statistical Methods For social science.**

Course Category: Multi Disciplinary

Credit **4 Credit**

Implementation year: A. Y. 2023-24

Course Objective: The main objective of this course is to acquaint students with relationship between two variables and two attributes. Learner will be introduced to some statistical methods of analysis of data 1) To compute the correlation coefficient for bivariate data 2) Fitting of regression curve 3) Studying qualitative data 4) Computing various indices and their interpretation

Course Outcomes:

CO1	Students will be able to understand difference between variables and attributes.
CO2	Students will be able to understand relation between two variables and attributes.
CO3	They will also be able to solve problems to find relation between two Variables and attributes.
CO4	Students will be able to understand basic concepts of time series
CO5	Analyze different types of trends

Teaching Methodology: Class work, discussion, self study, seminars/ presentations and assignments.

Evaluation method: 30% Internal Assessment and 70% External Assessment.

Sr.No.	Course Inputs (As per UGC Model Curriculum)	Weightage	Marks
Unit -1	Correlation (For 2 variables Only): ➢ Definition, Types of Correlation, Scatter Diagram ➢ Karl Pearson Correlation co-efficient, Spearman Rank Correlation co-efficient. ➢ Examples	**30%**	**15**
Unit-2	Regression (For 2 variables Only): ➢ Definition ➢ Regression Two Lines ➢ Meaning and it's uses Examples	**20 %**	**10**
Unit-3	Analysis of Categorical data (For 2 attributes Only): ➢ Concept of association between two attributes ➢ Consistency of data ➢ Different types of association ➢ Different methods to find association between two attributes ➢ Examples	**20%**	**10**
Unit-4	Analysis of Time series: ➢ Concept of time series ➢ Causes of variation in time series data ➢ Components of a time series ➢ Determination of trend-moving averages method and method of least squares {including linear, second degree (parabolic trend)} ➢ Computation of seasonal indices by simple averages, moving average method.	**30%**	**15**
	Grand Total	**100%**	**50**

Reference Books:

1.	Hooda, R.P	Statistics for business and economics; Macmillan. New Delhi.
2.	Kendall M.G.(1976)	Time series, Charles Griffin
3.	Goon A.M., Gupta M.K. and Dasgupta B. (2000):	Fundamentals of Statistics, Vol. I & II, 8thEdn. The World Press, Kolkata.
4.	Mood, A.M. Graybill, F.A. And Boes , D.C. (2007)	Introduction to the theory of Statistics, 3rdEdn.,(Reprint), Tata McGraw –Hill Pub. Co. Ltd.
5.	Gun. A.M.Gupta, M.k. and Dasgupta.B.(2008)	Fundamental of Statistics, Vol. II, 9th Edition World press.
6.	YaLun Chou	Statical analysis with business and economics application, Holl; Rinehart &Winster. New York.
7.	Hole & Jessen	Basic Statistics for business and economics: John Wiley and Sons, New York
9.	Karmel P.H.(1963)	Applied Statistics for Economics, 2nd ed.
10.	Prof H.D. Shah.	ગાણિતિક આંકડાશાસ્ત્ર, યુર્નિવસિટી ગ્રંથ નિર્માણ બોર્ડ – અમદાવાદ, ગુજરાત.
11.	M.C.Jayswal(1974)	અર્થ વિષયક આંકડાશાસ્ત્ર, યુર્નિવસિટી ગ્રંથ નિર્માણ બોર્ડ – અમદાવાદ, ગુજરાત.