

V.V. Sangha's

**SHREE KHASGATESH COLLEGE OF ARTS COMMERCE AND
SCIENCE TALIKOTI**

DEPARTMENT OF STATISTICS

Course : BA/B.COM

**Programme Outcomes (PO's), Programme Special Outcomes (PSO's)
Course Outcomes (CO's)**

2023-2024



Head
Department of Statistics
S.K. COLLEGE OF ARTS & COMMERCE
TALIKOTI - 586214



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Science, Talikoti. Dist:Vijayapur



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B. A 1st Semester

Content of Course I: Descriptive Statistics-I and Descriptive Statistics-II


Course Outcomes (COs) / Program Outcomes (POs)

1. Organize, manage and present data.
2. . Analyze statistical data graphically using frequency distributions and cumulative frequency distributions.
3. . Analyze statistical data using measures of central tendency, dispersion.
4. . Understand Skewness and Kurtosis and their use in studying various characteristics of data.
5. . Know concept of correlation, various correlation coefficients- Pearson's correlation coefficient, Spearman's rank correlation coefficient.
6. Carryout spatial analysis.
7. . Understand the Price and Quantity Index numbers and their different measures, understand the applicability of cost of living Index number.
8. . Know the components and Need for Time series, understand the different methods of studying trend and Seasonal Index.
9. . Solve problems of economics concerns using demand analysis, supply functions, Gini's coefficient and Lorenz Curve.
- 10.. Understand basic concepts, important theorems on probability and their use in solving problem.
11. Know random variable, mathematical expectation, and numerical problems on mathematical expectation.
- 12.. Understand the most common discrete and continuous probability distributions



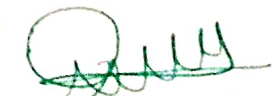
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B. A II Semester

Content of Course 3: Statistics for Economics and Probability and Distributions

Program Outcomes

By the end of the program the students will be able to:

1. Acquire fundamental/systematic/coherent understanding of the academic field of Statistics and its different learning areas and applications.

2. Develop and demonstrate an ability to understand major concepts in various disciplines of Statistics.

3. Demonstrate the ability to use skills in Statistics and different practicing areas for formulating and tackling Statistics related problems and identifying and applying appropriate principles and methodologies to solve a wide range of problems associated with Statistics.

4. Understand procedural knowledge that creates different types of professionals related to subject area of Statistics, including professionals engaged in government/public service and private sectors.

5. Plan and execute Statistical experiments or investigations, analyze and interpret data/information collected using appropriate methods, including the use of appropriate statistical software including programming languages, and report accurately the findings of the experiment/investigations.

6. Have a knowledge regarding use of data analytic tools like Excel and R-programming.

7. Developed ability to critically assess a standard report having graphics, probability statements.


8. Analyze, interpret the data and hence help policymakers to take a proper decision.


9. Recognize the importance of statistical modelling and computing, and the role of approximation and mathematical approaches to analyze the real problems using various statistical tools.

10. Demonstrate relevant generic skills and global competencies such as

(i) Problem-solving skills that are required to solve different types of Statistics related problems with well-defined solutions, and tackle open-ended problems, that belong to the disciplinary-area boundaries;


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(ii) Investigative skills, including skills of independent thinking of Statistics-related issues and problems;

(iii)


Communications skills involving the ability to listen carefully, to read texts and reference material analytically and to present information in a concise manner to different groups/audiences of technical or popular nature;

(iv) Analytical skills involving paying attention to details and ability to construct logical Arguments using correct technical language related to Statistics and ability to translate them with popular language when needed; ICT skills;

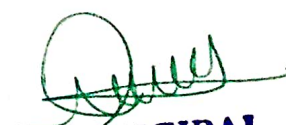
(v) Personal skills such as the ability to work both independently and in a group.

11. Undertake research projects by using research skills preparation of questionnaire, conducting national sample survey, research projects using sample survey, sampling techniques.

12. Understand and apply principles of least squares to fit a model to the given data, study the association between the variables, applications of Probability Theory and Probability Distributions.


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Semester – III

Course Code: 21BA3STSDSCT1

Course Title: Title of Paper: EXACT SAMPLING DISTRIBUTIONS AND STATISTICAL INFERENCE

Upon the completion of this course students should be able to:

CO1.Frame and formulate management decision problems.

CO2.Understand the basic concepts underlying quantitative analysis.

CO3.Use sound judgment in the applications of quantitative methods to management decisions.

Semester – III

Discipline Specific Course (DSC)8

Course Title: SAMPLING TECHNIQUES

Course Code: 21BA3STSDSCT2

After successful completion of this course, students will be able to:

CO 1 : Know the concept of Population, Sample, Sampling unit, sampling design, sampling frame, sampling scheme, need for sampling.


CO 2 : Apply different sampling methods for designing and selecting a sample from a population.

CO 3 : Design good questionnaire relevant to a survey for a specific investigation.

CO 4 : Explain sampling and non-sampling errors.



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Semester-IV

Course Code: 21BA4STSDSCT1

Course Title: Title of Paper: ANALYSIS OF VARIANCE AND DESIGN OF EXPERIMENTS

After the successful completion of the course, the students will be able to:

CO 1 : Develop strategic plans for experimentation in scientific research projects.

CO 2 : Apply the principles of Design of Experiment to generate experimental designs.

CO 3 : Develop problem solving skills for the application of Design of experiments to Agriculture and controlled laboratory experiments.

Semester – IV

Course Code: 21BA4STSDSCT2

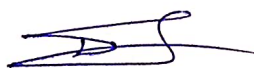
Course Title: Title of Paper: REGRESSION ANALYSIS AND ECONOMETRICS

CO 1 : Provide a wider and deeper exposure to the econometric techniques and their application to the discipline of Economics.

CO 2 : Gain an understanding of how to solve problems using econometrics that are common to economic modeling.

CO 3 : Develop ability to accurately translate complex economic problems into models and so as to solve them by applying econometric techniques.


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B.A. Semester-V

Discipline Specific Course (DSC)-9

Course Title: Distributions and Survival Analysis

Course Code: 015AST011

CO1: Solve problems of various analytical environments using different distributions and their properties.

CO2: Practical knowledge of carrying out numerical analysis

CO3: Explain Life Tables, types of life tables, its functions, construction.

CO4: Know survival models, concepts of survival analysis, notion of ageing.

B.A. Semester-V

Discipline Specific Course (DSC)-10

Course Title: Industrial Statistics

Course Code: 015AST012

CO1 : Learn about process control and product control, different limits and causes of variation.

CO2 : Understand control chart for variables and process capability.

CO3 : Understand lot acceptance sampling and sampling plans.

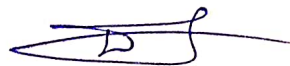
CO4 : Construct control charts

CO5 : Know acceptance sampling plans



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B.A. Semester-V

Discipline Specific Course (DSC)-11

Course Title: Population Studies

Course Code: 015AST013

CO1 : Acquire knowledge about the size, composition, organization and distribution of the population.

CO2 : Perform basic demographic analysis using various techniques.

CO3 : Study the trend of population growth which describes the past evolution, present distribution and future changes in the population of an area.

CO4 : Acquire knowledge about the construction of life table and its applications in demographic analysis.

B.A. Semester-VI

Discipline Specific Course (DSC)-12

Course Title: Non-parametric Inference

Course Code: 016AST011

CO1: Understand general concepts of non-parametric statistics

CO2: Know the importance of non-parametric tests

CO3: Perform various non-parametric tests

CO4: Know various applications of these tests



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B.A. Semester-VI

Discipline Specific Course (DSC)-13

Course Title: Operations Research

Course Code: 016AST012

CO1 : Formulate a linear programming problem and solve it for optimal solution using graphical Methods.

CO2 : Solve transportation problem and give the optimal solution.

CO3 : Solve assignment problems and give the optimal solution.

CO4 : Solve game problems using different techniques.

B.A. Semester-VI

Discipline Specific Course (DSC)-14

Course Title: Statistics for national Development

Course Code: 016AST013

CO1: Different methods of collection of data

CO2: Role of national sample survey office

CO3: Knowledge of different types of sample surveys

CO4: Know different development indices

CO5: Understand some population growth models



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Name of the Program: Bachelor of Commerce (B.Com.)

Course Code: B.Com. 3.2

Name of the Course: Business Statistics

Course Outcomes: On successful completion of the course, the Students will be able to

- a. Familiarizes statistical data and descriptive statistics for business decision-making.
- b. Comprehend the measures of variation and measures of skewness.
- c. Demonstrate the use of probability and probability distributions in business.
- d. Validate the application of correlation and regression in business decisions.
- e. Show the use of index numbers in business.



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