ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION

Multidisciplinary Course

w.e.f. AY 2023-24

SEMESTER-IV

BASIC STATISTICS

Credits: 2   2 hrs/week

Objective: To provide basic understating of general statistical tools and their elementary applications and to create awareness on Indian Statistical System.

Learning outcomes

Unit-I: To understand the concept of Statistics and its merits and demerits. Distinguishing primary and secondary data. Classification, Tabulation and Pictorial representation of data.

Unit - II: To understand the basic nature of data and how a single value describes the entire data set.Measuring the degree of departure of a distribution from symmetry and reveals the direction of scatterdness of the items.

Unit - III: To understand the spread of the data and to draw conclusions from the comparison of averages.
To understand the concept of correlation and regression and to learn the degree of association between two variables and establishing relationship between the variables.

Unit I: Meaning, scope and limitations of Statistics
Collection of data: Primary and Secondary, Classification and Tabulation, Construction of frequency distribution.
Graphical Representation: Histogram, Bar, Pie and Frequency polygon.

(8hrs)

Unit II: *Measures of Central Tendency*: Features of good average, Arithmetic Mean, Median, Mode. Empirical relationship between Mean Median and Mode and skewness based on central values.   (8hrs)

Unit III: *Measures of Dispersion:* Range, Quartile Deviation(QD), Mean Deviation(MD), Variance, Standard Deviation(SD), relationship between QD, MD and SD.Familiarizationof the concepts relating to Correlation and Linear Regression line.   (8hrs)

Books for Study:

1. Statistics (Theory, Methods, Application) D C Sancheti, V K Kapoor, Sultan Chand and Sons, New Delhi

2. Statistical Methods, S.P. Gupta, Sultan Chand and Sons, New Delhi

3. Statistics (Theory and Practice) B.N Gupta, Sahitya Bhavan, Agra

Web sites for free download books for Statistics
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Co-curricular activities:
Objective is to apply the theoretical concept to real life data which enhances the learning and interpretation ability to the current environment.

CoCA I: (i) Collect primary or secondary data and establish frequency distribution.
   (ii) Suitable pictorial/ Graphical representation to the established frequency distribution

CoCA II: (i) Select the data and then calculate AM,Median and Mode and interpret the result.
   (ii) Calculate the skewness based on central values and interpret the degree of departure of a distribution from symmetry and the direction of scatterdness of the items.

CoCA III: (i) Calculate the dispersion values of a data for a single or double data sets and todraw conclusions from the comparison of averages.
   (ii) Select the bivariate data (for example, select marks of any two subjects of your course) and calculate the degree of association and establish the linear relationship and find the forecasting value.

CoCA IV: If there is an internet facility at your college/home, go through the Ministry of Statistics and Program Implementationsite *www.mospi.gov.in*to know about the Indian Statistical System and *https://desap.cgg.gov.in*or www.apdes.in to know about the Andhra Pradesh Directorate of Economics and Statistics(APDES) and its activities.

ANDHRA KESARI UNIVERSITY-ONGOLE, PRAKASAM DISTRICT
Multidisciplinary Course Programme from the Year 2023-24 Onwards
Course: Basic Statistics Semester - IV

Time: 2 Hours   Total Marks: 50

PART –A
Answer any four of the following out of Eight Questions

4X5=20 Marks

1.

2.

3.

4.

5.

6.

7.

8.

PART –B

Answer any Three of the following

3X10=30 Marks

9.

10.

11.

12.

13.

14.