ST. JOSEPH’S COLLEGE FOR WOMEN (AUTONOMOUS) VISAKHAPATNAM

II SEMESTER **LIFE SKILL COURSE** Time:2Hrs/week

ES 2001(2) **ELEMENTARY STATISTICS** Marks:50

(w.e.f: 2020-2021-‘20AH’) **SYLLABUS**

**OBJECTIVE:**Toprovidebasicunderstatingofgeneralstatisticaltoolsandtheir elementary applications and to create awareness on Indian StatisticalSystem.

**LEARNING OUTCOMES:**

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

**CO – 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.

**CO-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 StatisticsCollection of data:**

## Primary and Secondary, Classification andTabulation, Construction of frequencydistribution.

## **Graphical Representation:** Histogram, Bar, Pie and Frequency polygon.

**UNIT-II**: **Measures of Central Tendency:** Features of good average, Arithmetic Mean, Median, Mode. Empirical relationship between Mean Median and Mode and skewness based oncentralvalues.

**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 LinearRegressionline.

**BOOKS FOR STUDY:**

1. Statistics (Theory, Methods, Application) D C Sancheti, V K Kapoor, Sultan Chand and Sons, NewDelhi
2. Statistical Methods, S.P. Gupta, Sultan Chand and Sons, NewDelhi
3. Statistics (Theory and Practice) B.N Gupta, Sahitya Bhavan,Agra

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**Degree :**Arts/Science/Commerce

**ProgramName :**Foundation Course

**CourseName :**ElementaryStatistics

**Semester :**I/II/III

### Hrs/Week 2

**Credits** 2

**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 to draw 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](http://www.mospi.gov.in/)to know about the Indian Statistical System and https://desap.cgg.gov.inor [www.apdes.in](http://www.apdes.in/) to know about the Andhra Pradesh Directorate of Economics and Statistics(APDES) and its activities.

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