ALLIED COURSES

STATISTICS

SEMESTER:II PART:III	22USMAA02 : STATISTICAL METHODS AND THEIR APPLICATIONS	CREDIT:4 HOURS:5

(For BCA)

COURSE OBJECTIVES
1. To know about statistics
2. To know about measurs of centeal tendencies and dispersion
3. To know about correlation and regression
4. To know the concept of probability and distribution
5. To apply test of significance

UNIT I : Introduction to statistics   **Hours: 10**

Statistics, functions, characteristics, limitations.Various types of Data; Nominal, Ordinal, Ratio Scale and Interval; Primary and Secondary Data; Methods of Collecting Primary Data;Diagrammatic and Graphical representation of data. -sample and Population-Preparation of questionnaire.

UNIT II:measures of central tendencies and dispersion   **Hours: 10**

Descriptive Measures – Mean, Median, Mode;geometric and harmonic ,positional averages, range,Quartile deviation Mean Deviation and Standard Deviation.

UNIT III: correlation and regression   **Hours:10**

Study of relationship between variables: Concept of correlation- types of correlation, rank correlation and simple problems. Regression Analysis: Simple Regression Equations.

UNIT IV: Probability and random variables   **Hours:10**

Probability Theory: definitions- axioms of probability; simple problems - addition and multiplication theorem - Baye's theorem–simple problems, types of random variables, Binomial, Poisson and Normal

UNIT V: tests of significance   **Hours:10**

Test of significance: small sample t-test (mean, SD, Correlation), F test for variance–large sample z-test (mean and proportions)- chi square test-simple problems

COURSE OUTCOMES
1. At the end of the course, the student will be able to:
2. Understand the various concepts of statistics.
3. know about measures of centeal tendencies and dispersion
4. know the concept of correlation and regression
5. apply the concept of probability distribytion
6. test the population parametric value

Text Books

1. Gupta,S.P.: , Sultan Chand& Sons Pvt Ltd ,"Statistical Methods."New Delhi.
2. Rajagopalan V., (2006), New Age International Publishers (P) Ltd, "Selected Statistical Tests".., New Delhi.

OUTCOME MAPPING

	PO1	PO2	PO3	PO4	PO5
CO1	2	3	3	3	2
CO2	1	3	2	2	3
CO3	3	3	3	2	2
CO4	3	3	2	2	2
CO5	1	3	3	3	3

1 – Low, 2 – Moderate, 3 – High (Preferably use 2 or 3 levels)