Deccan Education Society's

Fergusson College (Autonomous), Pune

Course Outcomes (COs) 2019-20

Department of Statistics

Programme: B.A. Applied Statistics

F.Y. B.A. Semester I		
Title of Course and Course Code	**Descriptive Statistics – I STA1101**	**Number of Credits : 03**
On completion of the course, the students will be able to:		**Blooms Taxonomy Level**
CO1	Recall statistical population and sample, need of Statistics and information about National Statistical Institutes.	1
CO2	Articulate the data, its types and summarize information in the data using different measures.	2
CO3	Apply methods and procedures of summarizing information in real life situations in different fields	3
CO4	Classify various types of indices.	4
CO5	Assess preliminary judgments and comparisons through exploratory data analysis and summary measures.	5
CO6	Construct different types of indices.	6
F.Y. B.A. Semester II		
Title of the Course and Course Code	**Descriptive Statistics – II STA1201**	**Number of Credits : 03**
On completion of the course, the students will be able to:		**Blooms Taxonomy Level**
CO1	Describe the concept of bivariate data theory of attributes and Time Series.	1
CO2	Compute Karl Pearson's coefficient of correlation and Spearman's rank correlation coefficient and obtain lines and curves of regression.	2

CO3	Apply different methods to obtain the trend of the Time Series.	3
CO4	Differentiate between correlation and regression.	4
CO5	Consider and justify the use of correlation, regression and different methods to estimate components of Time Series.	5
CO6	Arrange different real life situations as time series objects.	6
S.Y. B.A. Semester III		
Title of the Course and Course Code	**Probability Theory and Discrete Probability Distributions STA2301**	**Number of Credits : 03**
On completion of the course, the students will be able to:		**Blooms Taxonomy Level**
CO1	Recall basic knowledge of probability, permutations and combinations.	1
CO2	Explain sample space for random experiment and identify events and their types.	2
CO3	Apply theorems of probability to compute probability of different types of events.	3
CO4	Explain classical definition of probability , axioms of probability, conditional probability and independence	4
CO5	Assess the properties of univariate discrete random variables.	5
CO6	Formulate special discrete probability distributions .	6
S.Y. B.A. Semester IV		
Title of the Course and Course Code	**Continuous Univariate Distributions and Applications of Statistics STA2401**	**Number of Credits : 03**
On completion of the course, the students will be able to:		**Blooms Taxonomy Level**
CO1	Define vital statistics and identify continuous univariate random variable, distribution function and its properties.	1
CO2	Compute probability of different events based on continuous probability distributions.	2
CO3	Illustrate some special continuous probability distributions, and their properties to real life situations.	3
CO4	Analyze the time series by estimating seasonal indices.	4
CO5	Evaluate partial regression coefficients, multiple and partial correlation coefficients.	5
CO6	Explain demographic ratios, mortality and fertility rates.	6
T.Y. B.A. Semester V		
Title of the Course and Course Code	**Testing of Hypotheses (General) STA3501**	**Number of Credits : 03**
On completion of the course, the students will be able to:		**Blooms**

		Taxonomy Level
CO1	Define the basic terms related to introduction of testing of Hypothesis.	1
CO2	Demonstrate the various situations for testing using exact tests. The large sample tests and small sample tests are also demonstrated.	2
CO3	Apply the tests for real life problems and discuss the conclusions.	3
CO4	Examine the suitability of the tests to be applied and inference to be drawn.	4
CO5	Evaluate Probability of type I error, power of the test. And p value.	5
CO6	Develop the concept of analysis of variance techniques.	6
T.Y. B.A. Semester VI		
Title of the Course and Course Code	**Sampling Theory (General) STA3601**	**Number of Credits : 03**
On completion of the course, the students will be able to:		**Blooms Taxonomy Level**
CO1	Recall concepts of sample, population and various types of simple random sampling methods	1
CO2	Explain need of stratification and making clusters and allocation problems in stratified random sampling.	2
CO3	Choose a sample of suitable size by using various sampling methods to collect data in day today life and Calculate estimates of unbiased estimators and their standard errors in various sampling methods.	3
CO4	Distinguish between cluster random sampling and stratified random sampling	4
CO5	Compare simple random sampling, stratified random sampling and systematic sampling and Classify sampling and non-sampling error	5
CO6	Design questionnaire and plan sample surveys to collect data.	6