

TELANGANA SOCIAL WELFARE RESIDENTIAL DEGREE COLLEGES

Name of the

SEMESTER PLAN

name of the Course	B.Sc(Data Science)
Subject	STATISTICS
Department Name	Descriptive statistics & probability
Department Code	sc-2A
Outcomes	<p>Define mean, median, mode, range, variance and standard deviation</p> <p>Define the principle concepts about probability, calculate probability using conditional probability, Baye's theorem.</p> <p>Define the concept of a Random variable features of discrete and continuous random variable</p> <p>Define Generating functions and Inequalities.</p>
Faculty Name	rika

Unit-1	Topics	Teaching Pedagogy, Teaching Aids. Curricular. Extra-curricular Activities etc.	Hours
Unit-1 Title Descriptive statistics	Descriptive statistics Measures of central tendency Measures of Dispersion Moments, Skewness, Kurtosis	Teaching pedagogy : MCQ's eaching Aids Black board Curricular Activities : Framing their own questions.	Hours
Unit-2 Title Probability	Theory Of probability	pedagogy : Quit.Group discussion Teaching Aids Black board u rriculum ; Giving Assignment	Hours

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Unit-3 Title Random variables	Random variables	Teaching pedagogy : Asking Questions on previous class, making students to answer the questions and interlinking current topic with previous topic.	15hours
	Transformation of one-Dimensional Random variable	Teaching Aids : Black board	
	Bivariate Random variable	Curricular Activities : Conducting weekly tests	
Unit-4 Title Mathematical Expectations	Mathematical Expectations	Teaching pedagogy : Group Discussion, Seminar	15hours
	Generating functions	Teaching Aids : Black board	
	Inequalities	Curricular Activities : Own example problems, Giving Assignment	
Total Hours :			60

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theCollege : TSWRDCW, Mancherla
SEMESTER II- PLAN

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subject	ATISTIGS
Teacher Name	Probability Distributions
Chapter Code	sc.2
Outcomes	Understand the difference between discrete and continuous probability distributions. Understand and calculate probabilities of distributions. Understand and be able to calculate z-scores.
Faculty Name	Sarika

	Topics	Teaching Pedagogy Teaching Aids, Curricular. co-a-curricular Activities etc.,	No. of
Unit-1 Title Discrete Distributions as-1	<ul style="list-style-type: none"> Uniform, Bernoulli Binomial and their properties Poisson distribution M.G.F, C.G.F, P.G.F, C.F 	Teaching pedagogy Asking questions in previous class. Making students to answer the questions and interlinking topic with previous future topic. Teaching Aids Black board Curricular Activities own example problems.	Sh hours
Unit-2 Title Discrete Distributions as-1	Negative binomial, Geometric, Hypergeometric distribution & properties M.G.F, C.G.F, P.G.F, C.F	Teaching pedagogy Quiz, Group discussion, Black board Curricular Activities: Students taking their samples and solving the Questions.	15 hours

on-II	<ul style="list-style-type: none"> Lack of memory property 		
Unit-3 Title Continuous Distributio n-I	Rectangular & Normal Distributions	Teaching pedagogy : Group discussion, Quiz	15hours
	Properties such as mean, variance, M.G.F, C.G.F, P.G.F, C.F	Teaching Aids : Black board	
	Normal distribution as a limiting case of Binomial & Poission	Curricular Activities : Giving Assignment	
Unit-4 Title Continuous distributio n-II	Exponential, Gamma distributions.	Teaching pedagogy : Group Discussion, Seminar	15hours
	M.G.F, C.G.F, C.F		
	Beta distribution of two kinds. Cauchy distribution.	Teaching Aids : Black board	
	Weak law of large no.'s, strong law of large numbers.	Curricular Activities : Own example problems, Giving Assignment	
	Central limit theorem.		
Total Hours :			60

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College : TSWRDCW, Mancherial

Name of the SEMESTER III - PLAN

Name of the Course		B.Sc data science	
Subject			
Paper Name		Statistical methods theory and relation	
Paper Code			
Learning Outcomes		<p>Understand the correlation, regression, partial, multiple ratio fitting of curves, theory of attributes</p> <p>Understand problems of statistical inference problem point estimation</p> <p>Properties of point estimator such as consistency unbiasedness, efficiency Obtain minimum variance unbiased estimators</p> <p>Obtain estimators using estimation methods such as Method of moments</p>	
Faculty Name		Pranaya S.Sarika	
Unit-I	omcs	pedagogy, Teaching Aids, Curricular, in-a •curricular Activities etc..	
Correlation and regression	lation Wk correlation	teaching pedagogy :Group discussions	18

	Regression analysis	Teaching aids :blackboard Chalk	
	Partial and multiple correlation	Circular activities: conducting seminars	
	Correlation ratio Curve fitting		
Unit-II	Theory of attributes		12
Title		Teaching pedagogy: Lecturer method	
Theory of attributes		Teaching aids: Black board, chalk	
	Order statistics	Curricular activities: quiz	

Unit-III Title Exact to something distributions Chi-square distribution t-distribution F-distribution Theory of point estimation	Basic concepts of estimation inference	Teaching pedagogy: Lecture method	16
	Chi-square distribution	Teaching aids: Blackboard	
	t-distribution	Curricular activities: connecting slip test	
	F-distribution		
	Theory of point estimation		
Unit-IV Title theory of estimation	Sufficient estimation	Teaching pedagogy: Questionnaire method	14 hours
	Efficiency estimator		
	Methods of Estimations	Teaching aids: Blackboard Chalk	
	Interval estimation	Curricular activities: MCQs	
Total Hours:			60

M. Pranaya - (R)

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<p>Of the course</p> <p>Subject</p> <p>Department Name</p> <p>Department Code</p>	<p>.Sc(Data Science)</p> <p>STATISTICS</p> <p>Inference</p> <p>SC,,i</p>
<p>Learning Outcomes</p>	<ul style="list-style-type: none"> The student basic theoretical knowledge about fundamental principles for statistical inference. <p>The student has knowledge about construction of point and interval estimators. and hypothesis testing about the evaluation of these estimators and tests.</p>
<p>Faculty Name</p>	<p>Sarika</p>

Unit	Topics	Teaching Pedagogy, Teaching Aids, Curricular, Extra-curricular Activities etc.,	No. of Hours
Unit-1 Title Testing of Hypothesis	<ul style="list-style-type: none"> • Testing of hypothesis introduction. • Definition of statistical hypothesis. • Type-I,II, power of the test problems. • Ney- mannpearson Lemma. 	Teaching pedagogy : Questionnaire Teaching Aids : Black board Curricular Activities : Sliptest	10hours
Unit-2 Title Large sample tests	<ul style="list-style-type: none"> • Large sample tests. • Large sample test for single mean. • Significance difference between two means. • Test for single proportion, difference proportion, single variance. • Test for single standard 	Teaching pedagogy : Group discussion Teaching Aids : Black board Curricular Activities : sliptest	18hours

Testing hypothesis Introduction.
 Definition of statistical hypothesis
 Type • 1.11, power of the test problems.
 Ney • maneperson Lemma.

single
 proportion. difference
 proportion, variance

	<p>deviation, difference standard deviation.</p> <ul style="list-style-type: none"> • Test for single correlation, difference correlation, order statistics. 		
Unit-3 Title Small sample tests	t-test for single mean, t-test for equality of the population means.	Teaching pedagogy : Just-In-Time.	15hours
	Paired t-test for difference of means, t-test for correlation co-efficient, Test based on chi-square distribution, chi-square for goodness of fit.	Teaching Aids : Black board	
	Chi-square test for independence of attributes.	Curricular Activities : Sliptest	
	Contingency tables, F-test for equality of variances.		
Unit-4 Title Non-parametric tests	Non-parametric test, parametrics Vs Non-parametric tests Advantages & Disadvantages.	Teaching pedagogy : Lecturer method	17hours
	Measurement scale : Nominal, ordinal, interval ratio. Use of central limit theorem, sign test(one & two sample).	Teaching Aids : Black board	
	Wald-wolfowitz Run test (one & two sample).	Curricular Activities : Seminar	
	Mann-whitney U-test, median test		
Total Hours :			60

S. Saibha Saibha

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TELANGANA SOCIAL WELFARE RESIDENTIAL DEGREE COLLEGES Name

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SEMESTER II- PLAN

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Paper Name <hr/> Paper Code <hr/> ng Outcomes	
aculty Name	

Unit	Topics	Teaching Pedagogy, Teaching Aids, Curricular, Extra-curricular Activities etc.,	No. of Hours

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SEMESTER ' V. PLAN

ame or the Course

Subject	B.Com BA
Paper Name	Statistics
Paper Code	Forecasting and predictive Analytics DSC 403
Learning Outcomes	<ul style="list-style-type: none"> The goal of predictive analytics is to make predictions about future events, then use those predictions to improve decision making <p>Predictive analytics is used in variety of industries including finance, healthcare and retail</p>

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Unit:	epics	teaching Pedagogy, Teaching Aids, Curricular, Extracurricular etc.,	
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Regression for Forecasting and techniques	Regression distance forecast and	pedagogy Questionnaire	
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	univariate regression	teaching aids: Hiackboard, Chalk	
	multivariate regression	curricular activities: MCQs	

	Forecasting in time		
	Measuring distance		
Unit-2 Title classification	Classification and classification K-nearest neighbour Classification Naive bayes	Teaching pedagogy :Group discussion	20
	Classification support vector machine	Teaching aids: virtual board blackboard Chalk	
	Classification decision trees	Curricular activities :slip test	
Unit- T clust erin g title	Clustering Determine core aspects and types of clustering in order to properly apply the algorithms to business problems	Teaching pedagogy:just in time	10
	Apply various clustering algorithms in data sets in order to solve common applicable business problems	Teaching aids: Virtual board blackboard Circular activities:Seminar	

Unit4 Opti misat ion	Optimisation	Teaching pedagogy :Lecturer method	10
	Identify the goals and constraints of a linear optimization.	Teaching aids: Virtual board blackboard	
	Calculate a linear Optimisation in order to solve business problem	Circular activities: Assignment	
Total Hours :			60

M. Praveena - 10/09

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TELANGANA SOCIAL WELFARE V: RESIDENTIAL DEGREE COLLEGES

Name of the college: TSWRDCW, Mancherla

SEM ESTER V - PLAN

name of the Course	BSC(MSCS) Statistics
Teacher Name	Applied statistics-I
Teacher Code	
Learning Outcomes	<p>Fit simple and multiple linear regression models and demonstrate model parameters.</p> <p>Explain in detail the relationships between a response variable and a covariate or covariates.</p> <p>Evaluate and improve simple and multiple linear regression models based on perform diagnostic measures</p>
Faculty Name	M.pranaya

Unit	Topics	Teaching Pedagogy. Teaching aids, Curricular, Extra-curricular activities	Number of Hours
1	Introduction of key definitions. The principle steps involved in a sample survey sampling and Non sampling advantages. Limitations .	<p>Teaching Pedagogy: •Lecturer method</p> <p>Teaching Aids: Black board, chalk</p> <p>Curricular activities: Giving assignment</p>	5
	Sampling methods and probability method so far as sampling with and without replacement		

	ulation, mean, total and proportion their variance		
Unit-2	Estimates of population mean, population total and population proportion their variances and the estimate of variance in methods	Teaching pedagogy: Group discussion Teaching Aids : Black board , chalk Curricular Activities: seminar	15
	(i) Stratified random sampling with proportional and Neymann allocation		
	(ii) Systematic sampling when $N = nk$, comparison of relative efficiency, Advantages and disadvantages of SRS, stratified and systematic sampling methods		
Unit-3	Analysis of Time series Determination of Trend in time series	Teaching pedagogy: Questionnaire Teaching Aids : Black board , chalk Curricular activities: slip test	15

e se rie s	Fitting of Growth curves		
	Determination of seasonal variation in time series		
	Methods of simple Average, Ratio to trend method, Ratio to moving average method		
	Link Relative method		
Un it- 4 Sta ti st ic al q u al it y c om po n t	Statistical Techniques in quality control	Teaching pedagogy: Group discussion Teaching Aids: Black board, chalk Curricular Activities: Giving Assignment	15
	Control charts for variables		
	Control charts for attributes		
	Limits and measures in SQC Specification limits		
Total Hours :			60

M. Praveen - (R)

B. Suresh
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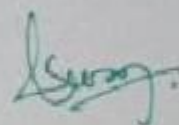
name of the Course	Se mseq
Subject	statistics MSE-2(A) Understand what Anova stands for any why understand why in testing the difference between means the inferential statistic is called F-ratio Vital statistics are conventional numerical records or marriage birth, sickness and death
Teacher Name	
Teacher Code	
Learning Outcomes	
Faculty Name	Prinaya

Unit	Topics	Teaching Pedagogy. Teaching Aids, Curricular, Extra- curricular Activities	No. of
1	Introduction definition causes of variation assumptions of anova's theorem	Teaching pedagogy: Lecturer method	
2	One way ANOVA: Random effects model, fixed effects model, nested model, one way classification	Teaching Aids: Black board, chalk Curricular activities: Seminar	

	Critical difference anova two way classification (with one Observation per cell)		
Unit- Title design of experiments	Introduction definition derminology in experimental design importance of Doe applications of BOI prince prince of experimental design replication randomisation local control Completely rannomised design	Teaching pedagogy :Questionnaire	
	Randomised block design Latin square design	Teaching aids: Blackboard Chalk Curricular activities: Giving assignment	
Unit- vital stati stics Title	Introduction definition uses of vital statistics and you sources of wireless statistics rates and ratios of vital statistics	Teaching pedagogy: Group discussions	15
	Measurement of mortality and life table	Teaching aids: Blackboard Chalk	
	Construction of a life table Uses of a life table everyday life table	Curricular activities: Quiz	
	Measurement of fertility		
	Measurement of population growth		

Unit 4 Indian official statistics and index numbers	Introduction and growth of Indian statistics Indian statistical system cso NSSO agriculture statistics in India area yield statistics national income and uses of national income	Teaching pedagogy: Lecturer method	15
	Methods of estimating National Income difficulties in estimation of national income in India	Teaching aids : Blackboard Chalk	
	Index numbers introduction definition construction of index numbers rotations class patients of index number formula of index number	Circular activities : Seminar	
	Simple index number weighted aggregated index number value of index number criteria of index number fisher index number and ideal index		
Total Hours :			60

M. Praveena - (10)



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