

**Assistant Professor Name: Dr.Sudesh ( 2025-2026) even.**

Class : B.A(minor )-4 sem subject: Statistics

Paper : Testing of hypothesis using SPSS Code-25STA404MV01

Month/week	Topic
January Week 3	Presentation of the data through different graphs.
Week 4/5	Compute the measures of centre tendency and dispersion for a data set. Determine the correlation coefficient.
February Week 1	Determine determine the spearman's rank correlation.
Week 2	Check the independence and association of attributes.
Week 3	Check the consistency of categorical data.
Week 4	Perform small sample test.
March Week 1	Holi Break
Week 2	Perform large sample tests.
Week 3	Find confidence interval to estimate the parameters.
Week 4/5	Perform one way and two way ANOVA.
April Week 1	<b>Find the simple linear regression and ASSESS the significance of obtained model.</b>
Week 2	Compare the median of a single sample to a non value over test the difference between period observation using wilcoxon and rank test.
Week 3	Compare the distributions of two independent samples using samples using mann -Whitney test.
Week 4/5	Test the association between two categorical variables using chi square test.
May Week 1	Revision of practicals.

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<b>Name of the Teacher</b>	Dr. Sandeep
<b>Class and Section</b>	BSC Pass Course (Physical Science )2 <sup>nd</sup> Semester
<b>Subject</b>	Statistics ( Major course )
<b>Paper</b>	Probability Theory and Distributions ( CODE : 24STAM402DS01 )
<b>Jan Week 2</b>	Random Experiment, Sample Space, Events and its Types, Various Definitions of Probability,
<b>Week 3</b>	Addition Theorem, Boole's and Bonferroni's Inequalities, Conditional Probability,
<b>Week 4</b>	Multiplication Theorem, Bayes' Theorem.
<b>Week 5</b>	Random Variables and Distribution Functions, Probability Mass Function, Probability Density Function
<b>February Week 1</b>	Two Dimensional Random Variables- Joint, Marginal and Conditional Distributions, Independence of Random Variables.
<b>Week 2</b>	Moments of Random Variables: Expectation, Variance, Covariance, Conditional and Marginal Expectation.
<b>Week 3</b>	Probability and Moment Generating Function and Their Properties, Characteristic Function and Its properties
<b>Week 4</b>	Inversion Theorem, Uniqueness Theorem of Characteristic Function
<b>March Week 2</b>	Moment Inequalities of Hölder, Minkowski, Jensen's, Cauchy- Schwartz and Lyapunov's .
<b>Week3</b>	Modes of Convergence: Convergence in Probability
<b>Week 4</b>	Almost Surely, in the rth Mean and in Distribution, Their Relationship.
<b>Week 5 &amp; April Week 1</b>	Probability Inequalities of Chebychev and Markov, Weak and Strong Law of Large Numbers
<b>Week 2</b>	Central Limit Theorem: Lindeberg - Levy and Demoivre-Laplace Forms of CLT.
<b>Week 3</b>	Discrete Probability Distributions: Bernoulli, Binomial, Poisson, Geometric
<b>Week 4</b>	Negative Binomial and Hypergeometric
<b>Week 5</b>	Their Properties and Limiting/Approximation Cases
<b>May Week 1</b>	Continuous Probability Distributions: Uniform, Normal
<b>Week 2</b>	Exponential, Beta, Gamma and Cauchy Along with Their Properties
<b>Week 3</b>	Limiting/Approximation Cases.

Assistant Professor Name: Dr.Jyoti. ( 2025-2026) even.

Class : B.Sc.2nd sem.( Life science ) subject: Statistics

Paper : statistic in everyday life Code: 24STAX02MD01

Month/week	Topic
January Week 3	Types of data, scales of measurement.
Week 4/5	Random variable: discrete and continuous random variables. Mathematical expectation and variance.
February Week 1	Skewness and kurtosis, illustration on real life application.
Week 2	Discrete probability distribution: Bernoulli , Binomial, poisson .
Week 3	Geometry, negative binomial.
Week 4	Hypergeometric distribution with their application in everyday life.
March Week 1	Holi Break
Week 2	Continuous probability distribution: uniform, normal.
Week 3	Exponential , Rayleigh distributions with their application in everyday life
Week 4/5	Weibull , Laplace distribution with their application in everyday life.
April Week 1	<b>Testing of hypothesis: concept of hypothesis, degree of freedom.</b>
Week 2	Level of significance, critical reason, type of errors.
Week 3	One sample tests for mean: variance and population proportion.
Week 4/5	Paired t - test , Two independence sample tests for means: variance and proportions, correlation test and chi-square test
May Week 1	Revision and Test.

## Lesson Plan Academic Session 2025-26

Subject- Statistics

Class: B.Sc. III(VI Sem)

Paper:-Operations Research & Statistical Quality Control

Name: Dr. Permila

<b>Week</b>	<b>Syllabus</b>
Jan 3 <sup>rd</sup>	Operations Research: Definitions, Nature Objectives, Scope and Importance.
Jan 4 <sup>th</sup> & Jan 5 <sup>th</sup>	Operation Research Models: Classification, Formulation, Principle of Modeling, Characteristics of a Good Model
Feb 1 <sup>st</sup>	Advantages & Disadvantages. Applications of Operations Research Models. Linear Programming Problem: Definitions (Including General Form)
Feb 2 <sup>nd</sup>	Formulation (with Real Life examples) and Graphical Solution of LPP. Solution of Linear Programming Problems (LPP) by using Simplex Method.
Feb 3 <sup>rd</sup>	Degeneracy problems and their solutions. Transportation Problem (TP): Definition Formulation of a LPP as TP.
Feb 4 <sup>th</sup>	Initial Basic Feasible Solution of TP by North-West Corner Rules, Row Minima Method
Mar 2 <sup>nd</sup>	Column Minima Method, Matrix Minima Method (Least cost entry method) and Vogel's Approximation Method. Assignment Problem: Definition and its Solution.
Mar 3 <sup>rd</sup>	Statistical Quality Control: Meaning and uses of SQC, Causes of Variations in Quality, Product and Process Control,
Mar 4 <sup>th</sup>	Control Charts, 3-Control Limits, Control Chart for Variables- X and R Chart
Mar 5 <sup>th</sup> & April 1 <sup>st</sup>	Criteria for Detection of Lack of Control in X & R Charts, Interpretation of X & R Charts, Control Chart for Standard Deviation (charts),
April 2 <sup>nd</sup>	Control Charts for Attributes- p and c Charts. Acceptance Sampling: Problem of Lot Acceptance
April 3 <sup>rd</sup>	Stipulation of good and bad Lots, Producer's and Consumers Risks, Single and

	DoubleSamplingPlans, theirOC Functions
April4 <sup>th</sup> &April5 <sup>th</sup>	ConceptsofAQL, LTPD,AOQL,AverageAmountofInspectionandASN Function,RectifyingInspectionPlans.SamplingInspection Plans.
May1 <sup>st</sup>	DemandAnalysis:Laws ofSupplyandDemand,PriceElasticityof Demand, DemandFunctionwithConstantPriceElasticity,PartialElasticitiesofDemands (Income Elasticity & Cross Elasticity)
May2 <sup>nd</sup>	TypesofData requiredforEstimatingElasticities,FamilyBudgetData Time SeriesData,
May3 <sup>rd</sup>	Leontief'sPigous'sMethodsfromTimeSeriesDatatoEstimateDemand Functions. Engel's Law, Pareto's Law of Income Distribution, Curves of Concentration,
May4 <sup>th</sup>	LorenzCurveandGini's Coefficient, Revision.

<b>Name of the Teacher</b>	Dr. Sandeep
<b>Class and Section</b>	BSC Math Honors 2 <sup>nd</sup> Semester
<b>Subject</b>	Statistics ( Minor course )
<b>Paper</b>	Elementary Probability ( CODE : 24STA402MI01 )
<b>Jan Week 2</b>	Probability: Introduction
<b>Week 3</b>	Random Experiment, Sample Space
<b>Week 4</b>	Events and Algebra of Events
<b>Week 5</b>	Definitions of Probability & properties
<b>February Week 1</b>	Classical, Statistical and Axiomatic
<b>Week 2</b>	. Conditional Probability. Laws of Addition
<b>Week 3</b>	Multiplication, Independent Events.
<b>Week 4</b>	Examples of probability problems and its revisions
<b>March Week 2</b>	Theorem of Total Probability, Bayes' Theorem & Its Applications
<b>Week3</b>	Random Variables: Discrete and Continuous Random Variables, Probability Mass Function

<b>Week 4</b>	Probability Density Function and Cumulative Distribution Function, Illustrations and Properties of CDF
<b>Week 5 &amp; April Week 1</b>	Two Dimensional Random Variables-Joint, Marginal and Conditional Distributions.
<b>Week 2</b>	Mathematical Expectation and Generating Functions: Expectation of Single Random Variables and Its Properties
<b>Week 3</b>	Probability Generating Function, Moment Generating Function and Characteristic Function.
<b>Week 4</b>	Discrete Probability Distributions: Bernoulli, Binomial, Poisson
<b>Week 5</b>	Geometric Along with Their Properties and Limiting/Approximation Cases.
<b>May Week 1</b>	Continuous Probability Distributions: Uniform with its properties and examples.
<b>Week 2</b>	Normal, Exponential Along with Their Properties and Limiting/Approximation Cases
<b>Week 3</b>	<b>Revision and Tests</b>