



Indraprastha College for Women University of Delhi

Work Plan for ODD SEMESTER – 2026

Course Name:	B.A. (Hons.) Economics	
Paper Title:	Introductory Statistics for Economics	
Unique Paper Code:	2272101103	
Semester:	I	
Faculty:	Dr Namita Mathur	
Year:	2026-27	

Work Plan			
Unit No.	Learning Objective	Lecture No.	Topics to be Covered
1	Introduction and Overview	1	Population and samples
		2	Sampling methods
		3	Pictorial Methods in Descriptive Statistics
		4	Measures of Location and Variability
		5	Measures of Location and Variability
2	Elementary Probability Theory	6	Sample spaces and events
		7	Axioms and properties of probability
		8	More probability properties
		9	Counting techniques
		10	Permutations and Combinations
		11	Conditional probability
		12	Baye's Theorem
		13	Independence
		14	Independence
3	Random Variables and Probability Distributions	15	Random Variables
		16	Probability mass function
		17	Cumulative Distribution function for discrete random variables
		18	Expected Values for discrete variables

		19	Special mathematical expectation
		20	Variance of discrete random variables
		21	Probability density function
		22	Cumulative Distribution function for continuous variables
		23	Expected Values for continuous variables
IV	Special Probability Distribution	24	Binomial probability distribution
		25	Binomial probability distribution
		26	Using binomial tables
		27	Hypergeometric distribution
		28	Poisson probability distribution
		29	Normal distribution
		30	Normal distribution
		31	Normal distribution
		32	Exponential distribution
V	Random variables and jointly distributed random variables	33	Jointly distributed random variables
		34	Independent random variables
		35	Expected values of jointly distributed random variables
		36	Covariance, correlation
		37	Bivariate distributions of discrete type
		38	Correlation coefficient
		39	Conditional distributions
		40	Bivariate distributions of continuous type

Unit	Contents/Syllabus
I	Introduction and overview The distinction between populations and samples and, between population parameters and sample statistics; Pictorial Methods in Descriptive Statistics; Measures of Location and Variability.
II	Elementary probability theory Sample spaces and events; probability axioms and properties; counting techniques; conditional probability and Bayes' rule; independence.

III	Random variables and probability distributions Defining random variables; discrete and continuous random variables, probability distributions; expected values and functions of random variables
IV	Special Probability Distributions Properties of commonly used discrete and continuous distributions (uniform, binomial, exponential, Poisson, hypergeometric and Normal random variables).
V	Random sampling and jointly distributed random variables Density and distribution functions for jointly distributed random variables; computing expected values of jointly distributed random variables; conditional distributions and expectations, covariance and correlation
S. No.	Name of Authors/Books/Publishers
1.	Devore, J. (2012). Probability and Statistics for Engineers, 8th ed. Cengage Learning.
2.	Hogg, R., Tanis, E., Zimmerman, D. (2021) Probability and Statistical inference, 10th Edition, Pearson India Education Services Pvt. Ltd
3.	Miller, I., Miller, M. (2017). J. Freund's Mathematical Statistics with Applications, 8th ed. Pearson.
4.	

	Paper Components		
Credits	Lecture (L)	Tutorial (T)	Practical (P)
	3	1	Nil
Assessment Scheme			
S.No.	Component	Marking Scheme	Total Marks
1	Internal Assessment - Assignment - Class Test - Attendance		30
		12	
		12	
		6	
2.	Continuous Assessment (Tutorial) - Activity 1 - Activity 2 - Attendance		40
		20	
		15	
		5	
3.	Practical - Continuous Assessment - End Term Written/Practical Exam - Viva	NA	
4.	End Semester Examination	90	90