Curriculum Plan (Odd Semester 2024-25)

Teacher Name: Rachit Saini

Paper name: Introductory Statistics for Economics

Class type: B.A (Hons) Economics, Semester-I

Paper shared with: None

Unit to be taken	**Month wise schedule to be followed**	**Tests/Assignments/ Presentation/Revision etc.**
Unit- 1 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.	September (Week 1 – 3)	**<u>Internal Assessment (IA) 30 marks</u>** **Two class tests (12 marks each), and** **6 marks for attendance** • Test 1 – October Week 2 • Test 2 – November Week 2 • Test 3 – December Week 2 **<u>Continuous Assessment (CA) 40 Marks</u>** **Overall Assessment (35 marks), and 5 marks for attendance** • Assignment – October Week 3 • Quiz/Assignment – November Week 3 • Problem Set – December Week 2
Unit 2: Elementary probability theory Sample spaces and events; probability axioms and properties; counting techniques; conditional probability and Bayes' rule; independence.	September (Week 4), October (Week 1)	
Unit 3: Random variables and probability distributions Defining random variables; discrete and continuous random variables, probability distributions; expected values and functions of random variables.	October (Week 2 – 4), November (Week 1)	
Unit 4: Special Probability Distributions Properties of commonly used discrete and continuous distributions (uniform, binomial, exponential, Poisson, hypergeometric and Normal random variables).	November (Week 1– 4)	
Unit 5: 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.	December (Week 1– 2)	**<u>Revision:</u>** December – Week 3

References

Essential Readings:

1. Devore, J. (2012). Probability and Statistics for Engineers, 8th ed. Cengage Learn-ing.

Supplementary Readings:

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.