



योजना तथा वास्तुकला विद्यालय, विजयवाड़ा  
School of Planning and Architecture, Vijayawada  
An Institute of National Importance, Ministry of Education, Govt. of India

**Department of Planning,  
Lecture Plan, Odd Semester, AY 2024-25**

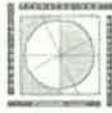
**Name of Course: Bachelor of Planning**

Subject Name:	Quantitative Methods for Planning (PLN115)
Year & Sem:	I Year I Semester
Course Duration:	22 <sup>nd</sup> July 2024 to 14 <sup>th</sup> November 2024
Course Coordinator:	Monica Sekar
Number of Credits:	3
Subject Category:	Theory
Total Periods/Week:	3
Internal Assessment	50
End Evaluation	50
Total Marks	100
Total No. of Internal Assessment & Mode	3, one worksheet submission, one written exam, and one class test

**Subject Objective:** To acquire basic proficiency in statistical techniques

Week	Lecture / Session Topic (Teaching-Learning Objective aimed)	Unit and Assignment
Week 1: 16.08.2024	Statistics - its uses and limitations, statistical data and sources of data, universe and sampling; Methods and tools of data collection; Formulation of tools of data collection	Unit 1: Statistical data
Week 2: 19.08.2024	Classification and tabulation of data; Presentation of data (diagrammatic, tabular, graphical); Sampling, data coding and validation	
Week 3: 26.08.2024	Design of survey formats	
Week 4: 02.09.2024	Frequency distribution; Measures of central tendency and dispersion; Correlation - simple correlation, Karl Pearson's correlation	Unit 2: Statistical methods
Week 5: 09.09.2024	Spearman's correlation, Linear regression analysis	Assignment 1: Worksheet
Week 6: 16.09.2024	Introduction to probability; Discrete random variables and probability distribution	Unit 3: Probability Submission of Assign. 1
Week 7: 23.09.2024	Assignment discussions and discussion of additional problems	Units 1, 2 and 3

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Week 8 & 9: 01.10.2024 to 07.10.2024	Mid- Semester Assessment week	
Week 9: 08.10.2024	Continuous random variables and probability distribution, probability density function	Unit 3: Probability
Week 10: 14.10.2024	Binomial distribution, Poisson distribution	Unit 4: Theoretical distributions
Week 11: 21.10.2024 to 27.10.2024	Field work	Assignment 2: Written exam
Week 12: 28.10.2024	Normal distribution; Relation between binomial and normal distributions, Poisson and normal distributions	Unit 4: Theoretical distributions
Week 13: 04.11.2024	Types and methods of construction of index numbers; Test of consistency of index number formulae; Chain base index numbers and cost of living index numbers	Unit 5: Index numbers and regression analysis
Week 14: 11.11.2024	Regression - Least Square Method, two stage regression analysis	Assignment 3: Class test
Week 15: 18.11.2024	Confidence limits, tests of significance	
Week 16: 25.11.2024	Class test discussions and discussion of additional problems	Units 3, 4 and 5

**Reference Books:**

1. Giri, P.K. & Banerjee, J. (2013), Introduction to Statistics, Academic Publishers, Delhi.
2. Gupta, S.C. (2009), Fundamentals of Statistics, Himalaya Publishing House, Mumbai.
3. Hastie, T., Tibshirani, R. and Friedman, J. (2009), The Elements of Statistical Learning, Springer, USA.
4. Rochefort, D.A. (2006), Quantitative Methods in Practice, CQ Press, USA.
5. Gupta, S.P., Gupta, M.P. (2005), Business Statistics. Sultan Chand & Sons, New Delhi.

**Note:**

1. Any other closed holidays as declared by SPAV shall supersede the above lecture plan. Holidays shown above may alter as per Notice from time to time.
2. Assessment Sessions may be re-scheduled, with prior intimation.
3. Reading lists provided is not exhaustive and is subject to addition – students are advised to follow progression of class to keep abreast of the new reading lists, if any.

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