

Lecture Plan
Department of Planning, School of Planning and Architecture, Vijayawada

Name of Course: Quantitative Methods for Planning (PLN105)

Programme & Sem: **Bachelor of Planning (UG), First semester**
 Course Duration: Aug to December 2023
 Course Coordinator: Ekta, Dept. of Planning (ekta@spav.ac.in)
 Number of Credits: 03
 Subject Category: Core Theory
 Total Periods/Week: 03(see time table for details)
 Internal Assessment: 50 (minimum pass marks 50%)
 End Evaluation: 50 (minimum pass marks 50%) Written Exam
 Total Marks: 100 (to be converted to CGPA credit pattern as per regulations)

Subject Objective: To acquire basic proficiency in statistical techniques

Week	Lecture / Session Topic (Teaching-Learning Objective aimed)	Session Mode (Optional)	References / Suggested Readings
Week 1	Statistics - its uses and limitations, statistical data and sources of data	Lecture	Gupta S.C., 'Fundamentals of Statistics'. Himalaya Publishing House, Delhi. (BOOK)
Week 2	Methods and tools of data collection; formulation of tools of data collection; design of survey formats.	Discussion, Lecture	Giri P K & Banerjee., 'Introduction to Statistics'. Academic Publishers, Delhi. (BOOK)
Week 3	Sampling data coding and validation, classification and tabulation of data; presentation of data(diagrammatic, tabular, graphical)	Discussion, Lecture	http://www.organizationalresearch.com/publicationsandresources/a_handbook_of_data_collection_tools.pdf http://www.sagepub.in/upmdata/43350_4.pdf
Week 4-5	Frequency distribution; measures of central tendency and dispersion;	Discussion, Lecture	Gupta S.C., 'Fundamentals of Statistics'. Himalaya Publishing House, Delhi. (BOOK)
	Frequency distribution; measures of central tendency and dispersion;	Discussion, Lecture	
Week 6	Internal Assessment-I		
Week 7-8	Correlation - Simple correlation, Karl Pearson's and Spearman's correlation	Lecture	Gupta S.C., 'Fundamentals of Statistics'. Himalaya Publishing House, Delhi. (BOOK)
	Introduction to probability; discrete random variable and probability distribution	Discussion, Lecture	

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	Continuous random variable and probability distribution, probability density function.	Lecture	Ash Robert B., 'Basic Probability Theory' Dover Publications, New York. Veerarajan T., ' Probability-Statistics and Random Processes, India
Week 9	Mid semester exam		
Week 10-16	Binomial distribution; poisson distribution; Normal Distribution	Discussion, Lecture	Triola Mario F., 'Essentials of Statistics', Pearson Education Limited.
	Chain base index numbers and cost of living index numbers.	Discussion, Lecture	Sharma A.K., 'Textbook of Elementary Statistics', Discovery Publishing House, India.
	Linear Regression Analysis; Regression least square method; Two stage. Confidence limits; Tests of significance.	Discussion, Lecture	Chatterjee Samprit and Hadi Ali S., 'Regression Analysis by Example' Wiley Publication, New Jersey. http://2012books.lardbucket.org/book/s/beginning-statistics/s14-04-the-leastsquares-regression-l.html Smithson M., 'Confidence Intervals', Sage Publications, New Delhi.
Week 17	Revision		
Week 18	Internal Assessment-III		
<i>Finalisation of Internal Marks</i>			

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.