

Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Shri Vaishnav Institute of Social Sciences, Humanities and Arts Choice Based Credit System (CBCS) in Light of NEP-2020

B.A. Economics Semester IV (2023-2026)

COURSE CODE	CATEGORY	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL					
			END SEM University Exam	Тwo Тегт Ехат	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	L	τ	P	CREDITS
VUECO201	SEC	Advance Statistical Inference	00	00	00	60	40	0	2	4	4

Legends: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit.

Project/Participation in Class, given that no component shall exceed more than 10 marks.

Course Educational Objectives:

CEO1: To develop in- depth understanding of sampling.

CEO2: To develop understanding of attributes.

CEO3: To make the students understand the concepts data distribution.

CEO4: To demonstrate the concept of correlation and regression.

CEO5: To make the students understand the concept of Index.

Course Outcomes:

Students shall be able to:

CO1: Comprehend the concept of Sampling.

CO2: Illustrate the association of attributes.

CO3: Explain various features of data collected.

CO4: Summarize correlation and regression.

CO5: Critically evaluate statistical Indices.

Contents

UNIT I: Sampling and its Uses

Sample, Errors in Surveys, Size of a Sample, Types: Simple Random Sampling, Systematic Sampling, Stratified Sampling, Cluster Sampling.

UNIT II: Association of Attributes

Concept, Class Frequency, Consistency of Data, Inconsistency of Data, Association of Attributes, Coefficient of Association. Yule's Coefficient of Association

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Controller of Examination

Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Joint Registrar Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

^{*}Teacher Assessment shall be based on following components: Quiz/Assignment/



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UNIT III: Skewness, Moments, and Kurtosis

Meaning of Skewness; Meaning of Moments; Meaning of Kurtosis; Measure and Types of Kurtoses.

UNIT IV: Correlation and Regression Analysis

Karl Pearson's Coefficient of Correlation; Spearman Rank Correlation; Meaning of Regression analysis; Calculation of Regression Equations using Least Square Method.

UNIT V: Index Numbers

Definition, Methods of Construction of Index Numbers, Laspeyre and Paasche Methods, Weighted Diagram, Fixed Base Method, Average Base Method, Chain Based Method.

Suggested Readings:

- 1. Gupta, S. P., Gupta, M. P. (2021). Business Statistics. New Delhi: Sultan Chand & Sons
- 2. Shukla, S.S., Sahay, S. P. (2019). Statistical Analysis. Agra: Sahitya Bhawan Publications
- 3. Gupta, S. P. (2019). Statistical Methods. New Delhi: Sultan Chand & Sons

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