

Semester	FOUR
Course	Skill
Paper Code	S2ST230421P
Paper Title	Data Collection and Analysis
No. of Credits	3
Theory / Practical /Composite	Practical
Minimum No. of preparatory hours per week a student has to devote	4
Module	1

Course Outcomes

1. Remember the fundamental concepts of primary and secondary data, the distinction between population and sample, and the roles of Indian official statistical bodies like MOSPI, CSO, and NSSO.
2. Understand the principles of sample surveys, including the differences between complete enumeration and sampling, and probability versus non-probability sampling methods.
3. Apply methods for drawing random samples using a sampling frame and utilize various modes for data storage.
4. Analyze raw data through scrutiny and visualization using graphs and tables to identify patterns or errors in primary and secondary datasets.
5. Evaluate the reliability and limitations of official statistics and assess primary data using statistical tools to draw valid conclusions.
6. Create comprehensive research projects, including the design of questionnaires, field collection of data, and the production of final reports.

Syllabus

Unit/Module	Content	No. of lectures	CO mapping	Cognitive levels
<i>Unit 1</i>	Introduction: Primary and secondary data. Experimental and survey data. Concepts of finite population and sample.	18	CO1 CO2 CO3	K1 K2 K3

	<p>Complete enumeration versus sampling. Sampling and non-sampling errors. Probability and non-probability sampling. Basic principles of sample survey. Sampling frame and methods of drawing a random sample.</p>			
Unit 2	<p>Primary data handling: Setting the survey objective. Preparing schedule and converting schedule into questionnaire. Collection of primary data from the field of enquiry. Modes of data storage. Scrutiny of data. Visualisation of data using graphs and tables. Analysis of primary data using statistical tools. Report writing.</p>	30	CO3 CO4 CO5 CO6	K3 K4 K5 K6
Unit 3	<p>Secondary data handling: Present the official statistical system in India. Methods of collection of official statistics, their reliability, and limitations. Role of Ministry of Statistics and Program Implementation (MOSPI), Central Statistical Office (CSO), National Sample Survey Office (NSSO), and National Statistical Commission. Government of India's principal publications. Exploring different secondary databases. Analysis of secondary data using statistical tools. Report writing.</p>	30	CO1 CO4 CO5 CO6	K1 K4 K5 K6

Reading/Reference list

1. The ultimate guide to effective data collection, Wolcott, H. 1995. The Art of Fieldwork. Alta Mira Press, Walnut Creek, C.A.
2. Guide to current Indian Official Statistics, Central Statistical Office, GOI, and New Delhi. http://mospi.nic.in/

Evaluation

Paper Structure	CA	End Sem	Total
	50	NA	50

CO	CO Description	Cognitive levels
CO1	Remember the fundamental concepts of primary and secondary data, the distinction between population and sample, and the roles of Indian official statistical bodies like MOSPI, CSO, and NSSO.	K1
CO2	Understand the principles of sample surveys, including the differences between complete enumeration and sampling, and probability versus non-probability sampling methods.	K2
CO3	Apply methods for drawing random samples using a sampling frame and utilize various modes for data storage.	K3
CO4	Analyze raw data through scrutiny and visualization using graphs and tables to identify patterns or errors in primary and secondary datasets.	K4
CO5	Evaluate the reliability and limitations of official statistics and assess primary data using statistical tools to draw valid conclusions.	K5
CO6	Create comprehensive research projects, including the design of questionnaires, field collection of data, and the production of final reports.	K6