

P. G. Department of Population Studies

Value Added Course Syllabus: 2023–24
Basics of Data Collection and Analysis

M. A. in Population Studies



Fakir Mohan University
Nuapadhi, Balasore – 756 020, Odisha

M. A. (Population Studies) Value Added Course Syllabus: 2023 – 24

Basics of Data Collection and Analysis

COURSE STRUCTURE

Paper Code	Paper Name	Marks	Credit
PS-VAC01	Basics of Data Collection and Analysis	50	3

PS-VAC01- Basics of Data Collection and Analysis

Course duration=3 months

3 credits=45 hours

Learning objectives: This course is designed to achieve several key learning objectives. In Unit I, students will gain a foundational understanding of data collection methods, ethical considerations, and effective survey/questionnaire design. Moving to Unit II, they will acquire practical skills in using KoboToolbox for data entry, management, and analysis. Unit III focuses on building proficiency in STATA for data manipulation and analysis. Lastly, introduces students to GIS using QGIS, emphasizing spatial data handling, mapping, and geoprocessing. By the end of this course, students will be well-prepared to conduct data-driven research, efficiently manage data, and perform in-depth analysis in various professional settings.

Unit I: Introduction to Data collection tools (Theory)

Introduction to surveys and questionnaires, Designing effective survey questions, Structuring interview questions, Ethical considerations in data collection.

Practical

Unit II: Data Entry Software: KoboToolbox

Introduction to KoboToolbox, setting up a KoboToolbox account, Navigating the KoboToolbox interface, creating data collection forms with KoboForm, Adding questions, choices, and logic to forms, Deploying forms for data collection, Data Collection and Management using Mobile Application, Exporting data for external analysis.

Unit III: Introduction to STATA

Introduction to STATA, Generating Data Files, importing a data file from other programs, Deleting and inserting variables, opening (retrieving) an existing data file, Generating a Do-file, Sorting of data, Data Cleaning and Data Screening, Converting string variables to numeric variables, Recoding variable, Generating new Variable.

Unit IV: Introduction to QGIS

Introduction to GIS, Getting Started with QGIS, Navigating the QGIS Interface, Working with Spatial Data, Adding Data to QGIS, Managing Data in QGIS, Editing Spatial Data, Styling and Labeling Features, Creating Maps, Print Layouts and Map Exporting, Basic Geoprocessing, Creating Thematic Maps.