P. G. Department of Population Studies

Value Added Course Syllabus: 2021 – 22
Basics of Data Analysis

M. A. in Population Studies

Fakir Mohan University
Nuapadhi, Balasore – 756 020, Odisha

M. A. (Population Studies)Value Added Course Syllabus: 2021 – 22
Basics of Data Analysis

COURSE STRUCTURE

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

PS-VAC01- Basics of Data Analysis

Course duration=3 months
3 credit=45 hours

Learning objectives: Being a student of population studies, it is essential to sharpen the data handling & analysis which is in great demand in research institute. So, this course will help our students to enhance their skills in data handling and analysis thus increasing the opportunity for employability.

Course outcomes:

It will help the students to learn beyond the regular syllabus course like statistical software and data collection/management tools, advanced methods of SPSS, KoboToolBox, STATA and different data analysis models which is important for data collection and data analysis.

Unit I: Basics of Statistical Analysis (Theory):

Univariate Statistics: Measures of Central Tendency (Mean, Median, Mode); Measures of Dispersion (Range, Inter Quartile Range, Standard Deviation and Variance).

Inferential Statistics: One Sample Test of Difference, Confidence Interval, Contingency Tables and Chi Square Statistics, T-test or ANOVA, Pearson Correlation, Bi-variate Regression, Multi-variate Regression.

Practical

Unit II (Data Analysis in Excel sheet/Spread sheet)

Calculation process of Mean, Median, Mode, Range, Inter Quartile Range, Standard Deviation and Variance.

Calculation process of one Sample Test of Difference, Confidence Interval, Contingency Tables and Chi Square Statistics, T-test or ANOVA, Pearson Correlation, Bi-variate Regression, Multi-variate Regression.

Unit III (Data Entry Software: CSPro & KoboToolbox Software)

Introduction to CSPro, Steps for Development of Data Entry Features in CSPro, Process of data transfer from CSPro to Analytical software. Introduction to KoboToolbox**,** Steps for Development of Data Entry Features in KoboToolbox, Process of data transfer from KoboToolbox to SPSS.

Unit IV (Data Analysis in Statistical Package for Social Sciences-SPSS):

Data entry process in SPSS, estimation of different measures of central tendency and measures of Dispersion.

Estimation of Inferential Statistics in SPSS: One Sample Test of Difference, Confidence Interval, Contingency Tables and Chi Square Statistics, T-test or ANOVA, Pearson Correlation, Bi-variate Regression, Multi-variate Regression, Parametric and Non-Parametric Test, Multiple Classification Analysis (MCA).