# 18CMJ001 Data Analysis Techniques for Quantitative Research 0 0 2 1

**Course Outcome:** By the end of the course the students will be able to:

- 1. Demonstrate an understanding of steps of data entry and analysis using SPSS software
- 2. Demonstrate a working knowledge of coding plans and data sets
- 3. Describe the nature of variables and manage data
- 4. Analysis the data relationship using correlation and other measures
- 5. Present data using SPSS generated graphs and summary statistics

### UNIT 1

Loading and Saving Data Files: Introduction and Overview. Starting SPSS, Entering Data, Defining Variables

### UNIT 2

Running initial data analysis: Examining Output Files, Modifying /Transformation of Data.

### UNIT 3

Descriptive Statistics: Frequency Distributions, Measures of Central Tendency and Measures of Dispersion. Graphing Basics. Reliability (Inter item correlation)

### **UNIT 4**

Prediction and Association: Parametric and non-parametric tests- Pearson Correlation Coefficient, Cronbach's alpha, Chi square, t Test, ANOVA, Mann-Whitney U Test, Kruskal-Wallis H Test

### UNIT 5

Exploratory factor analysis, Simple and multiple Linear Regression, Path analysis, Structural Equation Modelling with AMOS

### References

- 1. Field, A. (2005). *Discovering statistics using SPSS* (2nd ed.). London: SAGE.
- 2. SPSS for Dummies available at http://www.biometrica.tomsk.ru/lib/spss\_dumm.pdf

# 18CMJ002 Data Analysis Techniques for Qualitative Research 0 0 2 1

**Course Outcome:** *By the end of the course the students will be able to:* 

- 1. Collect, organize and publish data into both qualitative, quantitative and mixed methods.
- 2. Analyze, visualize and triangulate their research and develop better understanding on the methodology.
- 3. Interpret the data and build the relationship among the variables in a better way.
- 4. Bring an organized and structured approach to analysis.
- 5. Be more efficient researcher.

### **UNIT 1:**

Introduction: Getting Familiar with MAXQDA Interface Learning to Import and Organize Data in MAXQDA

#### **UNIT 2:**

Doing Transcription in MAXQDA

### **UNIT 3:**

Reasons of using MAXQDA and How to use it

# **UNIT 4:**

Basics of Coding in MAXQDA

### **UNIT 5:**

Visualization of Data in MAXQDA