

# W M O Arts & Science College, Muttil DEPARTMENT OF ECONOMICS CERTIFICATE COURSE STATISTICAL DATA PROCESSING AND ANALYSIS USING SOFTWARE

No.of Hours : 30

Course Coordinator: Athira Jose

# **Course Description:**

This course is designed to help students to acquire more about statistical tools and methods of data analysis. Also facilitates them to develop skills in using softwares for data processing. This programme will make them more confident and interest in statistical data analysis

# **Course Objectives:**

On successful completion of the course, students will achieve the following

- Have got more idea in statistical data processing and analysis
- Understand statistical tools and methods
- Develop skills in using statistical packages/softwares
- Have confidence and interest in statistical data analysis

### **Syllabus:**

**Module I**: Introduction of Softwares

Introducing application softwares like MS office spreadsheet/ Open OfficeCalc. Also introduce softwares/packages likeR,SPSS,SAS.

**Module II:** Advanced diagrams

Bar diagrams- simple, multiple, subdivided and percentage. Pie charts.

**Module III**: Advanced graphs

Histogram, scatter plots.

**Module IV**: Descriptive statistics, Construction of frequency

table,mean,median,mode,quartiles,skewness kurtosis.

**Module V**: Correlation and regression

Karl pearson cleft.of correlation.Regression equations,forecasting using

Regression equations.

**Module VI**: Regression equations, forecasting using Regression equations.

**Module VII**: Time series Analysis

Trend line fitting, estimation of trend values, moving averages (odd and even)

### **Course Outcomes:**

• More acquainted with theoretical aspects like diagrams, graphs, correlation, regression and time series etc.

- Learned more about statistical analysis
- Familiarized softwares like R,SPSS besides the application softwares like MS Office spreadsheet/Open Office Calc
- Acquire skills in statistical data processing and analysis

Course Coordinator: Shakeelurahman Assistant Professor Department of Statistics