



## **W M O Arts & Science College, Muttil**

**Department of Statistics**

**CERTIFICATE COURSE**

**On Statistical Package for Social Sciences (SPSS)**

No. of Hours: 30

Course Co-ordinator: Ms.Athira Jose

### **Course Description:**

This course is designed for students to get knowledge about SPSS (Statistical Package for Social Sciences).The course is useful to develop skill in programming in SPSS.

### **Course objectives:**

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

- Descriptive statistics, including methodologies such as frequencies, cross-tabulation, and descriptive ratio statistics.
- Bivariate statistics, including methodologies such as analysis of variance (ANOVA), means, correlation, and nonparametric tests.
- Numeral outcome prediction such as linear regression, Prediction for identifying groups, including methodologies such as cluster analysis and factor analysis.

### **Syllabus**

#### **Module 1:**

1. Introduction to SPSS
2. Descriptive statistics
3. Frequencies
4. Cross-tabulation
5. Descriptive ratio statistics

#### **Module 2:**

- 2.1 Bivariate statistics
- 2.2 Analysis of variance (ANOVA)
- 2.3 Means
- 2.4 Correlation
- 2.5 Nonparametric tests

### **Module 3**

3.1 Outcome prediction-linear regression

3.2 Prediction for identifying groups-cluster analysis

3.3 Prediction for identifying groups-factor analysis

#### **Course outcomes:**

- Students will learn skills in programming with SPSS
- Students will be able to do quantitative analysis using data in SPSS
- Students will be able to do prediction using linear regression and other methods
- Critical thinking and logical reasoning of students will be developed

Course Coordinator : Ms.Athira Jose

Assistant Professor

Department of Statistics