

# **Applied Data Analysis**

## **SPSS Data Analysis**

Nature of the Course: Theory + Practical

Total Hours per Day: 2 Hours

Course Duration: 3 Weeks

### **Course Summary**

The course is designed for both beginner and advanced researchers who wish to learn about SPSS Data Analysis for the purpose of research. Any undergraduate and postgraduate level students/professionals from any background who want to study the practical approach to data analysis is welcome to take the course. There is no prior educational level need for this course; nonetheless, you should have strong convictions about what Data Analysis is and what you intend to achieve from it.

### **Completion Criteria**

After fulfilling all of the following criteria, the student will be deemed to have finished the module:

1. Has attended 90% of all classes held.
2. Has received an average grade of 80% on all assignments
3. Has received an average of 60% in all assessments.
4. The tutor believes the student has grasped all of the concepts and is ready to go on to the next module.

### **Required Text Books**

1. Andy Field, "Discovering Statistics Using IBM SPSS Statistics" Sage Texts.
2. Darren George and Paul Mallery, "IBM SPSS Statistics 25 Step by Step", Routledge.
3. N.L. Leech, K.C. Barrett and G.A. Morgan, "IBM SPSS for Intermediate Statistics", Routledge.

### **Prerequisites**

- There is no prior educational level requirement for this course.
- If you are only interested in theory and have no interest/patience in spending at least 10 hours every week throughout the duration of the course, then this course might not be for you.

- If you have absolutely no idea about programming or do not see yourself doing programming in the next six -odd months, then this class may not be for you.

## **Course Details**

### **WEEK 1**

#### **INTRODUCTION**

- Data / Variable View
- Data Entry Models

#### **DATA MANAGEMENT**

- Select Cases
- Recode
- Compute
- Split File
- Sort Cases
- Replace Missing Values
- Merge Files (VRS)

#### **SAMPLING CONCEPTS**

- Questionnaire
- Multi-Response
- Likert Scale Data (VRS)

### **WEEK 2**

#### **BASIC DATA ANALYSIS**

- Techniques
- Tables

#### **VISUALIZING THE DATA**

#### **MEAN AND PROPORTION TEST**

### **WEEK 3**

#### **DATA ANALYSIS**

- Categorical Data Analysis
- Likert Scale

## RELATIONSHIPS

- Regression
- Correlation

## LABS

Lab assignments will focus on the practice and mastery of contents covered in the lectures; and introduce critical and fundamental problem-solving techniques to the students.

## Learning Outcomes

- Learn how to use SPSS to analyze a variety of statistical processes.
- Comprehend how to interpret the results of a variety of statistical tests.
- Learn how to write statistical analysis results in APA format.