



Parkland College
Arba Minch
Short Term Trainings Programs

Data Management and Statistical Analysis using Stata

About the Course

Stata statistical data software is a complete, integrated statistical software package that provides for data analysis, data management, and graphics. The course is aimed at researchers and other professionals who would like to strengthen their capacity using this statistical data analysis software. The Stata training will enhance the knowledge and skills of the participants to analyse data in a fast, accurate and easier manner by using Stata software and will know how to interpret and present the results. This will also enable participants to gain experience of the practical application of the statistical analytical techniques.

Target Participants

The Stata training is designed for participants who intend to learn the use of Stata for data management and data analysis. Those working in the corporate world, public sector, research institution and NGOs.

Course Duration

- 6 Days at 8 hours a day

What you will learn

By The End Of This Course The Participants Will Be Able To:

- Understand and appropriately use statistical terms and concepts
- Perform data analysis tasks with Stata
- Perform simple to complex data management tasks using Stata software
- Statistical tests using Stata

Course Outline

1. Introduction to Statistical Analysis

- 1.1 Explain the basic steps of the research process
- 1.2 Explain differences between populations and samples
- 1.3 Explain differences between experimental and non-experimental research designs
- 1.4 Explain differences between independent and dependent variables

2. Introduction to Stata

- 2.1. Datasets in Stata
- 2.2. Introduction to Stata commands
- 2.3. Working with variables in Stata
- 2.4. Basic analysis using Stata



- 3. Graphics using Stata**
 - 3.1.Introduction to Stata GUI
 - 3.2.Graph command syntax
 - 3.3.Different types of Graphs in Stata
- 4. Statistical Tests using Stata**
 - 4.1.One Sample T Test
 - 4.2.Independent Samples T Test
 - 4.3.Paired Samples T Test
 - 4.4.One-Way ANOVA
- 5. Associations in Stata**
 - 5.1.Chi-Square test
 - 5.2.Pearson's Correlation
 - 5.3.Spearman's Rank-Order Correlation
- 6. Predictive Models using Stata**
 - 6.1.Linear Regression
 - 6.2.Multiple Regression
 - 6.3.Logistic Regression
 - 6.4.Ordinal Regression
- 7. Panel Data Analysis using Stata**
 - 7.1.Exploration of panel data
 - 7.2.Fixed effects model/LSDV
 - 7.3.Random effects model
 - 7.4.Choosing the appropriate model
- 8. Time Series Analysis using Stata**

Introduction to time series analysis using Stata

 - 8.1.Plotting a time series
 - 8.2.Seasonal differences
 - 8.3.Auto correlations
 - 8.4.Forecast models in Stata
- 9. Econometric Analysis**
 - 9.1.Econometric Analysis of cross-sectional data
 - 9.2.Econometric Analysis of panel data
 - 9.3.Econometric Analysis of time-series data

Prerequisites

Familiarity with basic statistical knowledge is ideal. No prior working knowledge of Stata software is required for this course.

Training Approach

This Stata training is delivered by our seasoned trainers who have vast experience as expert professionals in using Stata statistical data software. The course is taught through a mix of practical activities, theory, group works and case studies.

Training manuals and additional reference materials are provided to the participants.



Certification

Upon successful completion of this course, participants will be issued with a certificate on Training on Data Management and Statistical Analysis using Stata.

Tailor-Made Course

We can also do this as a tailor-made course to meet organization-wide needs. We can also do this as a tailor-made course to meet organization-wide needs. A training needs assessment will be done on the training participants to collect data on the existing skills, knowledge gaps, training expectations, and tailor-made needs.