MAGNA SKILLS DEVELOPMENT INSTITUTE

Capacity Building • Professional Training • Organisational Development

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Course Profile Document

NGO Management and Policy Development

Comprehensive Statistics Using Stata

Prepared as a professional course profile for delegate review, sponsorship approval and organisational training planning.

COURSE CODE	DELIVERY	DURATION	PREPARED FOR
MSD2736	**Online / Face-to-Face**	**Flexible**	**Organisation Approval**

Register for this Course

View Online Course Page

Course Overview

The course prepares students to utilize STATA, one of the most commonly used statistical analysis software packages, and develop a deeper understanding of econometrics. This training specifically deals with management, analysis and graphing of quantitative data using STATA. The training combines theoretical foundations with methodological perspectives, aiming at equipping participants with knowledge on use of quantitative data in social research using STATA

Course Outcomes

- Generate variables that contain summaries of the data
- Create a summary dataset using collapse
- Navigate a dataset using _n, _N and subscripted variables
- Rearrange a dataset using reshape
- Combine multiple datasets using merge and append
- Identify duplicate observations
- Export data to a spreadsheet
- Create tailor-made publication quality graphs
- Understand what macros and scalars are
- Be able to use foreach and forvalues loops
- Understand and use if statements
- Understand how Stata stores estimation results
- Be able to access and use stored estimation results
- Know how to export results using user-written commands: estout, outreg, tabout
- Understand how Stata programs work
- Be able to write and use a simple Stata program
- Be able to write a do-file which exports results using file

Course Outline / Curriculum

Module one

- Introduction to Statistics Concepts
- Descriptive Statistics
- Inferential Statistics
- Research process
- Concepts and Software for Data Collection and Processing
- Planning data gathering and processing
- Introduction to mixed methods for Quantitative Data Collection (Web, and Mobile tools)
- Use of Mobile Phones for Data Collection (Open Data Kit)
- STATA Basics
- Learn how to use Dialog Boxes
- The command widow
- User-written extensions
- Directory Management
- Obtaining help and perform search
- STATA syntax
- Using Basic Statistical Commands
- Reusing results of STATA commands

Module Two

- Data Structures and Types of Variables
- Distinguishing between Categorical data, Continuous data; Numerical, string and date/time variables
- Managing missing data
- Creating dummy variables
- Other special purpose variables
- Converting datasets into summaries
- Labeling variables, encoding variables and generating new variables
- Data Management using STATA
- Import, Export, load and save datasets
- Create pseudorandom datasets
- Review and document the dataset
- Sorting and ordering
- Appending, merging and reorganizing datasets
- Validate data structure
- Identify duplicate observations

Alarming and nonsensical data

- Benefits of filtering

Module Three

- Output Management
- Logs for output
- Use of translators for exporting STATA files and output
- Copy and paste from STATA to text editors and spreadsheets
- Reproduction of past work, stored results and saved results
- The command display, explicit subscripting and important prefixes
- Basics of STATA programming
- Executing commands using do-files
- Proper structure of do-files
- Using comments
- Writing long commands

Module Four

- Basics of graphing with STATA
- Basics of Graphing Qualitative Data
- Basics Graphing Quantitative Data
- Dialog Boxes vs. Do-file routines
- Inspecting the data prior graphing
- Reducing the data dimension to speed up graphing
- Setting range of variation
- Subgroups and overlays in STATA Graphics
- Graphing by categorical groups
- Subgroup options
- Formatting graph text
- Superimposing densities and other graphs
- Legends for multiple graphs and multiple axes
- Generalized syntax for overlaying multiple graphs
- The -two way-Command
- Scatter graph
- Linear fits and nonlinear fits
- Parametric density estimators and Non-parametric density estimators
- Soft coded vs. hard coded syntax.
- Using loops for multiple overlays

Module Five

- Advanced graphing
- Combining multiple graphs side-by-side
- Recasting two way plots
- Reproducing formatting
- Creating your own graph scheme
- The graph editor as a scheme maker
- Quantitative Analysis using STATA
- Tests for Statistical Inference
- Tests of Association
- Tests of Difference
- Linear regression analysis
- Ordinary least squares
- Predicted values and residuals
- Correlation and Standardized Regression Coefficients
- Hypothesis testing
- Problems with regression
- Introduction to panel data analysis
- Advantages of panel data analysis
- Panel data sets
- Balanced and unbalanced panels
- Panel data dimensions and frequencies
- Properties of estimators
- Graphing panel data

Target Audience

The course is designed for people who want to be more efficient in their use of Stata. Those who are already experienced in using Stata for data analysis will benefit most from the course

Key Course Benefits

Work-Ready Skills

Delegates leave with practical tools, templatesand methods they canapply immediately atwork.

Better Institutional Results

The programme supports stronger planning, reporting, compliance, accountability andservice delivery.

Sponsor-Friendly

This document isdesigned to helpsupervisors, HR units andsponsors approve delegate participation quickly.

ProfessionalRecognition

Delegates receivetraining documentationand a certificate ofcompletion aftersuccessful participation.

Our Training Centres & Delivery Options

Magna Skills offers flexible delivery through face-to-face training centres across Africa and beyond, plus Online / E-Learning for delegates who prefer remote participation.

Southern Africa

Practical training destinations with strong travel access and delegate support.

Pretoria, South Africa

Vic Falls, Zimbabwe

Livingstone, Zambia

East Africa

Popular regional centres for government, NGO and donor-funded project teams.

Kigali, Rwanda

Kampala, Uganda

Nairob

Zanzibar, Tanzania

West Africa & Islands

Strategic locations for regional networking and executive capacity building.

Accra, Ghana

Port Louis, Mauritius

International Executive Venue

Premium destination training for senior teams and international delegates.

Dubai, United Arab Emirates

Online / E-Learning

Attend from anywhere through live online, blended or self-paced learning options.

Online, E-Learning

Remote Teams

Flexib

Organisation-Based Training

Magna Skills can also arrange dedicated in-house training for ministries, NGOs and companies.

Onsite

Custom Dates

Group Training

Ready to Nominate Delegates?

Use the links below to register, review the live course page or contact Magna Skills for organisation-based training support.

Register / Apply Online

View Full Course Page

About Magna Skills

Magna Skills Development Institute provides practical capacity building programmes for government departments, NGOs, public institutions, donor-funded projects and private sector professionals across Africa. Our training approach combines expert facilitation, real workplace case studies, practical tools, post-training support and professional documentation that helps organisations strengthen staff performance and service delivery.

Government Training | NGO Capacity Building | Corporate Workshops | Online Learning | Face-to-Face Training | Certifica

Approval & Authorisation Form

This section may be completed by the organisation, department, HR office, finance office or sponsor approving delegate participation. It can be attached to an internal memo, procurement request or training approval submission.

Organisation / Department	
Delegate Name(s)	
Approved Course	Comprehensive Statistics Using Stata
Preferred Delivery Mode	☐ Online ☐ Face-to-Face ☐ Organisation-Based Training
Preferred Training Venue / Date	
Estimated Number of Delegates	
Budget / Vote Number	
Contact Person	
Email / Mobile	

Authorised Name _____ Signature / Stamp _____ Date _____