Advanced Quantitative Analysis for M&E Training Course

Professional Development Training Course Outline

Category	Monitoring and Evaluation	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In today’s data-driven world, Advanced Quantitative Analysis is critical for professionals in Monitoring and Evaluation (M&E) seeking to derive actionable insights from complex datasets. Advanced Quantitative Analysis for M&E Training Course equips participants with the latest statistical tools, predictive modeling techniques, and data visualization strategies to enhance program performance and decision-making. By integrating cutting-edge analytics methods, real-world case studies, and hands-on exercises, participants will gain the skills to transform raw data into meaningful evidence that drives organizational impact.

This course emphasizes the application of advanced regression analysis, time-series modeling, multivariate techniques, and data triangulation for rigorous program evaluation. Participants will learn to identify trends, quantify outcomes, and make evidence-based recommendations while mastering data cleaning, validation, and management techniques. By blending theory with practical exercises and interactive case studies, this course ensures participants leave with competence, confidence, and efficiency in performing sophisticated M&E analyses.

Programme Curriculum

Advanced Quantitative Analysis for M&E Training Course

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Course Objectives

By the end of this course, participants will be able to:

1. Master advanced statistical techniques for evaluating program outcomes.
2. Conduct predictive analytics to forecast project performance.
3. Apply multivariate regression and correlation analysis for complex datasets.
4. Implement time-series analysis to track trends and patterns over time.
5. Perform data cleaning, validation, and management for high-quality analysis.
6. Utilize software tools for quantitative analysis including R, Stata, and Excel.
7. Interpret statistical outputs for evidence-based decision-making.
8. Conduct impact evaluations using sophisticated quantitative methods.
9. Apply data triangulation techniques to enhance accuracy and reliability.
10. Visualize data using interactive dashboards and reporting tools.
11. Integrate real-world case studies for practical application of analytical methods.
12. Ensure data integrity and ethical handling in all M&E projects.
13. Develop actionable recommendations to improve program effectiveness.

Target Audience

1. M&E Officers and Specialists
2. Data Analysts and Statisticians
3. Program Managers and Coordinators
4. Policy Analysts and Researchers
5. Development Practitioners
6. Nonprofit and NGO Professionals
7. Government Monitoring & Evaluation Staff
8. Graduate Students in Social Sciences, Public Health, or Development Studies

Course Modules

Module 1: Introduction to Advanced Quantitative Analysis

- Overview of quantitative methods in M&E
- Key statistical concepts and applications
- Trends in data-driven program evaluation
- Case study: Using analytics to improve a health program
- Hands-on exercise with sample M&E datasets

Module 2: Data Cleaning and Preparation

- Identifying and handling missing data
- Data normalization and transformation
- Outlier detection techniques
- Case study: Cleaning survey data from multiple regions
- Practical exercises using Excel and R

Module 3: Exploratory Data Analysis (EDA)

- Descriptive statistics for program monitoring
- Visualizing distributions and relationships
- Identifying patterns and anomalies
- Case study: EDA for education intervention programs
- Practical exercises using dashboards

Module 4: Regression Analysis for M&E

- Linear and multiple regression models
- Logistic regression for categorical outcomes
- Model assumptions and diagnostics
- Case study: Regression analysis for nutrition program impact
- Hands-on modeling exercises

Module 5: Multivariate Analysis Techniques

- Factor analysis and principal component analysis
- Cluster analysis for grouping program beneficiaries
- Multivariate regression applications
- Case study: Multivariate analysis in microfinance programs
- Exercises using statistical software

Module 6: Time-Series Analysis

- Trend detection and forecasting methods
- Seasonal and cyclical pattern analysis
- Autoregressive models and ARIMA
- Case study: Tracking public health outcomes over time
- Hands-on forecasting exercises

Module 7: Predictive Analytics in M&E

- Building predictive models using historical data
- Model evaluation and validation
- Scenario analysis for program planning
- Case study: Predicting school attendance outcomes
- Practical modeling exercises

Module 8: Data Triangulation and Validation

- Combining qualitative and quantitative data
- Ensuring accuracy and reliability

- Techniques for cross-validation
- Case study: Triangulating data in water sanitation programs
- Hands-on data validation exercises

Module 9: Impact Evaluation Techniques

- Randomized controlled trials (RCTs)
- Quasi-experimental designs
- Difference-in-differences analysis
- Case study: Evaluating agricultural interventions
- Practical implementation exercises

Module 10: Statistical Software Tools

- Introduction to R, Stata, and SPSS for M&E
- Data manipulation and visualization
- Advanced statistical functions
- Case study: Using software to analyze large-scale surveys
- Hands-on software practice

Module 11: Data Visualization for Decision-Making

- Creating dashboards and reports
- Interactive visualizations
- Communicating insights to stakeholders
- Case study: Visualization for donor reporting
- Practical exercises in Tableau and Power BI

Module 12: Ethical Data Management

- Data privacy and confidentiality
- Ethical considerations in M&E
- Compliance with data protection standards
- Case study: Handling sensitive health data
- Exercises in ethical data governance

Module 13: Advanced Sampling Techniques

- Probability and non-probability sampling methods
- Sample size determination and power analysis
- Stratified and cluster sampling
- Case study: Sampling design for rural development surveys
- Practical sampling exercises

Module 14: Reporting and Communicating Results

- Translating statistical findings into recommendations
- Writing M&E reports for diverse audiences
- Visual storytelling with data
- Case study: Evidence-based policy recommendations
- Exercises in report writing

Module 15: Applied Case Studies & Capstone Project

- Integrative exercises combining all methods learned
- Real-world M&E datasets analysis
- Presenting findings to stakeholders
- Group project: Designing an end-to-end evaluation study
- Feedback and course reflection

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	04 Dec 2026	Online	$2,000
23 Nov 2026	04 Dec 2026	Physical	$3,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$6,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$9,000
23 Nov 2026	04 Dec 2026	Physical	$12,000
23 Nov 2026	04 Dec 2026	Physical	$12,000

Ready to enroll or request a customized program? Book online or contact us:

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Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com