GIS Mapping 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

Geographic Information System (GIS) Mapping for Monitoring & Evaluation (M&E) is transforming the way organizations collect, visualize, and analyze spatial data to improve program impact. GIS Mapping for M&E Training Course equips participants with advanced GIS mapping skills to enhance data-driven decision-making, spatial analysis, and performance monitoring. Participants will gain hands-on experience in integrating GIS tools with M&E frameworks to identify patterns, monitor indicators, and optimize resource allocation. Emphasis is placed on practical application, real-world case studies, and leveraging GIS technology for actionable insights in development, health, and environmental programs.

By the end of this course, participants will be able to design, implement, and interpret spatial data for improved program monitoring and evaluation. The training highlights trending techniques such as interactive dashboards, geospatial analytics, satellite imagery interpretation, and predictive spatial modeling. Participants will leave with the confidence to apply GIS mapping to enhance program accountability, efficiency, and transparency while aligning with international M&E best practices.

Programme Curriculum

GIS Mapping for M&E Training Course

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Course Objectives

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

1. Understand core GIS concepts and their application in M&E frameworks.
2. Collect, clean, and integrate spatial data for monitoring and evaluation.
3. Design interactive maps and dashboards for real-time data visualization.
4. Apply geospatial analysis to identify trends, hotspots, and program gaps.
5. Use satellite imagery and remote sensing for program monitoring.
6. Perform spatial statistical analysis for informed decision-making.
7. Integrate GIS data with existing M&E tools and databases.
8. Conduct field-based GPS data collection and verification.
9. Utilize predictive spatial modeling for program planning and forecasting.
10. Ensure data accuracy, quality, and ethical use in GIS mapping.
11. Develop GIS-based reports and presentations for stakeholders.
12. Optimize resource allocation through spatial data-driven insights.
13. Apply case studies from health, education, and environmental programs for practical learning.

Target Audience

1. M&E professionals and data analysts
2. GIS specialists and geospatial analysts
3. Program managers and project coordinators
4. Health, education, and environmental program officers
5. Development sector professionals
6. Government and policy planning officers
7. Researchers and academics in social sciences
8. NGOs and international development organizations

Course Modules

Module 1: Introduction to GIS for M&E

- GIS fundamentals and concepts
- Importance of GIS in program monitoring
- Components of GIS mapping systems
- Data types and sources for GIS in M&E
- Case study: GIS in health service delivery mapping

Module 2: Spatial Data Collection Techniques

- GPS data collection methods
- Mobile-based GIS tools
- Field data validation techniques
- Integrating surveys with GIS data
- Case study: Mapping community water points

Module 3: Data Cleaning and Preparation

- Geospatial data cleaning methods
- Handling missing and inaccurate data
- Data normalization and standardization
- Converting survey data into GIS-ready formats
- Case study: Education enrollment spatial analysis

Module 4: GIS Software Tools for M&E

- Overview of ArcGIS, QGIS, and Google Earth Engine
- Open-source vs proprietary GIS tools
- Tool selection based on program needs
- Installing and configuring GIS software
- Case study: Environmental program monitoring

Module 5: Spatial Analysis Fundamentals

- Layers and attribute data management
- Spatial queries and selections
- Buffering, overlays, and zonal analysis
- Identifying hotspots and clusters
- Case study: Malaria prevalence hotspot analysis

Module 6: Mapping Indicators and Metrics

- Linking program indicators with GIS layers
- Visualizing key M&E metrics
- Choropleth and heat maps
- Mapping socio-economic and demographic data
- Case study: Education access mapping

Module 7: Remote Sensing for M&E

- Introduction to satellite imagery
- Land use and environmental monitoring
- Vegetation and water body mapping
- Integrating remote sensing with GIS
- Case study: Deforestation monitoring program

Module 8: GIS Dashboards and Reporting

- Designing interactive GIS dashboards
- Real-time monitoring and visualization
- Automating reports for stakeholders
- Data storytelling through maps

- Case study: Health program dashboard creation

Module 9: Predictive Spatial Modeling

- Understanding spatial statistics
- Predictive modeling techniques
- Scenario planning using GIS
- Risk and vulnerability mapping
- Case study: Flood risk prediction

Module 10: GIS Data Quality and Ethics

- Ensuring accuracy and reliability
- Ethical considerations in spatial data use
- Data privacy and confidentiality
- Avoiding bias in spatial analysis
- Case study: Community data ethics in M&E

Module 11: Integration with M&E Systems

- Linking GIS with DHIS2 and other databases
- Data interoperability standards
- Automated data workflows
- Reporting for donor compliance
- Case study: Integrating GIS with health information systems

Module 12: Resource Allocation and Decision Support

- Spatial planning for resource distribution
- Prioritizing interventions using GIS
- Cost-benefit analysis of mapped programs
- Optimizing logistics and supply chains
- Case study: Vaccination program planning

Module 13: Participatory GIS Approaches

- Community mapping techniques
- Engaging stakeholders in spatial data collection
- Crowdsourcing data for better insights
- Participatory validation and feedback
- Case study: Community health mapping

Module 14: Troubleshooting and GIS Project Management

- Common GIS errors and fixes
- Data backup and security
- Managing GIS projects in teams
- Reporting project progress effectively
- Case study: NGO GIS project management

Module 15: Capstone Project and Real-World Application

- Designing a full GIS mapping project for M&E

- Hands-on spatial data collection
- Analysis and visualization of project results
- Presentation to peers and trainers
- Case study: Comprehensive program monitoring exercise

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:

Register Online Now

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