Web-Based GIS and Mapping Training Course

Professional Development Training Course Outline

Category	GIS	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Geographic Information Systems (GIS) are revolutionizing how organizations analyze, interpret, and present spatial data. The Training Course on Web-Based GIS and Mapping is designed to equip professionals with the skills necessary to effectively use web-based GIS tools for data visualization, mapping, and spatial analysis. With the growing importance of location-based data in decision-making across sectors like urban planning, environmental management, agriculture, and public health, this course offers valuable insights into how GIS can be leveraged for improved outcomes.

Web-based GIS platforms have democratized access to mapping and spatial analysis tools, allowing organizations to share interactive maps and data online. This course will guide participants through the latest web-based GIS technologies and platforms such as ArcGIS Online, QGIS, and Google Earth Engine. By learning how to create, analyze, and publish maps on the web, participants will enhance their capacity to communicate complex spatial data in a user-friendly, accessible format.

Programme Curriculum

Web-Based GIS and Mapping Training Course

Introduction

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Course Duration

5 Days

Course Objectives

1. Understand the core principles and technologies behind web-based GIS.
2. Gain hands-on experience using popular web GIS platforms like ArcGIS Online, Google Earth Engine, and QGIS.
3. Learn to create, analyze, and publish interactive maps and spatial data online.
4. Master data visualization techniques for effectively presenting geographic data.
5. Develop skills for performing spatial analysis and interpreting results in a GIS context.
6. Understand the integration of GIS data with other tools and databases.
7. Learn how to create user-friendly web maps and applications for non-GIS experts.
8. Explore case studies of successful web-based GIS applications in various industries.
9. Learn best practices for sharing and collaborating on spatial data via the web.
10. Develop practical skills for managing and maintaining web-based GIS projects.

Organizational Benefits

1. Increased capacity for spatial data analysis and decision-making.
2. Enhanced ability to present complex geographic information in an easily understandable format.
3. Improved efficiency in managing and sharing GIS data across teams and stakeholders.
4. Streamlined communication of data insights through interactive web maps.
5. Strengthened organizational expertise in emerging web-based GIS technologies.
6. Better resource allocation through data-driven geographic insights.
7. Improved project outcomes by integrating GIS into various workflows.
8. Enhanced collaboration across departments and external partners through shared web maps.
9. Increased credibility and effectiveness in projects involving spatial planning or resource management.

10. Cost-effective solutions for spatial data management and dissemination, reducing reliance on desktop GIS software.

Target Participants

- GIS professionals and analysts
- Urban planners and developers
- Environmental scientists and consultants
- Public health professionals and epidemiologists
- Disaster management and emergency response teams
- Government officials and policymakers
- Academics and researchers in geography or environmental studies
- Business analysts in sectors like logistics, agriculture, and infrastructure

Course Outline

Module 1: Introduction to Web-Based GIS

1. Overview of GIS technologies and their applications.
2. Key differences between desktop GIS and web-based GIS.
3. Introduction to popular web-based GIS platforms (e.g., ArcGIS Online, Google Earth Engine).
4. Web-based GIS architecture and infrastructure.
5. Case study: A city's shift to web-based GIS for urban planning.

Module 2: Data Management for Web GIS

1. Types of spatial data and formats used in web-based GIS.
2. Data collection methods and sources for GIS (remote sensing, GPS, surveys).
3. Preparing and cleaning data for web-based applications.
4. Managing spatial databases and cloud storage for GIS data.
5. Case study: Creating a geospatial database for environmental monitoring.

Module 3: Creating and Visualizing Maps

1. Understanding layers, symbols, and map projections.
2. Adding and styling data layers in web GIS platforms.
3. Customizing maps for interactive user interfaces.
4. Visualizing temporal and thematic data on the web.
5. Case study: Mapping population health trends using web-based GIS.

Module 4: Spatial Analysis in Web GIS

1. Performing basic spatial analysis using web-based GIS tools.
2. Buffering, overlay analysis, and proximity analysis.
3. Advanced analysis: Suitability modeling, spatial statistics, and geoprocessing.
4. Using web GIS for geospatial decision support systems.
5. Case study: Using web GIS to analyze transportation networks.

Module 5: Sharing and Collaborating with Web GIS

1. Techniques for publishing and sharing maps and data online.
2. Managing permissions and access control for shared GIS content.
3. Embedding web maps into websites and applications.
4. Best practices for collaboration using cloud-based GIS platforms.
5. Case study: Collaborative web GIS platform for community-based resource management.

Module 6: Practical Applications and Future Trends

1. Real-world applications of web-based GIS in various industries.
2. Mobile GIS and its integration with web-based platforms.
3. Incorporating real-time data into web maps.
4. Emerging trends in web GIS (e.g., AI and machine learning integration).
5. Case study: Future-proofing GIS applications in the public sector.

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	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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

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