# Technical Writing for GIS Documentation Training Course

Professional Development Training Course Outline

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

## Course Introduction

Geographic Information Systems (GIS) are transforming industries, generating vast amounts of complex geospatial data and intricate workflows. Effective **GIS documentation** is no longer a luxury but a critical necessity for successful project implementation, data integrity, and operational efficiency. Technical Writing for GIS Documentation Training Course empowers **geospatial professionals**, **GIS analysts**, and **technical communicators** to master the art of creating clear, concise, and user-friendly documentation that bridges the gap between intricate technical details and diverse user needs. Learn to leverage **structured authoring**, **DITA**, and **content management systems** to produce high-quality **GIS manuals**, **metadata**, **API documentation**, and **user guides** that drive productivity and informed decision-making.

In today's data-driven world, the demand for skilled **technical writers** with specialized knowledge in **GIS technology** is rapidly growing. This course provides practical, hands-on training in best practices for **geospatial data documentation**, **workflow documentation**, and **system architecture descriptions**. Participants will gain expertise in **information architecture**, **audience analysis**, and **visual communication**, ensuring that their documentation is not only accurate but also highly accessible and impactful. Develop the essential skills to standardize **GIS processes**, improve data usability, and contribute to seamless collaboration within your organization and across the broader **geospatial industry**

## Programme Curriculum

**Technical Writing for GIS Documentation Training Course**

**Introduction**

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**Course Duration**

5 days

**Course Objectives**

Upon completion of this course, participants will be able to:

1. Define and apply core technical writing principles within the geospatial domain.
2. Analyze diverse GIS audiences and tailor content for optimal comprehension and user experience (UX).
3. Structure complex GIS information using information architecture best practices and taxonomy development.
4. Create clear and concise GIS user manuals, SOPs (Standard Operating Procedures), and troubleshooting guides.
5. Develop comprehensive metadata standards for geospatial datasets adhering to ISO 19115 and FGDC guidelines.
6. Document GIS API endpoints and SDKs (Software Development Kits) for developers using Swagger/OpenAPI.
7. Implement version control systems (Git for documentation) for collaborative GIS projects.
8. Utilize visual aids and infographics effectively for geospatial data visualization in documentation.
9. Write effective release notes and knowledge base articles for GIS software updates and data changes.
10. Apply principles of plain language and accessibility standards to GIS documentation.
11. Collaborate effectively with GIS developers, data scientists, and subject matter experts (SMEs).
12. Master documentation tools and content management systems (CMS) relevant to the GIS ecosystem.
13. Understand legal and ethical considerations in geospatial data sharing and documentation.

**Organizational Benefits**

- Improved documentation ensures that GIS data and applications are easily understood and utilized by all stakeholders, from technical staff to decision-makers.

- Clear, comprehensive documentation minimizes the need for extensive one-on-one training and reduces the volume of support inquiries.
- Standardized documentation practices streamline workflows, facilitate seamless knowledge transfer, and foster better collaboration across teams.
- Adherence to documentation standards and metadata guidelines strengthens data governance and helps meet regulatory compliance requirements.
- Accessible and well-documented GIS insights empower informed strategic and operational decisions.
- Clear instructions and troubleshooting guides minimize operational errors and data misinterpretation.
- Well-structured documentation accelerates the learning curve for new GIS professionals, enhancing productivity sooner.

**Target Audience**

1. GIS Analysts and Specialists.
2. Geospatial Data Scientists.
3. Technical Writers
4. Software Developers (GIS Focus).
5. Project Managers (GIS Projects).
6. Database Administrators (Geospatial Databases).
7. Researchers and Academics (Geospatial Fields)
8. maintaining documentation related to GIS, spatial data, or geospatial technologies.

**Course Outline**

**Module 1: Fundamentals of Technical Writing for GIS**

- Introduction to Technical Writing
- Understanding the GIS Documentation Landscape: Types of GIS documentation
- Audience Analysis for Geospatial Professionals: Tailoring content for diverse users
- Plain Language and Clarity in GIS Writing:
- Legal and Ethical Considerations in Geospatial Data Documentation:.
- **Case Study:** Documenting public-facing **open geospatial data** portals: challenges in clarity and accessibility for diverse user groups.

**Module 2: Information Architecture and Content Strategy for GIS**

- Structuring GIS Documentation.
- Developing a GIS Content Strategy
- Taxonomy and Metadata for GIS
- Single Sourcing and Content Reuse in GIS.
- Version Control Systems (Git) for Documentation
- **Case Study:** Re-architecting legacy GIS documentation into a modular, single-source system for a large utility company.

**Module 3: Documenting GIS Data and Metadata**

- Importance of Geospatial Metadata.
- Implementing ISO 19115 and FGDC Standards.
- Creating Data Dictionaries and Glossaries for GIS.
- Documenting Data Quality and Limitations.
- Automating Metadata Generation.

- **Case Study:** Developing comprehensive metadata for a national **land-use land-cover (LULC)** dataset to enhance discoverability and usability for researchers.

**Module 4: Writing Effective GIS User Manuals and Guides**

- Designing User-Centric GIS Manuals
- Step-by-Step Instructions for GIS Software
- Developing Troubleshooting Guides for GIS Applications
- Integrating Tutorials and Exercises.
- Creating Quick Reference Guides and Cheat Sheets.
- **Case Study:** Designing an intuitive user manual for a custom-built web GIS application used by municipal planners.

**Module 5: Documenting GIS Workflows and Processes**

- Mapping GIS Workflows.
- Standard Operating Procedures (SOPs) for GIS Operations
- Documenting Data Acquisition and Processing Workflows
- Describing Geoprocessing Models and Scripts.
- Audit Trails and Change Logs for GIS Data Transformations.
- **Case Study:** Documenting the **ETL (Extract, Transform, Load)** process for integrating disparate environmental datasets into a centralized GIS.

**Module 6: API Documentation for GIS Developers**

- Introduction to API Documentation.
- RESTful API Documentation for Geospatial Services.
- Using Swagger/OpenAPI for GIS API Specifications.
- Documenting SDKs and Libraries for GIS Development
- Webhooks and Real-time GIS Data Streams.
- **Case Study:** Creating clear and comprehensive API documentation for a **geocoding service**, enabling third-party developers to integrate it into their applications.

**Module 7: Visual Communication and Graphics in GIS Documentation**

- Principles of Effective Data Visualization: Maps, charts, and diagrams for clarity.
- Integrating Screenshots and Annotations: Guiding users through GIS interfaces.
- Creating Flowcharts and Workflow Diagrams: Illustrating complex GIS processes.
- Using Iconography and Visual Cues.
- Best Practices for Accessible Graphics.
- **Case Study:** Designing compelling infographics and maps to accompany a technical report on climate change impacts using GIS data.

**Module 8: Documentation Tools and Publishing**

- Overview of Technical Documentation Tools.
- Leveraging Microsoft Word and Google Docs for GIS Docs.
- Introduction to Specialized Documentation Tools
- Web-Based Publishing for GIS Documentation.
- User Feedback and Continuous Improvement.
- **Case Study:** Setting up a new online knowledge base for a municipality's GIS department using a modern CMS, incorporating search functionality and user feedback mechanisms.

**Training Methodology**

This course employs a highly interactive and practical training methodology, combining:

- **Lectures and Presentations:** Core concepts and best practices delivered by experienced GIS and technical writing professionals.
- **Hands-on Exercises:** Practical application of learned skills through real-world GIS documentation scenarios.
- **Case Studies and Group Discussions:** Analyzing successful (and unsuccessful) documentation examples, fostering collaborative problem-solving.
- **Live Demos:** Demonstrations of documentation tools, GIS software functionalities, and API interactions.
- **Individual and Peer Feedback:** Constructive criticism on written assignments to refine documentation skills.
- **Q&A Sessions:** Opportunities for participants to address specific challenges and gain expert insights.
- **Resource Sharing:** Access to templates, checklists, and recommended tools for ongoing learning.

**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:

**Register Online Now**

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