Health Data Visualization Training Course

Professional Development Training Course Outline

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

Course Introduction

Health Data Visualization is a critical discipline that transforms complex healthcare datasets into meaningful, actionable insights using modern analytics and visual storytelling techniques. In an era driven by digital health transformation, AI-powered healthcare analytics, and real-time clinical decision support systems, the ability to interpret and visualize health data is essential for improving patient outcomes, optimizing hospital operations, and strengthening public health surveillance. Health Data Visualization Training Course equips learners with advanced skills in health informatics, medical dashboards, epidemiological visualization, and interactive BI tools to support data-driven healthcare systems.

The course is designed to bridge the gap between raw healthcare data and strategic decision-making by leveraging cutting-edge tools such as Tableau, Power BI, Python visualization libraries, and cloud-based health analytics platforms. Participants will learn how to design intuitive dashboards for patient monitoring, disease tracking, hospital performance analytics, and predictive health modeling, enabling smarter healthcare interventions and evidence-based policy formulation.

Programme Curriculum

Health Data Visualization Training Course

Introduction

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Course Duration

5 days

Course Objectives

1. Master health data analytics and visualization techniques
2. Apply clinical data storytelling for decision support
3. Design interactive healthcare dashboards using BI tools
4. Interpret electronic health records (EHR) datasets visually
5. Develop skills in epidemiological data visualization
6. Use AI-driven predictive healthcare analytics models
7. Enhance proficiency in medical informatics systems
8. Build real-time patient monitoring dashboards
9. Implement public health surveillance visualization systems
10. Analyze hospital performance and operational KPIs
11. Integrate big data in healthcare visualization pipelines
12. Improve data-driven healthcare policy reporting
13. Apply geospatial health data mapping techniques

Target Audience

1. Healthcare Data Analysts
2. Public Health Officers
3. Medical Researchers
4. Hospital Administrators
5. Health Informatics Students
6. Epidemiologists
7. BI & Data Visualization Professionals
8. Policy Makers in Healthcare Systems

Course Methodology

- Instructor-led live sessions with real healthcare datasets
- Hands-on labs using Tableau, Power BI, and Python (Matplotlib, Seaborn, Plotly)
- Case-based learning from global health systems (WHO, CDC-style datasets)
- Project-based learning with real hospital and patient data scenarios
- Interactive dashboards design workshops
- Group assignments and peer review sessions
- Capstone project: End-to-end healthcare visualization solution

Course Modules

Module 1: Introduction to Health Data Visualization

- Basics of healthcare data ecosystems

- Types of health datasets (clinical, operational, public health)
- Importance of visualization in healthcare decision-making
- Introduction to BI tools in healthcare
- **Case Study:** COVID-19 global dashboard analysis

Module 2: Healthcare Data Sources & Management

- Electronic Health Records (EHR) systems
- Health Information Systems (HIS)
- Data cleaning and preprocessing techniques
- Structured vs unstructured medical data
- **Case Study:** Hospital patient admission data system

Module 3: Data Visualization Fundamentals

- Charts, graphs, and medical visual encoding
- Choosing the right visualization type
- Color theory in healthcare dashboards
- Dashboard UX principles
- **Case Study:** ICU patient monitoring dashboard

Module 4: Advanced Visualization Tools (Power BI & Tableau)

- Building interactive dashboards
- DAX and calculated fields
- Real-time health data integration
- KPI tracking in healthcare systems
- **Case Study:** Hospital bed occupancy dashboard

Module 5: Python for Health Data Visualization

- Matplotlib and Seaborn for medical analytics
- Plotly for interactive healthcare charts
- Data storytelling with Python
- Time-series analysis in health trends
- **Case Study:** Disease outbreak trend visualization

Module 6: Epidemiology & Public Health Visualization

- Disease spread modeling
- Geospatial health mapping
- Outbreak detection dashboards
- Population health analytics
- **Case Study:** Malaria distribution mapping system

Module 7: Predictive Analytics in Healthcare

- AI and machine learning in health prediction
- Risk scoring models
- Patient outcome forecasting
- Hospital readmission prediction models
- **Case Study:** Diabetes risk prediction dashboard

Module 8: Capstone Project & Real-World Deployment

- End-to-end dashboard development
- Data integration from multiple sources
- Cloud deployment of dashboards
- Presentation of insights to stakeholders
- **Case Study:** National health monitoring system prototype

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

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