Humanitarian Data Analysis and Crisis Informatics Training Course

Professional Development Training Course Outline

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

Course Introduction

In today’s rapidly evolving global landscape, the role of humanitarian data analysis and crisis informatics has become increasingly essential in addressing emergencies, disasters, conflicts, and pandemics. Humanitarian Data Analysis and Crisis Informatics Training Course is designed to equip participants with cutting-edge data-driven decision-making skills, AI-powered crisis response tools, and real-time data monitoring techniques. By focusing on predictive analytics, geospatial mapping, and open-source intelligence (OSINT), the course aims to bridge the knowledge gap in managing data during humanitarian emergencies. Participants will gain practical insights into data visualization, humanitarian dashboards, and information management in contexts such as refugee movements, natural disasters, and complex emergencies.

With the rise of global crises—from climate-induced disasters to armed conflict—this course empowers responders, data professionals, and humanitarians with skills to transform raw data into actionable intelligence. This training integrates trending technologies like satellite imagery analysis, machine learning for crisis prediction, and mobile data collection tools while promoting ethical and responsible data practices. Learners will engage with real-world scenarios, develop comprehensive crisis reports, and collaborate across multi-sectoral teams to ensure life-saving interventions are both efficient and evidence-based.

Programme Curriculum

Humanitarian Data Analysis and Crisis Informatics Training Course

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Course Objectives

1. Understand the foundations of humanitarian data analysis and crisis informatics.
2. Apply geospatial technologies for real-time crisis mapping.
3. Use AI and machine learning for predictive crisis modeling.
4. Develop dashboards using data visualization tools such as Power BI and Tableau.
5. Conduct mobile-based data collection using tools like ODK and KoboToolbox.
6. Analyze social media and OSINT data for early warning signals.
7. Utilize big data analytics in humanitarian contexts.
8. Integrate climate crisis data for emergency preparedness planning.
9. Apply data ethics and privacy protocols in crisis environments.
10. Design multi-agency data coordination frameworks.
11. Monitor and evaluate humanitarian projects using impact metrics.
12. Build capacity in remote sensing and satellite image interpretation.
13. Create actionable crisis reports from raw and processed data.

Target Audiences

1. Humanitarian workers and field responders
2. Emergency and disaster management professionals
3. Data scientists and analysts in the non-profit sector
4. Government and NGO policy makers
5. Public health and epidemiology professionals
6. Journalists covering conflict and disasters
7. ICT4D (Information and Communication Technology for Development) specialists
8. Graduate students and academic researchers in humanitarian studies

Course Duration: 5 days

Course Modules

Module 1: Introduction to Humanitarian Data and Crisis Informatics

- Understanding the humanitarian data ecosystem
- Core principles of crisis informatics
- Data sources and types in humanitarian settings
- Challenges in data collection during crises
- Tools overview: KoboToolbox, OCHA’s HDX, UNHCR data portals
- **Case Study:** Data coordination during the 2023 Sudan conflict

Module 2: Mobile Data Collection and Crowdsourcing

- Designing digital surveys and forms

- Deploying mobile data collection apps
- Real-time monitoring and feedback loops
- Ensuring data quality and completeness
- Integration with cloud-based systems
- **Case Study:** Earthquake response in Türkiye using mobile surveys

Module 3: Geospatial Analysis and Crisis Mapping

- Basics of GIS and satellite imagery
- Mapping tools: QGIS, ArcGIS, Google Earth Engine
- Spatial data analysis for displacement tracking
- Heatmaps and infrastructure damage mapping
- Real-time geolocation dashboards
- **Case Study:** Flood mapping in Mozambique with drones and GIS

Module 4: Social Media Intelligence and OSINT for Crises

- Mining Twitter, Facebook, and Telegram data
- Hashtag tracking for early warning systems
- Natural Language Processing (NLP) for situational awareness
- Data verification and fake news detection
- Risk of misinformation and mitigation strategies
- **Case Study:** Monitoring wildfires in California using social media analytics

Module 5: Predictive Analytics and Machine Learning for Crises

- Supervised and unsupervised learning for crisis prediction
- Time-series forecasting of disease outbreaks
- Training and deploying ML models for disaster risk
- Evaluation metrics and confusion matrix
- Limitations and ethical use of AI
- **Case Study:** Predicting cholera outbreaks in Yemen

Module 6: Data Visualization and Dashboard Design

- Tools: Power BI, Tableau, Google Data Studio
- Designing for clarity and quick decision-making
- Humanitarian KPIs and visual storytelling
- Data interpretation and reporting
- Collaborative dashboards for stakeholders
- **Case Study:** COVID-19 humanitarian response dashboard for East Africa

Module 7: Data Ethics, Privacy, and Protection in Crisis Settings

- Principles of responsible data use
- GDPR and humanitarian data policies
- Risk assessment and mitigation techniques
- Secure data storage and transmission
- Informed consent in humanitarian contexts
- **Case Study:** Data protection during refugee registration in Lebanon

Module 8: Impact Measurement and Crisis Response Evaluation

- Designing logical frameworks and indicators
- Real-time vs post-crisis evaluation methods
- Attribution challenges in emergency settings

- Tools for M&E: DevResults, LogAlto
- Data triangulation and evidence synthesis
- **Case Study:** Evaluating food security interventions in Somalia

Training Methodology

- Practical hands-on training with real-life datasets
- Group activities and scenario-based learning
- Guided labs on tools like KoboToolbox, QGIS, Tableau
- Expert-led sessions with case debriefings
- Peer-to-peer collaboration and feedback sessions
- Final project involving live crisis data simulation

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

Start Date	End Date	Location	Price
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

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