Crime Mapping and GIS for Criminology Training Course

Professional Development Training Course Outline

Category	Criminology	**Duration**	10 Days
Base Fee	$3,000 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In today’s digital age, the intersection of criminology and geographic information systems (GIS) offers a revolutionary approach to crime analysis. Crime mapping and spatial data analysis have become indispensable tools for law enforcement agencies, criminologists, and public policy experts. Training Course on Crime Mapping & GIS for Criminology aims to equip professionals and students with data-driven decision-making skills, utilizing location-based crime analytics, predictive policing, and spatial pattern detection. With a strong emphasis on crime trend visualization, participants will gain hands-on experience with real-world datasets and GIS technologies.

This course provides comprehensive training in geospatial analysis for crime prevention, hotspot identification, environmental criminology, and spatial data interpretation. Learners will be immersed in crime intelligence gathering, interactive GIS tools, and evidence-based mapping strategies, preparing them for roles in criminal justice, urban safety planning, and policy development. Designed for both beginners and professionals, the course delivers a robust understanding of the role of GIS in crime-fighting efforts globally.

Programme Curriculum

Crime Mapping and GIS for Criminology Training Course

Introduction

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Course Objectives

1. Understand the fundamentals of Crime Mapping and GIS in Criminology
2. Analyze spatial patterns using geospatial crime analytics
3. Identify and interpret crime hotspots and their significance
4. Use predictive crime modeling tools for tactical planning
5. Integrate real-time data into crime analysis workflows
6. Apply environmental criminology theories in GIS context
7. Create interactive digital crime maps for reports and presentations
8. Conduct spatiotemporal crime analysis
9. Improve law enforcement resource allocation using GIS
10. Evaluate the impact of urban design on crime trends
11. Understand the ethical and privacy issues in GIS crime analysis
12. Develop customized GIS dashboards for crime intelligence
13. Leverage open-source GIS platforms for cost-effective analysis

Target Audiences

1. Criminology Students
2. Law Enforcement Officers
3. Criminal Justice Researchers
4. Forensic Analysts
5. Urban Planners and Policy Makers
6. Public Safety Officials
7. GIS Professionals
8. Intelligence and Homeland Security Analysts

Course Duration: 10 days

Course Modules

Module 1: Introduction to Crime Mapping & GIS

- Definition and significance of crime mapping
- Evolution of GIS in criminology
- Basic concepts in geospatial crime analysis
- Overview of crime data types
- Tools and software used in crime GIS
- **Case Study:** Mapping burglary trends in urban neighborhoods

Module 2: GIS Fundamentals for Crime Analysis

- GIS components: hardware, software, data
- Georeferencing and data projection
- Map elements and layers
- Coordinate systems
- Data visualization techniques
- **Case Study:** GIS setup for municipal police department

Module 3: Data Sources and Crime Data Integration

- Official crime data sources
- Collecting spatial crime data
- Data cleaning and preprocessing
- Combining demographic and crime data
- Importing data into GIS platforms
- **Case Study:** Integrating census and crime data for community policing

Module 4: Spatial Analysis Techniques

- Buffer analysis for crime zones
- Overlay analysis in criminology
- Density mapping and spatial clustering
- Hotspot detection techniques
- Kernel density estimation
- **Case Study:** Identifying car theft hotspots in a metro area

Module 5: Crime Pattern Recognition

- Recognizing spatial trends
- Temporal vs spatial crime patterns
- Crime typology and location correlation
- Use of heatmaps
- Crime displacement analysis
- **Case Study:** Analyzing violent crime patterns pre/post policing shift

Module 6: Predictive Policing Using GIS

- Predictive analytics overview
- Algorithms for forecasting crimes
- Machine learning applications
- Forecast accuracy measurement
- Integration with patrol planning
- **Case Study:** Predictive policing to reduce gang activity

Module 7: Mapping Crime Hotspots

- Definition and types of hotspots
- Methods of identifying hotspots
- GIS tools for hotspot analysis
- Interpreting hotspot maps
- Response strategies based on hotspots
- **Case Study:** Weekly hotspot mapping in Chicago

Module 8: Environmental Criminology & GIS

- Crime Prevention Through Environmental Design (CPTED)
- Routine activity theory
- Crime pattern theory
- Geography of crime
- Urban design implications
- **Case Study:** Environmental factors in vandalism in school zones

Module 9: Temporal Analysis of Crime Data

- Time-based crime analysis

- Seasonal trends and time series
- Weekly and daily crime patterns
- Day/night crime dynamics
- Visualizing temporal trends
- **Case Study:** Robbery trends during major holidays

Module 10: Visualization and Mapping Techniques

- Thematic mapping of crime
- Using symbology and color theory
- Labeling and annotation
- Creating interactive story maps
- Publishing crime maps online
- **Case Study:** Community dashboard for crime awareness

Module 11: GIS Software for Crime Mapping

- Overview of ArcGIS and QGIS
- Plugins and tools specific to crime data
- Custom GIS tool development
- Mobile GIS solutions
- Cloud GIS platforms
- **Case Study:** Crime mapping with QGIS in a local precinct

Module 12: Legal & Ethical Issues in GIS Crime Analysis

- Data privacy and confidentiality
- Ethical GIS use in surveillance
- Legal compliance and frameworks
- Public access vs. sensitive data
- Responsible use of analytics
- **Case Study:** Privacy concerns in predictive policing

Module 13: Dashboard and Report Creation

- Creating real-time crime dashboards
- Data storytelling for law enforcement
- Crime reporting formats
- Visual reports for stakeholders
- Automation of report generation
- **Case Study:** Crime dashboard for mayoral briefings

Module 14: GIS for Crime Prevention Strategies

- Targeted intervention planning
- Surveillance planning using GIS
- Community policing using data
- Allocating patrol resources
- Long-term trend analysis
- **Case Study:** GIS-driven response to domestic violence

Module 15: Capstone Project and Case-Based Simulation

- Group project on real crime dataset
- Simulation of a criminal event
- Strategy proposal using GIS

- Visual and written presentation
- Peer and instructor review
- **Case Study:** Comprehensive spatial analysis of city-wide crime trends

Training Methodology

- Interactive lectures with multimedia tools
- Hands-on GIS lab sessions and software tutorials
- Group discussions and peer collaboration
- Analysis of real-world crime data sets
- Capstone project with live feedback
- Case study evaluations for practical application

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

Start Date	End Date	Location	Price
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

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