Fraud Detection and Forensic Data Analysis 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 data-driven world, fraud is evolving rapidly, becoming more sophisticated and harder to detect. Organizations are under increasing pressure to protect their financial and operational data. Fraud Detection and Forensic Data Analysis Training Course equips professionals with the analytical tools, investigative techniques, and digital forensic skills needed to identify and prevent fraudulent activities. Leveraging AI, machine learning, and big data analytics, this course offers hands-on training on detecting anomalies, interpreting complex datasets, and applying forensic accounting methodologies to uncover fraud.

Whether you're working in finance, auditing, compliance, law enforcement, or cybersecurity, this comprehensive program is designed to help you master fraud detection frameworks, apply data mining for forensic investigations, and understand regulatory requirements and risk mitigation strategies. The course ensures practical knowledge through real-world case studies and data simulation exercises that prepare participants to respond decisively to fraud threats.

Programme Curriculum

Fraud Detection and Forensic Data Analysis Training Course

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Course Objectives

1. Understand key concepts in forensic accounting and fraud detection.
2. Apply data analytics for fraud risk assessment.
3. Learn AI and machine learning techniques in fraud detection.
4. Detect financial statement fraud using forensic tools.
5. Use data visualization to identify suspicious patterns.
6. Apply network analysis in fraud investigations.
7. Integrate blockchain analytics for fraud monitoring.
8. Conduct internal fraud investigations using digital forensics.
9. Use SQL and Python for forensic data queries.
10. Analyze cyber fraud cases using real-time threat data.
11. Understand compliance, AML, and KYC regulations.
12. Build fraud detection dashboards and alerts.
13. Interpret fraud case studies and investigative reports.

Target Audiences

1. Financial Analysts
2. Internal Auditors
3. Forensic Accountants
4. Compliance Officers
5. Data Analysts
6. Risk Managers
7. Law Enforcement Professionals
8. Cybersecurity Analysts

Course Duration: 5 days

Course Modules

Module 1: Introduction to Fraud Detection and Forensic Analysis

- Overview of fraud types and fraud triangle
- Importance of forensic data analysis
- Fraud detection lifecycle
- Regulatory and legal frameworks
- Digital tools used in forensic auditing
- **Case Study:** Enron scandal and forensic accounting approach

Module 2: Data Mining Techniques for Fraud Detection

- Basics of data mining for fraud
- Clustering and classification techniques
- Outlier detection using statistical methods
- Decision trees and regression for fraud prediction
- Supervised vs unsupervised learning in fraud
- **Case Study:** Credit card fraud detection using machine learning

Module 3: Financial Statement Fraud Analysis

- Red flags in financial reporting
- Ratio analysis and trends
- Benford’s Law application
- Earnings manipulation schemes
- Use of forensic software tools
- **Case Study:** Financial fraud in WorldCom

Module 4: Digital Forensics in Fraud Investigation

- Collecting and preserving digital evidence
- Chain of custody principles
- Tools for email and file analysis
- Hard drive imaging and log file analysis
- Metadata extraction techniques
- **Case Study:** Insider threat investigation in a tech firm

Module 5: AI & Machine Learning for Fraud Detection

- Introduction to fraud analytics models
- Building predictive models
- Natural language processing (NLP) in fraud reviews
- Deep learning for image/document fraud
- Anomaly detection with neural networks
- **Case Study:** Insurance fraud prediction using AI

Module 6: AML, KYC, and Regulatory Compliance

- Key AML laws and KYC standards
- Customer due diligence and risk scoring
- Transaction monitoring systems
- Suspicious activity reporting (SAR)
- Cross-border fraud and compliance gaps
- **Case Study:** Money laundering schemes in international banking

Module 7: Data Visualization for Fraud Analytics

- Using Power BI and Tableau in investigations
- Creating heat maps and dashboards
- Visualizing networks of fraudulent activity
- Interactive drill-down analysis
- Real-time alerts and triggers
- **Case Study:** Procurement fraud uncovered via dashboards

Module 8: Investigative Reporting and Risk Communication

- Structuring investigation reports
- Visual storytelling of fraud data
- Communicating findings to executives and regulators
- Remediation strategies and policy improvement
- Documenting evidence for litigation
- **Case Study:** Reporting fraud to regulatory authorities in healthcare sector

Training Methodology

- Interactive instructor-led sessions
- Hands-on practical exercises and labs

- Real-world case study simulations
- Group activities and peer learning
- Quizzes and post-module assessments

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

Start Date	End Date	Location	Price
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