Banking Fraud Analytics Training Course

Professional Development Training Course Outline

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

Course Introduction

Banking Fraud Analytics Training Course is designed to equip banking professionals, data analysts, risk managers, compliance teams, and financial technology experts with advanced skills in fraud detection, artificial intelligence (AI), machine learning (ML), predictive analytics, and real-time financial crime prevention. The program focuses on transforming banking fraud management through data-driven decision-making, behavioral analytics, anomaly detection, transaction monitoring, and automated risk intelligence. Participants learn how modern financial institutions leverage big data analytics, deep learning models, regulatory technology (RegTech), and cybersecurity analytics to identify, investigate, and prevent sophisticated fraud schemes.

With the rapid growth of digital banking, mobile payments, fintech platforms, and online financial services, fraud threats are becoming increasingly complex. This course provides practical expertise in fraud risk assessment, anti-money laundering (AML) analytics, identity fraud prevention, credit card fraud detection, customer behavior modeling, and fraud analytics dashboards. Through industry-based case studies and hands-on exercises, learners gain the capability to build proactive fraud prevention strategies aligned with global banking standards and emerging AI-powered financial crime intelligence solutions.

Programme Curriculum

Banking Fraud Analytics Training Course

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Course Duration

5 days

Course Objectives

By the end of this Banking Fraud Analytics Training Course, participants will be able to:

1. Understand advanced concepts of banking fraud analytics, financial crime intelligence, and fraud risk management.
2. Apply machine learning algorithms for automated fraud detection and prevention.
3. Develop predictive models using AI-driven transaction monitoring analytics.
4. Identify suspicious patterns through behavioral analytics and anomaly detection techniques.
5. Implement real-time fraud monitoring systems for digital banking environments.
6. Analyze payment fraud using big data analytics and advanced data visualization tools.
7. Strengthen knowledge of AML compliance, KYC analytics, and regulatory risk controls.
8. Build fraud scoring models using predictive modeling and statistical analytics.
9. Utilize cyber fraud analytics to detect emerging financial threats.
10. Design effective fraud investigation frameworks and intelligence workflows.
11. Apply network analytics to uncover fraud rings and organized financial crimes.
12. Improve banking security using AI automation and intelligent decision systems.
13. Develop strategic approaches for future-ready fraud prevention and digital risk transformation.

Target Audience

1. Banking fraud analysts and financial crime investigators
2. Risk management professionals and compliance officers
3. Data analysts and business intelligence professionals
4. Cybersecurity and information security teams
5. AML, KYC, and regulatory compliance specialists
6. FinTech professionals and digital banking teams
7. Audit professionals and internal control specialists
8. Banking managers and financial services executives

Course Modules

Module 1: Fundamentals of Banking Fraud Analytics

- Introduction to financial fraud ecosystems and banking risk intelligence
- Types of banking fraud-payment fraud, identity fraud, loan fraud, and cyber fraud
- Role of data analytics in modern fraud prevention
- Fraud lifecycle management and investigation processes

- Case Study: Detecting fraudulent banking transactions using historical customer data

Module 2: Banking Data Management and Fraud Intelligence

- Understanding banking data sources and transaction datasets
- Data preparation, cleaning, and transformation for fraud analytics
- Feature engineering for fraud detection machine learning models
- Data governance and secure financial data management
- Case Study: Building a fraud analytics dataset for a digital banking platform

Module 3: Machine Learning for Fraud Detection

- Supervised and unsupervised learning techniques for fraud analytics
- Classification models: decision trees, random forests, and neural networks
- Fraud prediction using AI and predictive analytics
- Model evaluation, accuracy, precision, recall, and performance metrics
- Case Study: Machine learning model for credit card fraud detection

Module 4: Transaction Monitoring and Anomaly Detection

- Real-time transaction analysis and monitoring strategies
- Identifying unusual customer behavior patterns
- Advanced anomaly detection algorithms
- Rule-based systems versus AI-based fraud detection
- Case Study: Detecting suspicious mobile banking transactions in real time

Module 5: AML, KYC Analytics, and Financial Crime Prevention

- Introduction to Anti-Money Laundering analytics
- Customer risk scoring and KYC intelligence
- Suspicious activity detection and reporting
- Regulatory compliance analytics frameworks
- Case Study: Identifying money laundering patterns using customer networks

Module 6: Advanced Fraud Analytics Technologies

- Application of deep learning and artificial intelligence in banking security
- Graph analytics for fraud network detection
- Natural Language Processing (NLP) for fraud investigations
- Automation using intelligent fraud analytics platforms
- Case Study: Detecting organized fraud groups through network analytics

Module 7: Fraud Analytics Tools and Visualization

- Building fraud dashboards using analytics visualization techniques
- Risk scoring dashboards and executive reporting
- Data storytelling for fraud investigation teams
- Monitoring fraud KPIs and operational metrics
- Case Study: Creating a fraud intelligence dashboard for banking executives

Module 8: Future Trends in Banking Fraud Analytics

- Generative AI applications in financial fraud prevention

- Blockchain analytics and digital identity security
- Cloud-based fraud analytics solutions
- Emerging trends in cybersecurity and financial crime intelligence
- Case Study: Designing a future-ready AI fraud prevention framework

Training Methodology

- 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

Start Date	End Date	Location	Price
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