informatech



ACCOUNTING AND FINANCE | AF-002

Artificial Intelligence in Banking and Financial Services

UK
+44 33 000 111 90
info@informatech.co.uk
https://informatech.co.uk
63-66 Hatton Garden Hatton Garden
EC1N 8LE , London

NL
+31 85 74 444 46
info@infomatech.nl
https://infomatech.nl
Waarderweg 50 - 2031PB
Haarlem - Netherlands



Course content

Why Attend

This course provides a comprehensive foundation in the application of Artificial Intelligence (AI), machine learning, and cognitive modelling within the financial services sector. Designed specifically for professionals in banking, asset management, financial services and governance, it explores how these technologies are reshaping client engagement, risk profiling, predictive analytics, and operational efficiency.

Course participants will gain a solid understanding of the fundamental logic behind AI and machine learning within the industry, and how these tools can be applied to better understand client behaviour, assess risk appetite, and tailor services to individual objectives. The course also highlights the transformative potential of AI in enhancing the customer experience across various touchpoints in financial services.

In addition to practical applications, such as time-series analysis and predictive modelling, the course also explores the integration of AI with legacy systems, identifying both opportunities and operational challenges.

Course Methodology

The courses focuses on an interactive approach to knowledge transfer as well as practical studies and engagement of participants in an interactive Q&A format.

Course Objectives

By the end of the course, participants will be able to:

• Understand how AI and machine learning can be used to assess client profiles, risk appetite, and financial objectives

• Identify how AI technologies enhance customer experience across various areas of financial services

• Apply AI concepts to time-series analysis and broader predictive analytics

• Evaluate practical challenges and integration issues when adopting AI alongside legacy systems



Course content

Course Objectives

• Assess gaps between AI expectations and real-world outcomes, including the risk of overpromised benefits

Target Audience

This course is ideal for anyone in the banking and financial services industry, who are exploring the use of AI to support their role or organization.

Target Competencies

• Analytical and Predictive Skills

• Change Management

• Risk Management

• Governance, Ethics and Compliance

• Portfolio and Wealth Management

Course outline

Foundations of Artificial Intelligence (AI) and Machine Learning (ML) in Finance

• Introduction to AI and ML Evolution of search algorithms (Google, Microsoft, etc.)

• Overview of cognitive modelling and neural networks

• Supervised vs. Unsupervised learning

• Training vs. Inference Teaching models to learn from data

• Making predictions from trained models

• Tools and Technologies Software: Python, C++, parallel programming

• Hardware: Nvidia GPUs, high-capacity data storage



Course content

Course outline

- Natural Language Processing (NLP) Sentiment analysis from social media and textual data
- Customer-Facing Applications Chatbots and virtual assistants
- Personalized client profiling
- Risk Management Credit scoring and loan prediction
- Market risk prediction
- Fraud detection (anomaly detection and real-time monitoring)
- Trading and Execution Algorithmic trading strategies
- Sentiment and data pattern analysis
- Regulatory Compliance AI in AML/KYC processes
- Streamlining regulatory reporting
- Enhancing Credit Evaluation Traditional vs. AI-driven credit scoring
- Key predictive variables Financial history
- Behavioral data
- Macro indicators
- AI Techniques and Models Logistic regression
- Neural networks
- Decision trees
- Alternative Data Sources Social media and transaction data
- Ethical concerns in alternative data usage
- Early Warning Systems Proactive identification of potential defaults
- AI in Asset Allocation and Investment Strategy Data-Driven Decision Making Analyzing financial statements, news, and social media
- Market sentiment extraction using NLP



Course content

Course outline

- Portfolio Optimization Detecting non-obvious correlations
- Asset rebalancing and risk-adjusted allocations
- Fraud and Anomaly Detection Monitoring investment transactions for irregularities
- Predictive Analytics Forecasting market volatility via time series analysis
- Operational Efficiency Process mining and workflow optimization
- Predictive maintenance for systems
- Fraud Detection Classification and clustering techniques
- Real-time fraud analytics
- Behavioral biometrics for identity verification
- Portfolio Execution AI-assisted trade execution and price optimization
- Minimizing slippage and transaction costs
- Robo-Advisors and Automation
- Automated client profiling and rebalancing
- Risk monitoring and strategy adjustment
- Client-Centric Advisory Personalized reporting and strategy communication
- Client Engagement AI-powered support systems and recommendations
- Intelligent onboarding and client reporting
- Operational Automation Data entry, reconciliation, compliance, and reporting
- Personalized Services Tailored investment strategies and communications
- Data Quality and Bias Importance of training data quality
- Bias and fairness in AI decision-making
- Model Interpretability Explainability and audit trails
- Addressing black-box challenges



Course content

Course outline

- Security and Compliance Data privacy, encryption, and cybersecurity risks
- Regulatory obligations and risk mitigation
- AI in Human Resources and Operations Bias and accountability in automated decisions
- Skills gap and AI talent requirements
- Strategic Adoption Building trust and executive buy-in
- Cost-benefit analysis of AI investment
- Workforce Impact Job displacement vs. upskilling
- Collaborating across business and tech divisions
- Organizational Governance Bridging the gap between tech and senior leadership
- FinTech adoption among younger demographics
- Ethics and ESG Considerations Data sharing, customer consent, and privacy
- Blockchain and environmental impacts
- Change Management Navigating structural and regulatory changes
- Tailored Advice and Budgeting AI-driven insights on spending and savings
- Smart financial planning tools
- Robo-Advisory Services Algorithmic wealth management
- Tax-loss harvesting and rebalancing
- Hybrid Models Human-AI collaboration in advisory roles
- Regulatory oversight and client transparency
- Ethical AI Frameworks Fairness, accountability, and transparency
- Bias mitigation and auditability
- Privacy and Data Security Data anonymization and federated learning
- Managing cybersecurity threats



Course content

Course outline

• Principles of Responsible AI Oversight, robustness, and explainability

• The Regulatory Landscape Regulatory Frameworks in AI and Finance Current and emerging regulations for AI in finance (e.g., GDPR, explainability requirements)

• Overview of global and regional AI regulations impacting financial services

• Data Governance and Compliance Regulatory focus on data privacy, usage, and model governance

• Compliance challenges related to AI systems in finance

• Regulatory Technology (RegTech) Applications How AI can support compliance: monitoring, risk assessment, and reporting automation

• Emerging AI Technologies Quantum Machine Learning: addressing complex optimization challenges

• Federated Learning: privacy-preserving collaborative training

• Generative AI: synthetic data, content generation, and reporting applications

• Strategic Industry Impact How AI will reshape financial services, including roles and responsibilities

• Disruption of traditional models and competitive landscapes



Seminar dates

Available seminar dates

Live dates and pricing for Artificial Intelligence in Banking and Financial Services generated from the course details page.

Date	Location	Format	Fee
14 - 18 December 2026	Paris - France	Classroom	**€3,600.-**
18 - 22 January 2027	London - U.K	Classroom	**€3,360.-**
15 - 19 February 2027	Amsterdam - Netherlands	Classroom	**€3,400.-**
15 - 19 March 2027	London - U.K	Classroom	**€3,360.-**
19 - 23 April 2027	Istanbul - Turkey	Classroom	**€2,280.-**
17 - 21 May 2027	Vienna - Austria	Classroom	**€3,400.-**
21 - 25 June 2027	Barcelona - Spain	Classroom	**€3,080.-**
19 - 23 July 2027	Cape Town - South Africa	Classroom	**€2,272.-**
16 - 20 August 2027	London - U.K	Classroom	**€3,360.-**
20 - 24 September 2027	Amsterdam - Netherlands	Classroom	**€3,400.-**
18 - 22 October 2027	London - U.K	Classroom	**€3,360.-**
15 - 19 November 2027	Istanbul - Turkey	Classroom	**€2,280.-**
20 - 24 December 2027	Vienna - Austria	Classroom	**€3,400.-**

Live online option	Online delivery is available at €1,850.-.