



8533-V1



In-Class



8 hours



EGP 2,750

Course Description:

This one-day intensive course, Blockchain Fundamentals for Bankers, is designed to demystify blockchain technology and its transformative impact on the banking industry. Participants will gain a clear understanding of how blockchain works, its key features, and its practical applications in banking and finance. The course covers blockchain use cases such as payments, trade finance, anti-money laundering (AML), and asset tokenization, alongside addressing the risks, challenges, and future trends. Through interactive demonstrations and real-world examples, this course equips bankers with the knowledge to navigate the opportunities and challenges presented by blockchain technology.

Target Audience:

- Banking Professionals: Relationship managers, financial analysts, operations managers, and treasury staff looking to understand blockchain's impact on banking operations.
- Senior Management: Executives and decision-makers exploring blockchain for strategic implementation in banking.
- Technology Teams in Banking: IT leaders, project managers, and fintech specialists involved in integrating blockchain into banking systems.
- Compliance Officers and Risk Managers: Professionals assessing blockchain's implications for regulatory compliance and fraud prevention.
- Finance Enthusiasts and Consultants: Individuals seeking to understand blockchain's role in transforming financial services.

Course Objectives:

- Understand Blockchain Fundamentals:
 - Comprehend the core principles of blockchain technology, including decentralization, cryptography, and distributed ledger systems.
- Explore Blockchain Architecture:
 - Gain insights into blockchain components such as nodes, consensus mechanisms (e.g., Proof of Work, Proof of Stake), and smart contracts.
- Develop Technical Proficiency:
 - Learn to set up and interact with blockchain networks, including private and public blockchains like Ethereum, Hyperledger, or Bitcoin.

- Build and Deploy Smart Contracts:
 - Design, code, and deploy smart contracts using programming languages like Solidity.
- Analyze Real-World Applications:
 - Explore blockchain use cases across industries such as finance, supply chain, healthcare, and identity management.
- Address Security and Scalability:
 - Understand key challenges in blockchain, including scalability, interoperability, and security risks, and evaluate potential solutions.
- Navigate Regulatory and Ethical Considerations:
 - Gain awareness of legal, ethical, and compliance issues surrounding blockchain implementation.
- Hands-On Project Development:
 - Develop and present a blockchain-based project to apply learned concepts to real-world scenarios.

Course Outline:

Session 1: Introduction to Blockchain

- What is Blockchain?
 - Definition and key concepts
 - History and evolution of blockchain technology
- Why Does Blockchain Matter for Banking?
 - Differences from traditional banking systems
 - Opportunities and challenges
- Key Features
 - Decentralization
 - Transparency
 - Immutability

Session 2: How Blockchain Works

- Blockchain Structure
 - Blocks, transactions, and ledgers
 - Hash functions and cryptography



CENTRAL BANK OF EGYPT
Egyptian Banking Institute

Blockchain Fundamentals for Bankers

Information Technology



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- Consensus Mechanisms
 - Proof of Work (PoW)
 - Proof of Stake (PoS)
 - Other methods (e.g., Delegated PoS, Byzantine Fault Tolerance)
- Smart Contracts Overview
 - Definition and use cases

Session 3: Blockchain Use Cases in Banking

- Payments and Settlements
 - Faster cross-border payments
 - Reducing settlement times
- Trade Finance
 - Streamlining trade documentation
 - Reducing fraud
- Lending and Credit Scoring
 - Decentralized credit checks
- Anti-Money Laundering (AML) and Fraud Detection
 - Enhanced compliance through transparent ledgers
- Tokenization of Assets
 - Digital securities and asset-backed tokens

Session 4: Blockchain Ecosystem and Platforms

- Public vs Private Blockchains
 - Key differences and applications
- Overview of Major Platforms
 - Bitcoin
 - Ethereum
 - Hyperledger
 - Ripple (for banking applications)
- Regulatory Considerations
 - Legal and compliance challenges in banking

Session 5: Hands-On Demonstration

- Live Demo of Blockchain in Action
 - Viewing transactions on a blockchain explorer
 - Smart contract examples

- Interactive Activity
 - Simulating a simple blockchain transaction in groups

Session 6: Risks and Challenges

- Scalability and Performance Issues
- Energy Consumption Concerns
- Security Risks
 - 51% attacks
 - Privacy and data protection
- Resistance to Adoption
 - Integration with legacy systems
 - Cost considerations

Session 7: The Future of Blockchain in Banking

- Emerging Trends
 - Decentralized Finance (DeFi)
 - Central Bank Digital Currencies (CBDCs)
- Roadmap for Adoption
 - Building internal capacity
 - Partnering with fintechs

Assessment and Attendance Strategy:

- Participants will be evaluated based on their participation in class discussions and individual exercises.
- Each Participant must achieve 80% attendance of the total in-class sessions.

Course Language:

- Material: English
- Instruction and Explanation: Bilingual (EN <>AR)

Prerequisites:

No prerequisite for this workshop