Blockchain for Financial Settlements and Smart Contracts Training Course

07 - 11 Dec 2026

Cape town

4600 € (Per Person)

Ref: #AF1512_259080

Course Introduction / Overview:

This course provides a comprehensive exploration of blockchain technology's transformative impact on financial settlements and the automation of agreements through smart contracts. In an era of rapid digital transformation, understanding Distributed Ledger Technology (DLT) is no longer optional but essential for financial professionals seeking to drive innovation and efficiency. As detailed by authors like Don Tapscott in his seminal work "Blockchain Revolution," this technology offers unprecedented levels of security, transparency, and immutability, fundamentally reshaping traditional financial processes. This program, offered by BIG BEN Training Center, moves beyond theoretical concepts to provide practical, actionable insights into how blockchain facilitates faster, cheaper, and more reliable cross-border payments, trade finance, and post-trade processing. Participants will delve into the mechanics of consensus algorithms, cryptographic principles, and the architecture of both public and private blockchains. The curriculum is meticulously designed to cover the entire lifecycle of smart contracts, from conceptual design and development principles to deployment, security auditing, and navigating the complex legal and regulatory landscape. This training empowers attendees to strategically evaluate and implement blockchain solutions within their organizations, turning disruptive technology into a competitive advantage.

Target Audience / This training course is suitable for:

- Financial Analysts and Managers.
- Banking and Finance Professionals.
- IT Managers and System Architects.
- Legal Counsel and Corporate Lawyers.
- Compliance and Risk Management Officers.
- Government Regulators and Policymakers.
- FinTech Entrepreneurs and Innovators.
- Operations Managers in Financial Institutions.
- Business Strategists and Consultants.
- Product Managers in the financial sector.

Target Sectors and Industries:

- Commercial and Investment Banking.
- Financial Technology (FinTech) and Startups.
- Insurance and Reinsurance.
- Asset and Wealth Management.
- Capital Markets and Securities Trading.
- Government and Public Sector Financial Agencies.
- Supply Chain and Trade Finance.
- Real Estate and Asset Tokenization.
- Legal and Professional Services.
- Telecommunications and Digital Identity.

Target Organizations Departments:

- Finance and Treasury Departments.
- Information Technology (IT) and Digital Transformation.
- Legal and Corporate Governance.
- Compliance and Regulatory Affairs.
- Operations and Back-Office Processing.
- Strategy and Business Development.
- Internal Audit and Risk Management.
- Product Development and Innovation.
- International Trade and Payments.
- Procurement and Supply Chain Management.

Course Offerings:

By the end of this course, the participants will have able to:

- Analyze the fundamental principles of blockchain technology, including decentralization, cryptography, and consensus mechanisms.
- Evaluate the impact of Distributed Ledger Technology (DLT) on traditional financial settlement systems.
- Differentiate between various blockchain platforms like Ethereum and Hyperledger Fabric for financial applications.
- Design the logical flow and key components of a smart contract for a specific business use case.
- Identify common security vulnerabilities in smart contracts and understand best practices for auditing.
- Assess the legal and regulatory implications of implementing smart contracts and blockchain solutions.
- Develop a strategic framework for integrating blockchain technology into existing financial operations.
- Understand the process of asset tokenization and its applications in capital markets.
- Examine the role of blockchain in enhancing transparency and efficiency in cross-border payments.
- Formulate a business case for a blockchain project, outlining potential ROI and implementation challenges.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to foster a deep, practical understanding of blockchain applications through an immersive and interactive learning environment. We believe in learning by doing, moving beyond passive lectures to engage participants actively. The course heavily relies on real-world case studies, examining successful and failed blockchain implementations in major financial institutions to draw actionable lessons. Interactive sessions, including group discussions and brainstorming workshops, encourage participants to apply theoretical knowledge to solve complex problems relevant to their own organizations. Practical exercises will involve mapping out smart contract logic for scenarios like trade finance or automated royalty payments, allowing attendees to grasp the operational workflow without needing to code. Our expert instructors facilitate a collaborative atmosphere where participants can share experiences and challenge assumptions. Continuous feedback is provided throughout the sessions to ensure concepts are thoroughly understood. This blended approach of theory, practical application, and peer-to-peer learning ensures that participants leave not just with knowledge, but with the confidence to lead blockchain initiatives.

Course Agenda (Course Units):

Unit One: Fundamentals of Blockchain and Distributed Ledger Technology

- Introduction to Blockchain Technology and its Core Principles.
- The History and Evolution from Bitcoin to Enterprise DLT.
- Understanding Cryptography: Hashing, Public/Private Keys, and Digital Signatures.
- Exploring Different Consensus Mechanisms (PoW, PoS, PBFT).
- Public, Private, and Consortium Blockchains: A Comparative Analysis.
- The Architecture of a Distributed Ledger.
- Key Terminology and Concepts in the Blockchain Ecosystem.

Unit Two: Blockchain's Application in Financial Settlements

- Analyzing Traditional Clearing and Settlement Systems.
- How Blockchain Disrupts Post-Trade Processing and Reconciliation.
- Use Case Deep Dive: Cross-Border Payments and Remittances.
- Central Bank Digital Currencies (CBDCs) and their Global Impact.
- The Role of Blockchain in Trade Finance and Supply Chain Finance.
- Asset Tokenization: Digitizing Real-World Assets on the Blockchain.
- Challenges and Opportunities for Blockchain Adoption in Banking.

Unit Three: An Introduction to Smart Contracts

- Defining Smart Contracts: The Concept of Self-Executing Agreements.
- The Key Characteristics and Benefits of Smart Contracts.
- The Smart Contract Lifecycle: Creation, Deployment, and Execution.
- Introduction to Leading Smart Contract Platforms like Ethereum.
- Understanding Gas, Transactions, and the Ethereum Virtual Machine (EVM).
- Limitations and Challenges: The Oracle Problem and Scalability.
- Use Cases for Smart Contracts Beyond Finance.

Unit Four: Smart Contract Design, Security, and Deployment

- Best Practices for Designing Smart Contract Logic and Architecture.
- Introduction to Solidity Principles and Data Types.
- Common Smart Contract Security Vulnerabilities (e.g., Re-entrancy, Integer Overflow).
- The Importance of Smart Contract Auditing and Formal Verification.
- Testing and Debugging Strategies for Smart Contracts.
- Deployment Considerations for Public and Private Networks.
- Managing and Upgrading Deployed Smart Contracts.

Unit Five: Strategy, Regulation, and the Future of Blockchain Finance

- Navigating the Legal and Regulatory Landscape for Blockchain and Digital Assets.
- Developing a Blockchain Implementation Strategy and Roadmap.
- Building a Business Case and Measuring ROI for Blockchain Projects.
- Exploring Decentralized Finance (DeFi) and its Core Components.
- The Challenge of Blockchain Interoperability and Standardization.
- Governance Models for Blockchain Networks and Consortia.
- Future Trends: Web3, Decentralized Identity, and the Evolving Financial Ecosystem.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

As smart contracts become more integrated into cross-border commercial law, how will international legal frameworks need to adapt to address disputes arising from code-based agreements that operate across multiple jurisdictions simultaneously?

What unique qualities does this course offer compared to other courses?

This training course distinguishes itself by offering a balanced, strategy-focused curriculum that bridges the gap between high-level technical concepts and practical business implementation. Unlike purely technical courses that focus heavily on coding or theoretical programs that remain abstract, our approach is centered on strategic application. We emphasize the "why" and "how" of blockchain adoption in finance, equipping participants with the frameworks needed to evaluate use cases, manage risks, and build a compelling business case within their organizations. The content is meticulously curated to address the specific challenges of financial settlements and smart contract law, incorporating real-world case studies from the banking, trade finance, and capital markets sectors. Furthermore, the course delves deeply into the critical, often-overlooked aspects of security, governance, and regulatory compliance, which are paramount for successful enterprise-level deployment. The interactive methodology ensures that learning is not a passive experience but an engaging process of problem-solving and strategic thinking, preparing leaders to navigate the complexities of this transformative technology with confidence and foresight.