

BLOCKCHAIN SECURITY AUDIT: FOCUSES ON THE SECURITY OF BLOCKCHAIN TECHNOLOGY IMPLEMENTATIONS

“Auditing Blockchain Systems for Integrity, Confidentiality, and Operational Security”

Schedule

Date	Venue	Fees (Face-to-Face)
18 - 22 May 2026	London, UK	USD 3495 per delegate

Introduction

As blockchain adoption accelerates across sectors—from finance to supply chains—security risks associated with decentralized platforms have become a critical concern. Weaknesses in smart contracts, consensus mechanisms, and node management can be exploited, leading to financial loss, privacy violations, and reputational damage.

This course provides auditors and security professionals with the knowledge and tools to assess blockchain implementations. Participants will learn how to audit the underlying infrastructure, evaluate smart contract security, test access controls, and verify system integrity. Hands-on sessions and real-world case studies are used to demonstrate how to uncover vulnerabilities and recommend remediations.

Objectives

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

- Understand blockchain architecture, types, and consensus models
- Identify key security risks in blockchain platforms and smart contracts
- Evaluate access control, cryptographic mechanisms, and node vulnerabilities
- Plan and conduct a blockchain security audit using structured frameworks
- Report on compliance with blockchain security best practices and standards

Why Attend

- Gain technical and audit insights into blockchain security
- Learn how to evaluate smart contracts for flaws and attack vectors
- Understand how blockchain differs from traditional IT environments
- Ensure enterprise blockchain deployments are secure and auditable
- Stay ahead of evolving threats targeting decentralized systems

Target Audience

This program is designed for:

- IT and Security Auditors
- Cybersecurity and Risk Management Professionals
- Blockchain Developers and System Architects
- Compliance Officers overseeing blockchain projects
- Consultants working on digital transformation or fintech platforms

Individual Benefits

Key competencies that will be developed include:

- Blockchain system audit planning and execution
- Smart contract security risk identification
- Consensus model analysis and failure point detection
- Control review for node integrity and data confidentiality
- Report writing and remediation recommendations

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Stronger oversight over blockchain-based systems
- Enhanced detection and mitigation of vulnerabilities
- Compliance with cybersecurity and blockchain-specific standards
- Protection of digital assets and smart contract functionality
- Alignment of blockchain solutions with internal risk policies

Instructional Methodology

The course follows a blended learning approach combining theory with practice:

- Strategy Briefings - Blockchain types, threat models, audit challenges
- Case Studies - Hacks, vulnerabilities, and lessons learned
- Workshops - Smart contract audit, node access control review
- Peer Exchange - Challenges in auditing live blockchain deployments
- Tools - Audit templates, static code analyzers, blockchain scanners

Course Outline

Training Hours: 7:30 AM - 3:30 PM Daily Format: 3-4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 - 02:00

Day 1: Blockchain Technology and Audit Scope

- Module 1: Blockchain Fundamentals and Security Principles (07:30 - 09:30) • Public vs private chains, nodes, transactions, immutability
- Module 2: Consensus Mechanisms and Their Vulnerabilities (09:45 - 11:15) • PoW, PoS, BFT, fork attacks, double spending
- Module 3: Defining Blockchain Audit Objectives (11:30 - 01:00) • Scope, risks, and key audit components
- Module 4: Workshop - Map the Security Landscape of a Sample Blockchain (02:00 - 03:30) • Identify entry points and threat vectors

Day 2: Smart Contracts and Platform Security

- Module 5: Smart Contract Architecture and Risks (07:30 - 09:30) • Logic flaws, reentrancy, gas limits, attack surfaces
- Module 6: Smart Contract Audit Tools and Techniques (09:45 - 11:15) • MythX, Slither, manual reviews, vulnerability scanning
- Module 7: Managing Contract Deployment and Upgrades (11:30 - 01:00) • Versioning, immutability risks, patch management
- Module 8: Workshop - Audit a Sample Smart Contract (02:00 - 03:30) • Run checks and identify issues

Day 3: Node, Network, and Data Security

- Module 9: Node Configuration and Access Control (07:30 - 09:30) • Authentication, open ports, denial of service risks
- Module 10: Data Privacy, Encryption, and Key Management (09:45 - 11:15) • Public/private key handling, off-chain data, wallets
- Module 11: Blockchain Forensics and Logging (11:30 - 01:00) • Transaction tracing, hash integrity, audit trails
- Module 12: Workshop - Node Security Assessment Simulation (02:00 - 03:30) • Check network exposure and control configurations

Day 4: Frameworks and Compliance Auditing

- Module 13: Blockchain Audit Standards and Regulations (07:30 - 09:30) • NIST, ISO, GDPR, FATF for blockchain
- Module 14: Compliance Risks in Blockchain Implementations (09:45 - 11:15) • KYC/AML, anonymity, governance concerns
- Module 15: Building a Blockchain Security Audit Plan (11:30 - 01:00) • Steps, resources, and reporting
- Module 16: Workshop - Draft an Audit Checklist for a DeFi App (02:00 - 03:30) • Covering technical, privacy, and governance controls

Day 5: Emerging Threats and Future Readiness

- Module 17: Recent Blockchain Breaches and Exploit Tactics (07:30 - 09:30) • Case studies and how attacks were executed
- Module 18: Zero Trust and Decentralized Identity (09:45 - 11:15) • New paradigms in blockchain-based authentication
- Module 19: Final Audit Simulation - Full Lifecycle Review (11:30 - 01:00) • Participants analyze a blockchain platform from end to end
- Module 20: Final Workshop - Present Your Blockchain Audit Report (02:00 - 03:30) • Teams present findings and recommendations

Certification

Participants will receive a Certificate of Completion in Blockchain Security Audit, validating their expertise in assessing blockchain architectures, smart contracts, and node security in compliance with best practices and evolving regulatory standards.

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