XCELERATE TRAINING INSTITUTE
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INFORMATION TECHNOLOGY

Blockchain Technology Certification Training Course

DURATION	LANGUAGE	FORMAT
10 days	**English**	**Classroom / Online**

Upcoming dates

Dates	Venue	Format	Fee
3 – 14 May 2027	Live online	Online (live)	**€1,800**
14 – 25 Jun 2027	Bahrain	Classroom	**€7,200**
8 – 19 Nov 2027	Live online	Online (live)	**€1,800**

Register or ask a question

Online: staging.x8ti.com/course/blockchain-technology-certification-training…
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Blockchain Technology Certification Training Course

Introduction

Block chain is a digital ledger that automates and records transactions of value. It ensures complete accountability, eliminating errors and unauthorized activities. While internet-based business transactions have expanded opportunities, they've also created a lucrative target for cybercriminals. These attackers steal sensitive data, disrupt operations, and extort money. This course by Xcelerate Training Institutes equips executives with the knowledge to navigate this evolving landscape, understanding block chain security comprehensively.

Learning Objectives

Upon completion, participants will:

- Grasp block chain’s fundamentals, potential, and limitations.
- Distinguish between block chain attacks and security threats.
- Compare block chain implementations to select the best fit for business needs.
- Master block chain’s inherent security features and risks.
- Conduct block chain network security risk assessments.
- Apply best security practices and data protection techniques.

Training Methodology

This interactive course combines lectures, seminars, group discussions, assignments, and case studies, following a 'Do-Review-Learn-Apply' model.

Benefits for Your Organisation

Organizations benefit by:

- Empowering employees with block chain technology insights for enhanced security policies.
- Offering cost-effective professional development.
- Enabling application of successful case studies.
- Understanding block chain’s role in cyber security.

Benefits for you

Professionals gain:

- In-depth knowledge of security best practices and threat response.
- Proficiency in widely used block chain tools.
- Comprehensive understanding of block chain’s major fields.
- Increased job demand due to block chain security expertise.
- Ability to apply block chain across various industries.
- Block chain certification to enhance career prospects.
- Up-to-date industry knowledge for better decision-making.

Who Should Attend

This course is ideal for block chain architects, developers, system administrators, network and cyber security experts, IT professionals with cyber security experience, and those responsible for block chain security.

Course Outline

Introduction to Block chain

- Comprehensive explanation of block chain
- Key characteristics of block chain
- Historical overview and future prospects

Block chain Deep Dive

- Comparison of block chain and traditional databases
- Distributed ledger concept
- Cryptography overview
- Keys as identifiers
- Transaction processing in a distributed network
- Peer-to-peer network
- Transaction validation
- Block structure and chaining
- Block chain data structure
- Digital tokens
- Block chain ecosystem
- Block chain types

Fundamental Block chain Security

- Cryptography in block chain
- Block chain security assumptions
- Limitations of basic block chain security

Consensus in the Block chain

- Block chain consensus and Byzantine Generals problem
- Introduction to block chain consensus security
- Proof of Work
- Proof of Stake
- Other consensus algorithms

Advanced Block chain Security Mechanisms

- Architectural security measures
- Permissioned block chains
- Check pointing
- Advanced cryptographic solutions

- Multiparty signatures
- Zero-knowledge proofs
- Stealth addresses
- Ring signatures
- Confidential transactions

Smart Contract Security

- Smart contract introduction
- Smart contract security considerations
- Smart contract code auditing

Block chain Risk Assessment

- Block chain risk factors
- Regulatory compliance
- Block chain architectural design

Basic Block chain Security

- User security
- Node security
- Network security

Block chain for Business

- Ethereal security overview
- Hyper ledger security overview
- Corday security overview

Securely Implementing Business Block chains

- Business operations
- Data management
- Infrastructure
- Legal and regulatory compliance

Network-Level Vulnerabilities and Attacks

- 51% attacks
- Denial of Service attacks
- Eclipse attacks
- Replay attacks
- Routing attacks
- Sybil attacks

System-Level Vulnerabilities and Attacks

- Bit coin hack case study
- Verge hack case study
- EOS vulnerability

Smart Contract Vulnerabilities and Attacks

- Re-entrance attacks
- Access control vulnerabilities
- Arithmetic errors
- Unchecked return value vulnerabilities
- Denial of Service attacks
- Bad randomness
- Race conditions
- Timestamp dependence
- Short address vulnerabilities

Security of Alternative DLT Architectures

- Introduction to DAG-based DLTs
- Advantages of DAG-based DLTs
- Limitations of DAG-based DLTs

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Registration Form

Blockchain Technology Certification Training Course

Preferred dates: ..... Venue or online: .....

Duration: 10 days Language: .....

Please complete and email this form to us, or register online. We confirm your place and send the invoice within one working day.

Delegate information

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Official email: ..... Personal email: .....

Company information

Company name: .....

Address: .....

City / country: ..... VAT / tax number: .....

Person responsible for training & development

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

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Register online
Open the course page