Course Code: **QACCBCSEC**
Vendor: **Cyber**
Duration: **3**
RRP: **£POA**

Crypto Currency Forensics and Block Chain Security

Overview

This course is an introductory 3-day course ideal for developers, auditors, law enforcement and government.

After this course, you'll know all you need to be able to separate fact from fiction by obtaining a conceptual foundation of the blockchain technology and cryptocurrencies. There are several hands-on labs within the delivery.

The course covers the broad topics essential to the blockchain and cryptocurrency technology, how to build a case for investigation and how to audit a transaction. Open source intelligence tools and darknet forensics will also be explored.

Target Audience

This course is aimed for anyone interested in obtaining a broad overview of blockchain technology and crypto currency forensics.

Delegates will learn how to

Introduction to the Blockchain

- Hashing
- Network Structure
- Key characteristics and concepts
- Mining process
- Application of blockchain

Introduction to Cryptocurrency

- Technology, Protocols and Tokens
- History and Evolution of Bitcoin
- Transaction Process
- Evaluation of Cryptocurrency

Building a Case

- Exchange and Wallets
- Tumblers
- Darknet and Black market
- Forums, Blockchain and Forensic Images

Auditing a Transaction

- Audit and Assurance
- Cases of challenges in audit process
- Examination of bitcoin addresses

Course Outline

Module 1 – Introduction to the blockchain

This module helps delegates understand the essential processes of the blockchain technology which includes hashing, decentralised network, consensus, smart contracts, permission and shared ledger and the mining process. We will further explore its application in action and future development.

By the end of this session, delegates should be able to:

- Build their own blockchain and explain how it works.

This module will include:

- Hashing
- Network Structure
- Key characteristics and concepts
- Mining process
- Application of blockchain

Module 2 – Introduction to Cryptocurrency

This module helps delegates understand how a transaction works and the differences in technology, protocols and tokens. We will further explore its surrounding technology.

By the end of this session, delegates should be able to:

- Draw a diagram explaining how cryptocurrency works in line with the blockchain.

This module will include:

- Technology, Protocols and Tokens
- History and Evolution of Bitcoin
- Transaction Process
- Evaluation of Cryptocurrency

Module 3 – Building a Case

This module helps delegates understand how to forensically investigate and identify sources of indicators of compromise for further investigation. This includes understanding the processes of exchanges, wallets, tumblers, darknet and the facilitation of black market sites, forums, the blockchain and forensic images.

By the end of this session, delegates should be able to:

- Forensically investigate a bitcoin transaction activity involving the use of darknet.

This module will include:

- Exchange and Wallets
- Tumblers
- Darknet and Black market
- Forums, Blockchain and Forensic Images

Module 4 – Auditing a Transaction

This module helps delegates understand the opportunity and challenges the blockchain brings to the auditing process, the type of transactions that are recorded in the blockchain and the future development in accountancy.

By the end of this session, delegates should be able to:

- Audit a bitcoin transaction from the bitcoinica hack 2012 using blockseer blockchain explorer.

This module will include:

- Audit and Assurance
- Cases of challenges in audit process
- Examination of bitcoin addresses

Prerequisites

There are no specific pre-requisites to attend this course, however we do expect delegates to have a basic understanding of technology, computing and the internet.

Special Notices