

# **CYBER**BAHN

CyberBahn Federal Solutions



# **Certified Training and Workshops**

# **Cryptocurrencies and Blockchain Fundamentals Track**

Cryptocurrency and Blockchain Fundamentals track equips participants with the foundations of Cryptocurrencies and the underlying Blockchain technology. In addition, the learning objectives will foster discussion, which will enable participants to gain useful knowledge and insight to Cryptocurrencies and Blockchain technology. This knowledge-based certification is highly recommended if you do not have prior working knowledge in Cryptocurrency and Blockchain. When you complete the course, you will be Certified in Cryptocurrency and Blockchain Foundations (CCBF). The Fundamentals course is for: enthusiasts, professionals, including software developers, who would like to learn the basics of cryptocurrency and the blockchain technology.

#### **MAJOR TRACK THEMES:**

- CRYPTOCURRENCIES
- BLOCKCHAIN TECHNOLOGY

# 1. Cryptocurrency and Blockchain Fundamentals(CCBF)

## **Description:**

A cryptocurrency is a digital token designed to work as a medium of exchange or a method of record keeping or a new way of transferring value/assets. Blockchain is the underlying technology behind various Cryptocurrencies.

Cryptocurrency & Blockchain Fundamentals (CCBF) Certification provides an overview of the Blockchain and the cryptocurrencies and how to buy them.

## **Audience:**

Enthusiasts, and Professionals, including software developers, who like to learn about Cryptocurrencies and Blockchain Technology. The Learning Objectives do not require software programming

#### Extra:

Certification

# **Blockchain Developer Track**

The Blockchain Developer Track equips participants with the latest tools and techniques to develop fully tested, cleanly designed applications featuring integrated Blockchain technologies. In addition, courses discuss cryptography and technology, which enables participants to apply Blockchain technology to their professional area of expertise and understand privacy aspects, when to use Blockchain, and how the integrated network operates. The knowledge-based certifications in this track are Certified Blockchain Professional Developer (CBPD) and Certified Blockchain Master Developer (CBMD).

This track is developed for: professionals, including software developers, who need to understand how to develop decentralized Blockchain applications for their business infrastructure.

## **MAJOR TRACK THEMES:**

- SECURITY.
- BLOCKCHAIN TECHNOLOGIES: Ethereum, Multichain, Hyperledger Fabric.
- INDUSTRY CASE STUDIES.

# 1. Blockchain Professional Developer(CBPD)

A Certified Blockchain Professional Developer knows how to develop integrated smart contracts and deploy them on servers. A Certified Blockchain Professional Developer can build Blockchain based applications for enterprises and businesses in multiple Blockchain Technologies. The CBPD credential certifies individuals in the Blockchain development from a vendor-neutral perspective. This course is typically 3 to 4 days.

#### **Audience:**

The ideal CBPD participants very familiar with software development processes, and has worked with at least one of the programming language. The candidate should also have basic knowledge of AWS, Microsoft Azure, as well as awareness of Cryptocurrencies like Bitcoin, Ethereum etc.

#### Extra:

Certification

# 2. Blockchain Master Developer(CBMD)

A Certified Blockchain Master Developer (CBMD) is a skilled professional with a deep understanding of Blockchain technology, enabling them to build Blockchain-based applications for enterprises and businesses. Certified Blockchain Professional is an exhaustive training, lab- and exam-based program. The CBMD credential certifies individuals in the Blockchain discipline of Distributed Ledger Technology from a vendor-neutral perspective. This course is typically 2 days.

#### **Audience:**

The ideal CBMD candidate is very familiar with software development processes, and has worked with at least one of the programming languages. The candidate should also have basic knowledge of AWS, Microsoft Azure, as well as awareness of Cryptocurrencies like Bitcoin, Ethereum etc.

#### Extra:

Certification

## **Blockchain Tester Track**

The Blockchain Tester Track equips participants with the latest tools and techniques to develop fully tested, cleanly designed applications featuring integrated Blockchain technologies with the master course emphasizing the popular tools Ethereum and Hyperledger Fabric. Courses discuss cryptography technology, test planning, testing integrated network platforms, transaction validation, and non-functional testing.

The knowledge-based certifications in this track are Certified Blockchain Professional Tester (CBPT) and Certified Blockchain Master Tester (CBMT).

This track is developed for: professionals, including software engineers, who need to understand how to test decentralized Blockchain applications.

#### **MAJOR TRACK THEMES:**

- TECHNOLOGY STACK.
- TEST ENVIRONMENT.
- PERFORMANCE TESTING.
- SECURITY.

## 1. Blockchain Professional Tester (CBPT)

A Certified Blockchain Professional Tester knows how to test the strength of Blockchain integrated smart contracts, peer/node networks, and test for non-functionality. A Certified Blockchain Tester Professional can test Blockchain-based applications for enterprises and businesses in multiple Blockchain Technologies. The CBPT credential certifies individuals in Blockchain Testing from a vendor-neutral perspective.

## Audience:

The ideal CBPT participant is very familiar with software test processes, and has worked with at least one programming language. The candidate should also have basic knowledge of AWS, Microsoft Azure, as well as awareness of Cryptocurrencies like Bitcoin, Ethereum etc.

#### Extra:

# 2. Blockchain Master Tester (CBMT)

A Certified Blockchain Master Tester (CBMT) is a skilled professional with a deep understanding of Blockchain technology including the popular tools Ethereum and Hyperledger Fabric, enabling them to test Blockchain-based applications for enterprises and businesses. Certified Blockchain Master Tester is an exhaustive training, lab- and exam-based program. The CBMT credential certifies individuals in the Blockchain discipline of testing Distributed Ledger Technology.

#### **Audience:**

The ideal CBMT candidate is very familiar with software testing processes, and has worked JavaScript. The candidate should also have basic knowledge of AWS, Microsoft Azure, as well as awareness of Cryptocurrencies like Bitcoin, Ethereum etc.

#### Extra:

Certification

## **Blockchain Architect Track**

The Blockchain Architect Track equips participants with the latest tools and techniques to develop fully tested, cleanly designed applications which integrate Blockchain technologies, with the master course emphasizing the use of cloud storage as a participating node. Courses discuss blockchain integrated network platforms, transaction design and validation, and node creation. The knowledge-based certifications in this track are Certified Blockchain Professional Architect (CBPA) and Certified Blockchain Master Architect (CBMA).

This track is developed for: professionals, including software engineers, who need to understand how to architect decentralized Blockchain applications.

#### **MAJOR TRACK THEMES:**

- NETWORK DISTRIBUTION.
- DATA-SHARING PROTOCOLS.
- SECURITY AND ENCRYPTION.

## 1. Blockchain Professional Architect(CBPA)

A Certified Blockchain Professional Architect knows how to design strong distributed ledger networks using smart contracts and peer/node networks. A Certified Blockchain Professional Architect can design Blockchain-based applications for enterprises and businesses in multiple Blockchain Technologies. The CBPA credential certifies individuals in Blockchain Testing from a vendor-neutral perspective.

## **Audience:**

The ideal CBPA participant is very familiar with software test processes, and has worked with at least one programming language. The candidate should also have basic knowledge of AWS, Microsoft Azure, as well as awareness of Cryptocurrencies like Bitcoin, Ethereum etc.

#### Extra:

Certification

# 2. Blockchain Master Architect(CBMA)

A Certified Blockchain Master Architect (CBMA) is a skilled professional with a deep understanding of Blockchain technology including the use of cloud-based tools, enabling them to create Blockchain-based applications for enterprises and businesses that feature scalability and elasticity. Certified Blockchain Master Architect is an exhaustive training, lab- and exam-based program. The CBMA credential certifies individuals in the Blockchain discipline of designing Distributed Ledger networks.

## Audience:

The ideal CBMT candidate is very familiar with software testing processes, and has worked JavaScript. The candidate should also have basic knowledge of AWS, Microsoft Azure, as well as awareness of Cryptocurrencies like Bitcoin, Ethereum etc.

#### Extra:

# **Bitcoin Framework Track**

The Bitcoin Framework Track equips participants with the latest tools and techniques to implement fully tested, cleanly designed applications featuring integrated Bitcoin protocol and networks. In addition, courses discuss cryptography and blockchain technology, which enables participants to apply Bitcoin technology to their professional area of expertise and understand privacy aspects, double-spending, and other issues that relate to the currency, as well as to customize the behavior of transactions. The knowledge-based certifications in this track are Certified Bitcoin Framework Professional (CBFP) and Certified Bitcoin Framework Master (CBFM).

This track is developed for: Accountants and Controllers, Sales and Marketing professionals, Entrepreneurs, and IT Professionals who use Bitcoin technology in their daily work, and needs to understand and apply Bitcoin concepts. Software developers and security professionals who wish to build deep competence and establish themselves as leaders in the field of Bitcoin technology should pursue Certified Bitcoin Framework Master certification

### **MAJOR TRACK THEMES:**

- CRYPTOGRAPHY.
- SECURITY.
- BITCOIN COMMERCE.

## 1. Certified Bitcoin Framework Professional (CBFP)

Certified Bitcoin Framework Professional (CBFP) are informed about the Bitcoin blockchain, Bitcoin transactions, and how the Bitcoin network operates. CBFP can apply Bitcoin technology to their professional area of expertise and understand privacy aspects, double-spending, and other issues that relate to the currency. This course is typically 2 days.

#### **Audience:**

This certification is most relevant for anyone who uses Bitcoin and needs to understand and apply Bitcoin concepts to their work

- Accountants and Controllers.
- Sales & Marketing professionals.
- Professors, Teachers, and Educators.
- Entrepreneurs.
- IT Professionals.
- Call Centre Representatives.
- Project Managers.

#### Extra:

Certification

# 2. Bitcoin Framework Master (CBFM)

A Certified Bitcoin Framework Master (CBFM) has the same knowledge as their CBFP peers but in greater depth, and possesses expert-level knowledge about the Bitcoin protocol and network. CBFM have demonstrated the ability to develop applications which integrate with the Bitcoin network, and understand how peers communicate on the Bitcoin network, how transactions are crafted at the byte level, and how Bitcoin scripts can be written to customize the behavior of transactions. This course is typically 2 days.

## **Audience:**

Those whose work with Bitcoin requires advanced technical knowledge, such as developers and security professionals:

- Developers and Software Engineers.
- Application Architects.
- Systems Administrators.
- Security Professionals.
- Security Auditors.
- Cybercrime and Digital Forensic Investigators.

#### Extra:

# **Certified Cryptocurrency Miner Track**

The Cryptocurrency Miner Track equips participants with the latest tools and techniques to develop a profitable cryptocurrency mining practice utilizing the most efficient software and hardware setup. In addition, courses discuss cryptography and technology, which enables participants to apply cryptocurrency technology and understand privacy aspects, and how the integrated network operates.

The knowledge-based certifications in this track are Certified Bitcoin Miner and Certified Ethereum Miner.

This track is developed for: participants who wish to enter and build a holding position in cryptocurrency markets.

#### **MAJOR TRACK THEMES:**

- SECURITY
- CALCULATING PROFITABILITY
- CHOOSING SOFTWARE AND HARDWARE
- CRYPTOCURRENCY TECHNOLOGIES: Bitcoin, Altcoin, Ethereum, Multichain, Hyperledger Fabric

# 1. Bitcoin Miner (CBM)

A Certified Bitcoin Miner (CBM) knows the best software and hardware to earn more money selling mined Bitcoin than is spent on electricity. Mining can be a cheap entry ticket to the Bitcoin markets, a way to build up a holding position in Bitcoin. This course is typically 2 days.

#### **Audience:**

The ideal CBM participants very familiar with, and has worked with, at least one programming language as well as with hardware and network installation. The candidate should also have basic knowledge of AWS, Microsoft Azure, as well as awareness of Cryptocurrencies.

#### Extra:

Certification

# 2. Ethereum Miner (CEM)

A Certified Ethereum Miner knows the best software and hardware to earn more money selling mined Ethereum than is spent on electricity. Mining can be a cheap entry ticket to the Ethereum markets, loved by speculative traders for their high volatility. (Because Ethereum is easily traded for bitcoins (BTC), Ethereum mining is also a cheap way to build up a holding position in Bitcoin.). This course is typically 2 days.

## **Audience:**

The ideal CEM participant is very familiar with, and has worked with, at least one programming language as well as with hardware and network installation. The candidate should also have basic knowledge of AWS, Microsoft Azure, as well as awareness of Cryptocurrencies.

## Extra:

# **Cryptocurrency Regulations Track**

The Cryptocurrency Regulations Track equips participants with the latest understanding of the regulatory environment surrounding the virtual currency market.

Cutting-edge businesses use emerging cryptocurrency markets including initial offerings and currency mining to fund their startup ventures and more, while laws and regulations in the US and beyond catch up to the new technology.

Courses enable participants to understand how the cryptocurrency market operates, and the risks market participants assume, as well as emerging cryptocurrency regulations in the US and around the world.

The knowledge-based certifications in this track are Cryptocurrency Regulations Professional and Cryptocurrency Regulations Master.

This track is developed for: securities professionals, software developers who use cryptocurrency markets to fund their business ventures.

#### **MAJOR TRACK THEMES:**

- INTRODUCING VIRTUAL CURRENCIES AND CRYPTOCURRENCY MARKET.
- RISK CONSIDERATIONS.
- U.S. VIRTUAL CURRENCY REGULATIONS.
- INTERNATIONAL VIRTUAL CURRENCY REGULATIONS.

# 1. Cryptocurrency Regulations Professional (CRP)

The topic of cryptocurrencies is attracting considerable attention among central banks, regulators, and legislators due to their potential to lower transaction costs, reduce payment timeframes, and improve financial inclusion, as well as because of the multitude of perceived risks over security, consumer protection and financial crime.

So far, the regulatory response to cryptocurrencies has been fragmented, with a patchwork of uncoordinated initiatives developing in different jurisdictions. Cryptocurrency Regulations Certification details the risks of participating in cryptocurrency markets, and provides an overview of the main regulatory developments affecting cryptocurrencies in the US, China, the EU, Canada and Australia. Upon successfully completing this course, you will become a certified Cryptocurrency Regulations Professional (CRP)

#### **Audience:**

The ideal Cryptocurrency Regulations Training participant is very familiar with the regulation of international financial markets.

#### Extra:

# 2. Cryptocurrency Regulations Master(CCRM)

Cryptocurrencies have the potential to lower transaction costs, reduce payment timeframes, and improve financial inclusion. However, this emerging technology does not yet have a cohesive legal framework to deal with a multitude of potential risks: security, consumer protection and financial crime.

The regulatory response to cryptocurrencies has been fragmented, with a patchwork of uncoordinated initiatives developing in different jurisdictions. Cryptocurrency Regulations Master training sharply focuses on emerging regulatory developments in the US, which is likely to be emulated internationally. Upon successfully completing this course, you will become a certified Cryptocurrency Regulations Master (CCRM).

#### **Audience:**

The ideal Cryptocurrency Regulations Master participant is very familiar with international financial regulations, and has worked with at least one form of cryptocurrency.

## Extra:

Certification

# **Initial Coin Offering Track**

The Initial Coin Offering Track equips participants with the latest tools and techniques to enter into the Cryptocurrency market. ICO or Initial Coin Offering is the unregulated means by which a startup raises funds to start, develop, or complete its cryptocurrency or blockchain-based software projects while avoiding the difficulty and the rigorous and regulated processes to obtain funds through banks or venture capital investors.

Startups release tokens on a new cryptocurrency that investors expect to increase in value. Investors buy the tokens through existing digital currencies, usually Bitcoins or Ethers, or legal tender, expecting a high return on investment. For some of these investments, the main attraction is that once the project is developed, the value of the tokens will be backed by a real and useful product. This is usually a guarantee of a substantial return on investment.

Courses enable participants to apply Cryptocurrency technology to fund their development projects and understand risks including legal aspects, when to use an Initial Coin Offering, and how the cryptocurrency market operates.

The knowledge-based certifications in this track are Certified Initial Coin Offering Professional and Certified Initial Coin Offering Master.

This track is developed for: professionals, including software developers, who need to understand how to develop decentralized Blockchain applications for their business infrastructure.

#### **MAJOR TRACK THEMES:**

- DEVELOPING SUITABLE INVESTOR PARTNERSHIPS.
- LEGAL & ETHICAL CONSIDERATIONS

# 1. Certified Initial Coin Offering Professional(CICO)

A Certified Initial Coin Offering Professional knows how to develop an Initial Coin Offering, and is familiar with the process of using an ICO to raise funds for starting, developing, or completing a startup's cryptocurrency- or blockchain-based software projects.

## **Audience:**

The ideal CICO participant is familiar with raising capital, and has worked with at least one programming language. The candidate should have basic knowledge of Cryptocurrencies like Bitcoin, Ethereum etc.

#### Extra:

# 2. Certified Initial Coin Offering Master(CICM)

A Certified Initial Coin Offering Master is a skilled professional with a deep understanding of how to develop an Initial Coin Offering, and is expert in the process of using an ICO to raise funds for starting, developing, or completing a startup's cryptocurrency- or blockchain-based software projects. Certified Initial Coin Offering Master is an exhaustive lab- and exam-based training program.

## **Audience:**

The ideal CICM participant is very familiar with raising capital, and has worked with at least one programming language. The candidate should have basic knowledge of Cryptocurrencies like Bitcoin, Ethereum etc.

## Extra: