



**INSTITUTE OF**  
**BLOCKCHAIN**™  
— **SINGAPORE** —

**区块链学院 (新加坡)**

UEN: 201801117M

*(Incorporated in the Republic of Singapore)*

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## **IBS-01 Blockchain & Cryptocurrency Primer Syllabus**

### **About Institute**

Institute of Blockchain™ (Singapore), UEN: 201801117M) was founded on Jan 2018. We are a blockchain and EduTech private school with a primary focus on delivering blockchain education and certification. Secondary focus on blockchain research & development.

The Institute is a SkillsFuture Singapore's approved Non-WSQ Training Organisation, NTUC e2i's approved Training Provider and People's Association approved Private Operator, a registered Singapore government's Gebiz supplier and is a graduated start-up from the Alibaba Cloud-SUSS Entrepreneurship Programme.

As part of our CSR efforts, we joined the NVPC's Company of Good and adopted Singapore Children's Society as our official charity. Our strategic partners are DIFY, SUSS, Edufied, IBM Academic Initiative and Justicius Law Corporation and our past corporate clients include Deloitte, GCOX, ERA, Ninecoin (Hongkong), Tuandai (Guangzhou) and Singapore Customs.

## **About Lecturer**

Mr. Alvin Chua is a former civil servant with MINDEF for 10 years. He is the current President of Institute of Blockchain Singapore, a blockchain & EduTech private school focusing on blockchain & cryptocurrency education as well as the current Founder & CEO of Resx Pte. Ltd, a corporate training firm.

He is also a Certified Blockchain Expert (CBE) and Certified Bitcoin Professional (CBP) with over eight years of investment experience and almost 2 years of experience with blockchain and cryptocurrency.

He is a committee member of ISO-TC307 Blockchain and Distributed Ledger Technology Standards Technical Committee, an ordinary member of ACCESS (Association of Cryptocurrency Enterprises and Startups), SIM, SIAS and SAFRA Entrepreneurship Club.

He attained the IBFQ standard level 1 through SGX's Certified Securities Professional Programme (CSPP) and is a holder of CFA Institute's Claritas Investment Foundations Programme.

## **Course Preface**

With the rising trends of people around the world using blockchain for business applications and using cryptocurrency as a use case. It is apt and relevant to understand and know how blockchain and cryptocurrency works.

IBS-01 Blockchain & Cryptocurrency Primer is a module under the Certificate/Diploma in Blockchain Technology offered by IBS, it provides very fundamental concepts of Blockchain & Cryptocurrency to the general public. This course has been supported and approved for funding by SkillsFuture Singapore and NTUC's e2i. Participants will go through 10 topics with 3 hands-on activities.

## Learning Outcomes

Participants will:

- Learn the basics of both Blockchain and Cryptocurrency
- Understand the underlying limitations or risks of cryptocurrency Investment, ICOs, and Mining.
- Create their own wallet and exchange account
- Send a transaction over the blockchain using Demo account
- Reinforce their learning through hands-on activities, discussions and mini quiz

## **Course Content**

### 1. Blockchain at First Sight

#### 1.1 Background of Blockchain

##### 1.1 What is a Blockchain

#### 1.2 Dissecting the Blockchain

#### 1.3 What's in a Block?

#### 1.4 Achieving Consensus - Proof Type

#### 1.5 Types of Ledgers

#### 1.6 Types of Blockchain

#### 1.7 Blockchain Features

#### 1.9 The Evolution of Blockchain

### 2. Use Cases of Blockchain

#### 2.1 As Cryptocurrency

#### 2.2 As Smart Contract

#### 2.3 Blockchain as a Service (BaaS)

#### 2.4 Blockchain Platforms

#### 2.5 Major Use Cases

#### 2.6 Other Use Cases

### 3. Cryptocurrency Fundamentals

#### 3.1 What is Cryptocurrency

#### 3.2 Common Use Terms of Cryptocurrency

#### 3.3 Current Cryptocurrency Timeline

#### 3.4 Why Cryptocurrency?

#### 3.5 Types of Wallets

#### 3.6 Address Specifications

#### 3.7 Types of Address

#### 3.8 Name Service

#### 3.9 Types of Exchanges

#### 3.10 Cryptocurrency Exchange

#### 3.11 Alternative Cryptocurrency Sources

#### Hands-On Activity

### 4. Cryptocurrency Security

#### 4.1 Cryptography of Systems

#### 4.2 Safekeeping Your Crypto

#### 4.3 Securing Your Crypto – Dos

#### 4.4 Securing Your Crypto – Donts

#### 4.5 Web Mining - Cryptojacking

## 5. Valuation of Cryptocurrency

### 5.1 Overview of Crypto Market

### 5.2 Deriving Cryptocurrency Value

### 5.3 Cryptocurrency Grading

### 5.4 Crypto Richest

## 6. Cryptocurrency Investing & Trading

### 6.1 Investing or Trading

### 6.2 Crypto Tools

### 6.3 Investment Approach

### 6.4 Trading Approach

### 6.5 Investment Advisory

## 7. Initial Coin Offering (ICO)

### 7.1 Coin Vs Token

### 7.2 Overview of ICO

### 7.3 From Ideation to ICO

### 7.4 ICO Advisory

### 7.5 What is a Good ICO/Cryptocurrency?

### 7.6 ICO/Crypto Guidelines

## 8. Cryptocurrency Monetization

### 8.1 Mining Introduction

### 8.2 Mining Difficulty

### 8.3 Mining Advisory

### 8.4 Bounties/Airdrops/Faucet

### 8.5 Earning Crypto/Token

## 9. Blockchain Ecosystem & Community

### 9.1 Alliances & Consortiums

### 9.2 Advisory & Developers

### 9.3 Conferences

### 9.4 Decentralized Applications

### 9.5 Financial Institutions

### 9.6 Media & Online Forum

### 9.7 Merchants

### 9.8 Regulators and Promoters

### 9.9 Media & Online Forum

### 9.10 Joining the Blockchain Community

## 10. The Future of Blockchain & Cryptocurrency

### 10.1 Regulatory Stance on Blockchain & Cryptocurrency

### 10.2 Blockchain Challenges

### 10.3 Blockchain & Crypto Hubs

### 10.4 Blockchain's Revolution

### 10.5 Blockchain: Emerging Tech

### 10.6 Blockchain Adoption

## **Course Administrative**

Programme Mode: Full-Time & Part-Time

Full Time Duration: 1 weekend session - 8 hours (9 am to 6 pm) – With lunch break and short breaks after each main topic.

Part Time Duration: 3 weekday sessions (7pm to 10pm) – With 1 short break.

Class Size: 15 to 30 (minimum 15 to start)

Course Fees (per pax): \$139 (Local Rate) / \$360 (Overseas)

Language Medium: English or Chinese

## **Certification**

An Electronic Certificate of Completion will be issued on NEM Blockchain to participants who achieved at least 75% attendance, pass the assessment with a score of 50% and above and completed the end of course survey,



Please indicate the correct name during registration for certificate issuing. The Institute is not responsible for any wrong name indicated and may refuse to issue a subsequent certificate.

### Progression

This is a 2 Block Units module which leads to a full Certificate/Diploma in Blockchain Technology.

## **Assessment**

Course participants are given **1 hour** to attempt an assessment comprising of 30 Multiple-Choice Questions. To pass the assessment, the participant needs to score **50%** and above. For scoring 49% and below, participants have up to **ONE** attempt to re-take the assessment at no additional fee. In the event, the participant fails again, he/she shall repeat the respective module

## **Course Enquiry / Support**

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