



TQUK Diploma in Blockchain Technology (Level 5)



Overview

Medium of Instruction	English / Cantonese
Mode of Instruction	Face-to-face / Live online
Course Dates	Sep 25 to Dec 18, 2024 Every Wed, Fri, and Sat (Except public holidays)
Time & Venue	19:00-22:00 at Kowloon area
Course Duration	~100 hours, intensive training programme & practical project
Tuition Fee	HKD 58,000 Early Bird Discount: HKD 56,000 10% discount for 2 trainees enrolling together 20% discount for 3 trainees enrolling together *Please indicate this request on the enrolment form Course fee can be paid in 3 installments *Please indicate this request on the enrolment form
Admission	1. Fill out the enrolment form 2. Pay on the website *If applying for a discounted price or installment payment, please indicate the request in the 'Remarks' section of the enrolment form. You will be contacted to confirm and send the payment method for the discounted price.
Enquiry	iacademy@ihashing.hk

Introduction

This programme will equip you with practical, cutting-edge blockchain technology with FutureSkills, preparing you for a successful career in any rapidly evolving field.

Are you tired of traditional courses that feel outdated?

Are you looking to learn something truly useful and practical?

Traditional School vs. FutureSkills Academy	
Theory overload <i>X</i>	Practical application <i>✓</i>
Single subject focus <i>X</i>	Cross-disciplinary integration <i>✓</i>
Fixed mindset <i>X</i>	Innovative thinking <i>✓</i>
Outdated knowledge <i>X</i>	Cutting-edge technology <i>✓</i>

Why FutureSkills?

FutureSkills is a forward-thinking, technology-oriented, interdisciplinary set of practical skills. It cultivates both hard and soft skills through flexible learning methods, emphasizing continuous learning and industry collaboration to meet the demands of the rapidly evolving future workplace.

- **Innovation-driven:** Solve real-world problems, not just theoretical exercises
- **Cross-industry application:** Blockchain x Any Industry, seamless integration
- **Future-focused:** Develop adaptability for rapid changes

Course Features

- **Immersive learning:** Hands-on experience in **ESG-compatible Green Blockchain** project development (Signum Network), apply as you learn
- **Innovation workshops:** Spark creativity, cultivate design thinking
- **Industry mentors:** First-hand experience sharing, aligned with market needs
- **Flexible learning:** Attend classes after work/ class, ~100 hours of intensive training

Course Highlights

Comprehensive, Practical & Intensive Curriculum:

- Blockchain fundamentals and advanced concepts
- Cryptography and consensus mechanisms
- Smart contract development
- Decentralized application (DApp) creation
- Blockchain for business and enterprise solutions
- Capstone project and examination

Hands-on Projects:

- Build your own blockchain from scratch
- Develop and deploy smart contracts
- Create a functional DApp
- Implement a real-world blockchain solution

Industry-Relevant Skills:

- Taught by industry experts
- Solidity programming
- Web3.js & SIGNUM.JS integration
- Blockchain security best practices
- Tokenomics and cryptocurrency economics

Cutting-Edge Tools and Platforms:

- IPFS for decentralized storage
- Popular blockchain explorer and wallet interfaces

FutureSkills Focus:

- Critical thinking and problem-solving in blockchain contexts
- Blockchain project management
- Ethical considerations and governance in blockchain
- Interdisciplinary applications of blockchain technology

Career Development:

- Blockchain job market insights
- Portfolio building guidance
- Interview preparation for blockchain roles

Global Recognition:

- TQUK endorsed
- Enhances opportunities for overseas study and employment (UK, Australia, Canada)
- Aligned with international blockchain standards

Continuous Learning:

- Access to updated course materials post-graduation
- Invitation to alumni events and networking opportunities

Course Outline

Unit		Unit Content
<p>Unit 1: Introduction to Blockchain</p>	<ul style="list-style-type: none"> • Overview of blockchain technology • History and evolution of blockchain • Blockchain network architecture • Blockchain consensus mechanisms (POW, POS, POC+) • Types of blockchains (public, private, consortium) 	<p>1.1 Create your first paper wallet</p> <ul style="list-style-type: none"> • Create your first Cryptocurrency Paper Wallet & Gift Card <p>1.2 Correct your blockchain, web3.0 & crypto perception</p> <ul style="list-style-type: none"> • What is Blockchain, Web3.0 • Private Vs Public Blockchain • Blockchain, Web3.0 Ecosystem • Why Blockchain Network, Web3.0 is Secure • What are Smart Contracts & DApp
<p>Unit 2: Cryptography and Security in Blockchain</p>	<ul style="list-style-type: none"> • Cryptography • Hash functions and digital signatures • Public and private key cryptography • Smart contract security • Common blockchain security threats and attacks • Mitigating security risks in blockchain 	<p>2.1 Bitcoin is not currency but asset</p> <ul style="list-style-type: none"> • Bitcoin & Blockchain, Web3.0 Relationship • Coin vs Token vs NFT, RAW • How Cryptocurrency works <p>2.2 Sustainable blockchain</p> <ul style="list-style-type: none"> • What is Mining & Consensus Algo? • POW vs POS vs POC+ • Blockchain Layer2 Solutions & setup <p>2.3 HODL Safe and DEX</p> <ul style="list-style-type: none"> • Types of Cryptocurrency Wallets • Centralized & DeCentralized Exchanges • Attacks: How Crypto Can Be Hacked • Risk Management & DeFi, Gamefi, Social-fi

<p>Unit 3: Signum Network and Smart Contract Development</p>	<ul style="list-style-type: none"> • Signum Network • Signum SDK - SignumJS & SmartJ • Writing and deploying smart contracts on Signum Network • Decentralized Application (DApp) development on Signum Network • Interacting with smart contracts using SmartJ 	<p>3.1 Blockchain, Web3.0 Technology Stacks</p> <ul style="list-style-type: none"> • Web3.0 DApp & Frontend framework • Angular, React & NextJS • Frontend builder • Blockchain, Web3.0 Platforms • Ethereum & Polygon & Signum • Smart contract programming • Solidity & Remix IDE & Truffle dependency • SignumJS - SDK in Typescript • SmartJ - Smart contract platform in Java • Create first smart contracts & token with SignumJS & SmartJ
<p>Unit 4: Distributed Storage on IPFS</p>	<ul style="list-style-type: none"> • InterPlanetary File System (IPFS) • IPFS architecture and components • IPFS file system and data storage • Integrating IPFS with Signum Network (Pinata) • Distributed storage and data privacy in blockchain 	<p>4.1 Blockchain, web3.0 Technology Stacks (continued)</p> <ul style="list-style-type: none"> • Distributed Storage Platforms (IPFS) - Pinata - working with IPFS gateway URLs <p>4.2 Build NFT, RWA Collectibles & DApp Project by iHOST Web3.0 builder</p> <ul style="list-style-type: none"> • Interact IPFS with Pinata
<p>Unit 5: Smart Contract Development Best Practices</p>	<ul style="list-style-type: none"> • Overview of smart contract development best practices • Common vulnerabilities in smart contracts • Security measures to secure smart contracts • Optimizing smart contracts for gas usage • Designing smart contracts for upgradability and modularity 	<p>5.1 Build NFT, RWA Collectibles & DApp Project by iHOST Web3.0 builder (continued)</p> <ul style="list-style-type: none"> • Deploy Smart Contract on Signum • List NFTs, RWAs on Signumart Marketplace • Build DApp Project & List on SIGDAO DApp Store!

<p>Unit 6: Blockchain Scalability and Performance</p>	<ul style="list-style-type: none"> • Blockchain scalability issues and solutions • Signum Network's scalability solutions • Sharding in Signum Network • Signum Network's performance benchmarks • Building high-performance DApps on Signum Network 	<p>6.1 Hands on setup validator, nodes & NFT, RWA</p> <p>6.2 Blockchain, Web3.0 Digital Transformation for SME</p> <ul style="list-style-type: none"> • Benefits of using Blockchain Tech • Adopt Blockchain, Web3.0 to your business • Tokenize & Create NFT, RWA for Biz
<p>Unit 7: Blockchain Governance and Regulation</p>	<ul style="list-style-type: none"> • Governance models in blockchain • Regulatory landscape and compliance in blockchain • Legal implications of blockchain technology • Decentralized autonomous organizations (DAOs) • Cryptocurrency taxation and reporting 	<p>7.1 Blockchain, Web3.0 resources & identify scam coin</p> <ul style="list-style-type: none"> • Blockchain Tools and Platforms <p>7.2 Blockchain, Web3.0 Project Anti-mediaframing Analysis</p> <ul style="list-style-type: none"> • Blockchain Project Valuation by FCAS • Predicting market price by market cap
<p>Unit 8: Future of Blockchain and Emerging Trends</p>	<ul style="list-style-type: none"> • Current trends and future directions of blockchain • Blockchain applications beyond cryptocurrency • Emerging use cases for blockchain technology • Future of blockchain and its impact on society • Ethical considerations in blockchain development and implementation 	<p>8.1 What is NFT, RWA? Not just Art form!</p> <ul style="list-style-type: none"> • Technically Defining what is an NFT, RWA • Token protocol (ERC20, ERC721 & ERC1155) • What is Web3.0 & DAO Business Model • NFT, RWA marketplace (Signumart, Opensea & Magic Eden) • NFT, RWA assets in Metaverse

		<p>8.2 Business Process Automation System Tools (MAKE.COM)</p> <ul style="list-style-type: none">• Development of Open API ecosystems• Introduction and application of No-Code Tools• Introduction and application of API connection software (MAKE.COM)• Integration of daily operational processes through API automation• 50 case studies of daily operational process automation• Hands-on practical sessions <p>8.3 Developing Blockchain Web3.0 DApp with Open API Tools</p> <ul style="list-style-type: none">• In-depth introduction and connection of Open API tools• Development and automation of Headless Vercel CMS• SEO essentials, keyword optimization, Growth Hacking• Basic application of Google/Matomo Analytics• Configuration and connection of Payment gateways• Blockchain wallet application and Web3.js & SIGNUM.JS integration• Hands-on practical sessions <p>8.4 Establishing Automated Virtual Assistants</p> <ul style="list-style-type: none">• Advanced Open API system integration• Application examples• Establishing automated lead generation and sales-oriented processes• Process design and configuration• Integration of virtual assistants with Web3.0 DApp systems• Hands-on practical sessions
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*Course content will be regularly updated to reflect current industry trends and real-world developments

Key Takeaway

- Insight & Truth of Blockchain, Web3.0, DApp
- Tech Stacks of blockchain project
- Build own NFT, RWA collections & DApp project
- Develop, Integrate, Deploy Web3.0 project
- Master 50 real-world examples of daily operational process automation, develop and integrate API Integration Tools - INTEGROMAT, expand and transform existing traditional business models
- Apply Open API tools to automate and develop Blockchain Web3.0 DApp to upgrade operational processes
- Establish automated virtual assistants integrated with various systems, operating 24/7 to increase business profitability, reduce labor costs, and optimize customer experience
- Automate daily business operations such as connecting website appointment forms to CRM systems, automatic document storage management, and automated marketing campaigns to potential customers
- “Learn by doing” approach with personalized NFT certificates

Bonus Material

- Meet world's top blockchain experts community
- Granted SIGDAO VIP Pass for community Web3.0 project Pitching and Whitelisting
- Access SIGDAO Community for Workspace, Matching & Funding in Metaverse
- NFT Certificate & TQUK endorsed

Award



Upon successful completion of the course and passing the examination, participants will be awarded three certificates:

1. TQUK Diploma in Blockchain Technology (Level 5) Certificate
2. i-Hashing Academy Certificate: MicroMaster Blockchain Technology Certificate
3. Green Blockchain Signum Network & Sigdao Foundation NFT Certificate

The qualification level can be used as a reference by employers and institutions at their discretion and it can be advanced to renowned universities in the UK, Australia, and Canada.

Who Should Take This Course?

Senior Leadership & Decision Makers

- Business leaders aiming to stay competitive in digital transformation

Product & Program Managers

- Professionals seeking innovative approaches to product development and management

Innovation Managers, Startups & Entrepreneurs

- Innovators eager to build ventures in blockchain and emerging technologies

Advisors & Business Analysts

- Industry experts committed to offering cutting-edge technological insights

Developers, Creators & Marketers

- Tech and creative talents looking to integrate blockchain into their specialties

Career Changers

- Working adults looking to pivot into high-growth tech industries

Global Opportunity Seekers

- Talents looking to build a career on the global stage

Secondary School Graduates

- Form 6 graduates seeking alternatives to traditional university paths/ overseas study

Lifelong Learners

- Professionals passionate about emerging tech and continuous growth

Admission Requirement

NO web development or programming knowledge required to get started!
We will definitely move you at fast pace!

Enrolment Form



Trainers

Ms. Mandy Chiu

- Project Management Professional (PMP)
- Certified Scrum Master (CSM)
- Senior Project Manager, Change Design & Delivery
- Leader of large-scale digital transformation projects, including data migration and system upgrades
- Project Manager with expertise in Operations Business Solutions, specializing in Special Projects, in Project Management Department
- Spearheaded projects to enhance operational efficiency and customer experience
- Managed fintech initiatives, including AI-powered chatbot and live chat services
- Director of system-related projects using Java, JSP, and mobile applications
- Extensive experience in project management within the financial services and insurance sectors
- Proficiency in implementing cutting-edge technologies, including AI and automation
- Strong background in data management, analysis, and migration
- Expertise in system integration and digital platform development
- Skilled in vendor management and stakeholder collaboration
- Proficient in data analysis tools: Oracle 9i, MySQL, SPSS
- Programming capabilities: VBA, ASP, PHP
- Track record of successfully implementing innovative technological solutions in corporate environments
- Well-experienced in managing complex data systems and ensuring data integrity during migrations
- Well-experienced in financial services regulations and compliance requirements
- Well-experienced in bridging technical concepts with practical business applications
- Well-experienced to lead cross-functional teams and manage large-scale technology projects
- TQUK RQF Level 5 Diploma of Blockchain Technology Assessor
- Master of Science in Information Technology, UST - Hong Kong
- Bachelor's Degree in Information Technology, Queensland University of Technology - Brisbane

Mr. Andy Lam

- WIKIEXPO HK - Supporting Partners 2024
- DES2024 Nominated Exhibitor
- HKCT BUSINESS AWARDS 2023 - Most Outstanding Blockchain & Web3 Solutions
- BUSINESS INNOVATOR 2023 Most Innovative Enterprise Award - The Best Blockchain Education, Application & Solution of the Year 2023
- BusinessFocus Excellence Awards 2023 - Blockchain Solutions & Web3 Education
- TQUK Excellence Awards 2022 - Innovation Award
- VTC NITTP registered & endorsed FutureSkills courses provider & Instructor
- TQUK RQF Level 5 Diploma of Blockchain Technology IQA & Instructor
- Lecturer & Speaker of Blockchain Foundation Courses at Hong Kong Federation of Trade Unions, SFC-CPT blockchain courses for legal & financial industry managerial staff, computer & technology public courses at OUHK LiPACE
- Founders of series fintech & blockchain companies, and Cyberport Incubation Programme and Startup Alumni
- Developers of SIGNAL (formerly Burst) Blockchain Network - TOP 400 blockchain project over the world, and Publisher of BURSTPAY & Phoenix wallet, SIGDAO.IO & series Web3 Projects on Google Play & App Store with over 200000 users
- OpenSource Developers & Arctic Code Vault Contributors

Mr. William Sin

- WIKIEXPO HK - Supporting Partners 2024
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- Lecturer & Speaker of Blockchain Foundation Courses at Hong Kong Federation of Trade Unions, SFC-CPT blockchain courses for legal & financial industry managerial staff
- Founders of series fintech & blockchain companies, and Cyberport Incubation Programme and Startup Alumni
- Developers of SIGNUM (formerly Burst) Blockchain Network - TOP 400 blockchain project over the world, and Publisher of BURSTPAY & Phoenix wallet, SIGDAO.IO & series Web3 Projects on Google Play & App Store with over 200000 users
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TQUK (Training Qualifications UK)

Internationally recognized TQUK certification: TQUK (Training Qualifications UK) is a leading qualification certification body in the UK with high international recognition. The TQUK Level 5 Diploma is equivalent to higher education qualifications in Hong Kong, UK, USA, Australia and Canada, providing strong support for your academic and professional career. Comprehensive curriculum: Covers both theory and practice of blockchain technology, from basics to advanced topics, ensuring students can fully master blockchain technology. High-quality teaching resources: Includes in-depth practical guidance from top blockchain experts, ensuring students acquire the latest and most practical knowledge.

Training Qualifications UK (TQUK) is a qualification awarding organization in the UK regulated by Ofqual (Office of Qualifications and Examinations Regulation). It offers over 300 UK qualification courses covering various professional fields. iHashing Academy is a partner center of TQUK, collaborating to offer TQUK endorsed course to enhance students' qualifications.

For details, please visit: www.tquk-esea.org/about-us



TQUK Certificate

The Level 5 recognized certificate is comparable to an Higher Diploma in Hong Kong's qualifications framework.

Although this course is not formally registered in Hong Kong, this certificate is audited and recognized by an officially approved third-party organization in the UK. The qualification level can be used as a reference by employers and institutions at their discretion. We are currently in discussions with various universities in the UK, Australia, and Canada, and there is potential that graduates may be able to use this certificate to apply for Master's Degree programs or Top-Up Degree programs in Computer Science, Artificial Intelligence (AI), or Data Science for further academic advancement.

TQUK Level 5 Diploma in Blockchain Technology

[Enrolment Form](#)

