

Blockchain Advanced Online Course

Course Prospectus
2021

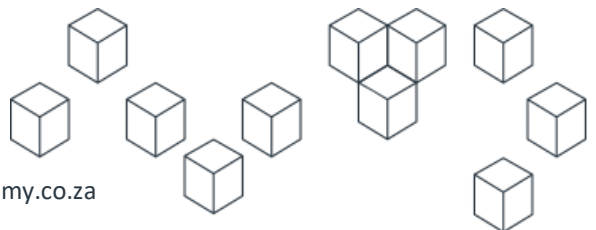


BLOCKCHAIN AND
CRYPTOCURRENCY
TRAINING

Blockchain Academy

COURSE PROSPECTUS 2021

e: info@blockchainacademy.co.za | **w:** www.blockchainacademy.co.za



About the Blockchain Academy



The Blockchain Academy focuses on capacity building in the digital currencies and blockchain technology industry through specialised training and consulting.

Cryptocurrencies, Distributed Ledger Technology (DLT) and blockchain technology, represent a number of unique opportunities for improved transparency and efficiencies across multiple industries, including financial services, insurance, identity, healthcare and supply-chain.

We help organisations across sector and industry to fully understand the intricacies and value-proposition of the technology and how it might apply to their respective businesses. Our courses are tailored to meet

each organisations specific requirements and to help build the internal capacity required to make informed decisions. Our consulting team provide continued support to ensure that design, delivery and execution of the strategy and resulting product are held to the highest standard.

Whilst the Blockchain Academy is based in South Africa we have a global client base and our team have a vast amount of international industry experience and are regarded as thought leaders in this space.

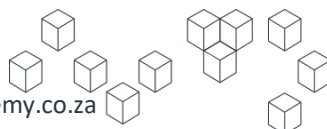
Some of our clients include:



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Why is blockchain technology so important?

Blockchain technology removes the need for a centralised authority to verify trust. It creates a public ledger of all transactions, which are then traceable, transparent and leave no possibility of alteration, which in turn allows for stronger security, decreased risk and increased efficiencies.



Simpler and faster



Reduced costs



Increased trust



Tracking and transparency

The technology was initially developed to provide an alternative approach to payments by using cryptographic methods to provide a trust-mechanism between two transacting parties without the need for a trusted third party. Now, however, the high number of use cases for the technology is beginning to be realised and understanding this disruptive technology is becoming essential.

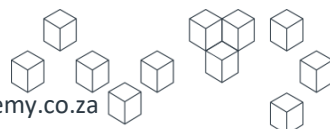
How will it impact your business? It seems certain that most businesses and a vast number of activities will feel the impact of blockchain technology and the applications based upon it.

The world's largest financial institutions have

publicly declared their interest in this technology and have begun openly experimenting with it. Large technology and consulting firms such as IBM have entire business units now dedicated to blockchain.

Outside of the commercial use cases, blockchain technology also represents an opportunity to address humanitarian and philanthropic challenges such as identity and financial inclusion, which are all becoming increasingly more important to address.

We believe that blockchain technology represents the second generation of the Internet. It not only holds the potential to profoundly transform a multitude of industries, it has the potential to transform lives.



What services do we offer?



We offer bespoke training and consulting services from beginner levels to advanced levels of understanding on blockchain technology and cryptocurrencies as well as blockchain development.



Training



Consulting



Presentations



Development

Training

The academy provides training in various countries. Training in South Africa takes place at AlphaCode Club in Johannesburg and at the Bandwidth Barn in Cape Town, as well as at our clients offices in various cities.

Courses typically over one full day but can be lengthened on request.

Consulting

The academy provides a variety of consulting services such:

- blockchain development
- feasibility of using blockchain within an organisation
- assisting an organisations developers to build, deploy and test blockchain applications
- advising on the type of blockchain

technology that is best suited to an organisations requirements

- determining the relevant use-cases

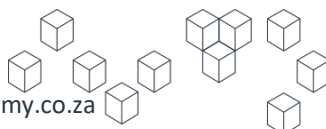
Presentations

The academy offers presentations to organisations on a variety of topics relating to blockchain and cryptocurrencies.

Development

The academy and its partners can assist organisations with their blockchain development projects on a variety of different types of blockchain technologies.

Equip yourself with the knowledge to evaluate the impact blockchain will have on your organisation's business model.



Blockchain Advanced Course



The Blockchain Advanced course provide a more in-depth understanding of bitcoin and the blockchain and delves deeper into the concepts covered in the Bitcoin and Blockchain Beginner Course.

The course goes further into bitcoin mining, mining pools, bitcoin transactions on the blockchain, software clients and front-ends, service providers that provide wallet services, APIs, payment gateways, explorer service and blockchain as a service.

The course provide an overview of Blockchain 2.0 topics such as smart contracts, smart property, side chains, decentralized services, world computers and other exciting and innovative services and opportunities currently being used around the world.

WHO SHOULD ATTEND?

- Individuals who have a basic understanding of cryptocurrencies and blockchain technology or who have attended our Bitcoin and Blockchain Beginner course.
- Individuals who are interested to delve deeper into how blockchain transactions work, complex concepts such as Merkle Trees, hashes, nonces etc

COURSE OUTCOME:

The outcome of this course is to provide attendees with a comprehensive, multi-faceted understanding of key blockchain related concepts and will have developed the level of technical skills required to achieve specific business goals.

Attendees will be able to identify suitable use cases for different blockchain technologies in order to solve key business issues and assess the risk vs benefits of using blockchain technology instead of existing technology

platforms.

As well as understanding the theory attendees, will also review real-world examples of best in case blockchain technology applications in order to see how transformative business models can be created.

Attendees will gain an insight into the future of this technology in terms of innovation and disruption of existing traditional systems and processes.



REQUIREMENTS

- Attendees should have a basic understanding of bitcoin and blockchain technology



DURATION

- 11:00am-15:00pm SAST
- Short breaks



TRAINING METHODOLOGY

- Online via GoToWebinar



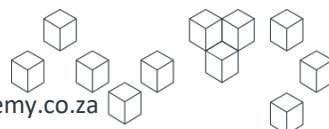
PRICE

- **R850** per person
- Discounts for groups of 3 or more apply



WHAT'S INCLUDED?

- A Certificate of Completion





Module 1 Introduction

- The Problem of Digital Cash and Double Spending
- Nodes and Mining
- Byzantine General's Problem

Module 2 Cryptography

- Hashes
- Proof of Work
- Elliptical Curve: Private and Public Keys and Digital Signatures
- Hierarchical Deterministic or HD wallets
- Block Structure

Module 3 Transactions

- How Transactions are Structured
- Introduction to Segregated Witness (SegWit)
- Merkle Trees

Module 4 Smart Contracts

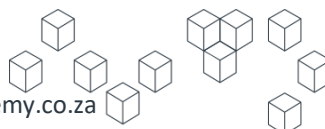
- High Level Introduction to Bitcoin Scripts
- Explanation of P2PK, P2PKH and P2SH
- Multisignature and Use Cases
- Micropayment Channels
- Open Asset Protocol and Coloured Coins
- Evolution of Smart Contracts Solidity and Ethereum

Module 5 Layer Two Solutions

- The Bitcoin Scaling Debate
- Lightning Network

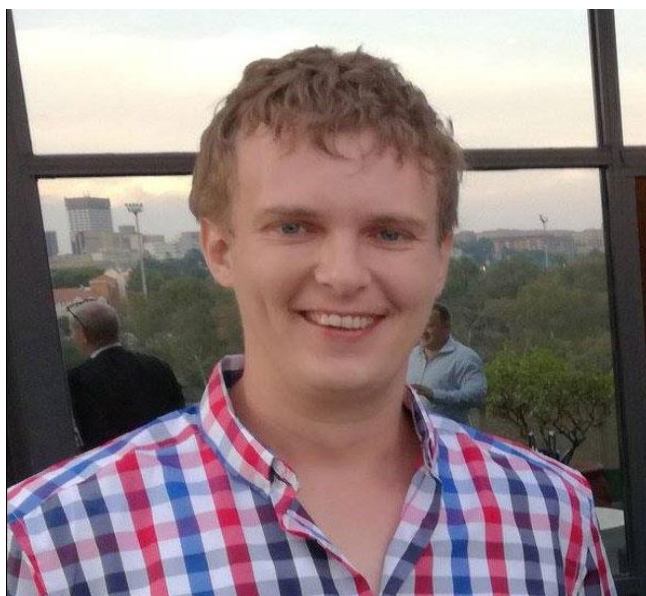
Module 6 Risk and Challenges

- Hard Forks and Attacks
- Governance and Risk of Centralisation
- Hype Cycles
- Permissionless vs. Permissioned Blockchains
- Initial Coin Offering (ICOs)





Carel de Jager



Carel de Jager began his career as a Chemical Engineer in the energy industry.

He holds a Master's degree in Engineering Management. He now works as a consultant for the Blockchain Academy, facilitating a wide range of blockchain related training courses and presentations.

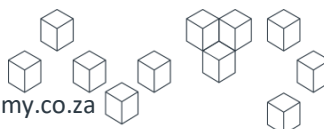
Through the academy, he also delivers customised, industry-specific training to audiences ranging from the inexperienced to executive level. Carel has coached numerous executives on the technology such as law firms, insurance providers and commercial banks, both locally and abroad. He developed and presents most of the Blockchain Academy's training courses, including: - Beginners and Advanced Technical Courses - Blockchain for Executives - Blockchain for Financial Institutions - Blockchain for the Insurance Industry - Crypto-Asset Inheritance Planning - Short Courses for University Graduates.

Carel is also a public speaker, where he often explains technical use cases for blockchain technology in a simple and practical way. Some highlights include the Blockchain Africa Conference, Seamless Southern Africa, Finance Indaba and several radio and television interviews.



<https://twitter.com/BlockchainJag>

<https://www.linkedin.com/in/careldejager/>



Payment

Please make payment one week before course commences to:

Blockchain Academy Pty Ltd

Bank: Standard Bank

Account No: 072612193

Branch: Claremont

Branch Code: 051001

Please send proof of payment to:

info@blockchainacademy.co.za

Students receive 35% discount on all our courses.

Group Bookings

We offer private training sessions for groups of 8 or more individuals, online, onsite at your offices or at our training facilities in Johannesburg and Cape Town.



BLOCKCHAIN
ACADEMY

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