

# Postgraduate Certificate

## Blockchain: The Key to Building a Decentralized Metaverse



## Postgraduate Certificate Blockchain: The Key to Building a Decentralized Metaverse

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/in/information-technology/postgraduate-certificate/blockchain-key-building-decentralized-metaverse](http://www.techtute.com/in/information-technology/postgraduate-certificate/blockchain-key-building-decentralized-metaverse)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

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*p. 28*



# 01

# Introduction

Since its inception, cryptocurrency has revolutionised both digital and real-life economic landscapes. It constitutes a virtual currency which paves way to a host of virtual and digital transactions. In fact, since the inception of the first cryptocurrency, Bitcoin, countless other currencies have tried to emulate its success. While their value is unpredictable, they have become of great interest to investors around the world. To operate in a system under the security of tools such as Blockchain, companies rely upon professionals with expertise in investment assets. For this reason, TECH has developed a comprehensive and 100% online degree, which allows graduates in Computer Science and related disciplines to immerse themselves in the governance models of the Metaverse. All this, with the support of an expert teaching team in digital economy and audiovisual materials that makes the study a dynamic and enriching experience.





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*Be part of the digital evolution and expand your knowledge in the value of data thanks to this Postgraduate Certificate by TECH"*

Thanks to Artificial Intelligence, we can now safely sell and buy online under the security of guarantees. One example of this is the Blockchain, which allows for one individual to transfer cryptocurrency to another individual, in a safe, transparent and decentralized way. Art has enjoyed one of the biggest benefits of this, becoming one of the most popular products online. Nowadays, it's easy to commercialize an image, a GIF, a sticker, or even a tweet. However, identifying the owner of these works gives rise to risks that may violate the creator's copyrights.

In this sense, the Metaverse and its tools represent a great opportunity for digital artists to have control over the ownership of the assets and to retain their rights over the works. In this case, increasing the security of transactions is the responsibility of professionals and the *Blockchain* is one of the key systems that achieve this. There is also a great demand from public and private companies for specialists who are up to date with the latest developments in Web 3.0.

To develop knowledge in this area, TECH has developed a thorough degree that delves into the decentralization of the economy in the Metaverse. The main objective of this program is to expand and update the strategies of computer scientists who wish to operate in cyberspace. Additionally, this Postgraduate Certificate is 100% online to encourage engagement with study, as well as allowing students to balance it with their personal and professional lives. In addition, TECH applies the innovative Relearning methodology so that students do not invest long and cumbersome hours into memorization, but instead, learn the content in a progressive way, diving into the techniques that will help them succeed in the virtual field.

This **Postgraduate Certificate in Blockchain: The Key to Building a Decentralized Metaverse** contains the most complete and up-to-date program on the market. The most important features include:

- ♦ Up-to-date case studies provided by experts in the Metaverse, Blockchain and Web 3.0
- ♦ The graphic, schematic, and practical contents with which they are created, provide practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*With this Postgraduate Certificate you'll dominate the newest technologies, allowing you to work with governed data in as little as 6 weeks"*





*Learn about the characteristics of the latest digital assets, so that you can get involved and succeed with tokenization"*

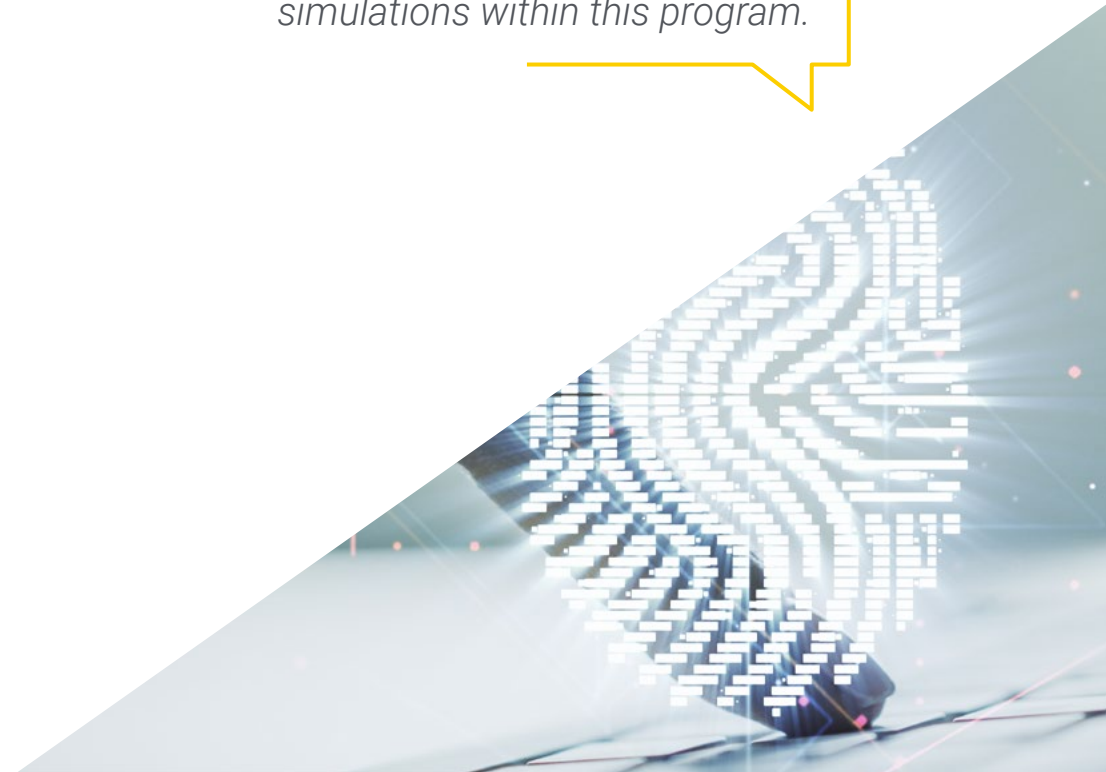
The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

*Become a specialist in the Metaverse and Blockchain and their influence on the decentralization and automation of the economy in the virtual world.*

*Develop new business models for users and organizations, thanks to the practical simulations within this program.*



# 02 Objectives

This Postgraduate Certificate in Blockchain: The Key to Building a Decentralized Metaverse aims to broaden and update the knowledge of computer science graduates to make them experts in the field of virtual worlds and their economic possibilities. The program explores the bitcoin ecosystem, advanced technologies, the technological response to user needs and the value of NFTs, among many other issues. In this way, the student will learn about the latest techniques to manage the Metaverse Economy in the most practical and simple ways.





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*Don't wait any longer: achieve your goals and become the computer scientist with enhanced Metaverse skills to become more competitive in any business environment”*



## General Objectives

- ♦ Generate specialized knowledge on Web 3.0
- ♦ Examine each of the components that make up a Metaverse
- ♦ Develop a Metaverse from the available tools and components
- ♦ Analyze the importance of Blockchain as a data governance model
- ♦ Justify the connection of Blockchain with the present and future of the Metaverse
- ♦ Discover case studies and the impact of decentralized finance in our present and future world
- ♦ Analyze the video game industry's evolution and the first primitive examples of Metaverses
- ♦ Delve into classic business models, the general state of the industry and the creation of the GameFi concept
- ♦ Establish synergies between eSports and other gaming industry ecosystems with respect to the current Metaverse
- ♦ Develop new skills that allow students to identify business opportunities in the different media of the metaverse
- ♦ Identify and promote all possible monetization avenues within the Metaverse
- ♦ Delve into the Metaverse experience from a different perspective, being able to understand how all this potential development affects us and answer all the questions of its application in the medium to long term
- ♦ Make the Metaverse part of our daily life to be able to make the most of it in all its areas
- ♦ Prepare ourselves for all the changes that the Metaverse poses for the future and know how it can affect our life, business or the way we interact with others





## Specific Objectives

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- ♦ Examine the importance of Blockchain values in a new virtual world
- ♦ Delve into the opportunities that Blockchain to provide users of the Metaverse
- ♦ Develop Metaverse business models, powered by Blockchain
- ♦ Unravell the role of data in the Metaverse
- ♦ Transform Blockchain case studies into value for Metaverse users
- ♦ Analyze the value of integrating diverse Blockchain case studies into a single environment
- ♦ Assess what the Metaverse means for the new era of the Internet



*Gain all the tools necessary to tackle new projects related to public or private Blockchains, thanks to TECH”*



# 03

## Course Management

TECH provides computer science graduates with elite teaching, thanks to the careful selection of an experienced teaching staff. The students will acquire theoretical knowledge integrated in the syllabus and, in addition, they will be able to learn from the teachers' own experiences in real-life scenarios and cases. In this way, the student can contact experts through a direct communication channel, to resolve any doubts or queries they may have about their studies. This is a unique opportunity for professionals who wish to master Smart Contracts, dApps and the Cryptoverse.



“

*It has the support of an expert teaching team in cryptocurrencies so that you get a theoretical-practical training with all the guarantees"*

## Management



### Mr. Cavestany Villegas, Íñigo

- Co-Founder & Head of Ecosystem of Second World
- Web3 and Gaming Leader
- IBM Cloud Specialist at IBM
- Advisor at Netspot OTN, Velca and Poly Cashback
- Teacher in business schools such as IE Business School or IE Human Sciences and Technology
- Graduate in Business Administration from IE Business School
- Master's Degree in Business Development from the Autonomous University of Madrid
- IBM Cloud Specialist
- Profession Certification in IBM Cloud Solution Advisor





# 04

## Structure and Content

The syllabus of this program has been carefully designed by the expert teaching team in Metaverse. For this reason, the Postgraduate Certificate in Blockchain: The Key to Building a Decentralized Metaverse guarantees rigorous and complete content that delves into the value of data, governance models in cyberspace, and the digital identity of users on the network. In addition, its 100% online modality allows the adaptation of the study to the personal and professional needs of the students and its Relearning methodology will save you from long hours of memorization, thanks to a progressive and simple learning process.





A close-up photograph of several gold coins. The top coin features a prominent triangular logo, possibly a stylized 'A' or a similar geometric shape. The coins are stacked, and the lighting creates a warm, golden glow. The background is a mix of dark green and teal geometric shapes.

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*A program that will transform you into a multidisciplinary professional, that you can engage with whenever and wherever you want, thanks to it being 100% online”*



## Module 1. Blockchain: The Key to Building a Decentralized Metaverse

- 1.1. Bitcoin
  - 1.1.1. Satoshi Nakamoto
  - 1.1.2. Bitcoin's Impact on the Economic, Political and Social Context
  - 1.1.3. Bitcoin Ecosystem. Use Cases
- 1.2. Public or Private Blockchains. New Governance Model
  - 1.2.1. Public or Private Blockchains
  - 1.2.2. Blockchain. Governance Model
  - 1.2.3. Blockchain. Case Studies
- 1.3. Blockchain. The Value of Data
  - 1.3.1. Data Value in a New Digital Paradigm
  - 1.3.2. Blockchain's Data and Value Contribution
  - 1.3.3. Advanced Technologies for Working with Governed Data
- 1.4. Metaverse Decentralization and Automation
  - 1.4.1. Decentralization and Automation
  - 1.4.2. Technological Response to User Needs
  - 1.4.3. Businesses of the Future
- 1.5. Metaverse Governance Model through DAO
  - 1.5.1. DAO Metaverse Value
  - 1.5.2. The DAO User-Transparent Game Rules
  - 1.5.3. DAO that Add Value to the Metaverse
- 1.6. Digital Asset Ownership, Value and Tokenization
  - 1.6.1. Non Fungible Token (NFT) Value
  - 1.6.2. Physical or Virtual Asset Tokenization
  - 1.6.3. Digital Assets in the Metaverse. Use Cases
- 1.7. Metaverse Economy
  - 1.7.1. Storing and Exchanging Value with Cryptocurrencies
  - 1.7.2. User and Organization Business Models
  - 1.7.3. Metaverse Finance Empowered by the Blockchain





- 1.8. Digital Identity
  - 1.8.1. Our Digital Identity Certification
  - 1.8.2. Metaverse Avatars
  - 1.8.3. Users and Organizations. Digital Identity
- 1.9. Smart Contracts, DApps and the Cryptoverse
  - 1.9.1. Real World vs. Virtual World. Activity Reinvention
  - 1.9.2. Decentralized Applications
  - 1.9.3. Applied Blockchain New Universe of Possibilities
- 1.10. The Metaverse New Internet
  - 1.10.1. Reinventing the Internet through the Metaverse
  - 1.10.2. New Economic and Social Environment
  - 1.10.3. Physical and Virtual World Connection



*A program designed for professionals like you,  
who wish to enhance their IT skills, obtaining the  
best results thanks to the knowledge of the virtual  
paradigm offered by TECH"*



# 05 Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

“

*At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world”*



*You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.*



*The student will learn to solve complex situations in real business environments through collaborative activities and real cases.*

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

“*Our program prepares you to face new challenges in uncertain environments and achieve success in your career”*

The case method has been the most widely used learning system among the world's leading Information Technology schools for as long as they have existed. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the course, students will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.



## Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

*In 2019, we obtained the best learning results of all online universities in the world.*

At TECH you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



This program offers the best educational material, prepared with professionals in mind:



#### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



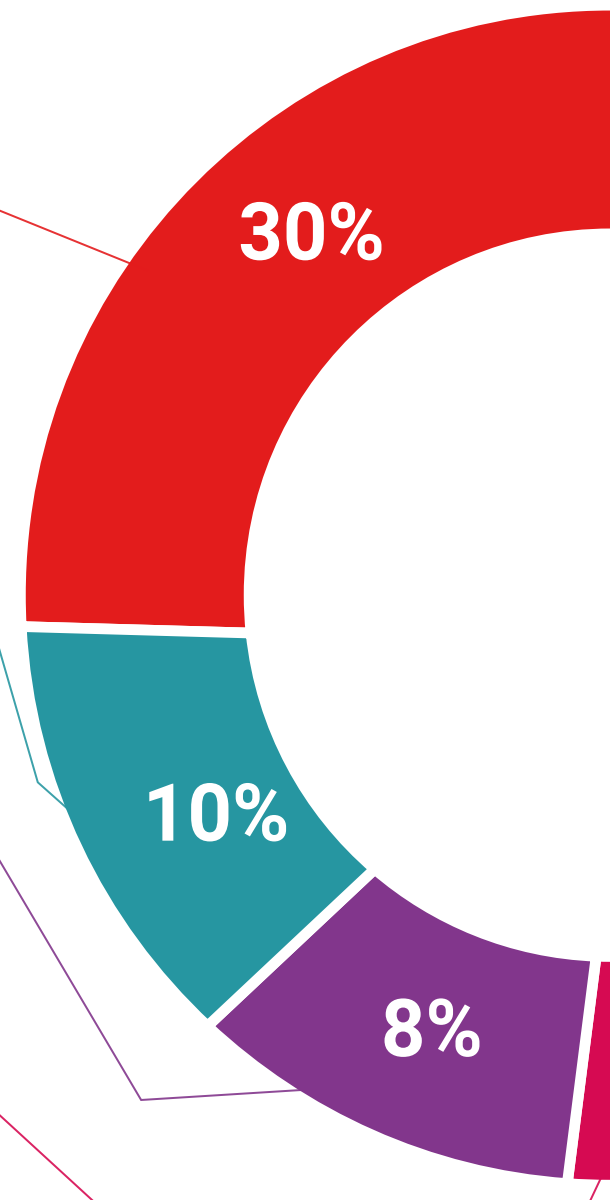
#### Practising Skills and Abilities

They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.

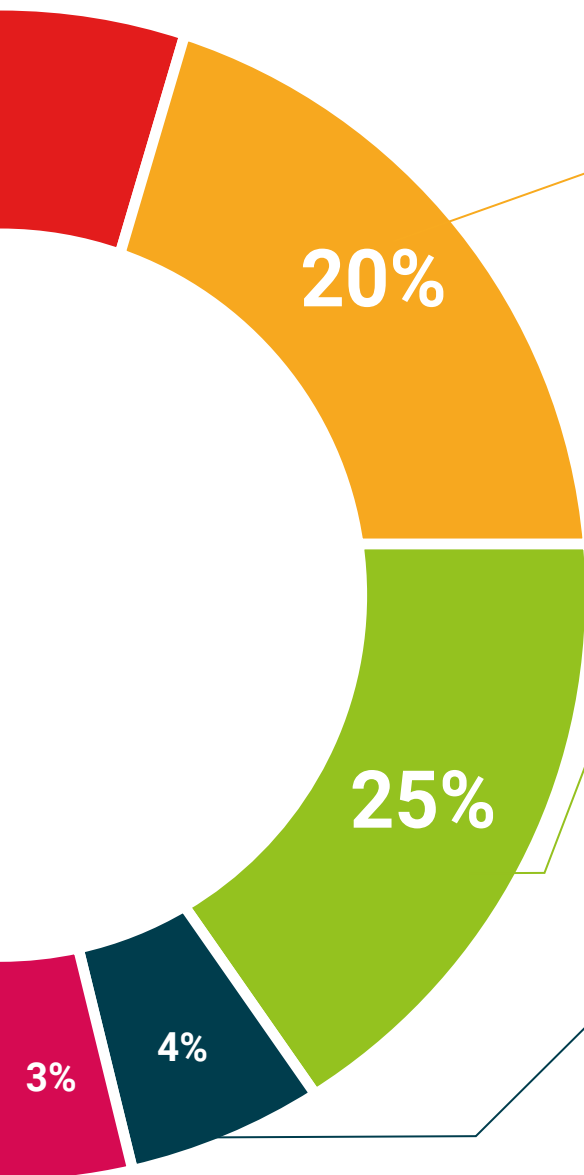


#### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.







#### Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best specialists in the world.



#### Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



# 06 Certificate

The Postgraduate Certificate in Blockchain: The Key to Building a Decentralized Metaverse guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



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*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"*



This **Postgraduate Certificate in Blockchain.: The Key to Building a Decentralized Metaverse** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Certificate in Blockchain: The Key to Building a Decentralized Metaverse**

Official N° of Hours: **150 h.**





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