

# Postgraduate Certificate

Bitcoin. Origin of the  
Cryptoeconomy





## Postgraduate Certificate Bitcoin. Origin of the Cryptoeconomy

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

Website: [www.techtute.com/pk/information-technology/postgraduate-certificate/bitcoin-origin-cryptoeconomy](http://www.techtute.com/pk/information-technology/postgraduate-certificate/bitcoin-origin-cryptoeconomy)

# 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

---

*p. 28*



# 01

# Introduction

In recent years, the world has brought significant advances in many of the usual fields for society, especially when talking about virtual worlds or economies. Since its birth in 2008, Bitcoin came to change the rules of the game, allowing from its use the acquisition of material goods through online platforms, which made investors and people knowledgeable about the metaverse to create their own cryptoeconomy within the virtual world. To that extent, this program is an opportunity for IT professionals who have not yet thoroughly examined the concept and relevance of Bitcoin along with its impact on the coming era. Through innovative multimedia material, the student will review Bitcoin mining, Bitcoin Wallets and other current uses, all in a flexible and adaptable 100% online format.



“

*A program for you to update your information and deepen your knowledge about the functioning of Bitcoin and its impact on the Digital Economy"*

Since 2008, Bitcoin has not stopped advancing in its adaptation process, since it still remains as one of the most important currencies in the economy, far exceeding the currency of Latin American countries and many other Asian countries. To this extent, connoisseurs and professionals have to delve into Cryptoeconomics, a term coined and emerged since the commercialization of Bitcoin and other forms of digital wallets.

This field, influenced by the metaverse and the adaptation of the digital world, is a wide baggage of knowledge guided to the purchasing modality of the future, since it is a current model of economy that is valid in many countries. On the other hand, those who wish to delve deeper into the broad field of Bitcoin, should identify its role within the general economic plane, since its growth has been considerable, being an asset to be taken into account by large companies and investors.

All this knowledge will be fully developed in this university program, which is offered by TECH Technological University for IT professionals. This is a 100% online program that will allow the student to delve into the field of Cryptocurrencies, its operation within the metaverse and its impact on today's world to reach the economy. A program that can be developed without on-site classes and without fixed schedules, so that the student can take it from the comfort of his home, only needing a device with internet connection.

This **Postgraduate Certificate in Bitcoin. Origin of the Cryptoeconomy** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of case studies presented by digital business and IT experts
- ◆ 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



*Acquire reference knowledge about Bitcoin and become an expert in Cryptoeconomics"*



“

*A 100% online program, designed for computer connoisseurs of the metaverse and the digital economy who want to expand their skills in these fields”*

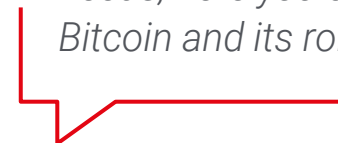
The program’s teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The 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 immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year. This will be done with the help of an innovative system of interactive videos made by renowned experts.

*A program designed to suit your needs, here you can delve into the Bitcoin and its role in the economy.*

*Would you like to learn about the functioning of Bitcoin and the Cryptoeconomy? Enroll now.*



# 02 Objectives

The main objective of TECH Technological University for this Diploma is to provide the IT professional with the most up-to-date information regarding Bitcoin and its development within the digital world. To this extent, this program is a compendium of information that seeks to decipher the functioning of the Cryptoeconomy and its impact on the earthly world, allowing investors and experts to have a digital wallet for the acquisition of goods and increase of fortunes.





“

*Take this program and achieve your goals within the digital world, knowing how Cryptoeconomics works and its importance for the future ahead”*



## General Objectives

---

- ◆ Analyze the history of Bitcoin
- ◆ Understand how Bitcoin works
- ◆ Determine all Bitcoin stakeholders
- ◆ Generate specialized knowledge about Ethereum
- ◆ Analyze its operation
- ◆ Master Ethereum wallets
- ◆ Analyze DeFi advantages
- ◆ Understand how it works
- ◆ Perform DeFi project analysis
- ◆ Analyze the most used DeFi analysis tools
- ◆ Generate specialized knowledge on the most widely used DeFi technology
- ◆ Familiarize yourself with the most relevant DeFi protocols in the crypto ecosystem
- ◆ Understand money and the key difference between fiat and crypto
- ◆ Learn how to value a Blockchain Tokenomics
- ◆ Become familiar with wallets and web 3
- ◆ Establish differences between public and private platforms
- ◆ Analyze how Blockchain is applied when cryptocurrencies do not apply to the case study
- ◆ Analyze the main Defi protocols
- ◆ Substantiate its operation
- ◆ Identify the main market movements
- ◆ Examine and propose investment entries and exits
- ◆ Evaluate and develop investment strategies
- ◆ Establish the basis for crypto world compliance
- ◆ Analyze existing regulations
- ◆ Establish parameters to initiate projects with legal certainty
- ◆ Evaluate privacy within Blockchain technology
- ◆ Identify legal security in existing projects
- ◆ Determine the basic principles of crypto-asset security
- ◆ Examine the main threats in cyberspace
- ◆ Discover best practices for crypto asset custody





## Specific Objectives

---

- ◆ Distinguish the different directions and types of transactions
- ◆ Determine the different uses of Bitcoin in the real world
- ◆ Installing and setting up the most used Bitcoin Wallets

“

*A program designed to improve your skills in handling Bitcoin in all its facets"*



# 03

# Course Management

TECH Technological University, in its commitment to academic excellence, has selected for this opportunity a highly qualified and effective teaching staff. They are specialists in the field with knowledge and experience of several years in the crypto world, which will benefit the student in the face of complications that arise during the course of the program. In addition to this, we can highlight the commitment of the teachers and their human warmth, always providing specific information for the benefit of the professional.





“

*A highly qualified teaching staff to make the development of your program an enriching and beneficial experience for your future"*

## Management



### Dr. Gil de la Guardia, Alberto

- ◆ Founding member of Le Crypto Club
- ◆ Co-director of several university programs related to Blockchain Technology and the Crypto world
- ◆ Doctorate in International Public Law at the Complutense University of Madrid
- ◆ Master's Degree in Financial Studies from San Pablo CEU University
- ◆ Master's Degree in Blockchain Technology and Bitcoin from the European University of Madrid
- ◆ Degree in Law from the University of Salamanca

## Professors

### Mr. Fernández Belando, David

- ◆ Founding partner of ADNBLOCK
- ◆ Information Technology Engineering at the National University of Distance Education
- ◆ Bitcoin and Blockchain Expert Postgraduate Degree at the European University of Madrid
- ◆ IBM Blockchain Essentials
- ◆ IBM Blockchain Foundation Developer







# 04

# Structure and Content

The content of this program has been designed by TECH Technological University together with its teaching staff. It is a Diploma that will cover everything related to Bitcoin, a decentralized digital currency. The selected topics are a compendium of knowledge that will seek to respond to the entire crypto movement, especially the development of the Cryptoeconomy and its potential in the coming years for the global future of society. Therefore, this degree can be defined as a conglomerate of information concerning such an important field as the digital economy, shown in an audiovisual format that includes videos in detail, interactive summaries and both real and simulated cases.



“

*A program full of audiovisual material, graphic pieces and complementary readings that students can download from the Virtual Campus to review whenever they need to"*



## Module 1. Bitcoin The Birth of Cryptoeconomics

- 1.1. Bitcoin Fundamentals
  - 1.1.1. Bitcoin
  - 1.1.2. Bitcoin White Paper
  - 1.1.3. How Bitcoin Works
- 1.2. Bitcoin Addresses
  - 1.2.1. Bitcoin Address Generation
  - 1.2.2. Bitcoin Address Types
  - 1.2.3. Smart Contracts in Bitcoin
- 1.3. P2P Networks
  - 1.3.1. P2P Networks
  - 1.3.2. P2P Bitcoin Networks
  - 1.3.3. Use of P2P Networks in Crypto Projects
- 1.4. Game Theory
  - 1.4.1. Game Theory
  - 1.4.2. Bitcoin Gaming Applicability
  - 1.4.3. Main Games Applied in the Real World
- 1.5. Consensus Model
  - 1.5.1. Consensus Models in Distributed Systems
  - 1.5.2. Bitcoin Consensus
  - 1.5.3. BIP Analysis (Bitcoin Improvement Proposals)
- 1.6. Bitcoin Mining
  - 1.6.1. Bitcoin Mining
  - 1.6.2. Current Bitcoin Mining Model
  - 1.6.3. Mining Farms
- 1.7. Transactions: Types
  - 1.7.1. Bitcoin Transactions
  - 1.7.2. Blockchain Traceability
  - 1.7.3. Block Explorers



- 1.8. Nodes: Types
  - 1.8.1. Bitcoin Nodes
  - 1.8.2. Full Node Uses. Best Practices
  - 1.8.3. Full Nodes vs. Light Nodes
- 1.9. Bitcoin Wallets
  - 1.9.1. Types of Wallets
  - 1.9.2. Use of Bitcoin Wallets
  - 1.9.3. Security in the use of Wallets
- 1.10. Other Bitcoin Uses
  - 1.10.1. Bitcoin as Data Repository
  - 1.10.2. DeFi with Bitcoin
  - 1.10.3. Bitcoin as Digital Notary

“

*Do not miss this opportunity, enroll now and learn more about Bitcoin and Cryptoeconomics, a field with good professional opportunities in the future"*





# 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.







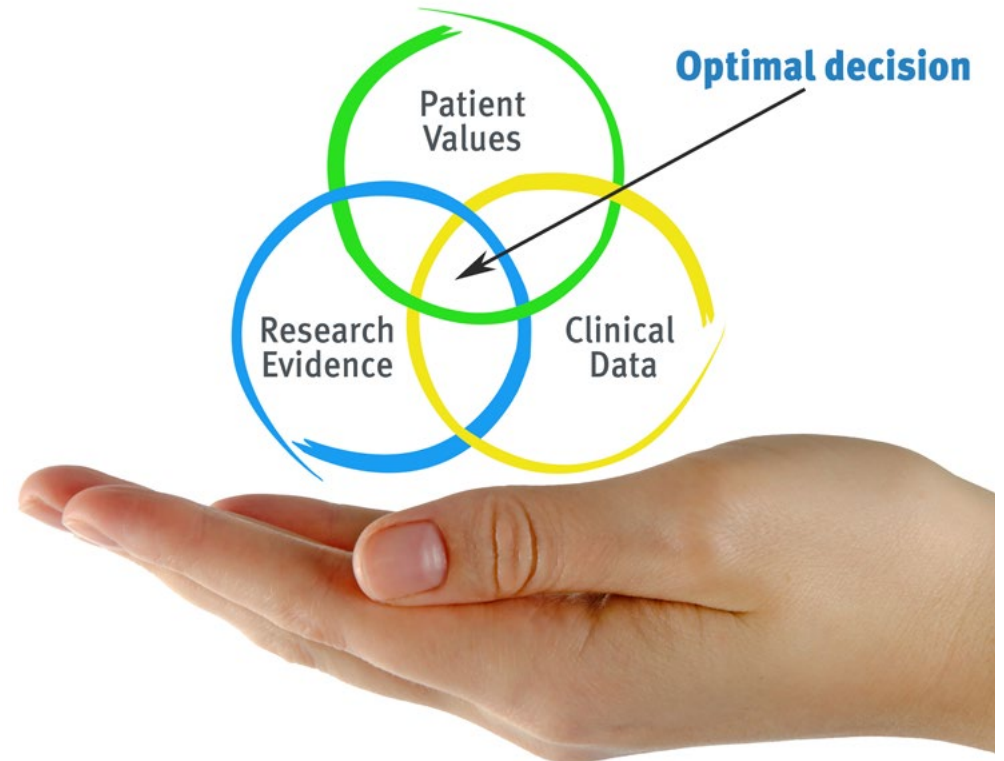
*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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 balances 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 prepare 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 prepared 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 education, 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 Bitcoin. Origin of the Cryptoeconomy guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



“

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

This **Postgraduate Certificate in Bitcoin. Origin of the Cryptoeconomy** 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 Bitcoin. Origin of the Cryptoeconomy**

Official N° of hours: **150 h.**



\*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development language  
virtual classroom



## Postgraduate Certificate

Bitcoin. Origin of the  
Cryptoeconomy

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

# Postgraduate Certificate

Bitcoin. Origin of the  
Cryptoeconomy