





## Postgraduate Certificate

## Blockchain and Business

» Modality: online

» Duration: 12 weeks

» Certificate: TECH Global University

» Credits: 12 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/information-technology/postgraduate-certificate/blockchain-business

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## tech 06 | Introduction

Healthcare, pharmaceuticals, aviation, etc. More and more sectors are using Blockchain technology to create companies and develop innovative projects that respond to some of the current challenges. In this way, this powerful tool has provided security, speed and a decentralization of processes that streamlines many tasks in these areas.

This Postgraduate Certificate in Blockchain and Business offers the computer scientist the latest developments in the development of Blockchain projects focused on the business environment, and for this it delves into issues such as native digital assets, tokenization, security in this type of processes or the implementation cycle, among many others.

And all this, using an online pedagogical system that adapts to the circumstances of each student, allowing them to choose how, when and where to study. Likewise, students will have a first level faculty in the implementation of business Blockchain projects and will also have numerous multimedia content such as practical exercises or interactive summaries that will facilitate all learning.

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

- The development of practical cases presented by experts in the application of Blockchain technology to the business world
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where the self-assessment process can be carried out 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





Blockchain has added additional complexity to the business world. This program helps you to develop projects in this area without complications"

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 course. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

In this Postgraduate
Certificate you will learn all the
particularities of the business
environment and the Blockchain.







## tech 10 | Objectives



## **General Objectives**

- Determine to what extent information can be collected from Wallets that we physically hold and to what extent information can be collected only when we have an address
- Draw conclusions regarding good security practices
- Consider the vulnerabilities associated with Blockchain
- Analyze why or why not to apply a Blockchain solution in our environment
- Generate specialized knowledge on the logical concept of distributed technologies as a comparative advantage
- Explore the capability of certain Blockchain implementations and their impact on the financial and pharmaceutical field
- Analyze the best way to implement a Blockchain process focusing on the basics of the technology



All your goals will be within your reach thanks to this Postgraduate Certificate in Blockchain and Business"







## **Specific Objectives**

## Module 1. Blockchain Technology: Technologies Involved and Cyberspace Security

- Establish methodologies for information analysis and deception detection on the Internet
- Plan an Internet search strategy
- Determine the most appropriate tools to detect a criminal act on the Internet
- Deploy an environment with the following tools: Logstash, Elasticsearch and Kibana
- Address the risks faced by analysts in a research exercise
- Conduct research processes based on wallet or address availability
- Identify possible indications of mixers being used to blur transaction trails

#### Module 2. Blockchain and Business

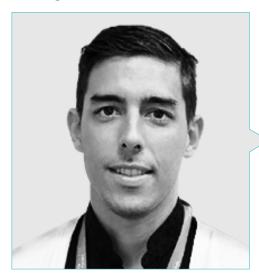
- Analyze why we should or should not implement a Blockchain project in our environment
- Examine the challenges we face when implementing a product based on DLT technology
- Adapt our knowledge and mental tools to understand the concept of projectoriented blockchain
- Gather all the possibilities offered by the vast blockchain universe, distributed, DeFi, etc.
- Determine when a blockchain project is right or wrong
- Discern between a meaningful project and the Hype surrounding this technology





## tech 14 | Course Management

## Management



## Mr. Torres Palomino, Sergio

- IT Engineer with expertise in Blockchain
- Blockchain Lead at Telefónica
- Blockchain Architect at Signeblock
- Blockchain Developer at Blocknitive
- Writer and Publisher at O'Reily Media Books
- Professor in postgraduate studies and Blockchain related courses
- Degree in Computer Engineering from CEU San Pablo University
- Master's Degree in Big Data Architecture
- Master's Degree in Big Data and Business Analytics

#### **Professors**

#### Ms. Salgado Iturrino, María

- Software Engineer with expertise in Blockchain
- Blockchain Manager Iberia & LATAM at Inetum
- Identity Comission Core Team Leader at Alastria Blockchain Ecosystem
- Software Developer at Indra
- Teacher in postgraduate studies related to Blockchain
- Degree in Software Engineering from the Complutense University of Madrid
- Master's Degree in Computer Engineering from the Polytechnic University of Madrid
- University Expert in Blockchain Application Development

#### Mr. Vaño Francés, Juan Francisco

- Engineer in Computer Science
- Solidity Engineer at Vivatopia
- Senior Computer Technician at R. Belda Lloréns
- Computer Science Engineer at the Polytechnic University of Valencia
- Specialized in DApp programming and Smart Contract development with Solidity
- Course in Data Science Tools



## Course Management | 15 tech

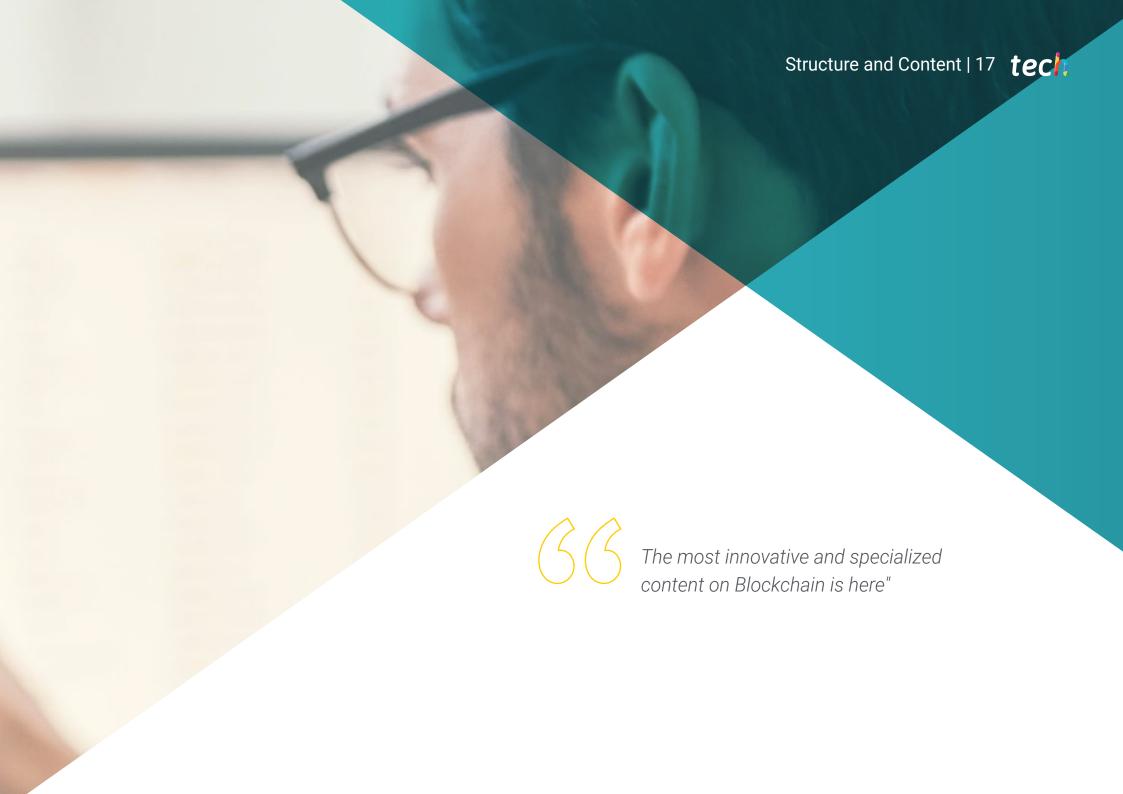
#### Mr. Herencia, Jesús

- Director of Digital Assets at OARO
- Founder and Blockchain Consultant at Shareyourworld
- IT Manager at Crédit Agricole Leasing & Factoring
- CEO of Blockchain Open Lab
- IT Manager at Mediasat
- Diploma in Computer Systems Engineering from the Polytechnic University of Madrid.
- Secretary General of AECHAIN
- Member of: Academic Committee for the Promotion of Cryptoassets and DLT Technology Research, Ethereum Madrid, AECHAIN



A unique, key, and decisive educational experience to boost your professional development"





## tech 18 | Structure and Content

### Module 1. Blockchain Technology. Cryptography and Security

- 1.1. Cryptography in Blockchain
- 1.2. A Hash in Blockchain
- 1.3. Private Sharing Multi-Hasing (PSM Hash)
- 1.4. Digital Signatures in Blockchain
- 1.5. Key management. Wallets
- 1.6. Encryption
- 1.7. On-Chain and Off-Chain Data
- 1.8. Security and Smart Contracts

#### Module 2. Blockchain and Business

- 2.1. Applying Technology throughout the Company
  - 2.1.1. Applying Blockchain
  - 2.1.2. Blockchain Benefits
  - 2.1.3. Common Implementation Mistakes
- 2.2. Blockchain Implementation Cycle
  - 2.2.1. From P2P to Distributed Systems
  - 2.2.2. Key Aspects for Proper Implementation
  - 2.2.3. Improving Current Implementations
- 2.3. Blockchain Vs. Traditional Technologies: Basics
  - 2.3.1. APIs Data and Flows
  - 2.3.2. Tokenization as a Cornerstone for Projects
  - 2.3.3. Incentives
- 2.4. Selecting Blockchain Type
  - 2.4.1. Public Blockchain
  - 2.4.2. Private Blockchain
  - 2.4.3. Consortiums
- 2.5. Blockchain and the Public Sector
  - 2.5.1. Blockchain in the Public Sector
  - 2.5.2. Central Bank Digital Currency (CBDC)
  - 2.5.3. Conclusions





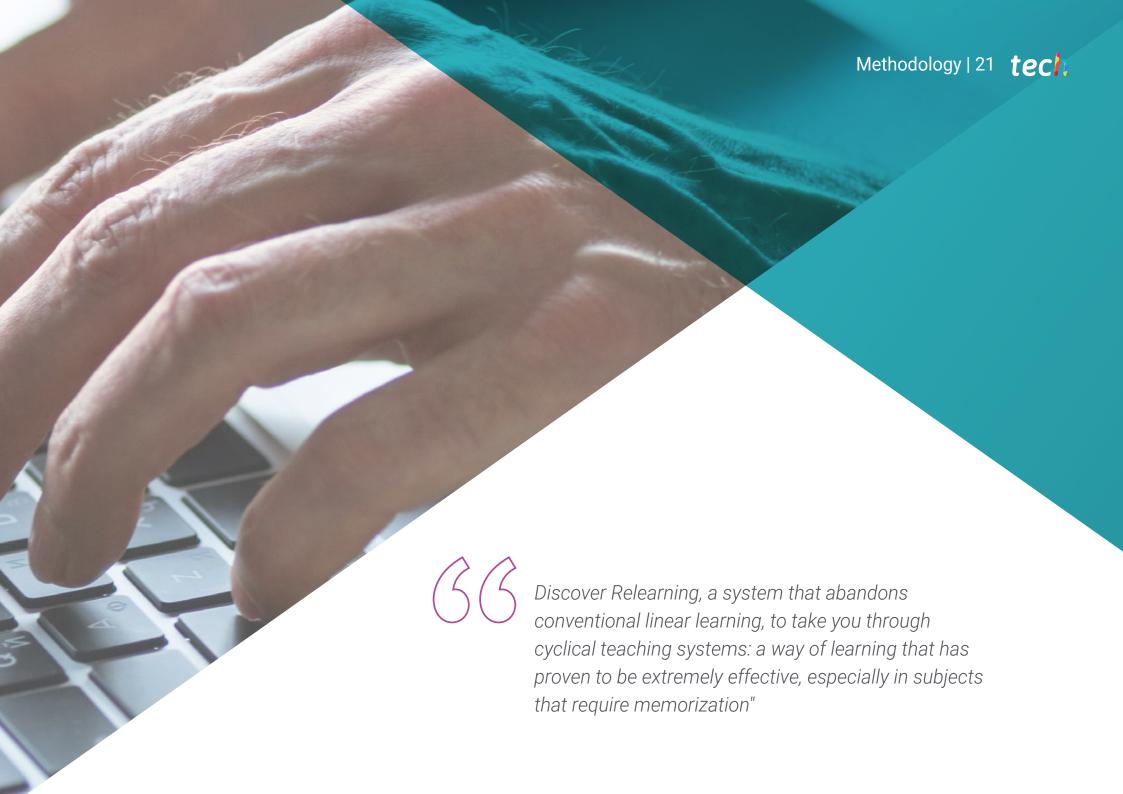
## Structure and Content | 19 tech

- 2.6. Blockchain and the Financial Sector Start
  - 2.6.1. CBDC and Banking
  - 2.6.2. Native Digital Assets
  - 2.6.3. Where It Does Not Fit
- 2.7. Blockchain and the Pharmaceutical Sector
  - 2.7.1. Searching for Meaning in the Field
  - 2.7.2. Logistics or Pharmacy
  - 2.7.3. Application
- 2.8. Pseudo Private Blockchains: The Point of Consortiums
  - 2.8.1. Reliable Environments
  - 2.8.2. Analysis and Delving Deeper
  - 2.8.3. Valid Implementations
- 2.9. Blockchain. Usage Case in Europe EBSI
  - 2.9.1. EBSI (European Blockchain Services Infraestructure)
  - 2.9.2. The Business Model
  - 2.9.3. Future
- 2.10. The Future of Blockchain
  - 2.10.1. Trilemma
  - 2.10.2. Automation
  - 2.10.3. Conclusions



When you finish this program you will experience a great business and professional improvement"





## tech 22 | Methodology

## 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.



## Methodology | 25 tech

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.



## Methodology | 27 tech



4%

3%

#### **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.





## tech 30 | Certificate

This program will allow you to obtain your **Postgraduate Certificate in Blockchain and Business** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra (*official bulletin*). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: Postgraduate Certificate in Blockchain and Business

Modality: online

Duration: 12 weeks

Accreditation: 12 ECTS



This is a program of 300 hours of duration equivalent to 12 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024



<sup>\*</sup>Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

health confidence people

health information tutors

guarantee accreditation teaching
institutions technology learning
community commitment



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