

# Postgraduate Certificate

## Networks and Smart Contracts

Accepted on behalf of client

We understand the above project will be completed as stated on the reverse of this contract:

Name (print) \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Accepted on behalf of client

**tech** technological  
university



## Postgraduate Certificate Networks and Smart Contracts

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

Website: [www.techtute.com/us/videogames/postgraduate-certificate/networks-smart-contracts](http://www.techtute.com/us/videogames/postgraduate-certificate/networks-smart-contracts)

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# 01

# Introduction

The expansion of the cryptocurrency market makes them more attractive to digital users, who are making an increasing number of transfers using these new currencies. The networks that make up this conglomerate of virtual currencies require a clear understanding of how to implement digital projects that, in turn, have the security guarantees provided by *Smart Contracts*. In this program, students will be able to develop plans to improve accessibility at the user level from networks and promote a future project that will boost their professional career. The multimedia tools put at your disposal and the work through practical situations will facilitate the acquisition of skills and competencies required by a *Gaming* professional.





“

*With this Postgraduate Certificate, you will be able to get the guarantees and security to launch your digital project based on cryptocurrencies”*

The Postgraduate Certificate in Networks and Smart Contracts dives into the universe of networks that make up the cryptocurrency blockchain network. A wide emerging world where students will be guided by the specialized teaching team that will deliver this 100% online program

The program will begin by covering the essential knowledge of *Smart Contracts*, their features, the hosting of applications, the simplification of processes, their security and the creativity of the creators that can lead to results not yet seen in this field. Throughout this program, you will learn the most essential aspects of Metamask and asset management or open-source platforms such as Ripple, Polygon MATIC, Tron or Ethereum, where smart contracts are made every day

This program will provide you with knowledge of the advantages and disadvantages of each platform, thereby providing you with the essential information to offer professional services in an area in constant growth

A Postgraduate Certificate that is very close to the current digital reality, which allows students to learn from anywhere in the world using any device with an Internet connection. The TECH study method with extensive multimedia resources is the guarantee to expand your professional career

This **Postgraduate Certificate in Networks and Smart Contracts** contains the most complete and up-to-date educational program on the market. Its most notable features are:

- ◆ Case studies presented by experts in cryptocurrencies, *Blockchain* and video games
- ◆ 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
- ◆ 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



*Specialize and increase your chances so that the best digital companies will count on you"*

“

*This Postgraduate Certificate will provide you with the knowledge you need to succeed in the cryptocurrency industry”*

*Master the main virtual currency platforms and make your project a reality.*

*Get the tools required to offer digital services to your potential clients with guarantees.*

The program's teaching staff includes professionals from the sector who contribute their work experience to this training 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 training programmed to train 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 throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts

**DeFi**  
Decentralized Finance

# 02 Objectives

The design of this Postgraduate Certificate program will facilitate students' learning by presenting the main features of the most widely used cryptocurrencies currently in use. This way, students will acquire the basic concepts required to understand, in both a practical and simple manner, the different market strategies and their profitability in the video game sector. They will also be able to analyze the risks and advantages of the use of cryptocurrencies and *Trading* to better provide their professional services.







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*You are getting closer and closer to reaching your goal and becoming a true expert in the digital video game economy”*



## General Objectives

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- ◆ Identify systematically and in the depth how Blockchain technology works, developing how its advantages and disadvantages are linked to the way its architecture works
- ◆ Contrast aspects of *Blockchain* with conventional technologies used in the various applications to which *Blockchain* technology has been taken
- ◆ Analyze the main features of decentralized finance in the context of the *Blockchain* economy
- ◆ Establish the fundamental characteristics of non-fungible *Tokens*, their operation and deployment from their emergence to the present day
- ◆ Understand the linkage of NFTs to Blockchain and examine strategies for generating and extracting value from non-fungible *Tokens*
- ◆ Expose the characteristics of the main cryptocurrencies, their use, levels of integration with the global economy and virtual gamification projects





## Specific Objectives

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- ◆ Discriminate the selection of optimal networks for the proposed purposes in a future undertaking, through the examples of use and main characteristics of each one of them
- ◆ Understand how networks work and establish a strategy based on them
- ◆ Develop plans to improve user level accessibility from the networks

“

*Acquire the skills that will be most useful to you in the technological field of the future”*

# 03

# Course Management

Mastering the world of cryptocurrencies requires extensive knowledge that TECH makes available to all with the best possible education. For this purpose, the students have a group of specialized and consolidated teachers in the sector as a guarantee of the best learning process. In this course, students have access to leading experts who will guide them at all times to acquire the essential skills to control the digital sector of cryptocurrencies.



“

*A qualified team will show you the main tools to make your personal and professional project in the field of cryptocurrencies become a reality"*

## Management



### Mr. Olmo Cuevas, Alejandro

- ♦ Founder of Seven Moons Studios *Blockchain Gaming*
- ♦ Founder of the Niide project
- ♦ Game designer and *Blockchain* economies for video games
- ♦ Writer of fantastic narrative and poetic prose.

## Professors

### Ms. Gálvez González, María Jesús

- ◆ Dideco Advisor and Head of the Women's Area of the Municipality of El Tabo.
- ◆ Teacher at Instituto Profesional AIEP
- ◆ Head of the Social Department of the Municipality of El Tabo
- ◆ Degree in Social Work from the University of Santo Tomás
- ◆ Professional Master's Degree in Strategic People Management and Organizational Human Talent Management
- ◆ Postgraduate Certificate in Social Economy from the University of Santiago de Chile

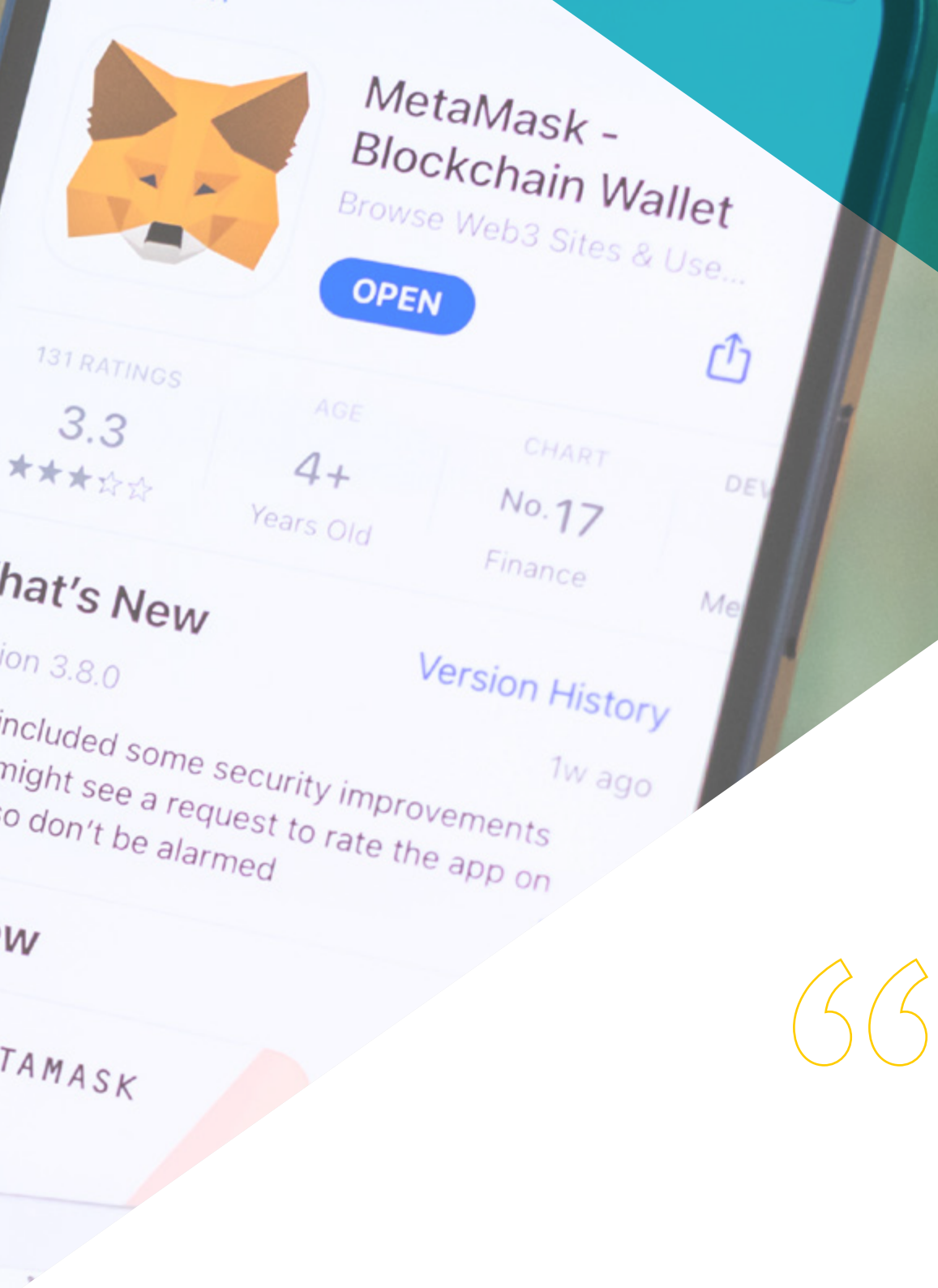
# 04

## Structure and Content

The program has been designed by professionals specialized in the area and with deep knowledge in the field of traditional and virtual economy. The syllabus combines the global theory of basic concepts such as *Smart Contract* in order to detail the characteristics, advantages and different applications of the blockchain platforms currently used by users on the network. The analysis of real experiences and situations will give a practical vision to the contents of this program.







“

*A curriculum with a variety of digital tools to facilitate learning from anywhere in the world”*

## Module 1. Networks

- 1.1. The Revolution of the *Smart Contract*
  - 1.1.1. The Birth of the *Smart Contract*
  - 1.1.2. Application Hosting
  - 1.1.3. Security in IT Processes
- 1.2. Metamask
  - 1.2.1. Aspects
  - 1.2.2. Impact on Accessibility
  - 1.2.3. Asset Management at Metamask
- 1.3. Tron
  - 1.3.1. Aspects
  - 1.3.2. Hosted Applications
  - 1.3.3. Disadvantages and Benefits
- 1.4. Ripple
  - 1.4.1. Aspects
  - 1.4.2. Hosted Applications
  - 1.4.3. Disadvantages and Benefits
- 1.5. Ethereum
  - 1.5.1. Aspects
  - 1.5.2. Hosted Applications
  - 1.5.3. Disadvantages and Benefits
- 1.6. Polygon MATIC
  - 1.6.1. Aspects
  - 1.6.2. Hosted Applications
  - 1.6.3. Disadvantages and Benefits





- 1.7. Wax
  - 1.7.1. Aspects
  - 1.7.2. Hosted Applications
  - 1.7.3. Disadvantages and Benefits
- 1.8. ADA Cardano
  - 1.8.1. Aspects
  - 1.8.2. Hosted Applications
  - 1.8.3. Disadvantages and Benefits
- 1.9. Solana
  - 1.9.1. Aspects
  - 1.9.2. Hosted Applications
  - 1.9.3. Disadvantages and Benefits
- 1.10. Projects and Migrations
  - 1.10.1. Networks Suitable for the Project
  - 1.10.2. Migration
  - 1.10.3. *Crosschain*



*A program designed to extract the maximum potential from your own Crypto-Gaming project ideas that you want to bring to fruition as soon as possible"*

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 business 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. Over the course of 4 years, you will be presented with multiple practical case studies. You will have to combine all your knowledge, and research, argue, and defend your ideas and decisions.

## Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 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 we live in.



### 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 Networks and Smart Contracts 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 Network and Smart Contracts** contains the most complete and up-to-date educational 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 diploma 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 Networks and Smart Contracts**

Official N° of Hours: **150 h.**



\*Apostille Convention. In the event that the student wishes to have their paper diploma 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 quality  
development languages  
virtual classroom



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

# Postgraduate Certificate Networks and Smart Contracts



DeFi 2.0