



# 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.techtitute.com/us/information-technology/postgraduate-certificate/networks-smart-contracts

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# tech 06 | Introduction

Given the popularity of current transfers through cryptocurrencies, or what is the same, digital currencies, smart contracts and the networks of agents that participate in them become more important. Securing transactions is essential for them to continue in the network, as users invest large amounts of money that could be in danger. This is where Smart Contracts are born, software that allows recording agreements between two or more parties. Therefore, IT professionals working in this area need to understand the intricacies of virtual economic relations and know how to deal with the risks of the Internet.

TECH offers a program in which the graduates in IT are able to develop plans to improve accessibility at the user level from networks and promote projects that will boost their professional career. The multimedia tools at your disposal and the collaboration of experts in the area guarantee your instruction around networks, smart contracts, their features, hosting applications, simplifying processes and their security. Throughout this program, you will learn the most essential aspects of Metamask and asset management or open-source platforms such as Ripple, Polygon Shades, Tron or Ethereum, where smart contracts are made every day.

This 100% online degree will not only allow a fully flexible, adaptable, complete and rigorous study within a click, but will also facilitate the acquisition of skills and competences required by a computer professional. 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 ever growing area.

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

- Case studies presented by experts in cryptocurrencies, Blockchain and computer
- 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



Be a part of online growth and gain greater skills to become a more competitive specialist for digital businesses"



This Postgraduate Diploma will provide you with the necessary knowledge to master metamasks, highchairs and ripples, among other aspects"

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

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

TECH gives you the tools to guarantee digital security services to your potential customers.







# tech 10 | Objectives



### **General Objectives**

- Identify systematically and in detail of its various components the functioning of Blockchain,technology, developing how its advantages and disadvantages are linked to the way in which its architecture functions
- 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 link between NFTs and 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**

- Discriminate the selection of optimal networks of 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



Become a multidisciplinary specialist by analyzing the main features of decentralized finance in the context of the Blockchain economy"

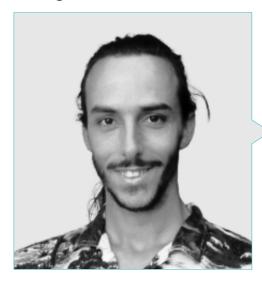






# tech 14 | Course Management

#### Management



### Mr. Olmo Cuevas, Alejandro

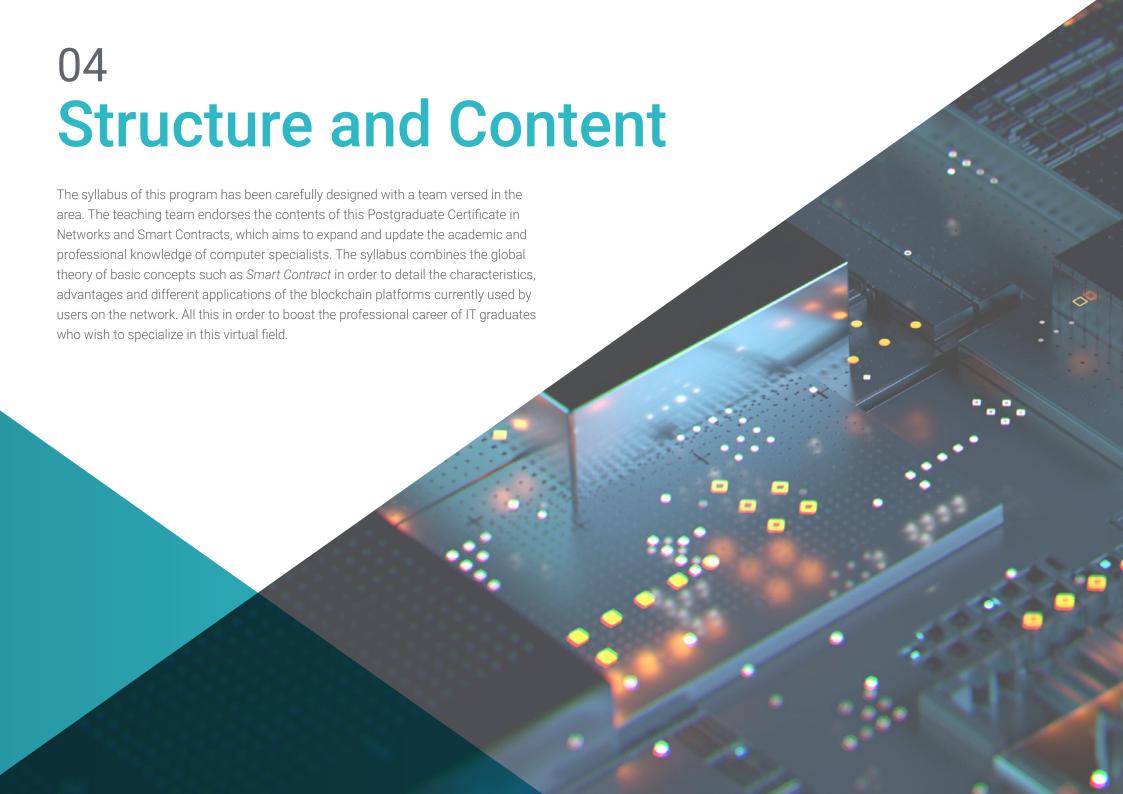
- Game and Blockchain economies designer for video games
- Founder of Seven Moons Studios Blockchain Gaming
- Founder of the Niide project
- Writer of fantastic narrative and poetic prose

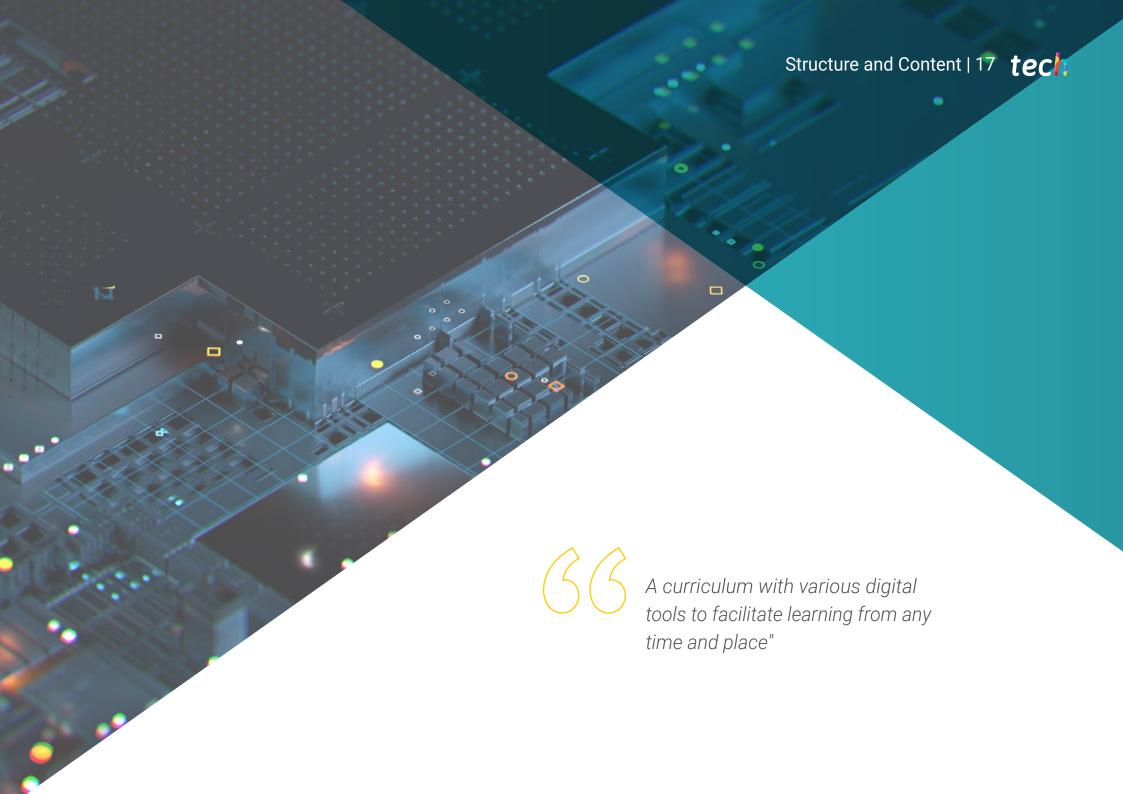
#### **Professors**

#### 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.







# tech 18 | Structure and Content

#### Module 1. Networks

- 1.1. The Revolution of the Smart Contracts
  - 1.1.1 The Birth of the Smart Contracts
  - 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





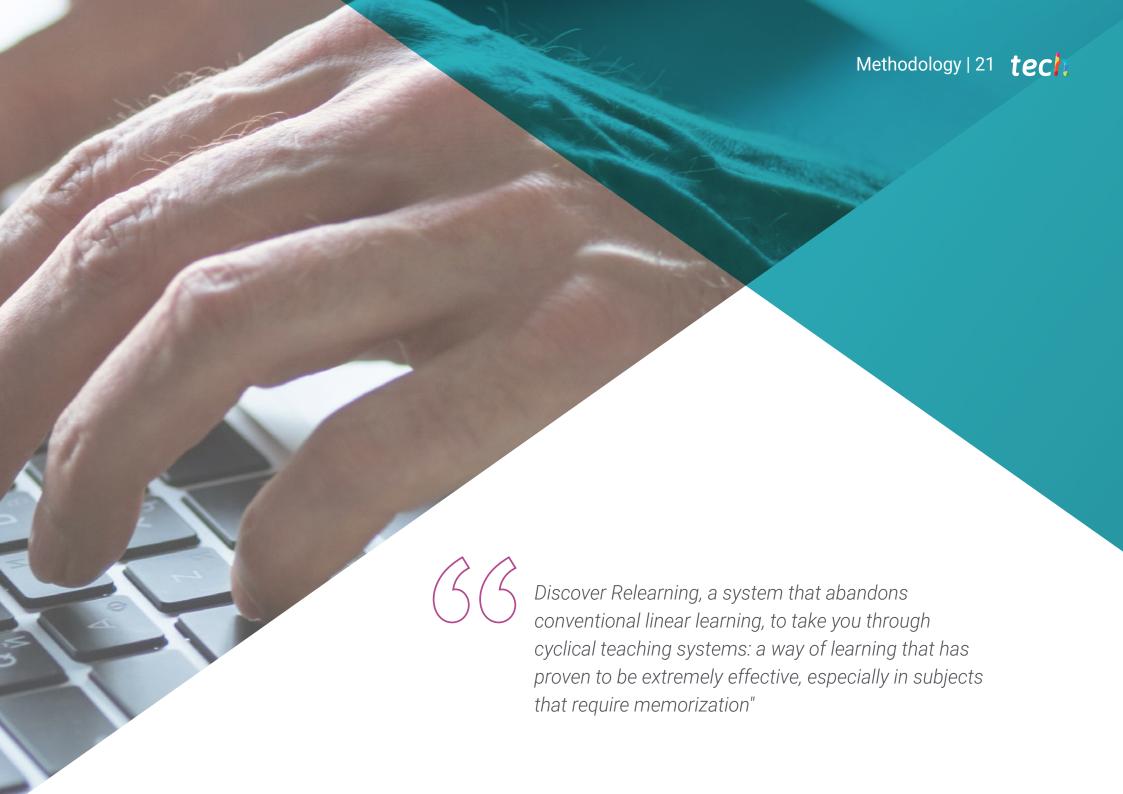
# Structure and Content | 19 tech

- 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 for you to develop the computer skills that will be essential for you to grow in the technological field of the future"





# 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 **Postgraduate Certificate in Networks and Smart Contracts** 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 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.



<sup>\*</sup>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.

health confidence people
leducation information tutors
guarantee accreditation teaching
institutions technology learning
community commitment



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