



## Postgraduate Certificate

Ethereum. DeFi Basis

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

» Target Group: University Graduates who have previously completed any of the degrees in the fields of Social and Legal Sciences, Administrative and Business Sciences. In addition, to managers interested in the area of market analytics and digital economic consulting.

Website: www.techtitute.com/us/school-of-business/postgraduate-certificate/ethereum-defi-basis

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# 01 **Welcome**

This 100% online university program focuses on blockchain technology and the decentralized finance ecosystem, with a specific focus on Ethereum. Through a variety of multimedia educational resources, from case studies to in-focus videos, students will gain a comprehensive understanding of the architecture and functionality of the Ethereum network and how it has transformed the financial sector. The world of DeFi will be explored, with a detailed overview of the fundamentals, projects and protocols of this innovative technology. For all these reasons, this course is designed to prepare students to take advantage of the opportunities offered by the blockchain and DeFi ecosystem. All this, in just 6 weeks of online study and with the endorsement and academic prestige of TECH, the world's best online university.









### tech 08 | Why Study at TECH?

### At TECH Technological University



#### Innovation

The university offers an online learning model that balances the latest educational technology with the most rigorous teaching methods. A unique method with the highest international recognition that will provide students with the keys to develop in a rapidly-evolving world, where innovation must be every entrepreneur's focus.

"Microsoft Europe Success Story", for integrating the innovative, interactive multi-video system.



### The Highest Standards

Admissions criteria at TECH are not economic. Students don't need to make a large investment to study at this university. However, in order to obtain a qualification from TECH, the student's intelligence and ability will be tested to their limits. The institution's academic standards are exceptionally high...

95%

of TECH students successfully complete their studies



### Networking

Professionals from countries all over the world attend TECH, allowing students to establish a large network of contacts that may prove useful to them in the future.

+100000

+200

executives prepared each year

different nationalities



### **Empowerment**

Students will grow hand in hand with the best companies and highly regarded and influential professionals. TECH has developed strategic partnerships and a valuable network of contacts with major economic players in 7 continents.

+500

collaborative agreements with leading companies



#### **Talent**

This program is a unique initiative to allow students to showcase their talent in the business world. An opportunity that will allow them to voice their concerns and share their business vision.

After completing this program, TECH helps students show the world their talent.



### **Multicultural Context**

While studying at TECH, students will enjoy a unique experience. Study in a multicultural context. In a program with a global vision, through which students can learn about the operating methods in different parts of the world, and gather the latest information that best adapts to their business idea.

TECH students represent more than 200 different nationalities.



### Why Study at TECH? | 09 tech

TECH strives for excellence and, to this end, boasts a series of characteristics that make this university unique:



#### **Analysis**

TECH explores the student's critical side, their ability to question things, their problem-solving skills, as well as their interpersonal skills.



### Learn with the best

In the classroom, TECH's teaching staff discuss how they have achieved success in their companies, working in a real, lively, and dynamic context. Teachers who are fully committed to offering a quality specialization that will allow students to advance in their career and stand out in the business world.

Teachers representing 20 different nationalities.



### **Economy of Scale**

TECH is the world's largest online university. It currently boasts a portfolio of more than 10,000 university postgraduate programs. And in today's new economy, **volume + technology = a ground-breaking price**. This way, TECH ensures that studying is not as expensive for students as it would be at another university.



At TECH, you will have access to the most rigorous and up-to-date case analyses in academia"



### Academic Excellence

TECH offers students the best online learning methodology. The university combines the *Relearning* methodology (the most internationally recognized postgraduate learning methodology) with Harvard Business School case studies. A complex balance of traditional and state-of-the-art methods, within the most demanding academic framework.





### tech 12 | Why Our Program?

This program will provide you with a multitude of professional and personal advantages, among which we highlight the following:



### A Strong Boost to Your Career

By studying at TECH, students will be able to take control of their future and develop their full potential. By completing this program, students will acquire the skills required to make a positive change in their career in a short period of time.

70% of students achieve positive career development in less than 2 years.



## Develop a strategic and global vision of the company

TECH offers an in-depth overview of general management to understand how each decision affects each of the company's different functional fields.

Our global vision of companies will improve your strategic vision.



### Consolidate the student's senior management skills

Studying at TECH means opening the doors to a wide range of professional opportunities for students to position themselves as senior executives, with a broad vision of the international environment.

You will work on more than 100 real senior management cases.



### You will take on new responsibilities

The program will cover the latest trends, advances and strategies, so that students can carry out their professional work in a changing environment.

45% of graduates are promoted internally.



### Access to a powerful network of contacts

TECH connects its students to maximize opportunities. Students with the same concerns and desire to grow. Therefore, partnerships, customers or suppliers can be shared.

You will find a network of contacts that will be instrumental for professional development.



### Thoroughly develop business projects

Students will acquire a deep strategic vision that will help them develop their own project, taking into account the different fields in companies.

20% of our students develop their own business idea.



### Improve soft skills and management skills

TECH helps students apply and develop the knowledge they have acquired, while improving their interpersonal skills in order to become leaders who make a difference.

Improve your communication and leadership skills and enhance your career.



### You will be part of an exclusive community

Students will be part of a community of elite executives, large companies, renowned institutions, and qualified teachers from the most prestigious universities in the world: the TECH Technological University community.

We give you the opportunity to study with a team of world-renowned teachers.





### tech 16 | Objectives

TECH makes the goals of their students their own goals too. Working together to achieve them.

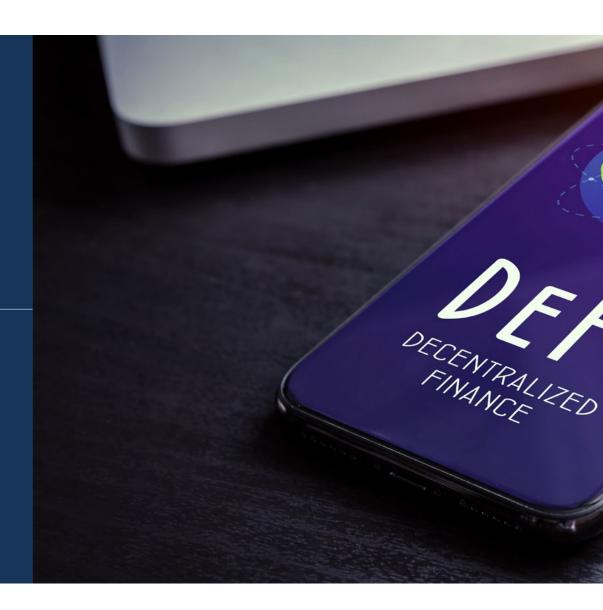
Postgraduate Certificate in Ethereum. DeFi Basis will enable students to:

01

Generate specialized knowledge about Ethereum



Analyze its operation





03

Manage all Ethereum environments

04

Master Ethereum wallets





### tech 20 | Course Management

### 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 CEU San Pablo 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
- IBM Blockchain Essentials
- IBM Blockchain Foundation Developer
- Bitcoin and Blockchain Expert at European University of Madrid (UEM)
- Information Technology Engineer from the National University of Distance Education (UNED)







### tech 24 | Structure and Content

### **Syllabus**

This educational program aims to provide students with a comprehensive understanding of the architecture and functionality of the Ethereum network, along with the essentials of decentralized finance.

Students will have the opportunity to study the impact blockchain technology has had on the financial industry, and how decentralized finance is transforming the sector. The Postgraduate Certificate will cover the fundamentals of DeFi, including the projects and protocols that have been developed in the industry.

Through in-depth videos, discussions and practical exercises, the student will acquire technical skills in the implementation of smart contracts and decentralized applications on the Ethereum network.

For all these reasons, this Postgraduate Certificate is ideal for those interested in exploring blockchain technology and decentralized finance, and for those seeking a solid understanding of Ethereum and its impact on the financial industry.

This Postgraduate Certificate is developed over 6 week and is divided into 1 module:

Module 1

Ethereum: DeFi Basis



### Where, When and How is it Taught?

TECH offers the possibility of developing this Postgraduate Certificate in Ethereum. DeFi Basis in a completely online way. During the 6 weeks of the specialization, the student will be able to access all the contents of this program at any time, which will allow the students to selfmanage their study time.

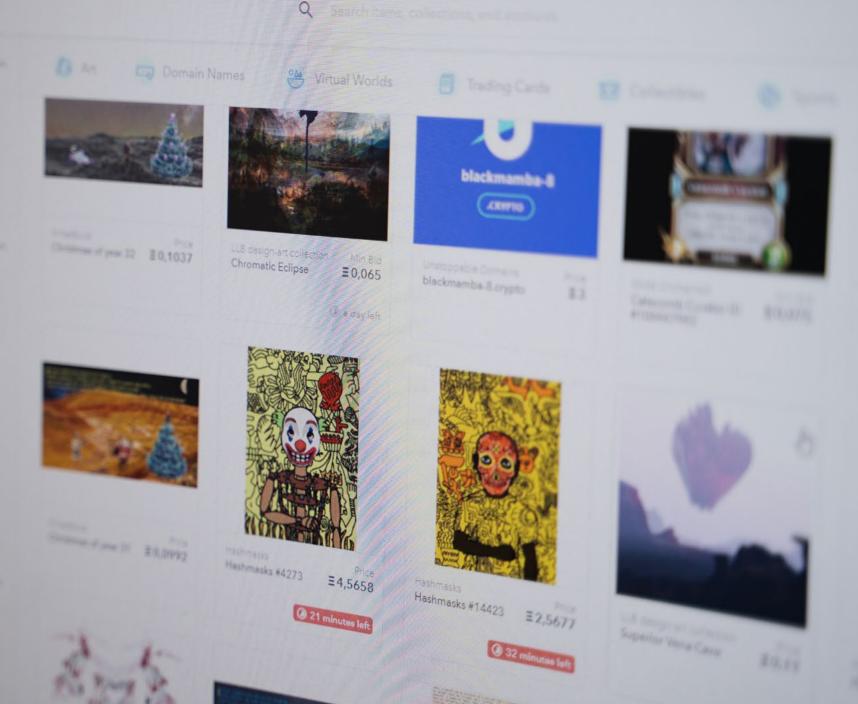
A unique educational experience, key and decisive to boost your professional development and make the definitive leap.

### tech 26 | Structure and Content

Mod	<b>ule 1.</b> Ethereum. DeFi Basis				
1.1.	Ethereum Basics	1.2. Smart Contracts	1.3. To	okens 1.4.	Consensus Model
1.1.1.	Ethereum	1.2.1. Analysis of the Main Smart Contracts	1.3.1. ERG	RC20 Tokens 1.4.1.	Ethereum Consensus
1.1.2.	EthereumYellow paper	1.2.2. Ethereum Deployment	1.3.2. ERG	RC720 Tokens (nft tokens) 1.4.2.	Ethereum from POW to POS
1.1.3.	How Ethereum Works	1.2.3. Smart Contracts in DeFi	1.3.3. Oth	her Token Standards 1.4.3.	POW Impact on DeFi
1.5.	Ethereum Networks	1.6. Ethereum Programming	1.7. Eth	hereum Components 1.8.	Ethereum DAOs and DAPPs
1.5.1.	Main Net	1.6.1. Available Compilers	1.7.1. Ethe	nereum Virtual Machine 1.8.1.	DAOs
1.5.2.	Test Net	1.6.2. Solidity Applied to DeFi	1.7.2. Acc	counts and Addresses 1.8.2.	Dapps
1.5.3.	Private Net	1.6.3. Ganache and its Utilities	1.7.3. Ethe	ner the DeFi Currency 1.8.3.	Main DAPPs in DeFi
1.9.	Oracles	1.10. Ethereum <i>Wallets</i>			
1.9.1.	The Oracles	1.10.1. Types of Ethereum Wallets			
1.9.2.	Oracle Types	1.10.2. Metamask			
1.9.3.	Oracle Analysis	1.10.3. Advanced Use of DeFi Wallets			



Don't miss the opportunity and dive into the knowledge of Ethereum and decentralized finance with this TECH Postgraduate Certificate. It is the most complete in the educational scene"



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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.





### tech 30 | Methodology

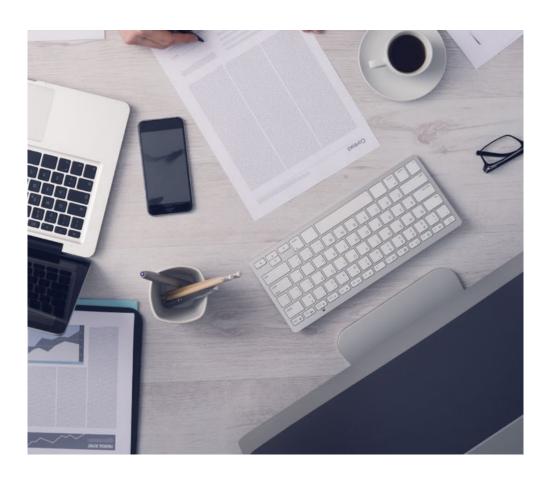
## TECH Business School uses the Case Study to contextualize all content

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.





This program prepares you to face business challenges in uncertain environments and achieve business success.



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

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch to present executives with challenges and business decisions at the highest level, whether at the national or international level. 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 business reality is taken into account.



You will learn, through collaborative activities and real cases, how to solve complex situations in real business environments"

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 we face in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They must integrate all their knowledge, research, argue and defend their ideas and decisions.

### tech 32 | Methodology

### 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.

Our online system will allow you to organize your time and learning pace, adapting it to your schedule. You will be able to access the contents from any device with an internet connection.

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 online business school is the only one in the world licensed to incorporate 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 | 33 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. With this methodology we have 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, markets, and financial 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 specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to 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.



### **Management Skills Exercises**

They will carry out activities to develop specific executive competencies in each thematic area. Practices and dynamics to acquire and develop the skills and abilities that a high-level manager 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.





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 senior management 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.



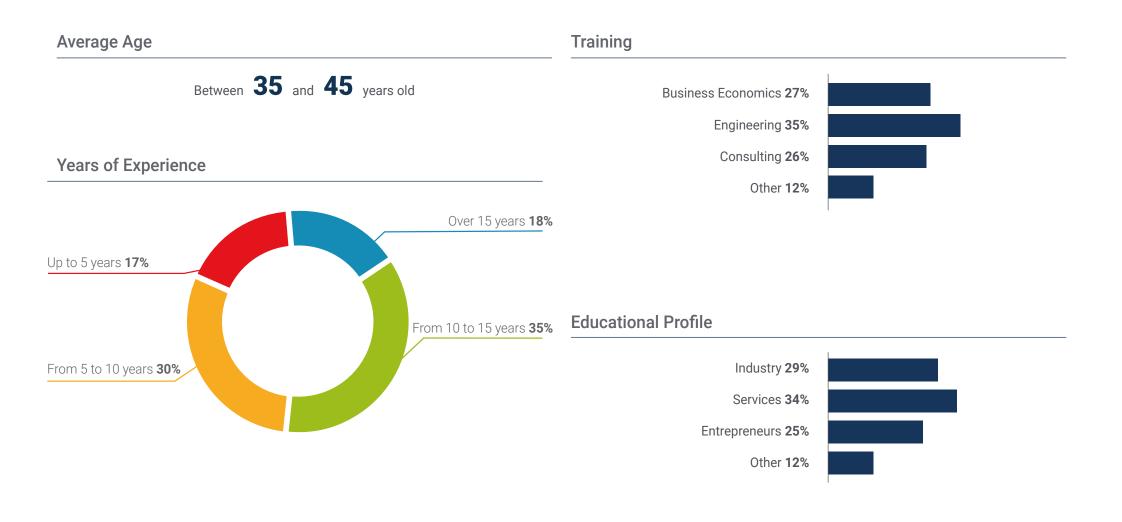


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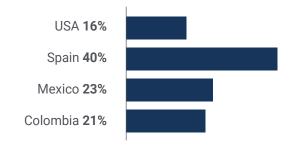




### tech 38 | Our Students' Profiles



### **Geographical Distribution**





# **Andrea Suárez Martín**

#### **Economist**

"In today's world, keeping up to date and knowing how Ethereum networks work has become crucial for any economist. That is why I enrolled in this course and I highly recommend it. It contains a high-quality syllabus and the teachers are excellent"





### tech 42 | Impact on Your Career

This is the best program to specialize in buying and selling digital assets and increase your earnings considerably. Are you going to let this opportunity pass by?.

#### Are you ready to take the leap?

#### Excellent professional development awaits you.

Postgraduate Certificate in Ethereum. DeFi Basis of TECH is an intensive program that prepares you to face challenges and business decisions in the field of Economics and Blockchain. The main objective is to promote your personal and professional growth. Helping you achieve success.

If you want to improve yourself, make a positive change at a professional level, and network with the best, then this is the place for you.

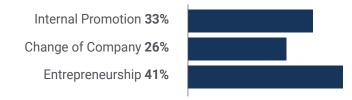
The mastery you will acquire of NFT trading will shape you as a reputable crypto professional in today's business environment.

#### **Time of Change**

During the program 57%

After 2 years 28%

#### Type of Change



### Salary increase

This program represents a salary increase of more than 27.42% for our students.

\$58,300

A salary increase of

27.42%

\$74,200





### tech 46 | Benefits for Your Company

Developing and retaining talent in companies is the best long-term investment.



#### Growth of talent and intellectual capital

The professional will introduce the company to new concepts, strategies, and perspectives that can bring about significant changes in the organization.



# Retaining high-potential executives to avoid talent drain

This program strengthens the link between the company and the professional and opens new avenues for professional growth within the company.



### Building agents of change

You will be able to make decisions in times of uncertainty and crisis, helping the organization overcome obstacles.



### Increased international expansion possibilities

Thanks to this program, the company will come into contact with the main markets in the world economy.







### Project Development

The professional can work on a real project or develop new projects in the field of R & D or business development of your company.



### Increased competitiveness

This program will equip students with the skills to take on new challenges and drive the organization forward.





### tech 50 | Diploma

This **Postgraduate Certificate in Ethereum. DeFi Basis** 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 Ethereum. DeFi Basis

Official No 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.



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Ethereum. DeFi Basis

