

Postgraduate Certificate Decentralized Finance



Postgraduate Certificate Decentralized Finance

- » Modality: online
- » Duration: 12 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/in/information-technology/postgraduate-certificate/decentralized-finance

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Certificate

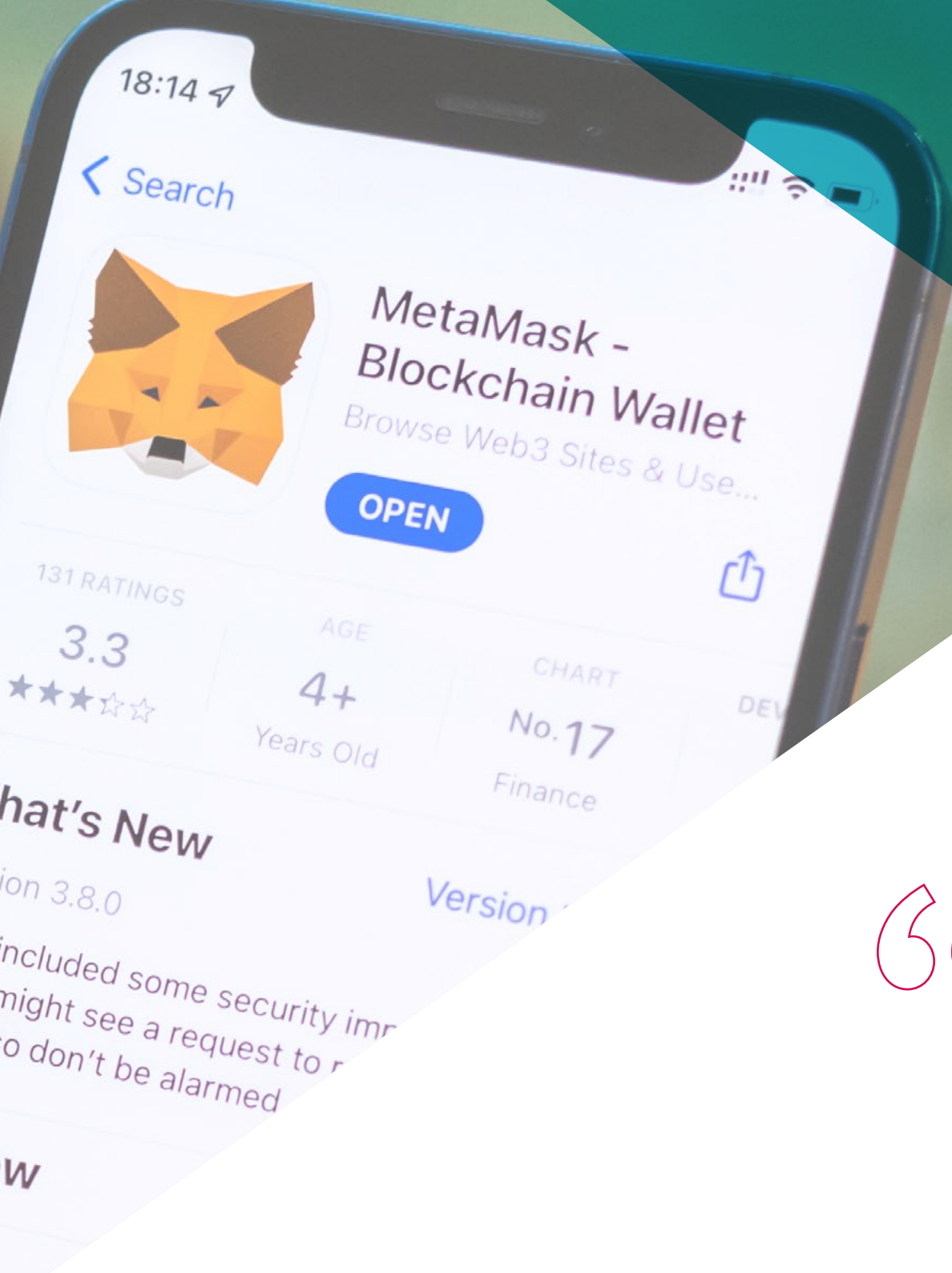
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01

Introduction

DeFi or (Decentralized Finance) is the name that defines one of the biggest trends inBlockchain technology. With them, the aim is to convert traditional and centralized finance structures into structures without intermediaries and totally transparent, using smart contracts. Taking into account the immense pull that the cryptocurrency sector has had for a few years and that it will undoubtedly continue to have in the future, it is practically mandatory for any computer professional to be aware of it, since it would be an incredible way to specialize. within the branch of the digital sector. With this in mind, TECH has created this 100% online 12-week degree in which graduates will be able to access the most advanced theoretical and practical content. Therefore, they will be able to delve into topics such as leverage, asset tokenization, stablecoins and the most relevant DeFi analysis tools. All of this is accessible from any device with an Internet connection, 24 hours a day.





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Know in detail collateralization as a guarantee principle, as well as the main projects for it in this Diploma”

According to the World Economic Forum, the cryptocurrency and Decentralized Finance (DeFi) sector has surged during the pandemic. DeFi aims to transform traditional ways by rebuilding and reinventing services, and while it is true that they are in a very early stage, their growth, development, and uses are advancing at breakneck speed.

Following this line of development and applicability of DeFi in numerous fields, the need for professionals who control the protocols, ecosystems and approaches of these is increasing, both for the sector itself and for the agents that are in it. For this reason, this Postgraduate Certificate in Decentralized Finance arises, in which graduates will be able to acquire knowledge that starts from the very basis of the DeFi concept, delving into the difference between the bases of centralization and decentralization, the profitability of decentralization and management. of new financial instruments.

All this has led TECH to create this specialization of 300 hours of qualification completely online, in which those enrolled will be able to access the best theoretical and practical material related to the subject. All of this is available on the Virtual Campus, where it can be accessed from any device with an Internet connection without time or geographical limitations. In addition, thanks to the Relearning method, the learning of all this syllabus is done in a simple and progressive way, without any need to dedicate a huge amount of hours.

This **Postgraduate Certificate in Decentralized Finance** contains the most complete and up-to-date program on the market. Its most outstanding features are:

- ♦ 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 for 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



Become an expert in the application of DeFi and its use in the financial sector"

“

Know and control all the keys related to DeFi and its redefinition of the concept of financial system as we traditionally understood it”

Become an expert in DeFi, a sector in full growth and with an incredible future.

Learn the keys to tokenization and its potential in sectors such as art and real estate.

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

Its 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 an immersive education designed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.



02 Objectives

TECH's objective with this program on Decentralized Finance is to provide new and updated information on this sector. That is why the preparation of this specialty will delve into DeFi as a concept and the way in which the understanding of finance has changed in the 21st century, as well as the analysis of the main DeFi loan protocols, among other aspects. All this exposed in a syllabus with which graduates will be able to expand their knowledge on the subject in order to achieve a practical performance of their profession more effectively.



DEFI
DECENTRALIZED
FINANCE



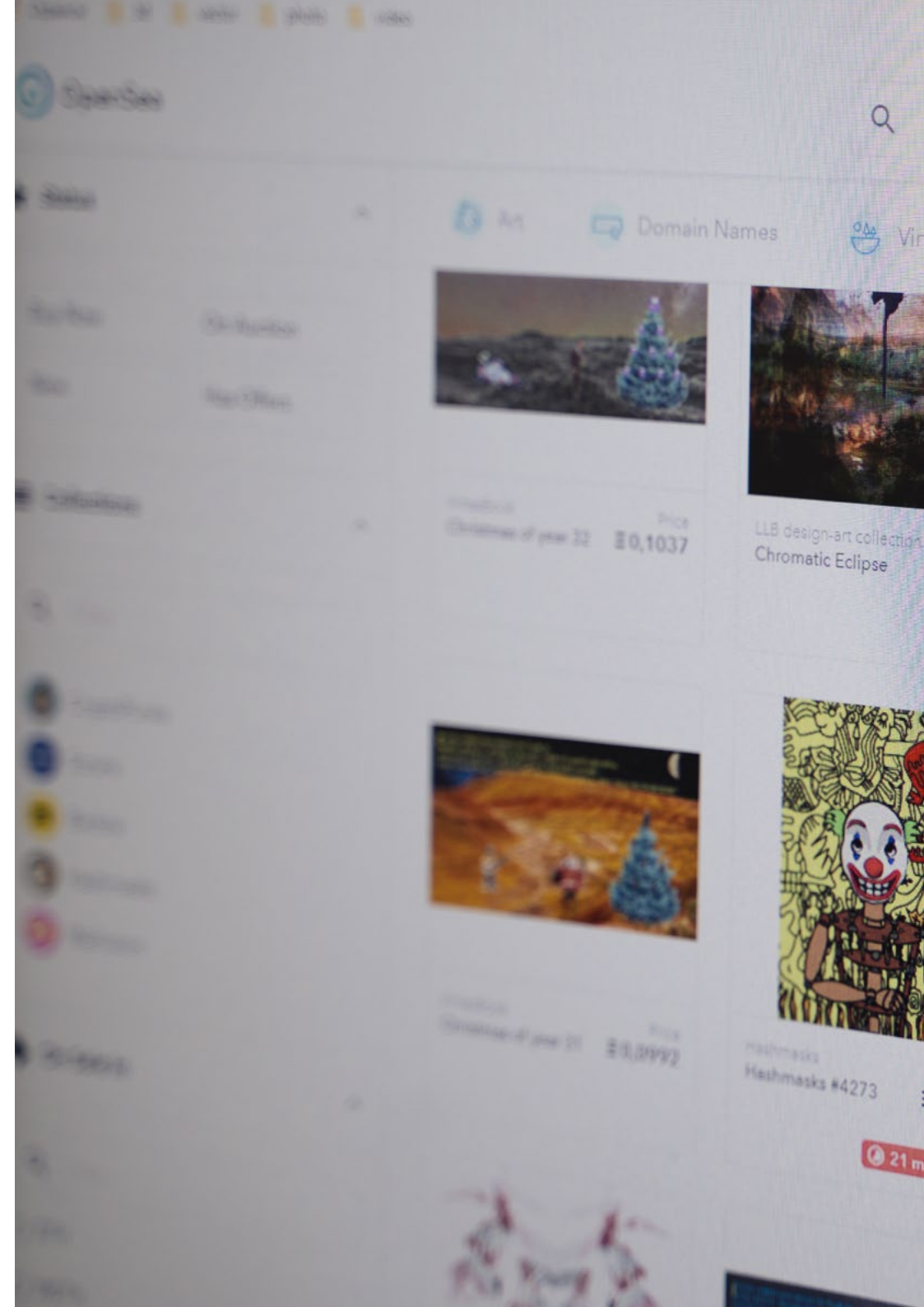
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Specialize in the world of DeFi and learn about all the possibilities that this new reality brings to the modern world, in order to place yourself at the forefront of the sector”



General Objectives

- ♦ Analyze DeFi advantages
- ♦ Perform DeFi project analysis
- ♦ Generate specialized knowledge about the most used technology in DeFi
- ♦ Become familiar with Wallets and Web 3
- ♦ Analyze the main Defi protocols





Specific Objectives

- ♦ Master the main differences between Centralized economy vs. Decentralized
- ♦ Know the possibilities of tokenization in sectors such as real estate and fine art
- ♦ Control concepts such as Liquidity Mining or Yield Farming

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Achieve excellence in terms of knowledge about Decentralized Finance, DeFi ecosystems and their protocols”

03

Course Management

In search of being able to provide the most innovative and complete knowledge about the cryptocurrency trading sector, TECH has selected a select group of professionals to make up the teaching staff of this Diploma. Along with their extensive and specialized CVs, these teachers will be available to enrollees for any direct consultation they may have.



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*An expert faculty in everything
related to DeFi and its applications
in the modern world”*

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 Karwowska, Antonio

- ♦ Web3 Full Stack Developer for FRK Investments
- ♦ Web3 Full Stack Developer for FRK Investments
- ♦ Web3 Analyst for BeToken CapitalWeb3 Full Stack Developer for FRK Investments
- ♦ Development Manager at NFT42
- ♦ Analyst specialized in DeFi protocols
- ♦ MATLAB programmer internship at CSIC
- ♦ Graduate in Physical Sciences from the Complutense University of Madrid



04

Structure and Content

TECH has developed this agenda together with the teaching staff. It is a compilation of the key aspects and concepts that cover the main DeFi loan protocols, the differences between these and traditional bank loans, and the operation of cryptocurrencies, among others. All this in an online Diploma with numerous practical and theoretical content characterized by the methodology Relearning, which allows gradual learning and without unnecessary overexertion when wanting to assimilate said syllabus.



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A program that encompasses the most notable approaches to DeFi and how it allows users to exchange capital flows for various purposes”

Module 1. DeFi Ecosystem

- 1.1. Decentralized Finance or DeFi Concept
 - 1.1.1. Financial Ecosystems
 - 1.1.2. DeFi solutions: Transparency and Open Source
 - 1.1.3. The Dapps and the concept of Peer to Peer
- 1.2. Main DeFi Networks
 - 1.2.1. DeFi Stack on Ethereum
 - 1.2.2. Polkadot
 - 1.2.3. Other DeFi Networks
- 1.3. Centralized and Decentralized Market Makers
 - 1.3.1. Centralized vs. Decentralized
 - 1.3.2. MakerDAO
 - 1.3.3. Work Environments or Frameworks
- 1.4. Centralized vs. Decentralized Economy
 - 1.4.1. Centralized Theories
 - 1.4.2. Decentralized Theories
 - 1.4.3. Case Studies and Scenarios
- 1.5. Yield Farming
 - 1.5.1. Decentralized Profitability
 - 1.5.2. Yield Farming Case Studies
 - 1.5.3. Project Analysis
- 1.6. Liquidity Mining
 - 1.6.1. Liquidity Mining Benefits
 - 1.6.2. Yield Farming Differences
 - 1.6.3. Project Analysis
- 1.7. Collateralization as a Guaranty Principle
 - 1.7.1. Collateralization
 - 1.7.2. Best Collateralization Projects
 - 1.7.3. Guarantees as Assets to Be Made Profitable
- 1.8. Leverage
 - 1.8.1. When to Use Leverage
 - 1.8.2. Differences between Leverage and Collateralization
 - 1.8.3. Leverage and Volatility

- 1.9. Current Financial System and CBDCs
 - 1.9.1. Central Banks and Cryptos
 - 1.9.2. State Cryptocurrencies or CBDCs
 - 1.9.3. Future Scenario Theories
- 1.10. Asset Tokenization
 - 1.10.1. Real Estate Assets
 - 1.10.2. Works of Art
 - 1.10.3. Creative Capacity as a Source of Wealth
 - 1.10.4. Management of New Financial Instruments

Module 2. DeFi Protocol Analysis

- 2.1. Stablecoins
 - 2.1.1. Stablecoin Impact on the DeFi Ecosystem
 - 2.1.2. Stablecoins PEGGED
 - 2.1.3. Algorithmic Stablecoins
 - 2.1.4. Terra's Failure
- 2.2. Decentralized Exchanges
 - 2.2.1. Principles: of AACS
 - 2.2.2. Uniswap
 - 2.2.3. SushiSwap
 - 2.2.4. Balancer
- 2.3. DeFi Interchain Applications
 - 2.3.1. A Multichain Future
 - 2.3.2. Layer 2
 - 2.3.3. Limitations of Layer 2
 - 2.3.4. CrossChain (Bridges)
- 2.4. ParaChain DeFi and Bridges Applications
 - 2.4.1. Oracles
 - 2.4.2. Cosmos and Polkadot (ICC)
 - 2.4.3. Limitations of Creating Your Own Blockchain
 - 2.4.4. Omnichain



- 2.5. Loans, Collateralization and Interest
 - 2.5.1. Lending Crypto
 - 2.5.2. Collateralization
 - 2.5.3. Fixed Interest Rate
 - 2.5.4. Aave and Compound
 - 2.5.5. DeFi for Good
- 2.6. DeFi Insurance
 - 2.6.1. How DeFi Insurance Works
 - 2.6.2. Relevant DeFi Insurance Protocols
 - 2.6.3. KYC Insurance
- 2.7. NFT and DeFi
 - 2.7.1. NFT Characteristics in DeFi
 - 2.7.2. Structure of NFT
 - 2.7.3. Collateralization
 - 2.7.4. Marketplaces
- 2.8. DeFi Analysis Tools
 - 2.8.1. DeFi Protocol Analysis
 - 2.8.2. Main DeFi Analysis Tools
 - 2.8.3. Best Practices for Interpreting Information
- 2.9. Metaverse and Blockchain
 - 2.9.1. The Ultimate DeFi Application
 - 2.9.2. NFT as Virtual Properties
 - 2.9.3. Tokens as a Course Currency
 - 2.9.4. Current Metaverses
- 2.10. Decentralized Finance Risks
 - 2.10.1. DeFi 2.0 . and the Ponzi Scheme
 - 2.10.2. Hacking smart contracts
 - 2.10.3. Rug Pulls
 - 2.10.4. Impermanent Loss

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.



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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 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.



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.



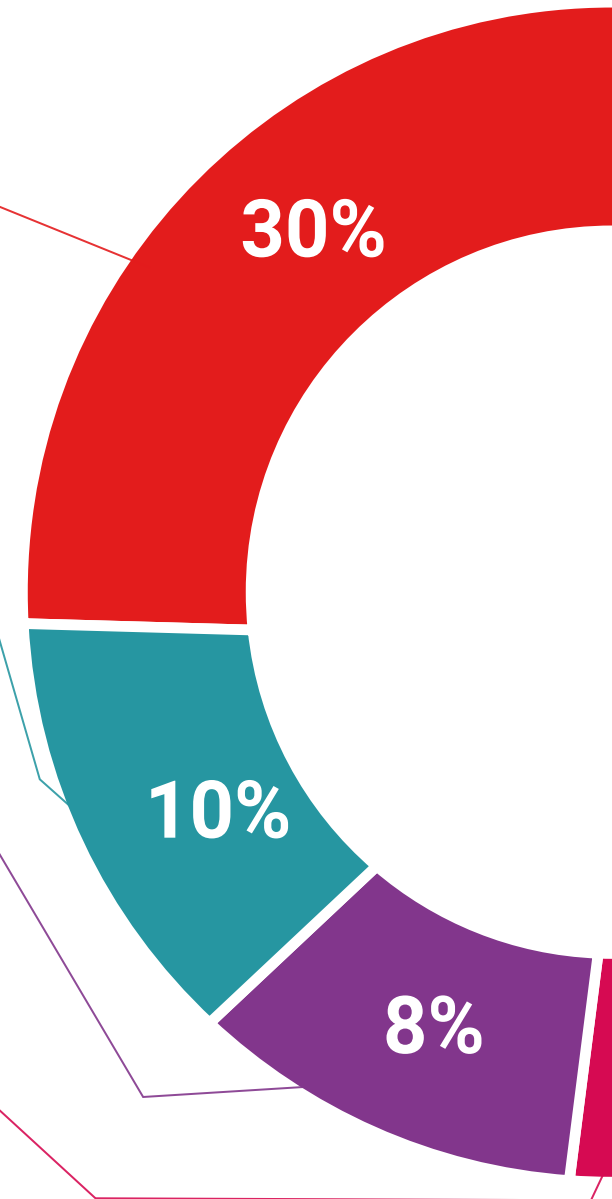
Practising Skills and Abilities

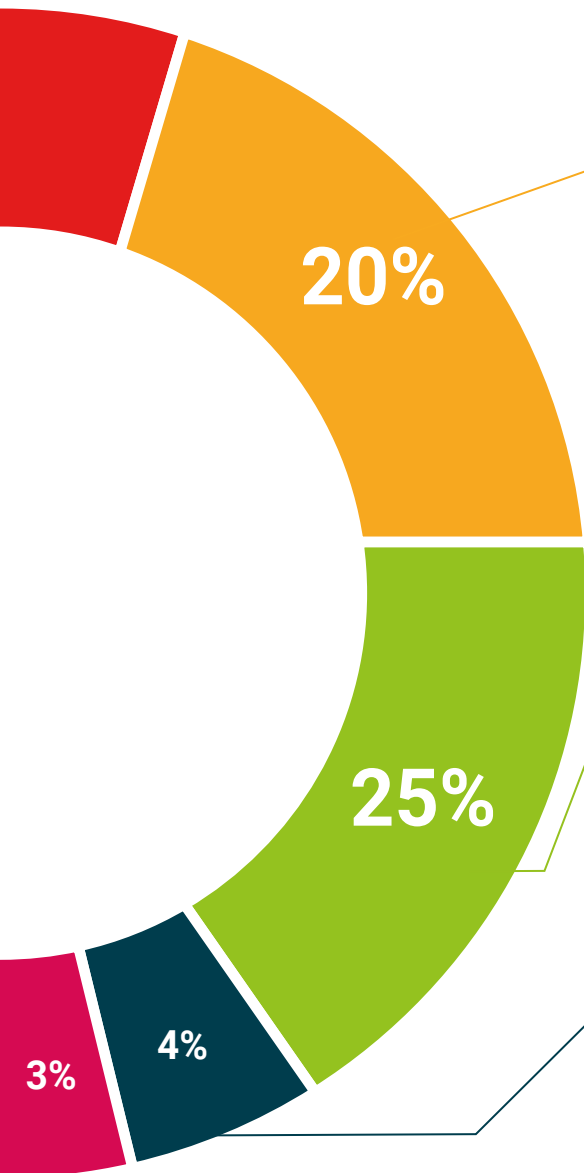
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



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.





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 Decentralized Finance 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 Decentralized Finance** 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 Decentralized Finance**

Official N° of Hours: **300 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



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