Postgraduate Diploma
Blockchain for Fintech

tech global university

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Postgraduate Diploma
Blockchain for Fintech

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Global University**
- Credits: **18 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/information-technology/postgraduate-diploma/postgraduate-diploma-blockchain-fintech

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01

Introduction

Blockchain has transformed the way financial transactions are conducted and has opened up a range of opportunities for Fintech companies. Thanks to its security, efficiency and capacity for decentralization, this technology has become fundamental in the economic sector, offering innovative solutions and contributing to the evolution of finance. As a computer scientist, it is key to stay up to date, as it allows access to new job opportunities, boosting the modernization of the sector and developing disruptive solutions in the Fintech field. To achieve this, TECH has designed a 100% online program, which gives students the flexibility they need in their day-to-day lives, so they can coordinate their personal activities with their learning, without strict schedules or unnecessary traveling.

You will understand the technological foundations of Fintech Business Models and their application in the financial sector"

The Blockchain model for Fintechs has undergone significant changes over the years, contributing to its evolution and acceptance in the financial sector. As technology has advanced, several technical challenges such as scalability, transaction speed and interoperability have been overcome.

In addition, Blockchain platforms other than Bitcoin have emerged, such as Ethereum, Ripple and Hyperledger, which offer different features and functionalities. This diversification has allowed Fintechs to choose the most appropriate platform for their specific needs and has broadened the possibilities for implementing financial solutions. This, added to the fact that standards and protocols have been established to improve compatibility and security, have meant that Organizations such as*Hyperledger, R3 and* Ethereum Enterprise Alliance have worked on the development of common standards and frameworks, which has facilitated the integration of Blockchain in Fintech and has fostered collaboration among different industry players.

As a result, it is vital that IT professionals delve deeper into Blockchain in order to implement solutions that optimize financial processes, eliminating intermediaries and reducing costs. In addition, you will have the alternative of using the technology that these platforms provide, for greater security and trust by using cryptographic algorithms.

It is for this reason that TECH has developed this Postgraduate Diploma in Blockchain for Fintech, with the aim of giving the professional the necessary knowledge to be able to exercise the hard work of making these platforms more secure and implement Fintech businesses to them. A 100% online program that allows the student to access from anywhere and at any time, since it only requires an electronic device with internet access. Additionally, with the Relearning methodology, which consists of the repetition of concepts, the professional will learn in less time and with greater effectiveness.

This **Postgraduate Diploma in Blockchain for Fintech** 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 finance and Blockchain
- The graphic, schematic and practical contents of the book provide technical and practical information on those 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

This program will provide you with skills to create inclusive nd accessible fintech solutions"

You will be prepared to meet the technological challenges and lead the next wave of financial innovation in a 100% online way"

You will learn how to develop algorithms, such as machine learning, to detect fraud and improve Financial Security.

You will explore the potential of Blockchain technology in Fintech for Asset Tokenization and how to use it to create innovative products and services.

The program's teaching staff includes professionals from the field 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.

02

Objectives

TECH has designed this program to provide the computer scientist with the skills to take advantage of the opportunities offered by this technology in the financial and technological sector. This includes understanding the fundamental concepts of Blockchain, exploring its applicability in Fintech, designing and implementing solutions based on these platforms, and contributing to the development and adoption of innovative technologies in the field of financial transactions and digital services. All this through state-of-the-art didactic resources such as support videos and interactive summaries that you can access from the comfort of your home 24 hours a day without any restrictions.

You will have a competitive advantage that will open doors to job opportunities in a growing sector, Fintech"

General Objectives

- Analyze the scope of the Fintech revolution
- Identify the origin and reasons for the rise of Fintechs
- Observe the differential value provided by Fintechs
- Develop the concept of Tokenization
- Analyze the tokenization process
- Identify which projects can be tokenized
- Establish the advantages offered by tokenization
- To provide an in-depth understanding of Blockchain technology and its implementation in asset tokenization
- Analyze the technical specifications of Tokens and their standards, Blockchain types, security in Blockchain networks, smart contracts, success stories and the advantages and disadvantages of asset tokenization
- Apply the most advanced concepts and tools to carry out transactions of tokens and cryptocurrencies in a safe and efficient way

You will master utility tokens and key concepts for developing Fintech solutions"

Specific Objectives

Module 1. New Fintech Business Models

- Examine the differential value of the technologies on which Fintechs rely
- Identify use cases and verticals in the Fintech sector
- Analyze the functioning of Fintechs as startups and the sources of financing they can resort to
- Visualize the challenges and opportunities faced by Fintechs

Module 2. Blockchain Networks for Asset Tokenization

- Develop the technical characteristics of tokens, including ERC20, ERC721 (NFTs) and other standards
- Examine the different types of assets that can be tokenized and the functioning of Blockchain networks
- Study success stories and projects that use Blockchain for asset tokenization, as well as common vulnerabilities in Blockchain networks and security measures for their protection
- Analyze the functioning of the Ethereum Virtual Machine (EVM), including its security and transparency in the execution of smart contracts and the different programming languages used in this field

Module 3. Payment Methods in Token Trading

- Identify the main platforms for buying and selling tokens and cryptocurrencies
- Analyze the characteristics and requirements of each payment method and apply the necessary procedures to carry out a secure transaction
- Comply with current rules and regulations regarding anti-money laundering (AML) and identity verification (KYC)

03

Course Management

This qualification has a team of highly qualified and experienced teachers in the field of Finance. These experts will be in charge of providing a first class education, based on academic excellence and practical application. Therefore, they will accompany students throughout their learning process, providing them with guidance in their professional development in the field of asset digitization. In addition, a series of didactic materials such as interactive summaries and specialized readings will be offered, which will enrich the learning experience.

You will delve into the Development of Blockchain networks to gain an in-depth understanding of this technology and leverage its potential in Fintech"

Management

Dr. Gómez Martínez, Raúl

- Founding Partner and CEO of Open 4 Blockchain Fintech
- Founding Partner of InvestMood Fintech
- Apara's CEO
- PhD in Business Economics and Finance from Universidad Rey Juan Carlos de Madrid
- Bachelor's Degree in Economics and Business Administration, Complutense University of Madrid
- Master's Degree in Economic Analysis and Financial Economics, Complutense University of Madrid

Mr. Gratacós Sánchez de Rivera, Ignacio

- Events Staff Coordinator at Alternativa Eventos
- Double Degree in Law and Business Administration from the Rey Juan Carlos University
- Expert in E-Commerce by the Rey Juan Carlos University
- Expert in Digital Marketing from the Rey Juan Carlos University

Mr. Saiz De Pedro, Marcos Manuel

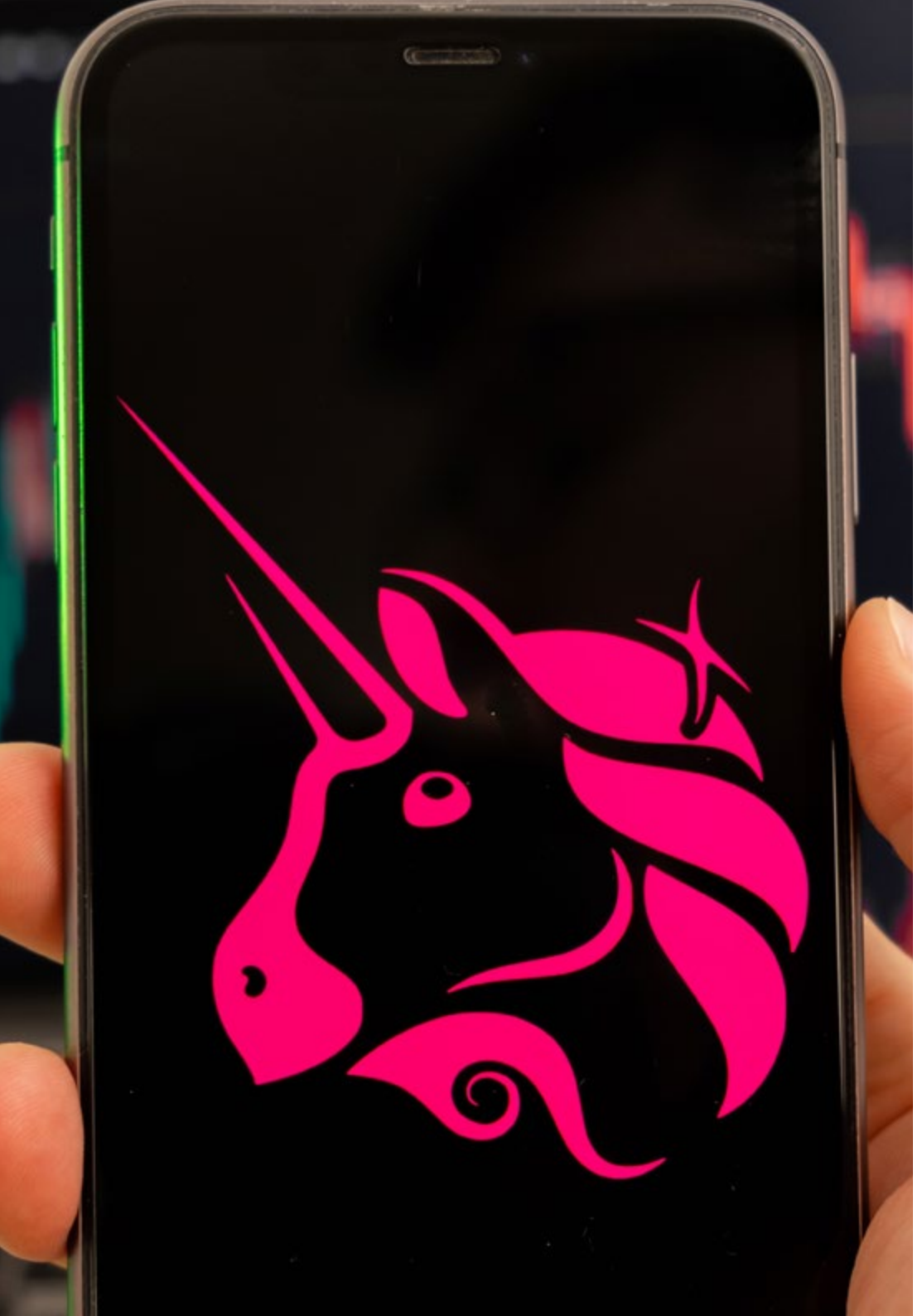
- Double Degree in Law and Business Administration and Management
- Degree in Business Administration and Management from the Ludwig Maximilians Universität
- Degree in Telecommunication Technologies and Services from the Polytechnic University of Madrid

Mr. González Serradilla, Miguel Ángel

- Member of the Board of the Faculty of Economics and Business Sciences
- Delegate of the Law Degree at Rey Juan Carlos University
- Delegate of the Degree in Business Administration and Management at Rey Juan Carlos University
- Member of the National Council of Law Students

Mr. Mateo Castro, Manuel

- Management of metrics development for results analysis at Ospina Abogados
- Billing Management at FACE S.L.
- Degree in Business Administration and Management from the Business & Marketing School
- Expert in Global Marketing Management by the Business & Marketing School



Professors

Mr. Diner, Franco

- Blockchain Developer at Open 4 Blockchain Fintech
- Blockchain Developer at Bifrost
- IT Developer at Arbell
- Fullstack Developer at Digital House
- Systems Analyst at O.R.T. Technical School
- Bachelor in IT, University of Palermo Tutor and teacher of Web Development at Coderhouse

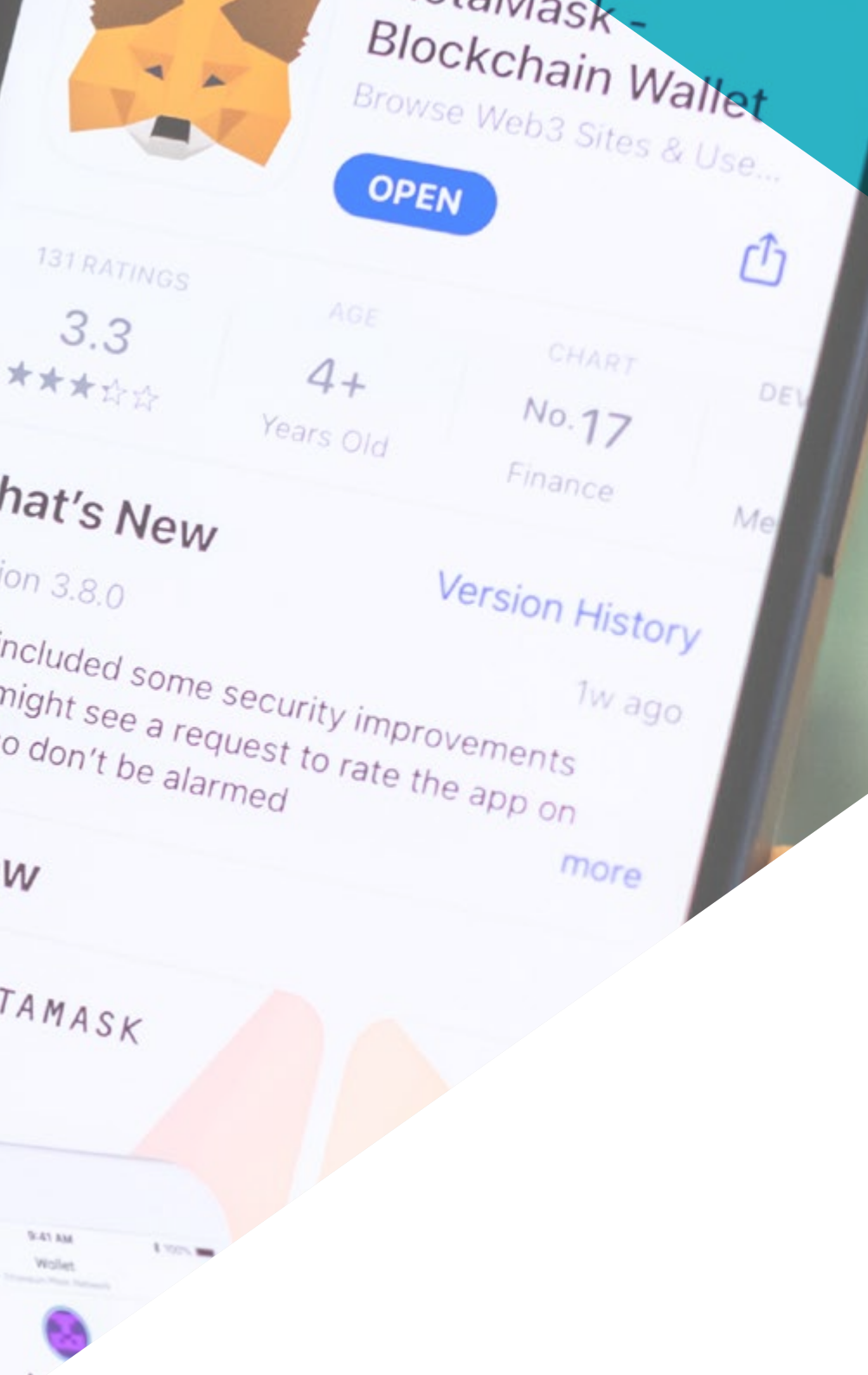
Mr. García Gorriti, Borja

- Entrepreneur and Systems Engineer
- Best startup in La Rioja with stampymail
- One of the 10 best young innovators by the ministry of industry with the Stampymail project
- Master's Degree in Blockchain, University Miguel de Cervantes
- Technical Engineer in Computer Systems, University from Alcalá de Henares.

04

Structure and Content

The syllabus of this program has been created so that the computer scientist delves into the key aspects related to the Fintech industry in the field of asset tokenization. In this way, they will delve into the new business models, including unmet needs and customer expectations. It will also develop Blockchain networks, the different types, their characteristics, and a path through the purchase and sale of tokens and the associated payment methods. And all under the effective Relearning methodology and in a completely online format.



With the Relearning method, you will be able to reinforce your skills and consolidate your knowledge effectively, reducing study time and obtaining long-lasting results"

Module 1. New Fintech Business Models

1.1. Fintech Business Models
- 1.1.1. Unmet needs
- 1.1.2. Customer Expectations
- 1.1.3. Different Business Models in Fintech: B2C, B2B

1.2. Value contribution of Fintechs
- 1.2.1. Time saving
- 1.2.2. Cost saving
- 1.2.3. Improve User Experience
- 1.2.4. Elimination of Entry Barrier

1.3. Technological changes on which Fintech is based
- 1.3.1. Big data & advanced analytics
- 1.3.2. IA
- 1.3.3. Machine Learning
- 1.3.4. IOT
- 1.3.5. Blockchain

1.4. Verticals in Fintech
- 1.4.1. Investments
- 1.4.2. Currencies and cryptocurrencies
- 1.4.3. Payments
- 1.4.4. Loans and financing
- 1.4.5. Banking
- 1.4.6. Insurance

1.5. Fintech as a startup
- 1.5.1. Paradigm Shift
- 1.5.2. Limits
- 1.5.3. Exponential growth

1.6. Phases of Fintech as startups
- 1.6.1. Seed - MVP
- 1.6.2. Early - Product Market Fit
- 1.6.3. Growth.
- 1.6.4. Expansion
- 1.6.5. Exit

1.7. Startup differentiation
  1.7.1. Trust
  1.7.2. Regulation
  1.7.3. Acquisition cost
1.8. Fintech in its origins
  1.8.1. Startup vs DAO
  1.8.2. Incubators
  1.8.3. Spin-Offs
1.9. Fintech crowdfunding
  1.9.1. The Crowdfunding Concept
  1.9.2. Equity Crowdfunding
  1.9.3. Crowdlending
  1.9.4. ICOs vs STOs
1.10. Fintech status quo
  1.10.1. Challenges
  1.10.2. Opportunities
  1.10.3. Threats

Module 2. Blockchain Networks for Asset Tokenization

2.1. Blockchain Networks for Asset Tokenization
  2.1.1. Blockchain for Tokenization
  2.1.2. Development of Blockchain Networks
  2.1.3. Types of Blockchain and their characteristics
2.2. Blockchain Networks. Blockchain Characteristics in Asset Tokenization
  2.2.1. Benefits of Blockchain Networks
  2.2.2. Projects that use them
  2.2.3. Costs and speeds
2.3. Security in Blockchain networks
  2.3.1. Common vulnerabilities in Blockchain Networks and their impact on asset Tokenization
  2.3.2. Safety measures for its protection
  2.3.3. Project hacking and fraud cases

2.4. Asset Tokenization
- 2.4.1. Definition of Tokenization and its connection to Blockchain.
- 2.4.2. Types of assets that can be tokenized
- 2.4.3. Advantages and Disadvantages of Asset Tokenization

2.5. Type of Tokens
- 2.5.1. Security tokens
- 2.5.2. Utility tokens
- 2.5.3. Asset tokens

2.6. Token technical characteristics and standards
- 2.6.1. ERC20 Tokens
- 2.6.2. Tokens ERC721 (NFT´s)
- 2.6.3. Other standards (ERC1155, ERC721A, ERC4337)

2.7. Smart Contracts and Tokenization
- 2.7.1. Smart Contracts Smart Contracts
- 2.7.2. Advantages and disadvantages of smart contracts
- 2.7.3. Use cases of smart contracts in asset tokenization

2.8. Bitcoin in Tokenization
- 2.8.1. Bitcoin in Tokenization. Contextualization
- 2.8.2. Bitcoin possibilities in Tokenization
- 2.8.3. Advantages and Disadvantages of Tokenization

2.9. Ethereum in Tokenization
- 2.9.1. Ethereum in Tokenization. Contextualization
- 2.9.2. Ethereum possibilities in Tokenization
- 2.9.3. Advantages and Disadvantages of Tokenization

2.10. EVM Operations
- 2.10.1. The Ethereum Virtual Machine
- 2.10.2. Operation
- 2.10.3. Security and transparency in the execution of smart contracts
- 2.10.4. Programming Languages

Module 3. Payment Methods in Token Trading

3.1. Token Trading
- 3.1.1. Why buy and sell tokens
- 3.1.2. Token acquisition
- 3.1.3. Token Sales

3.2. Bank transfers
- 3.2.1. Advantages and Disadvantages.
- 3.2.2. Payment process
- 3.2.3. Security Considerations

3.3. Credit and debit cards
- 3.3.1. Advantages and Disadvantages.
- 3.3.2. Payment process
- 3.3.3. Security Considerations

3.4. Cryptocurrencies
- 3.4.1. Advantages and Disadvantages.
- 3.4.2. Payment process
- 3.4.3. Security Considerations

3.5. Choice of a payment method. Factors to be considered
- 3.5.1. Transaction speed
- 3.5.2. Associated Costs
- 3.5.3. Security/Safety
- 3.5.4. Availability

3.6. Payment gateways
- 3.6.1. Payment gateway
- 3.6.2. How payment gateways work
- 3.6.3. Choice of a payment gateway

3.7. Token trading transactions
- 3.7.1. Token Purchasing Process
- 3.7.2. Token Sales Process
- 3.7.3. Legal and fiscal considerations

3.8. Token trading platforms (Exchanges)
- 3.8.1. Token trading Platforms
- 3.8.2. Advantages and disadvantages of using platforms
- 3.8.3. Examples of popular platforms

3.9. AML (Anti Money Laundring)
- 3.9.1. Rules and regulations
- 3.9.2. Procedures and requirements
- 3.9.3. Weaknesses of AML regulations

3.10. Succesful Token Trading Key Factors
- 3.10.1. Research and selection of the appropriate platform
- 3.10.2. Verification of seller/buyer authenticity (KYC)
- 3.10.3. Secure transactions

You will analyze the sources of financing that Fintech startups can resort to and how they work, thanks to this innovative academic course"

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 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

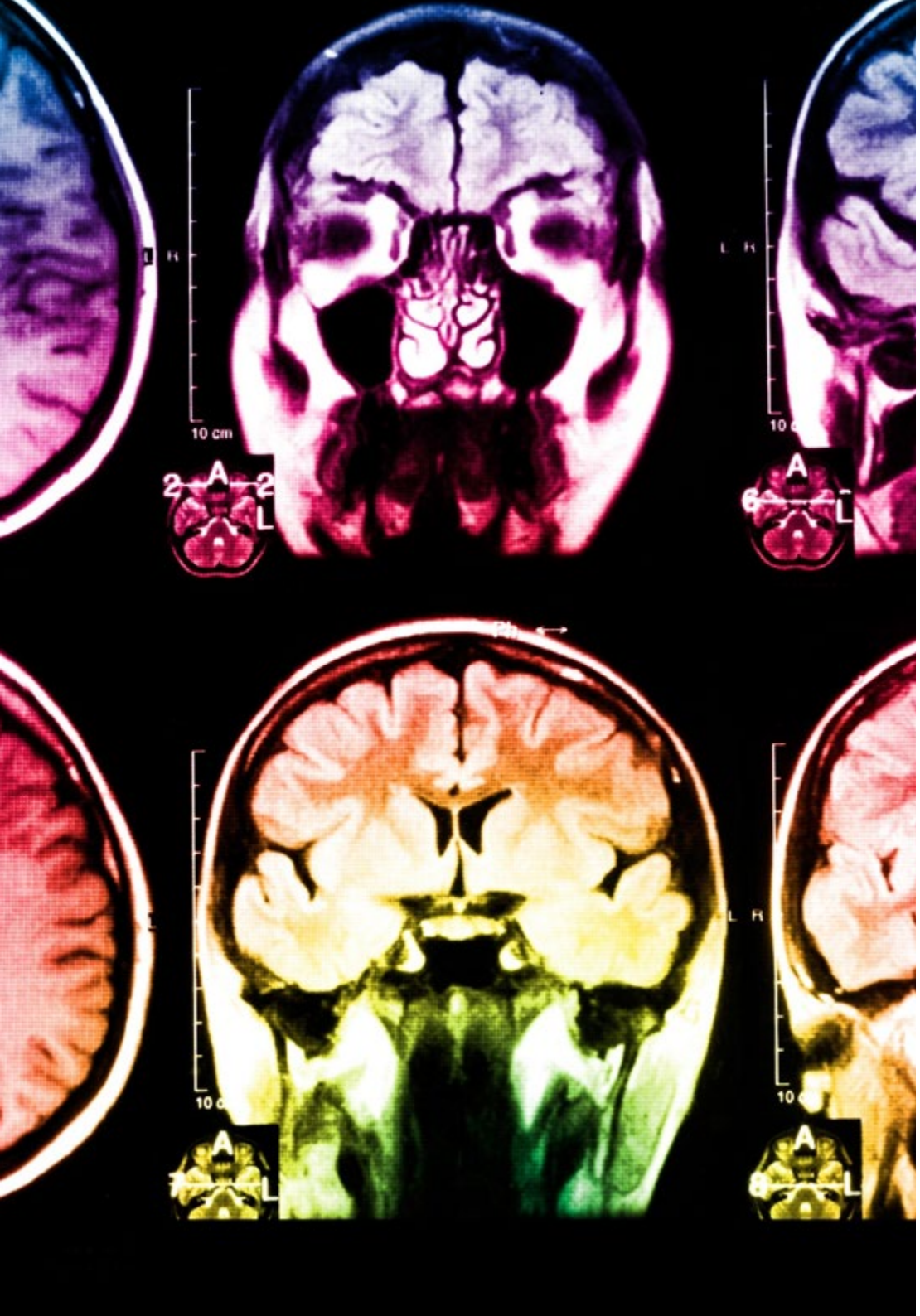
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

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.

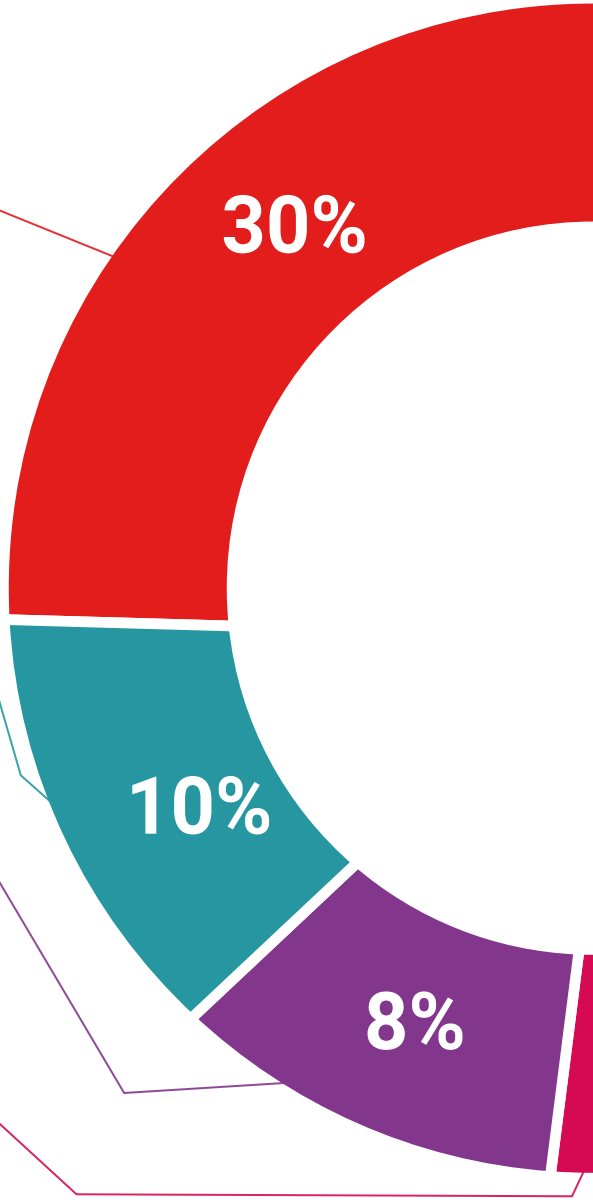
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

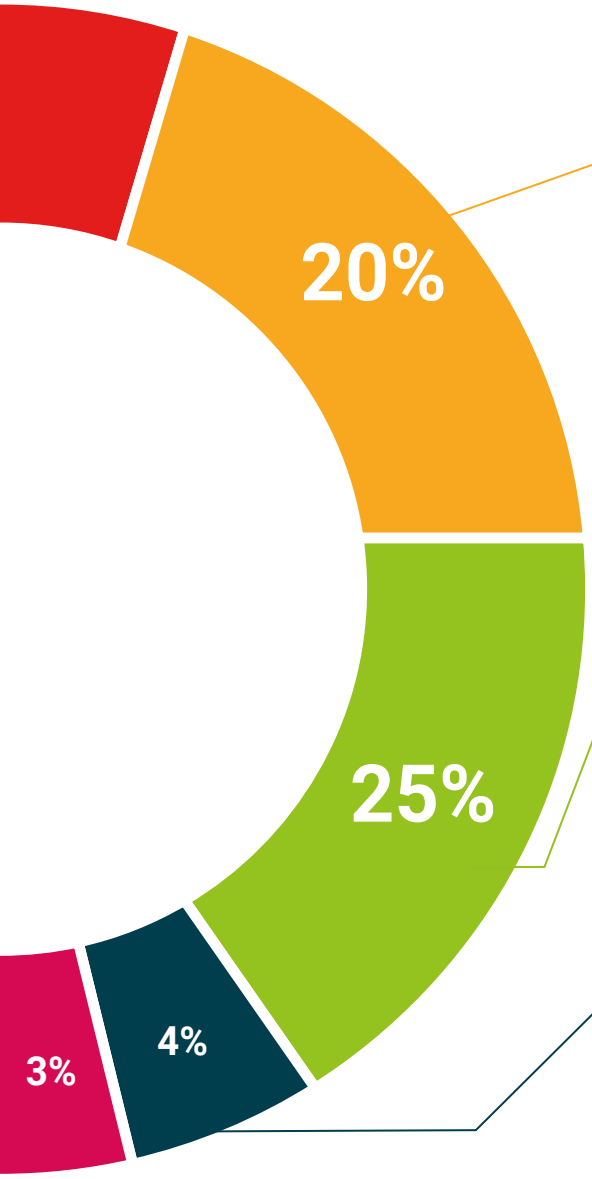
Practising Skills and Abilities

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 Diploma in Blockchain for Fintech students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

This program will allow you to obtain your **Postgraduate Diploma Blockchain for Fintech** 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 Diploma Blockchain for Fintech**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**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Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Diploma Blockchain for Fintech

This is a program of 450 hours of duration equivalent to 18 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

Dr. Pedro Navarro Illana
Rector

Unique TECH Code: AFWORD23S techtitute.com/certificates

*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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