

Postgraduate Diploma Blockchain Projects



Postgraduate Diploma Blockchain Projects

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

Website: www.techtute.com/pk/information-technology/postgraduate-diploma/postgraduate-diploma-blockchain-projects

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01

Introduction

Blockchain technology has emerged very strongly in recent years and has proven its effectiveness in numerous areas. More and more projects are being developed using this tool, which has uses in areas such as digital identities, logistics, cloud storage and smart contracts. For that reason, computer scientists specialized in the management of Blockchain Projects are currently in great demand, as they can create tools applicable to different business initiatives with great potential. This qualification, therefore, offers the possibility to delve into the Blockchain technology aimed at the development and implementation of projects, focusing on areas such as NFTs or DeFi.





“

You will learn all the secrets to create successful Blockchain projects thanks to this Postgraduate Diploma”

When Blockchain technology first emerged in association with cryptocurrencies, it was not foreseen how many applications it would have in the future. Today, this tool has proven its effectiveness in many initiatives, and large IT companies are focusing all their efforts to extract its full potential. As such, the Blockchain can function as a registration system, as identity verification, and as a method of annotation and registration of complex systems in areas such as healthcare or aviation, among many other uses.

This Postgraduate Diploma prepares the computer scientist to be able to develop all types of Blockchain Projects, with special emphasis on its use in logistics, sovereign identity and DeFi and NFT. In this way, this qualification will go deeper into aspects such as verifiable credentials, digital signatures, decentralized finance, the NFT ecosystem, and the identification of manually executed processes and participants and their particularities in the field of logistics.

And to ensure that the learning process is optimal, TECH offers an innovative 100% online teaching methodology that allows the computer scientist to decide how, when and where to study. You will also benefit from a high-level teaching staff and multimedia content arranged in different formats such as master classes, case studies, interactive summaries or practical cases.

This **Postgraduate Diploma in Blockchain Projects** contains the most complete and up-to-date educational program on the market. Its most notable features are:

- ◆ The development of case studies presented by Blockchain experts
- ◆ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the 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 work
- ◆ Content that is accessible from any fixed or portable device with an internet connection



This qualification will enable you to develop Blockchain Projects with great business potential"

“*NFTs and DeFi are the present and the future: learn how to manage them successfully with this specialized program*”

Delve into the use of Blockchain in areas such as logistics and move your company forward.

This qualification is what you need to incorporate Blockchain technology into your business.

The program's teaching staff includes professionals from the sector who contribute their work experience to this 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. This will be done with the help of an innovative system of interactive videos made by renowned experts.



02

Objectives

The main objective of this Postgraduate Diploma is to offer the computer scientist the possibility of incorporating the Blockchain as a tool to develop all kinds of projects into their professional practice. As a result, at the end of this qualification, they will have the specialized knowledge to provide their company with the opportunity to progress through this technology, applying it to new areas such as the traceability of food and raw materials.





*Develop great Blockchain Projects and
achieve all your professional and business
goals with this program"*



General Objectives

- ◆ Assess the impact on data privacy and security that current digital identity models present
- ◆ Examine the main advantages for citizens of implementing self-sovereign digital identity models
- ◆ Identify the benefits of using Blockchain technology for the deployment of digital identity-based solutions
- ◆ Compile use cases in which Blockchain-based Digital Identity Models are transforming organizations' processes
- ◆ Analyze the different DeFI tools
- ◆ Evaluate new forms of passive income
- ◆ Determine what Open Finance is
- ◆ Examine the characteristics of NFTS
- ◆ Determine the logistic processes to define the main needs and gaps of the current logistic process
- ◆ Establish the best solution and applicability of the Blockchain or the need of the company and all participants
- ◆ Demonstrate the potential of the technology and validate that the solution fits the need
- ◆ Implement the solution in phases so that value can be extracted from the beginning of the project and can be adjusted as use and learning occur





Specific Objectives

Module 1. Sovereign Identity Based on Blockchain

- ♦ Analyze the different Blockchain technologies that enable the development of Digital Identity models
- ♦ Analyze self-sovereign digital identity proposals
- ♦ Assess the impact on public administration of implementing self-sovereign digital identity models
- ♦ Foundations for developing Blockchain-based Digital Identity solutions
- ♦ Generate specialized knowledge on Digital Identity
- ♦ Analyze what can be done with this technology
- ♦ Determine the inner workings of identities in Blockchain

Module 2. Blockchain and its new applications: DeFi and NFT

- ♦ Evaluate the importance of Stablecoins
- ♦ Examine Maker, Augur and Gnosis protocol
- ♦ Determine the AAVE protocol
- ♦ Identify the importance of Uniswap
- ♦ Study the Sushiswap philosophy in depth
- ♦ Analyze dY/dX and Synthetix
- ♦ Identifying the best markets for NFT exchange

Module 3. Blockchain Applied to Logistics

- ♦ Examine the operational and systemic reality of the company to understand the needs for improvements and future solution with the Blockchain
- ♦ Identify the To Be model with the solution best suited to the company's needs and challenges
- ♦ Analyze a Business Case with a plan and macro solution agreement for executive approval
- ♦ Demonstrate the potential and scope of the application and its benefits by means of a POC for operational approval
- ♦ Establish a project plan with the Owner and Stackholders to start work on functional definition and prioritization of Sprints
- ♦ Develop the solution according to the user stories to initiate testing and validation to go into production
- ♦ Carry out a concrete Change Management and Blockchain implementation plan to bring the whole team to a new digital mindset and a more collaborative culture



Blockchain technology is complex, and its application requires specialized professionals: you could be one of them”

03

Course Management

A high-level teaching staff composed of active professionals transmits to the computer scientist all the keys in the application of Blockchain in all types of technological and business projects. Therefore, the professors of this Postgraduate Diploma will transmit the latest knowledge in this field to the professionals who take it, guaranteeing that they can later apply everything they have learned in their own careers.



“

*Develop great Blockchain Projects
accompanied by the best experts in the field”*

International Guest Director

Chris Sutton is a leading professional with extensive experience in the field of technology and finance, specializing in the Blockchain area. In fact, he has held the senior position of Director of the Blockchain and Digital Assets Department at Mastercard. In addition, he has been the Founder of the consulting firm N17 Capital, in which he offers advice to companies in the field of Blockchain and digital assets. So, one of his functions has been to identify the components that make up these new tools, analyze them and create working strategies.

His professional experience has included high-level roles in leading companies in the sector, such as Oasis Pro Market, where he has performed duties as Director of Blockchain Services. In addition, he has worked as Mergers and Acquisitions Product Manager at Cisco, and as Product Manager at IBM. These positions have allowed him to stand out internationally for his ability to lead teams, develop innovative strategies and manage large-scale projects.

Throughout his career, he has participated in important technological and financial events. In this sense, Chris Sutton has given presentations and has been part of international panels, along with other leading experts in this sector. In this way, on the occasion of the 15th anniversary of the white paper on Bitcoin, he participated in the events of the FinTech week in Hong Kong. He also presented his expertise at a conference organized by Mastercard in Dubai on banking in the digital age and the impact of digital assets. Likewise, his analyses have focused on delving into the history, principles and future of the Blockchain.

In short, his strategic vision and outstanding skills in programming and algorithms have been key to his success in the international market, consolidating him as a leader in his field.



D. Sutton, Chris

- Director of Blockchain and Digital Assets at Mastercard, Miami, U.S.A.
- Founder of N17 Capital
- Director of Blockchain Services at Oasis Pro Market
- Mergers and Acquisitions Product Manager at Cisco
- Product Manager at IBM
- Contributor at Cointelegraph
- Master's degree in Financial Systems Engineering from University College London
- Bachelor's Degree in Computer Science from Florida International University

“

Thanks to TECH, you will be able to learn with the best professionals in the world”

Management



Mr. Torres Palomino, Sergio

- Blockchain Architect Telefónica
- Blockchain Architect Signeblock
- Blockchain Developer Blocknitive
- Big Data Engineer Golive Services
- Big Data Engineer IECISA
- Degree in Computer Engineering from San Pablo CEU University
- Master's Degree in Big Data Architecture
- Master's Degree in Big Data and Business Analytics

Professors

Mr. Callejo, Carlos

- ♦ Academic Director for 5 editions of the Master's Degree in Applied Blockchain at UEMC and UCAM
- ♦ CEO Block Impulse
- ♦ CTO Stocken Capital
- ♦ Master in Applied Blockchain
- ♦ FP2 Information Systems and Telecommunications
- ♦ Co-author of the book Cryptocurrencies For Dummies
- ♦ Trainer in the infoproduct Cryptocurrencies for everyone Plus

Mr. Triguero Tirado, Enrique

- ♦ Blockchain Infrastructure Technical Manager at UPC-Threepoints
- ♦ Chief Technical Officer at Ilusiak
- ♦ Project Management Officer at Ilusiak and Deloitte
- ♦ ELK Engineer at Everis
- ♦ Systems Architect at Everis
- ♦ Degree in Technical Engineering in Computer Systems at the Polytechnic University of Valencia
- ♦ Master's Degree in Blockchain and its Business Applications from ThreePoints and the Polytechnic University of Valencia.

Blockchain

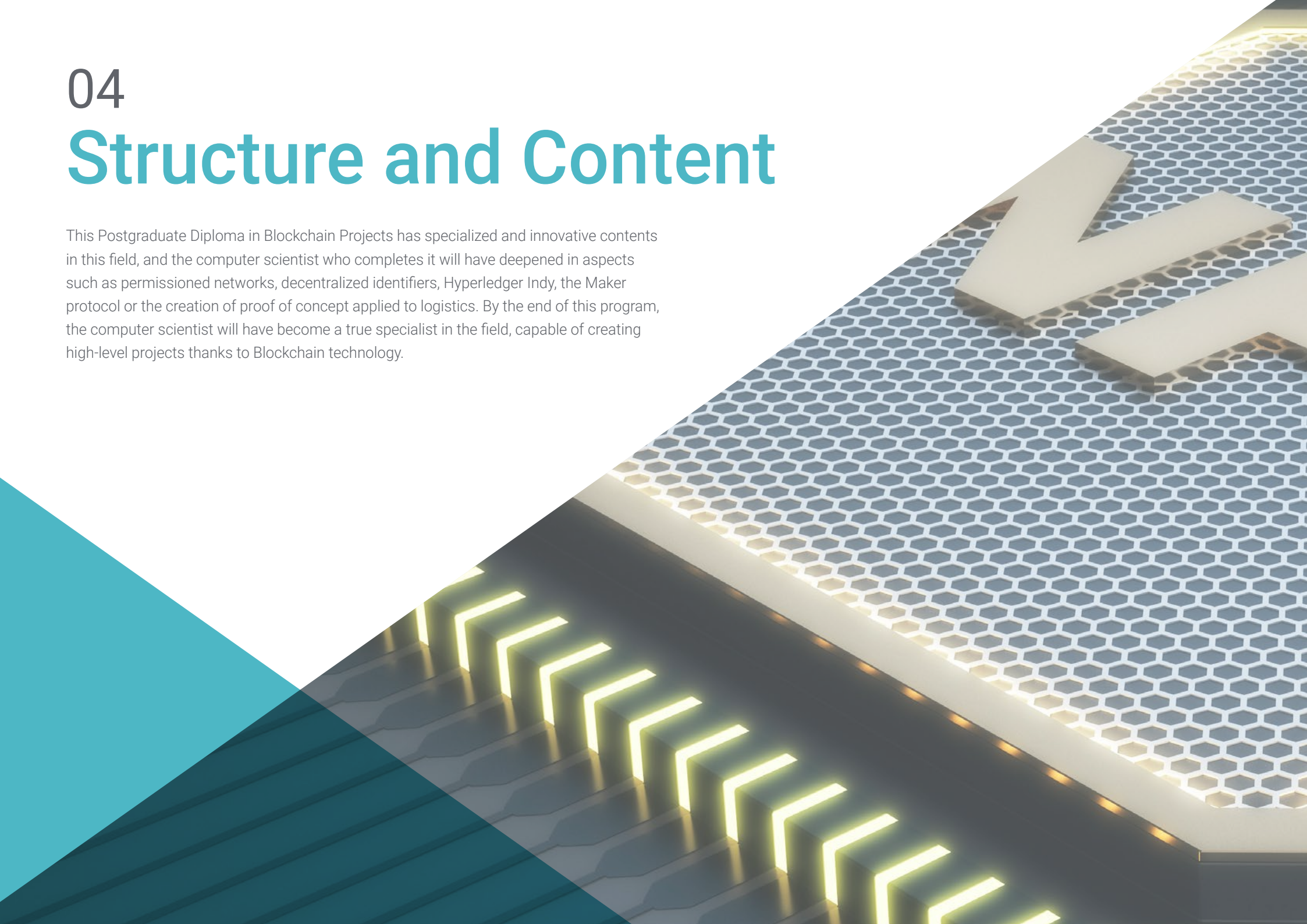
Mr. de Araujo, Rubens Thiago

- ◆ Program/Project Manager IT Blockchain for Supply Chain at Telefónica Global Technology
- ◆ Logistics Innovation and Projects Manager at Telefónica Brazil
- ◆ Graduate in Technological Logistics and Master in PMI Project Management from SENAC University (Brazil)
- ◆ Master's Degree in PMI Project Management from SENAC University (Brazil)
- ◆ Graduate in Technological Logistics from SENAC University (Brazil)
- ◆ Teaching Experience
- ◆ Lecturer in Internal Training Leadership at Telefónica Brazil for Supply Chain Training and the use of new technologies "Logistics 4.0"
- ◆ Instructor and Multiplier of internal mini-courses of Change Management in Integrated Logistics

04

Structure and Content

This Postgraduate Diploma in Blockchain Projects has specialized and innovative contents in this field, and the computer scientist who completes it will have deepened in aspects such as permissioned networks, decentralized identifiers, Hyperledger Indy, the Maker protocol or the creation of proof of concept applied to logistics. By the end of this program, the computer scientist will have become a true specialist in the field, capable of creating high-level projects thanks to Blockchain technology.



“

There is no more in-depth and innovative content for developing Blockchain Projects. Enroll now and check it out"

Module 1. Sovereign Identity Based on Blockchain

- 1.1. Digital Identity
 - 1.1.1. Personal Data
 - 1.1.2. Social Networks
 - 1.1.3. Control Over Data
 - 1.1.4. Authentication
 - 1.1.5. Identification
- 1.2. Blockchain Identity
 - 1.2.1. Digital Signature
 - 1.2.2. Public Networks
 - 1.2.3. Permitted Networks
- 1.3. Sovereign Digital Identity
 - 1.3.1. Requirements
 - 1.3.2. Components
 - 1.3.3. Applications
- 1.4. Decentralized Identifiers (DIDs)
 - 1.4.1. Layout
 - 1.4.2. DID Methods
 - 1.4.3. DID Documents
- 1.5. Verifiable Credentials
 - 1.5.1. Components
 - 1.5.2. Flows
 - 1.5.3. Security and Privacy
 - 1.5.4. Blockchain to Register Verifiable Credentials
- 1.6. Blockchain Technologies for Digital Identity
 - 1.6.1. Hyperledger Indy
 - 1.6.2. Sovrin
 - 1.6.3. uPort
 - 1.6.4. ID Alastria
- 1.7. European Hyperledger and Identity Initiatives
 - 1.7.1. eIDAS
 - 1.7.2. EBSI
 - 1.7.3. ESSIF

- 1.8. Digital Identity of Things (IoT)
 - 1.8.1. IoT Interactions
 - 1.8.2. Semantic Interoperability
 - 1.8.3. Data Security
- 1.9. Digital Identity of Processes
 - 1.9.1. Date:
 - 1.9.2. Code
 - 1.9.3. Interfaces
- 1.10. Blockchain Digital Identity Use Cases
 - 1.10.1. Health
 - 1.10.2. Education
 - 1.10.3. Logistics
 - 1.10.4. Public Administration

Module 2. Blockchain and its new applications: DeFi and NFT

- 2.1. Financial Culture
 - 2.1.1. Evolution of Money
 - 2.1.2. Fiat money vs. Decentralized Money
 - 2.1.3. Digital Bank vs. Open Finance
- 2.2. Ethereum
 - 2.2.1. Technology
 - 2.2.2. Decentralized Money
 - 2.2.3. Stablecoins
- 2.3. Other Technology
 - 2.3.1. Binance Smart Chain
 - 2.3.2. Polygon
 - 2.3.3. Solana
- 2.4. DeFi (Decentralized Finance)
 - 2.4.1. DeFi
 - 2.4.2. Challenges
 - 2.4.3. Open Finance vs. DeFi
- 2.5. Information Tools
 - 2.5.1. Metamask and Decentralized Wallets
 - 2.5.2. CoinMarketCap
 - 2.5.3. DefiPulse

- 2.6. Stable Coins
 - 2.6.1. Protocol Maker
 - 2.6.2. USDC, USDT, BUSD
 - 2.6.3. Forms of Collateralization and Risks
- 2.7. Exchanges and Decentralized Exchanges and Platforms (DEX)
 - 2.7.1. Uniswap
 - 2.7.2. SushiSwap
 - 2.7.3. AAVE
 - 2.7.4. dYdX/Synthetix
- 2.8. NFT Ecosystem (Non-Fungible Tokens)
 - 2.8.1. NFTs
 - 2.8.2. Typology
 - 2.8.3. Features
- 2.9. Capitulation of Industries
 - 2.9.1. Design Industry
 - 2.9.2. Fan Token Industry
 - 2.9.3. Project Financing
- 2.10. NFT Markets
 - 2.10.1. Opensea
 - 2.10.2. Rarible
 - 2.10.3. Customized Platforms

Module 3. Blockchain Applied to Logistics

- 3.1. Operational AS IS Mapping and Possible Gaps
 - 3.1.1. Identification of Manually Executed Processes
 - 3.1.2. Identification of Participants and their Particularities
 - 3.1.3. Case Studies and Operational Gaps
 - 3.1.4. Presentation and Mapping Executive Staff
- 3.2. Map of Current Systems
 - 3.2.1. Current Systems
 - 3.2.2. Master Data and Information Flow
 - 3.2.3. Governance Model
- 3.3. Application of Blockchain to Logistics
 - 3.3.1. Blockchain Applied to Logistics
 - 3.3.2. Traceability-Based Architectures for Business Processes
 - 3.3.3. Critical Success Factors in Implementation
 - 3.3.4. Practical Advice
- 3.4. TO BE Model
 - 3.4.1. Operational Definition for Supply Chain Control
 - 3.4.2. Structure and Responsibilities of the Systems Plan
 - 3.4.3. Critical Success Factors in Implementation
- 3.5. Construction of the Business Case
 - 3.5.1. Cost Structure
 - 3.5.2. Projected Benefits
 - 3.5.3. Approval and Acceptance of the Plan by the Owners
- 3.6. Creation of Proof of Concept (POC)
 - 3.6.1. Importance of a POC for New Technologies
 - 3.6.2. Key Aspects
 - 3.6.3. Examples of POCs with Low Cost and Effort
- 3.7. Project Management
 - 3.7.1. Agile Methodology
 - 3.7.2. Decision of Methodologies Among all Participants
 - 3.7.3. Strategic Development and Deployment Plan
- 3.8. Systems Integration: Opportunities and Needs
 - 3.8.1. Structure and Development of the Systems Planning
 - 3.8.2. Data Master Model
 - 3.8.3. Roles and Responsibilities
 - 3.8.4. Integrated Management and Monitoring Model
- 3.9. Development and Implementation with Supply Chain Team
 - 3.9.1. Active Participation of the Customer (Business)
 - 3.9.2. Systemic and Operational Risk Analysis
 - 3.9.3. Key to Success: Testing Models and Post-Production Support
- 3.10. Change Management: Follow-up and Update
 - 3.10.1. Management Implications
 - 3.10.2. Rollout Plan and Training Program
 - 3.10.3. KPI Tracking and Management Models

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.



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 student will learn to solve complex situations in real business environments through collaborative activities and real cases.

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

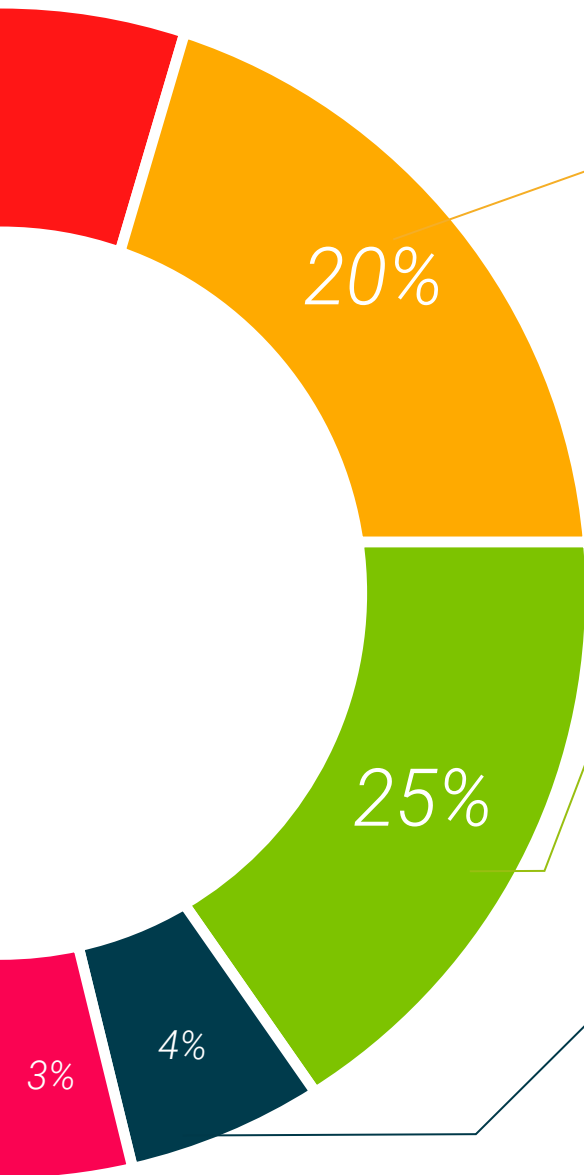
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



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 Projects guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.



“

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

This **Postgraduate Diploma in Blockchain Projects** 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 Diploma** issued by **TECH Technological University** via tracked delivery*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Blockchain Projects**

Official N° of hours: **450 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 quality
development language
virtual classroom

tech technological
university

Postgraduate Diploma Blockchain Projects

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

Postgraduate Diploma Blockchain Projects