

# Postgraduate Certificate Blockchain Self-Sovereign Identity



## Postgraduate Certificate Blockchain Self-Sovereign Identity

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/us/information-technology/postgraduate-certificate/blockchain-self-sovereign-identity](http://www.techtitute.com/us/information-technology/postgraduate-certificate/blockchain-self-sovereign-identity)

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# 01

# Introduction

One of the most important applications of Blockchain technology is in the field of identity and digital identity. Through this tool it is possible to verify, in a decentralized way, the self-sovereign identity of an individual. This has uses in sectors such as the academic sector, serving to identify the records of each student, the health sector to record medical records or the labor sector, among others. Therefore, this qualification provides the computer scientist with all the keys to take advantage of this powerful technology and successfully develop Blockchain projects based on self-sovereign identity.





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*Self-sovereign identity is the next big application of Blockchain technology. This Postgraduate Certificate gives you all the keys to be able to undertake Blockchain projects in this field"*

Blockchain is revolutionizing the business and technology landscape thanks to its numerous applications. One of the most important has to do with self-sovereign identity. Normally, the identity of each individual can be verified from centralized institutions that record, for example, personal identification, the identification associated with a driver's license, the record of students in a school or the file of an employee. In these cases, centralization entails numerous problems, since it relies on single institutions or agents to carry out identity verification.

But Blockchain technology makes it possible to decentralize the process, as the identity embedded in a blockchain can be corroborated by any of the many agents participating in it, without the need to make the request to a single institution and with all the legal and security guarantees. As such, this Postgraduate Certificate in Blockchain Self-Sovereign Identity delves into these aspects to enable the computer scientist to develop important projects in this field.

And to achieve the proposed learning objectives, this qualification is taught through an online teaching methodology that will allow the professional to balance their work with their studies. They will also benefit from a first-class teaching staff and multimedia teaching materials of great pedagogical rigor, such as master classes, interactive summaries and practical exercises.

This **Postgraduate Certificate in Blockchain Self-Sovereign Identity** 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



*Get to know Blockchain technology in depth and apply it to self-sovereign identity quickly and efficiently”*

“

*In the future all identities will be managed by a blockchain. Specialize now and reach important business and professional opportunities thanks to this Postgraduate Certificate"*

The program's teaching staff includes professionals from sector who contribute their work experience to this training 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 professionals must try to solve the different professional practice situations that arise throughout the program. For this purpose, students will be assisted by an innovative, interactive video system created by renowned and experienced experts.

*Learn more about verifiable credentials and decentralized identifiers with this qualification.*

*Enroll and start developing self-sovereign identity projects in Blockchain for your company.*



# 02 Objectives

The main objective of this Postgraduate Certificate is to enable the computer scientist or engineer to develop Blockchain projects based on the concept of self-sovereign identity, so that they can apply them to fields such as healthcare, pharmaceuticals, labor or academia. In this way, upon completion of this program, you will be in possession of unique and innovative knowledge to advance professionally in this booming technological field.





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*The goal of this qualification is to make you a great self-sovereign identity specialist in Blockchain"*



## 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

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*All the particulars about the use of self-sovereign identity in Blockchain are here. Enroll now and discover it"*





## Specific Objectives

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- ◆ 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

# 03

# Course Management

This Postgraduate Certificate in Blockchain Self-Sovereign Identity has the best teaching staff, composed of working professionals who know all the secrets and peculiarities of this field. For that reason, the students will be able to access the latest advances in this subject, so that they can develop the best Blockchain projects applied to self-sovereign identity thanks to everything they will learn while being guided by these elite teachers.





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*The best Blockchain specialists guide you through the entire learning process”*

## 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

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- 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. 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.





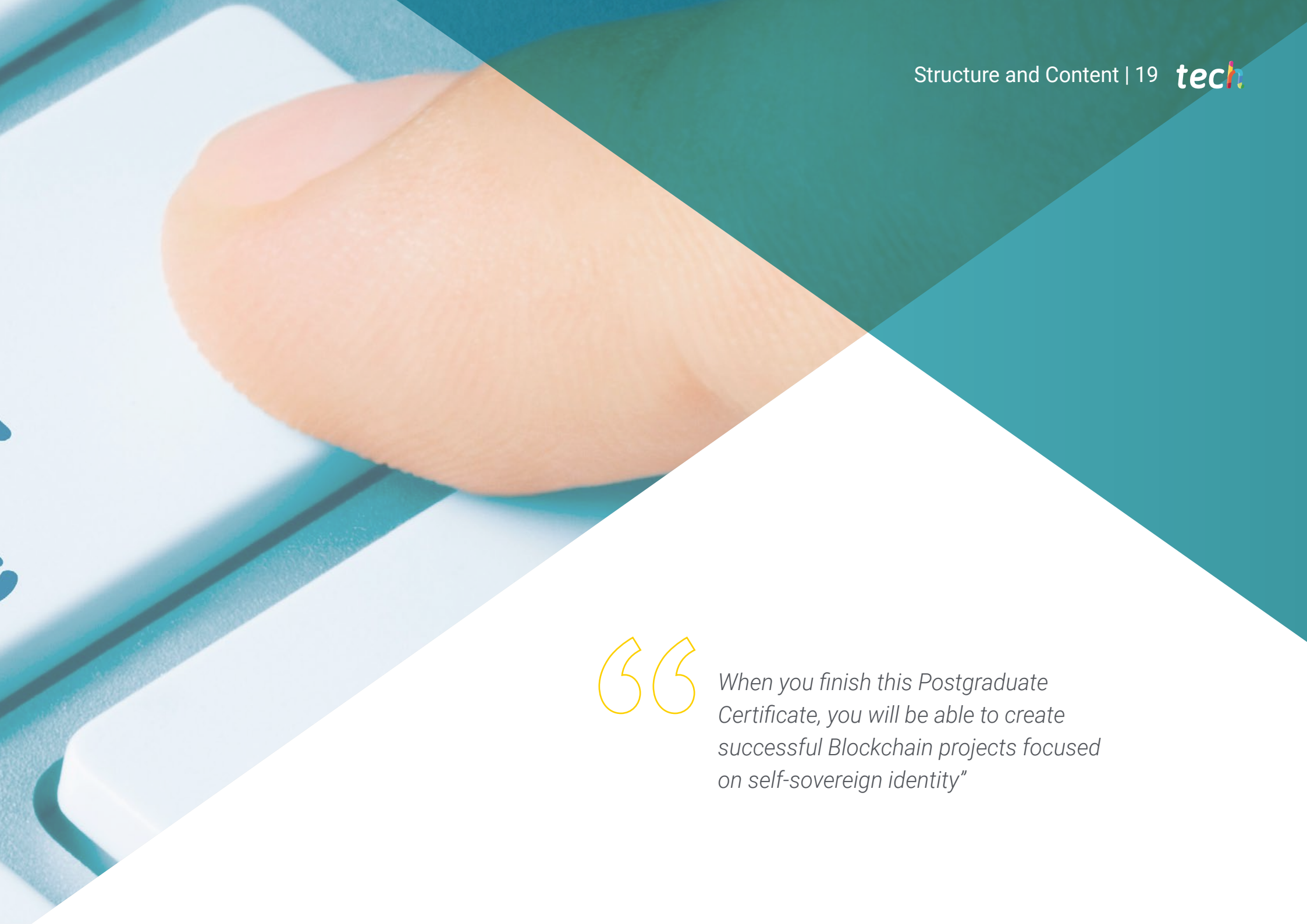
# 04

## Structure and Content

The contents of this Postgraduate Certificate in Blockchain Self-Sovereign Identity have been designed by leading experts in this field, and have ensured that the student obtains the latest knowledge on issues such as digital signatures, permissioned networks, the authentication process, decentralized identifiers, Hyperledger Indy, semantic interoperability or sovereign identity applications, among others.



Digital  
signature



“

*When you finish this Postgraduate Certificate, you will be able to create successful Blockchain projects focused on self-sovereign identity”*

## 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 Blockchain 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. Data
  - 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



*Self-sovereign identity is the future: specialize now"*

# 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.

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*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

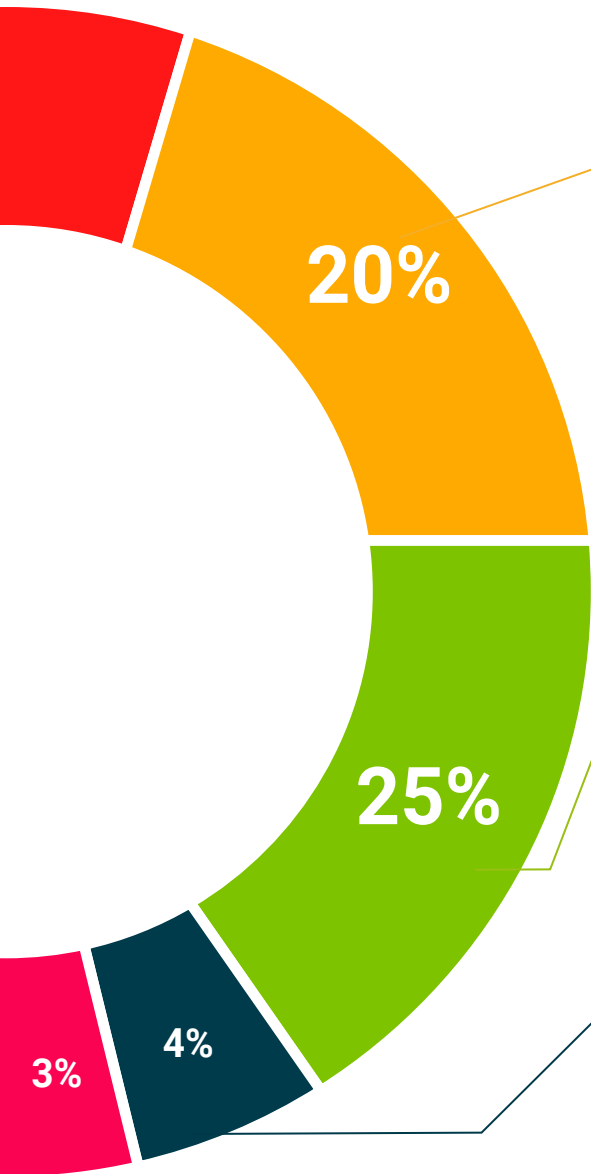
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



### 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 Blockchain Self-Sovereign Identity 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 Blockchain Self-Sovereign Identity** 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 Blockchain Self-Sovereign Identity**

Official N° of Hours: **150 h.**



\*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.



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development languages  
virtual classroom



## Postgraduate Certificate Blockchain Self-Sovereign Identity

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

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