

Postgraduate Certificate Cloud Architecture Design



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

Website: www.techtitute.com/us/information-technology/postgraduate-certificate/cloud-architecture-design

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01

Introduction

Companies are increasingly relying on the security provided by the network to store their data, promoting online collaborative work among their teams, which allows them to reduce costs and promotes greater work efficiency. These benefits make that more and more organizations look for secure cloud environments. IT professionals are in a very favorable position to develop in this area. This learning will provide you with the foundations to correctly design a Cloud architecture and to progress professionally. This 100% online program also allows you to distribute the course load as you prefer and download the content to view it at any time.





“

Become the Cloud Architect that companies in the sector require thanks to this Postgraduate Certificate”

This Postgraduate Certificate is aimed at IT professionals who wish to delve into the architecture design as a reference for the application development and deployment in production with all the guarantees. A specialization that allows them to update and build knowledge in an area that is in constant transformation.

Thanks to this program, students will be able to offer companies and organizations an excellent Cloud service. With a teaching team specialized in Cloud environments, IT professionals will be able to analyze the use of each cloud depending on the area in which they work, resilience and hardware or software architecture requirements. Through case studies, students will be able to design from start to finish a Cloud architecture taking into account all the factors that make it up from the technical, economic and human point of view, including security in this technological environment.

The use of real and close examples by the teaching staff, throughout this program, will be very useful for the IT professionals who are currently working or wish to thrive in their jobs. The Relearning methodology offered by TECH and the 100% online modality will facilitate the acquisition of knowledge and help you achieve your goals.

This **Postgraduate Certificate in Cloud Architecture Design** 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 Cloud Programming
- ◆ 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 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 Internet connection



Increase your chances of advancing in the Cloud technology field with this program that gives you the specialization you are seeking. Take a step forward"

“*The correct use of data must be the best guarantee for any company working in Cloud environments. Learn about the keys of the Data Protection Law and act correctly*”

The program's teaching staff includes professionals from the 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 allow professionals to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive education programmed to prepare in real situations.

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

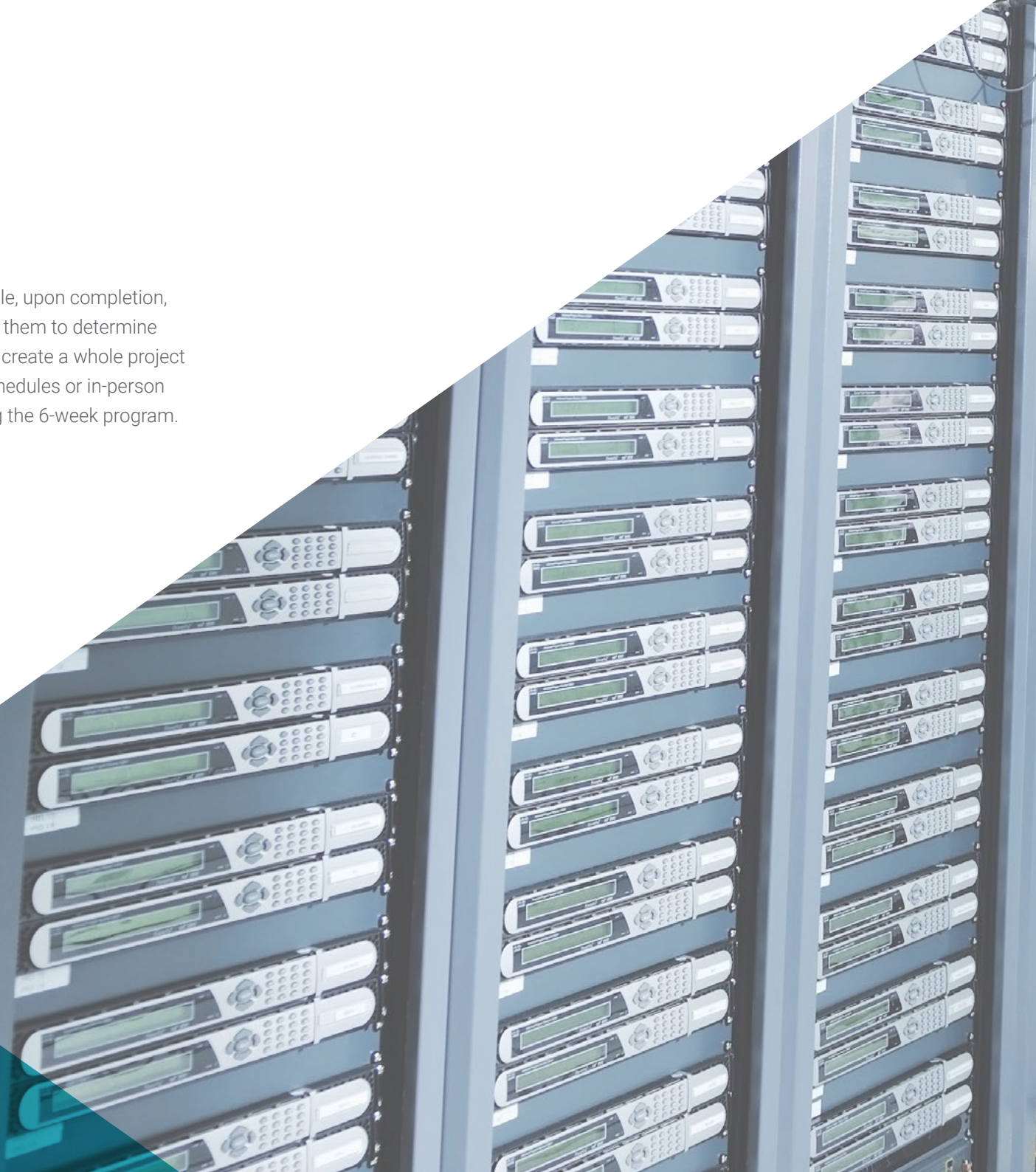
Administer and manage the specific components of a Cloud environment to a high level. Specialize in this Postgraduate Certificate.

Master the design and creation of Blockchain Networks, thanks to this Postgraduate Certificate.



02 Objectives

IT professionals who take this Postgraduate Certificate will be able, upon completion, to have a solid foundation on Cloud architecture, which will allow them to determine the infrastructure requirements, identify deployment options and create a whole project in Cloud environments. This 100% online format, without fixed schedules or in-person attendance, facilitates the distribution of the teaching load during the 6-week program.





“

You know the online world perfectly well. Enroll in this fully online Postgraduate Certificate and specialize in Cloud Architecture Design"



General Objectives

- ◆ Analyze the different approaches to cloud adoption and their contexts
- ◆ Acquire specialized knowledge to determine the appropriate Cloud
- ◆ Develop a virtual machine in Azure
- ◆ Establish the sources of threats in application development and best practices to apply
- ◆ Evaluate the differences in the specific implementations of different public Cloud vendors
- ◆ Determine the different technologies applied to containers
- ◆ Identify the key aspects of a Cloud Native adoption strategy
- ◆ Justify and evaluate the programming languages most commonly used in Big Data, necessary for data analysis and processing





Specific Objectives

- ◆ Develop specialized knowledge on the bases of architecture
- ◆ Specialize the student in the knowledge of Cloud infrastructures
- ◆ Evaluate advantages and disadvantages of deploying On Premise or in the Cloud
- ◆ Determine infrastructure requirements
- ◆ Identify deployment options
- ◆ Train for the implementation of a Cloud infrastructure in production
- ◆ Design and define the operation and maintenance of a Cloud architecture



Achieve viable, efficient and cost-effective Cloud projects. Become the Cloud architect of the moment. Enroll now”

03

Course Management

TECH offers its students online degrees with quality content. In order to achieve this, TECH carefully selects the teaching staff of the different programs. In this Postgraduate Certificate, the IT professional will be tutored by a teaching team specialized in Cloud environments and with extensive experience in Big Data and Blockchain projects. This guarantees an up-to-date syllabus, satisfying the needs of a technological sector on the rise.



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A relevant teaching team will provide you with knowledge that will be very helpful in your career. Develop your career with TECH”

Management



Mr. Bressel Gutiérrez-Ambrossi, Guillermo

- Specialist in Systems Administration and Computer Networks
- Storage and SAN Network Administrator at Experis IT (BBVA)
- Network Administrator at IE Business School
- Graduate in Computer Systems and Network Administration at ASIR (ASIR)
- Ethical Hacking course at OpenWebinar
- Powershell course at OpenWebinar



Professors

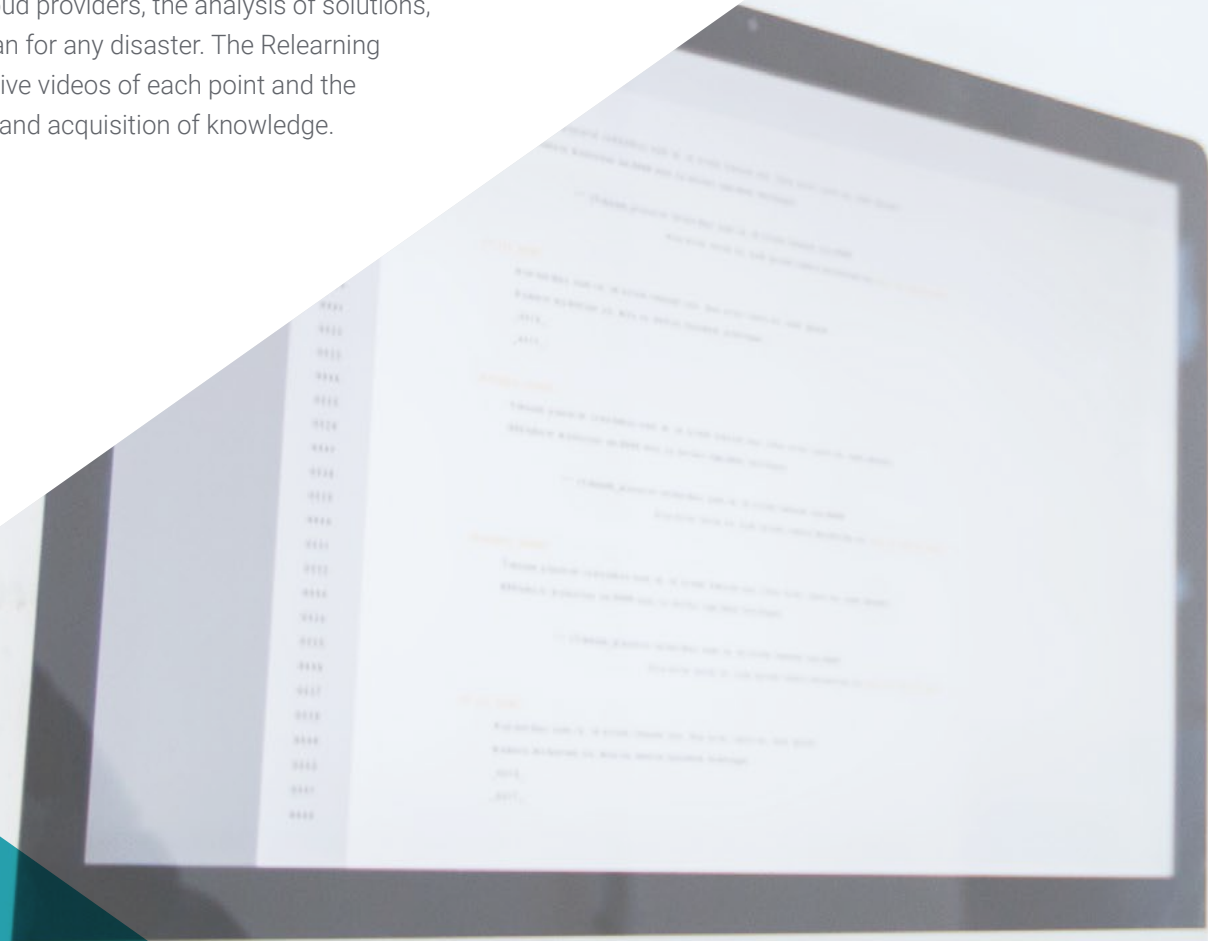
Mr. Torres Palomino, Sergio

- ◆ IT Engineer with expertise in Blockchain
- ◆ Blockchain Lead at Telefónica
- ◆ Blockchain Architect at Signeblock
- ◆ Blockchain Developer at Blocknitive
- ◆ Writer and Publisher at O'Really Media Books
- ◆ Lecturer in postgraduate studies and Blockchain related courses
- ◆ Degree in Computer Engineering from San Pablo CEU University
- ◆ Master's Degree in Cloud Architecture
- ◆ Master's Degree in Big Data and Business Analytics

04

Structure and Content

The syllabus of this Postgraduate Certificate has been developed by a teaching team specialized in Cloud Architecture. Starting from general concepts necessary for the understanding of Cloud environments, the teaching is based on an eminently practical basis of the concepts addressed, such as the selection of Cloud providers, the analysis of solutions, financial and human resources and the creation of a plan for any disaster. The Relearning system, based on the reiteration of content, the interactive videos of each point and the complementary readings will favor the comprehension and acquisition of knowledge.



“

This is an eminently practical course for you to apply what you have learned in the technological field in Cloud environments"

Module 1. Architecture Programming in Cloud Computing

- 1.1. Cloud Architecture for a University Network. Cloud Provider Selection Practical Example
 - 1.1.1. Cloud Architecture Approach for a University Network According to Cloud Provider
 - 1.1.2. Cloud Architecture Components
 - 1.1.3. Analysis of Cloud Solutions According to Proposed Architecture
- 1.2. Economic Estimation of the Project for the Creation of a University Network Financing
 - 1.2.1. Cloud Provider Selection
 - 1.2.2. Economical Estimation According to Components
 - 1.2.3. Project Financing
- 1.3. Estimation of Human Resources of the Project. Composition of a Software Team
 - 1.3.1. Composition of the Software Development Team
 - 1.3.2. Roles in a Development Team. Typology
 - 1.3.3. Assessment of the Economic Estimation of the Project
- 1.4. Execution Schedule and Project Documentation
 - 1.4.1. Agile Project Schedule
 - 1.4.2. Project Feasibility Documentation
 - 1.4.3. Documentation to Be Provided for Project Execution
- 1.5. Legal Implications of a Project
 - 1.5.1. Legal Implications of a Project
 - 1.5.2. Data Protection Policy
 - 1.5.2.1. GDPR. General Data Protection Regulation
- 1.6. Design and Creation of a Cloud Blockchain Network for the Proposed Architecture
 - 1.6.1. Blockchain – Hyperledger Fabric
 - 1.6.2. Hyperledger Fabric Basics
 - 1.6.3. Design of an International University Hyperledger Fabric Network





- 1.7. Proposed Architecture Expansion Approach
 - 1.7.1. Creation of the Proposed Architecture with Blockchain
 - 1.7.2. Proposed Architecture Expansion
 - 1.7.3. Configuration of a High Availability Architecture
- 1.8. Administration of the Proposed Cloud Architecture
 - 1.8.1. Adding a New Participant to the Initial Proposed Architecture
 - 1.8.2. Administration of the Cloud Architecture
 - 1.8.3. Project Logic Management – Smart Contracts
- 1.9. Administration and Management of Specific Components in the Proposed Cloud Architecture
 - 1.9.1. Management of Network Certificates
 - 1.9.2. Security Management of Various Components: CouchDB
 - 1.9.3. Blockchain Network Nodes Management
- 1.10. Modification of an Initial Basic Installation in the Creation of a Blockchain Network
 - 1.10.1. Adding a Node to the Blockchain Network
 - 1.10.2. Addition of Extra Data Persistence
 - 1.10.3. Smart Contracts Management
 - 1.10.4. Addition of a New University to the Existing Network
 - 1.10.5. Disaster Recovery Plan

“ *This Postgraduate Certificate prepares you to take on the challenge of designing a seamless Cloud architecture* ”

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 Certificate in Cloud Architecture Design 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 postgraduate certificate without having to travel or fill out laborious paperwork"

This **Postgraduate Certificate in Cloud Architecture Design** 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 Cloud Architecture Design**

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
online training
development language
classroom



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