

# Postgraduate Certificate Cloud Infrastructure Operation



## Postgraduate Certificate Cloud Infrastructure Operation

- » 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-infrastructure-operation](http://www.techtitute.com/us/information-technology/postgraduate-certificate/cloud-infrastructure-operation)

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# 01

# Introduction

Infrastructure as a Service (IaaS) is a breakthrough for companies, as it offers resources over the Internet in a more efficient and flexible way, allowing them to reduce costs and address the long-awaited digital transformation. This situation has led many companies to demand expert professionals in this area, who have mastered the tools and have the necessary knowledge. And for that reason, TECH has created a program that seeks to develop the skills and competencies of students, so that they can implement and manage IaaS solutions effectively. All this, through a syllabus that addresses Service Models, Development Methodologies and Cloud Computing Resources, among other aspects. All this in a 100% online mode and with the latest content.



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*Become an expert in Digital Transformation  
and Cloud Infrastructures in just a 6 weeks”*



One of the most important concepts in contemporary business computing is that of Infrastructure as a Service (IaaS). This model offers users the possibility of accessing computing, storage and network resources over the Internet without the need to acquire their own IT infrastructure. This opportunity to have a single general tool to carry out the digital transformation has not gone unnoticed by most companies, which are looking for trained professionals with which to address this change.

This is the reason why TECH has created a Postgraduate Certificate in Cloud Infrastructure Operation with which it seeks to develop the skills and knowledge necessary to implement changes and IaaS solutions with which to face the challenges and opportunities of the cloud era effectively. And for this, it offers the most complete content in terms of Abstraction Layers in Cloud Computing and its Management, Digital Transformation, Agile Management of Cloud Infrastructures, Cloud Computing Resources or a wide variety of practical activities.

All this, through a comfortable 100% online mode that seeks to give total freedom of organization of schedules and studies to the students, so that they can combine the overcoming of the program with their other obligations. In addition, with total availability of the most dynamic multimedia material and the most updated information, which can be accessed from anywhere and with any device with Internet connection.

This **Postgraduate Certificate in Cloud Infrastructure Operation** 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 Infrastructure Operation
- ◆ 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 an Internet connection



*Stand out in a booming industry and reach your most ambitious goals in Cloud Infrastructure Operation"*

“

*Deepen your knowledge in Cloud Computing Resources and boost your professional profile without limits"*

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 provide the professionals with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

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

*Acquire new and better Digital Transformation skills and qualify for better jobs in just a few weeks.*

*Access all the material from day one and a wide variety of additional information on IaaS, with which to perfect your knowledge.*

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# 02

# Objectives

The objective of this Postgraduate Certificate in Cloud Infrastructure Operation is to develop the skills and knowledge necessary to implement and manage IaaS solutions effectively. All this through the most complete and updated theoretical and practical contents of the academic market, which have been designed by experts in the field.





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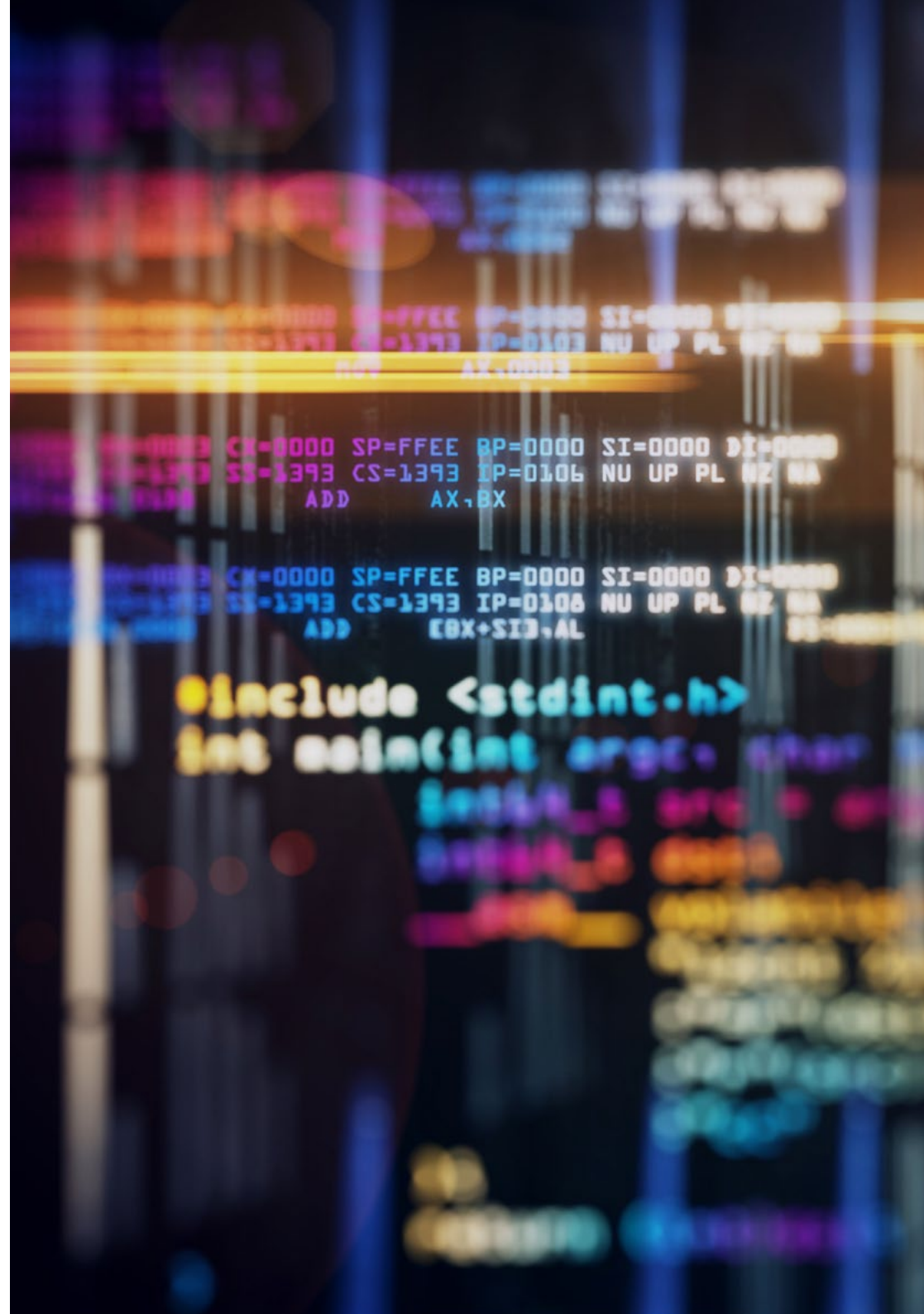
*Learn how to face the advantages and challenges of IaaS with maximum efficiency”*



## General Objectives

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- ◆ Develop specialized knowledge about what infrastructures are and what motivations exist for their transformation to the cloud
- ◆ Acquire the skills and knowledge necessary to implement and manage IaaS solutions effectively
- ◆ Acquire specialized knowledge to add or remove storage and processing capacity quickly and easily, enabling you to adapt to fluctuations in demand
- ◆ Examine the scope of Network DevOps, demonstrating that it is an innovative approach for network management in IT environments
- ◆ Understand the challenges faced by an enterprise in *Cloud* governance and how to address them
- ◆ Use security services in Cloud environments such as Firewalls, SIEMS and threat protection, to secure applications and services
- ◆ Establish best practices in the use of Cloud Services and the main recommendations when using them
- ◆ Increase user efficiency and productivity: by enabling users to access their applications and data from anywhere and on any electronic device, VDI can improve user efficiency and productivity
- ◆ Gain specialized knowledge about Infrastructure as Code
- ◆ Identify key points to demonstrate the importance of investing in *backup* and monitoring in organizations





## Specific Objectives

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- ◆ Examine the abstraction layers in Cloud Computing and how they relate to each other
- ◆ Concretize the effective management of the Cloud Computing abstraction layers
- ◆ Analyze the core decisions in building a Cloud Architecture
- ◆ Evaluate how digital transformation and the Cloud can drive business success
- ◆ Delve into the DevOps approach and how it can improve the efficiency and effectiveness of software development and delivery
- ◆ Establish the different cloud computing resources available and how they can be used effectively

“

*Learn about Private, Public and Hybrid Deployment Models and how to use them effectively”*



03

# Course Management

In order to offer the best possible learning to students, this program has been designed with the help of a team of professional experts in Cloud Infrastructure Operation. These renowned specialists in the field have created a syllabus that meets the most demanding expectations and with the highest quality theoretical and practical content, which guarantees the best possible assimilation of the essential concepts.



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*You can count on the knowledge, experience and support of renowned experts in Cloud Infrastructure Operation"*

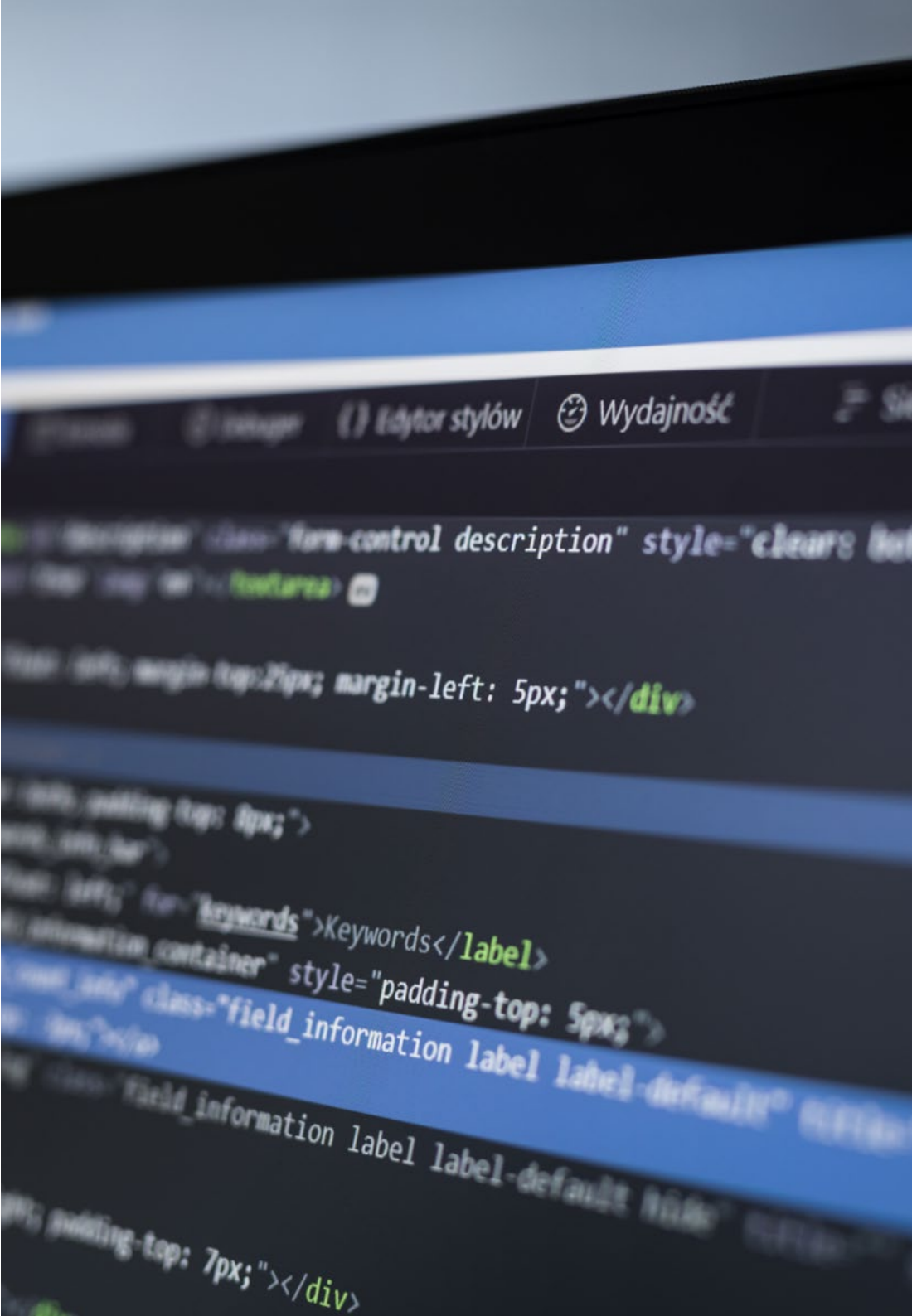


## Management



### 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 OpenWebinars
- ♦ Powershell course at OpenWebinar



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*Take the opportunity to learn about the latest advances in this area to apply it to your daily practice"*

# 04

# Structure and Content

The structure and content of this Postgraduate Certificate in Cloud Infrastructure Operation have been designed in a rigorous and thorough way by TECH's team of experts in the field. All this, based on the most efficient teaching methodology, the Relearning, which ensures optimal assimilation of the most essential concepts of the agenda, without the need to devote excessive time to study.



“

*A study plan tailored to your needs  
and designed under the most effective  
pedagogical methodology, Relearning”*



## Module 1. Infrastructure as a Service (IaaS)

- 1.1. Cloud Computing Abstraction Layers and Their Management
  - 1.1.1. Abstraction Core Concepts
  - 1.1.2. Services Models
  - 1.1.3. Management of Cloud Services. Benefits
- 1.2. Construction of Architecture. Core Decisions
  - 1.2.1. HDDC and SDDC. Hypercompetition
  - 1.2.2. Market
  - 1.2.3. Working Model and Professional Profiles Changes
    - 1.2.3.1. Figure of the Cloudbroker
- 1.3. Digital Transformation and Cloud Infrastructures
  - 1.3.1. Cloud Work Demo
  - 1.3.2. The Role of the Navigator as Tool
  - 1.3.3. New Device Concept
  - 1.3.4. Advanced Architectures and the Role of the CIO
- 1.4. Agile Management in Cloud Infrastructures
  - 1.4.1. Life Cycle of New Services and Competitiveness
  - 1.4.2. Development Methodology of Apps and Microservices
  - 1.4.3. Relationship between Development and IT Transactions
    - 1.4.3.1. Use of Cloud as Support
- 1.5. Cloud Computing Resources I. Identity, Storage and Domain Management
  - 1.5.1. Identity and Access Management
  - 1.5.2. Secure Data Storage, Flexible File and Database Storage
  - 1.5.3. Domain Management
- 1.6. Cloud Computing Resources II. Network, Infrastructure and Monitoring Resources
  - 1.6.1. Private Virtual Network
  - 1.6.2. Cloud Computing Capabilities
  - 1.6.3. Monitoring







- 1.7. Cloud Computing Resources III. Automation
  - 1.7.1. Serverless Code Execution
  - 1.7.2. Message Queuing
  - 1.7.3. Workflow Services
- 1.8. Cloud Computing Resources IV. Other Services
  - 1.8.1. Notification Queuing
  - 1.8.2. Streaming Services and Transcoding Technologies
  - 1.8.3. Turnkey Solution to Publish APIs for External and Internal Consumers
- 1.9. Cloud V Computing Resources. Data-Centric Services
  - 1.9.1. Data Analytics Platforms and Automation of IT Manual Task
  - 1.9.2. Data Migration
  - 1.9.3. Hybrid Cloud
- 1.10. IaaS Services Practice Lab
  - 1.10.1. Exercise 1
  - 1.10.2. Exercise 2
  - 1.10.3. Exercise 3

“ *TECH offers you a unique opportunity to enhance your skills and have a successful future in the field of Cloud Infrastructures* ”

# 05 Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

“

*At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world”*



*You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.*



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

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

“*Our program prepares you to face new challenges in uncertain environments and achieve success in your career”*

The case method has been the most widely used learning system among the world's leading Information Technology schools for as long as they have existed. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the course, students will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.



## Relearning Methodology

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

We enhance the Case Study with the best 100% online teaching method: Relearning.

*In 2019, we obtained the best learning results of all online universities in the world.*

At TECH you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



This program offers the best educational material, prepared with professionals in mind:



### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

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



### Practising Skills and Abilities

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



### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





#### Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best specialists in the world.



#### Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.





06

# Certificate

The Postgraduate Certificate in Cloud Infrastructure Operation 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 Cloud Infrastructure Operation** 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 Infrastructure Operation**

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.



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- » Dedication: **16h/week**
- » Schedule: **at your own pace**
- » Exams: **online**

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