

# Postgraduate Certificate Security in Cloud Environments





## Postgraduate Certificate Security in Cloud Environments

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

Website: [www.techtute.com/us/information-technology/postgraduate-certificate/security-cloud-environments](http://www.techtute.com/us/information-technology/postgraduate-certificate/security-cloud-environments)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

---

*p. 28*

# 01

# Introduction

*Cloud computing* is one of the most widely used tools today by all types of users and companies. This technology makes it possible to offer services in a decentralized manner, without depending on a single server. Despite its short history, the cloud already has a presence in numerous companies and people from all backgrounds use it as a secure method of data storage. As a result, it is under constant attack and requires specific cybersecurity expertise. Thus, this program will prepare the computer scientist to become a specialist in *cloud* environment security, thus improving their professional prospects in a simple, fast and immediate way.



CYBER  
SECURITY



“

*The cloud is the present and the future for data storage and for hosting digital services of all kinds. Specialize in this field and prepare yourself to receive important professional opportunities thanks to the knowledge that this program will provide you"*

The cloud has become one of the essential elements of the Internet today and in the future. It allows to host, in a secure and decentralized way, digital information and services. Thus, it offers numerous advantages such as the availability of data without the dependence on a single server or the possibility of accessing online tools at any time and place. Its great functionality has attracted the attention of malicious individuals seeking to exploit its vulnerabilities.

For this reason, many companies are looking for the best protection methods for their cloud services. This situation has made the *cloud* security specialist a highly sought-after professional profile, so specializing is, at this time, one of the best decisions an IT specialist can make. This Postgraduate Certificate in Security in *Cloud* Environments has been designed precisely to respond to this demand.

In this way, it offers the professional the most advanced contents in this field, based on a 100% online methodology, with the best multimedia contents, and a teaching staff of enormous prestige in the field of cybersecurity.

This **Postgraduate Certificate in Security in Cloud Environments** 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 IT and cybersecurity 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 self-assessment can be used to improve learning
- ◆ Its special emphasis on innovative methodologies
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ The availability of access to the contents from any fixed or portable device with internet connection

“

*It deepens, thanks to this program,  
in securing data in transit and in the  
types of cloud infrastructure”*



*This program has the best multimedia resources for you to obtain the best security techniques in cloud environments: videos, interactive summaries, all kinds of exercises..."*

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

*TECH's 100% online methodology allows you to study at your own pace, whenever you want, without being subject to rigid schedules and without having to travel to an academic center.*

*The latest content on public cloud security is here: enroll now and improve professionally.*



# 02 Objectives

The main objective of this Postgraduate Certificate in Security in Cloud Environments is to turn the computer scientist into a great specialist in this field of cybersecurity so much in demand. Thus, this program is eminently oriented towards professional practice, and offers the student the possibility to progress rapidly by proposing the best cloud protection solutions to companies, customers and all types of users.





“

*Your goals have never been so close: this Postgraduate Certificate is what you were looking for"*



## General Objectives

---

- ◆ Examine the process of designing a security strategy when deploying corporate *cloudservices*
- ◆ Identify the areas of *cloudsecurity*
- ◆ Analyze the services and tools in each of the security areas
- ◆ Assess the differences in the concrete implementations of different public *cloud* vendors



*TECH will help you get to where you've always dreamed"*





## Specific Objectives

---

- ◆ Identifying risks of a public *cloud* infrastructure deployment
- ◆ Define security requirements
- ◆ Develop a security plan for a *cloud* deployment
- ◆ Identify the cloud services to be deployed for the execution of a security plan
- ◆ Determine the operations necessary for the prevention mechanisms
- ◆ Establish guidelines for a *logging* and monitoring system
- ◆ Propose incident response actions

# 03

# Course Management

This Postgraduate Certificate in Security in Cloud Environments offers the professional the opportunity to be in contact with a teaching staff of great prestige and extensive experience in this area of computing. Thus, this program not only offers up-to-date and complete content, but also has a teaching staff that meets the requirements of the complex field of *cloud computing*, which requires special attention from the computer scientist in order to be able to work at the highest level.





“

*This program has it all: the most innovative multimedia materials, the most comprehensive curriculum on the market and a faculty with extensive experience in cloud computing security”*

## Management



### Mr. Olalla Bonal, Martín

- ♦ Director de Información en ePETID - Global Animal Health
- ♦ Blockchain Technical Specialist at IBM SPGI
- ♦ *Blockchain* Architect
- ♦ Infrastructure Architect in Banking
- ♦ Project management and implementation of solutions
- ♦ Digital Electronics Technician
- ♦ Teacher Hyperledger Fabric Training for companies
- ♦ Teacher Blockchain Training for Businesses

## Professors

### Mr. Gómez Rodríguez, Antonio

- ♦ Cloud Solutions Engineer at Oracle
- ♦ Project Manager at Sopra Group
- ♦ Project Manager at Everis
- ♦ Project Manager at Empresa pública de Gestion de Programas Culturales. Department of Culture of Andalusia
- ♦ Information Systems Analyst. Sopra Group
- ♦ Degree in Telecommunications Engineering from the Polytechnic University of Catalonia.
- ♦ Postgraduate Degree in Information Technologies and Systems, Catalan Institute of Technology
- ♦ E-Business Master, La Salle School of Business



# 04

# Structure and Content

The contents of this Postgraduate Certificate in Security in Cloud Environments have been developed by leading international specialists in this area of cybersecurity. Thus, this program will allow the computer scientist to delve into aspects such as types of *cloud* infrastructure, the shared management model, authentication management systems, securing data in transit, detection of threats and attacks on the cloud or forensic analysis applied to this sector.

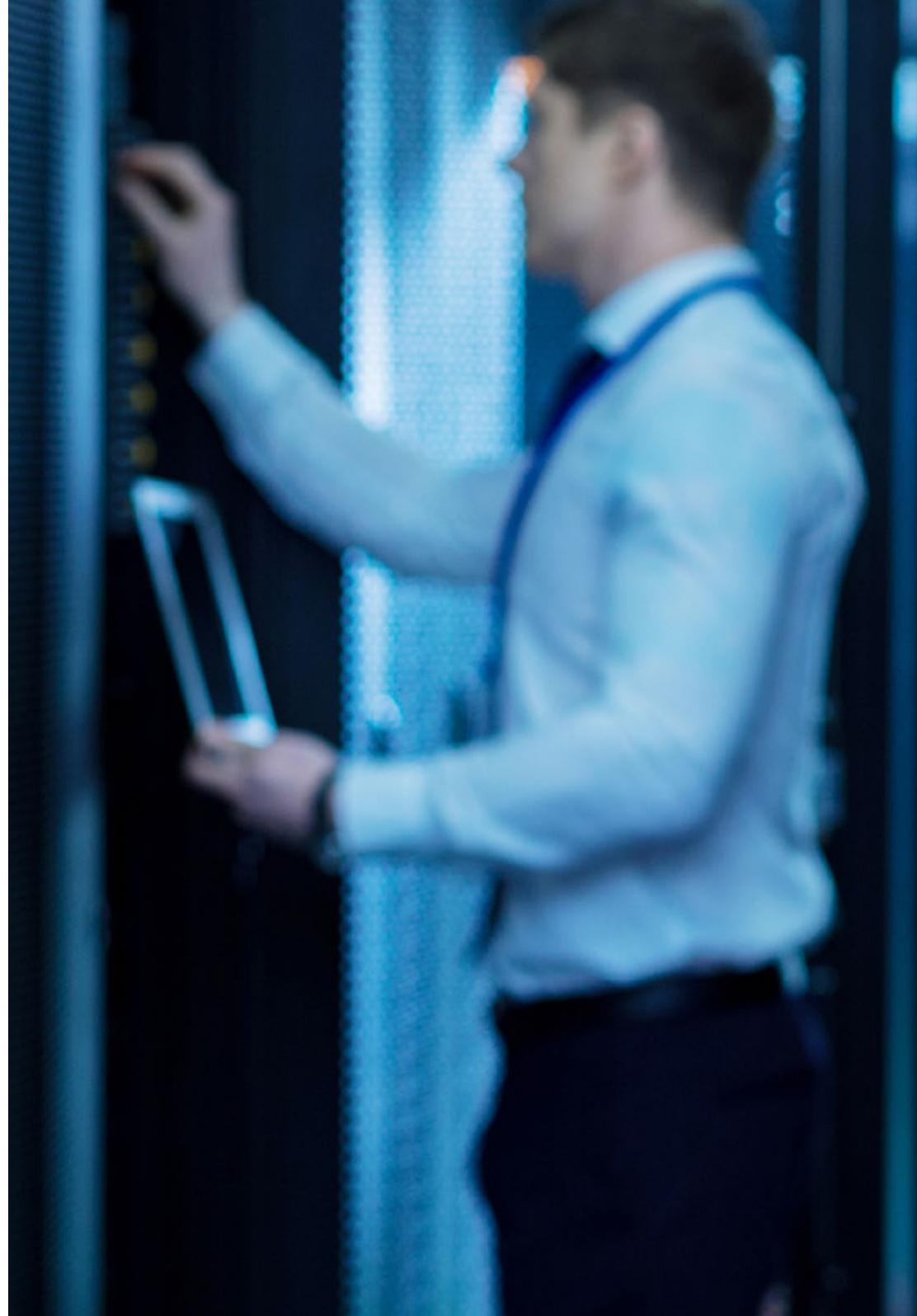


“

*The most advanced content in cloud security can be found in this program, which will enable students to become professionals in great demand by all types of companies and institutions”*

## Module 1. Security in *Cloud* Environments

- 1.1. Security in *Cloud Computing* Environments
  - 1.1.1. Security in *Cloud Computing* Environments
  - 1.1.2. Security in *Cloud Computing* Environments Security Threats and Risks
  - 1.1.3. Security in *Cloud Computing* Environments Key Security Aspects
- 1.2. Types of *Cloud* Infrastructure
  - 1.2.1. Public
  - 1.2.2. Private
  - 1.2.3. Hybrid
- 1.3. Shared Management Model
  - 1.3.1. Security Elements Managed by Supplier
  - 1.3.2. Elements Managed by the Client
  - 1.3.3. Definition of the Security Strategy
- 1.4. Prevention Mechanisms
  - 1.4.1. Authentication Management Systems
  - 1.4.2. Authorization Management Systems: Access Policies
  - 1.4.3. Key Management Systems
- 1.5. Securing Systems
  - 1.5.1. Securing Storage Systems
  - 1.5.2. Protection of Database Systems
  - 1.5.3. Securing Data in Transit
- 1.6. Infrastructure Protection
  - 1.6.1. Secure Network Design and Implementation
  - 1.6.2. Security in Computing Resources
  - 1.6.3. Tools and Resources to Protect the Infrastructure
- 1.7. Detection of Threats and Attacks
  - 1.7.1. Auditing, *Logging* and Monitoring Systems
  - 1.7.2. Event and Alarm Systems
  - 1.7.3. SIEM Systems





- 1.8. Incident Response
  - 1.8.1. Incident Response Plan
  - 1.8.2. Business Continuity
  - 1.8.3. Forensic Analysis and Remediation of Incidents of the Same Nature.
- 1.9. Security in Public Clouds
  - 1.9.1. AWS (Amazon Web Services)
  - 1.9.2. Microsoft Azure
  - 1.9.3. Google GCP
  - 1.9.4. Oracle Cloud
- 1.10. Regulations and Compliance
  - 1.10.1. Compliance with Safety Regulations
  - 1.10.2. Risk Management
  - 1.10.3. People and Process in the Organizations

“

*You will get to know all the particularities of public clouds such as AWS, Microsoft Azure or Google GCP”*

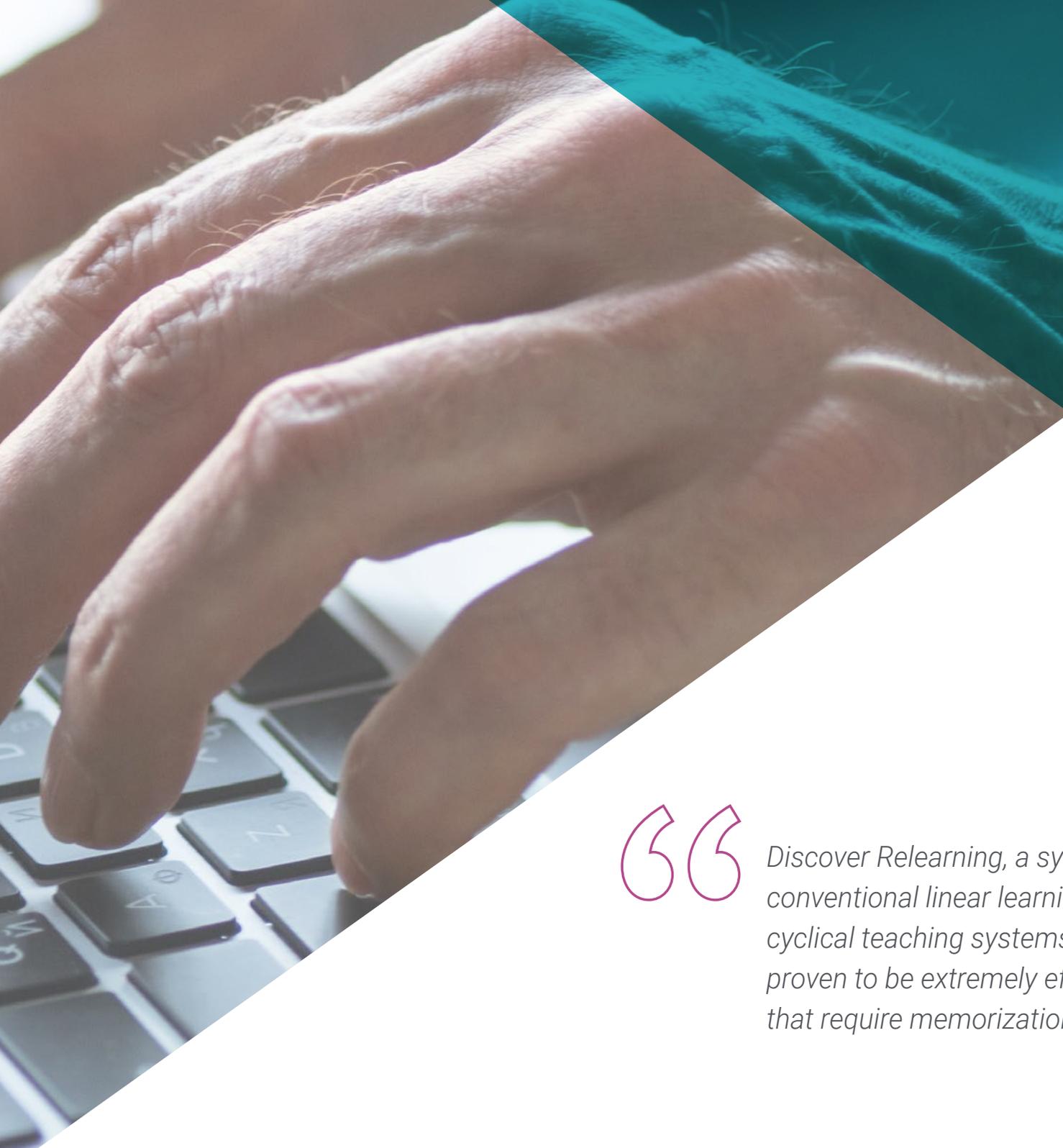
05

# 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.



A close-up photograph of a person's hands typing on a laptop keyboard. The image is partially obscured by a teal diagonal graphic element that covers the top right and bottom right portions of the page. The lighting is soft, highlighting the texture of the skin and the keys.

“

*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.



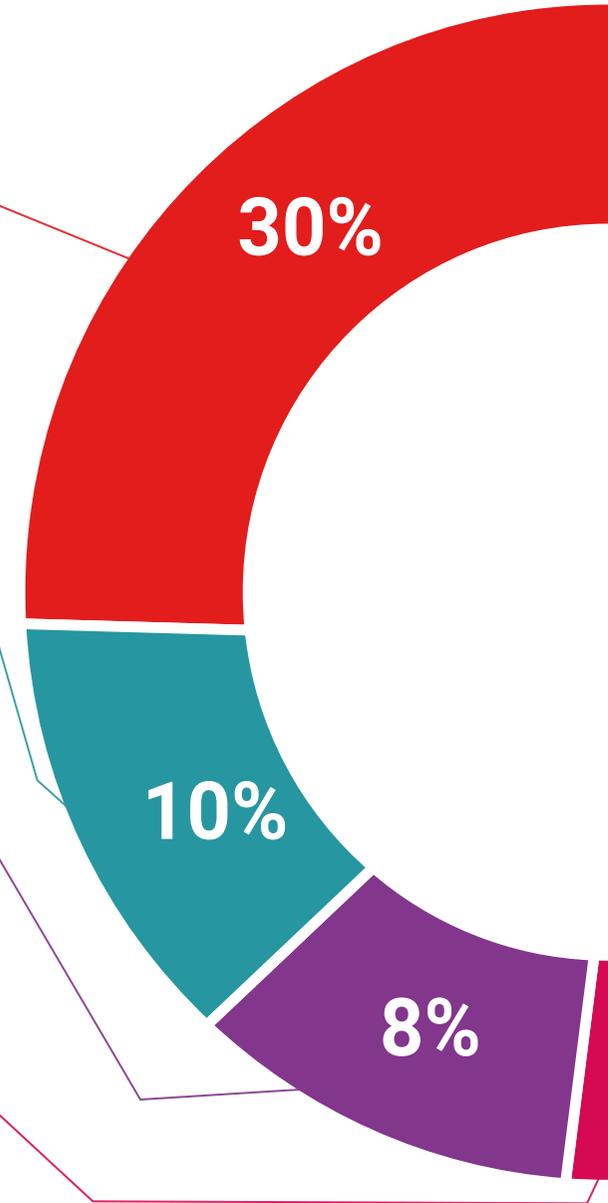
### Practising Skills and Abilities

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 Security in Cloud Environments guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



“

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

This private qualification will allow you to obtain an **Postgraduate Certificate in Security in Cloud Environments** 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** private qualification, 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 Certificate in Security in Cloud Environments**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



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



## Postgraduate Certificate Security in Cloud Environments

- » Modality: **online**
- » Duration: **6 weeks**
- » Certificate: **TECH Global University**
- » Accreditation: **6 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

# Postgraduate Certificate Security in Cloud Environments