Postgraduate Certificate
Cybersecurity in
Cloud Infrastructure

tech global university

Postgraduate Certificate
Cybersecurity in
Cloud Infrastructure

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

Website: **www.techtitute.com/us/information-technology/postgraduate-certificate/cybersecurity-cloud-infrastructure**

Index

01
Introduction

Security is one of the great advantages of *Cloud* Infrastructures over traditional ones. Faced with the different internal and external threats that can occur, there are different tools that must be mastered to get the most out of them. This is the reason why companies need professionals who master the field of Cybersecurity and why TECH has designed a program that deals specifically with these issues. In this way, it seeks to give students the skills and knowledge necessary to effectively integrate security in *Cloud* environments. All this, through a syllabus that covers aspects such as *Frameworks*, Threat Modeling or Cybersecurity Tools at the Code level, in a 100% online mode.

> " *Become an expert in Cybersecurity in Cloud Infrastructure in only 6 weeks and with total freedom of organization"*

To address the different risks and threats that can occur in *Cloud* environments, there are security *frameworks*, threat modeling or code-level cybersecurity tools to efficiently protect infrastructures, services and applications. However, these protection methods require advanced knowledge and skills, which can only be acquired by delving into them specifically.

This is the reason why TECH has created a Postgraduate Certificate in *Cloud* Infrastructures, which seeks to enhance the skills and abilities of students in this area, so that they can deal with any difficulty or inconvenience that may arise in the reality of their work. For this reason, it offers a syllabus that deals in depth with various topics such as *Cloud* Risks, Vulnerability Analysis or SIEM, Transport Layer Security and Firewalls in *Cloud* Environments.

All this, through a 100% online mode that gives total freedom of organization to the students and the convenience of not having to travel, being able to access all the content from the first day and with any device with Internet connection. In addition, being able to enjoy the most complete multimedia materials, the most updated information and the most innovative teaching technologies.

This **Postgraduate Certificate in Cybersecurity in Cloud Infrastructure** 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 Cybersecurity in Cloud Infrastructures

- 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 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

- Content that is accessible from any fixed or portable device with an Internet connection

Stand out as an expert in Cybersecurity, one of the most powerful sectors in the field of Cloud Infrastructures"

Know all the possible risks in Cloud environments and learn how to face them in an agile and efficient way"

Specialize your knowledge in Code Level Security Controls Integrations or ZAP Proxy Tools.

Learn how to manage all types of alert situations with the greatest possible solvency and efficiency, thanks to the most complete program on Cloud Cybersecurity.

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.

02
Objectives

The objective of this program is for students to develop the knowledge and skills necessary to effectively integrate security and efficiently protect applications and services in *Cloud* environments. All this through the most complete theoretical and practical contents of the academic market, as well as with the support of active professionals and experts in the field.

Reach your most demanding professional goals thanks to TECH and the most innovative and complete syllabus in Cloud Cybersecurity"

General Objectives

- 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
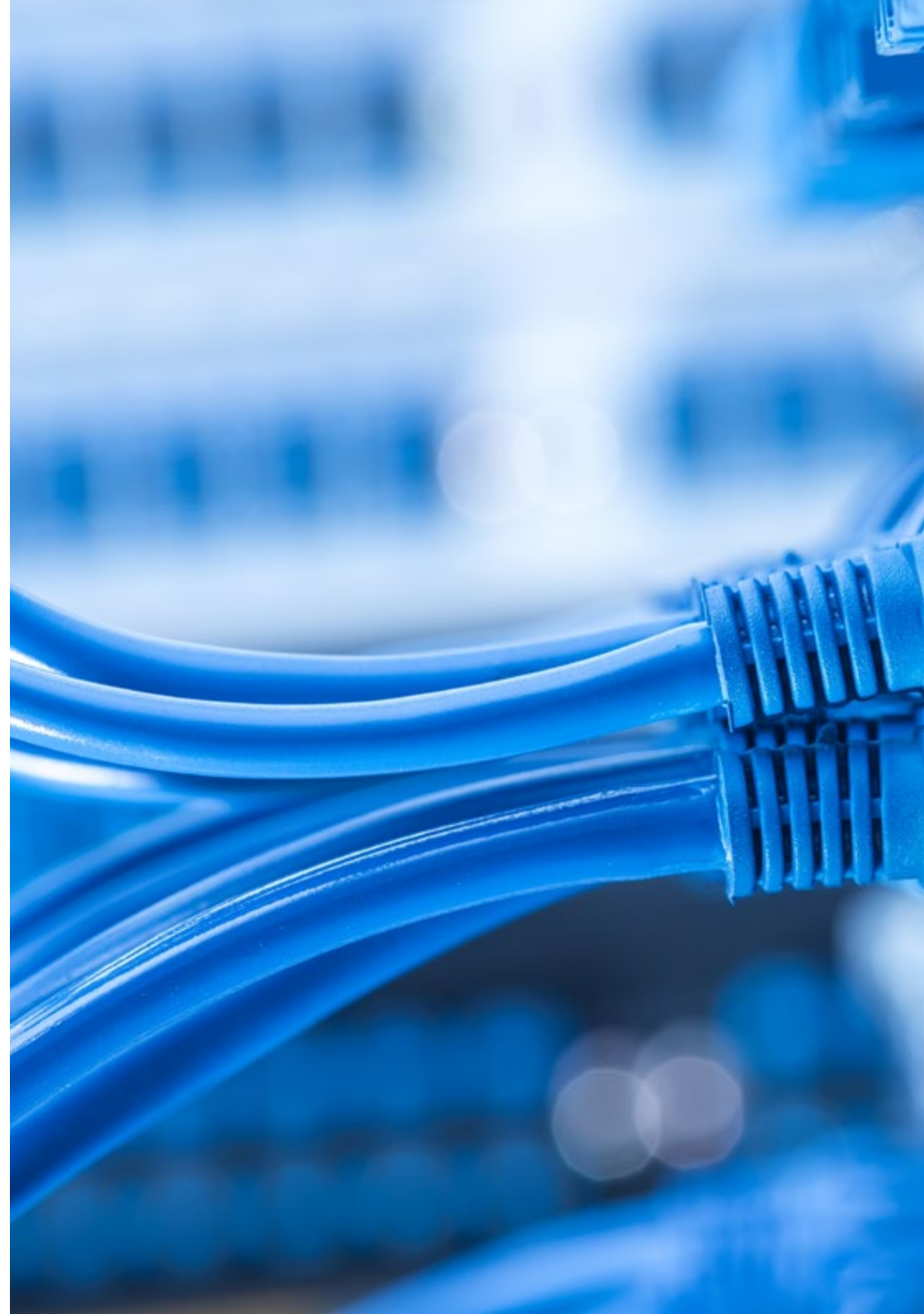
Specific Objectives

◆ Develop specialized knowledge about specific risks and threats in *Cloud* environments

◆ Analyze security *frameworks* and apply them to protect the infrastructure

◆ Design threat models and protect applications and services against threats

◆ Evaluate code-level cybersecurity tools and how to use them to detect and prevent vulnerabilities in applications and services

◆ Perform integration of cybersecurity controls into processes

◆ Master ZAP Proxy to audit *Cloud* environments

◆ Perform automated vulnerability scans to detect and prevent vulnerabilities in applications and services

◆ Examine the different types of *Firewalls* and configure them to protect infrastructure and services

◆ Apply transport layer security using SSL/TLS and certificates

◆ Evaluate SIEMs and use to monitor and optimize the security of the *Cloud* environment

You will achieve your goals thanks to the most innovative tools for auditing and protection of applications and services in Cloud environments"

Course Management

To achieve the highest quality in their titles, TECH has specialized professionals in each of the subjects. In this case, a team of leading experts in Cybersecurity in Cloud Infrastructures has been in charge of designing and planning each of the elements that make up the program. In addition, they have the support and the possibilities offered by the latest teaching technologies.

Boost your professional profile and stand out in the area of Cloud Cybersecurity"

Management

Mr. Bressel Gutiérrez-Ambrossi, Guillermo

- Specalist 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

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 Cybersecurity in Cloud Infrastructure, have been rigorously planned and designed by the team of experts in the field of TECH and always based on the most advanced and efficient teaching methodology, the *Relearning*. In this way, it can be guaranteed that students will have an enormous facility to assimilate the essential concepts, in a natural and precise way, without having to devote too many hours to study and without seeing their other work and personal obligations interfered.
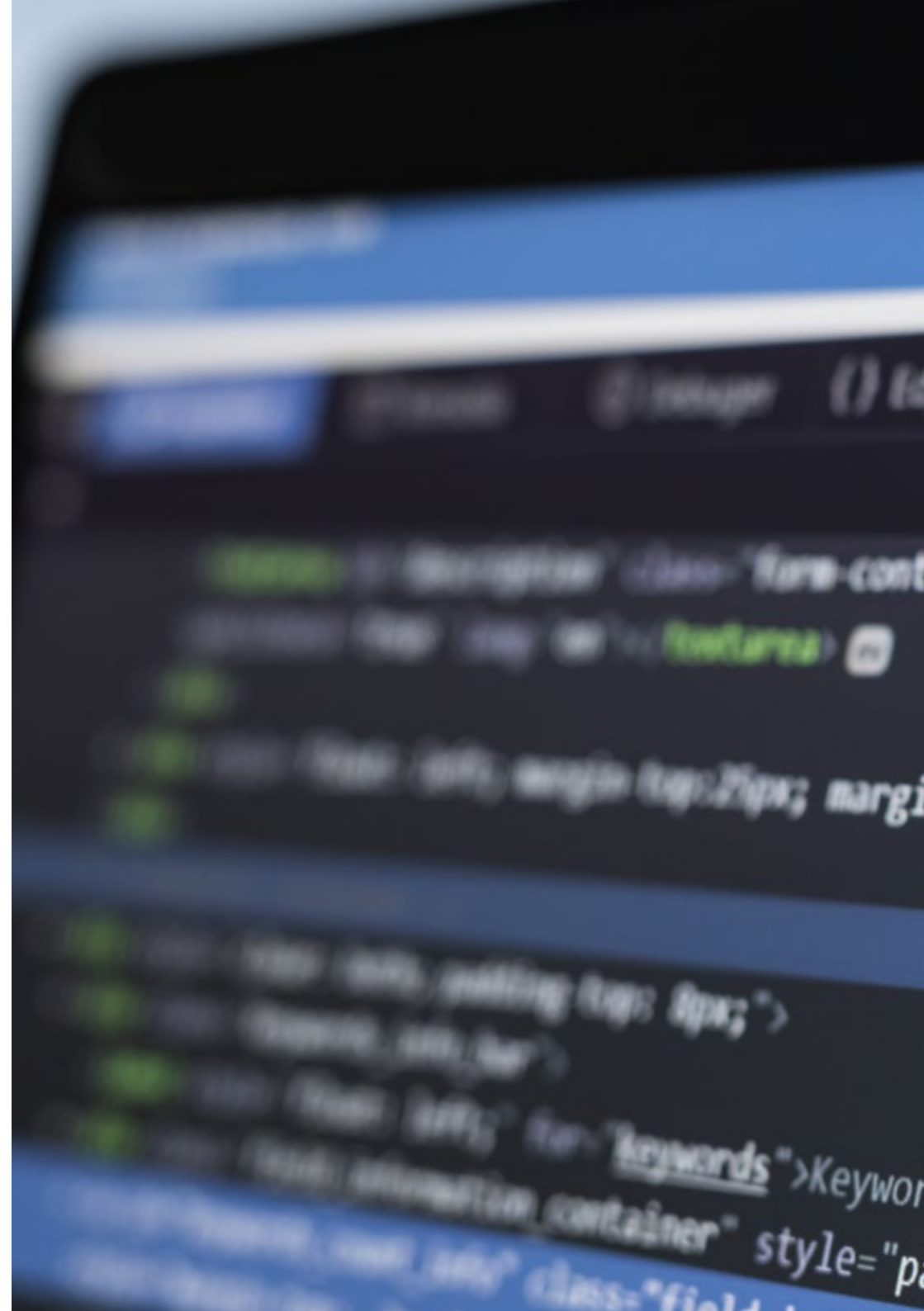
A program that will propel you to success in the field of Cybersecurity in Cloud Environments, without the need to dedicate too many hours of study"

Module 1. Cybersecurity in Cloud Infrastructures

1.1.   Risk in *Cloud* Environments
    1.1.1.   Cybersecurity Strategies
    1.1.2.   Risk-Based Approach
    1.1.3.   Categorization of risks in *Cloud* environments

1.2.   *Security*Frameworks in *Cloud Environments*
    1.2.1.   Cybersecurity *Frameworks* and Standards
    1.2.2.   Technical Cybersecurity *Frameworks*
    1.2.3.   Organization Cybersecurity *Frameworks*

1.3.   Modeling of Threats in *Cloud* Environments
    1.3.1.   Threat Modeling Process
    1.3.2.   Threat Modeling Phases
    1.3.3.   STRIDE

1.4.   Cybersecurity Tools at the Code Level
    1.4.1.   Classification of Tools
    1.4.2.   Integrations
    1.4.3.   Examples of Use

1.5.   Integrations of Cybersecurity Controls in *Cloud* Environments
    1.5.1.   Process Security
    1.5.2.   Security Controls in the Different Phases
    1.5.3.   Examples of Integrations

1.6.   ZAP Proxy Tool
    1.6.1.   ZAP Proxy
    1.6.2.   ZAP Proxy Features
    1.6.3.   ZAP Proxy Automation

1.7.   Automated Vulnerability Scanning in *Cloud* Environments
    1.7.1.   Persistent and Automated Vulnerability Scanning
    1.7.2.   OpenVAS
    1.7.3.   Vulnerability Analysis in *Cloud* Environments

Acquire the most complete skills and knowledge thanks to the most effective pedagogical methodology in the academic market"

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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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.

30%

10%

8%

20%

25%

4%

3%
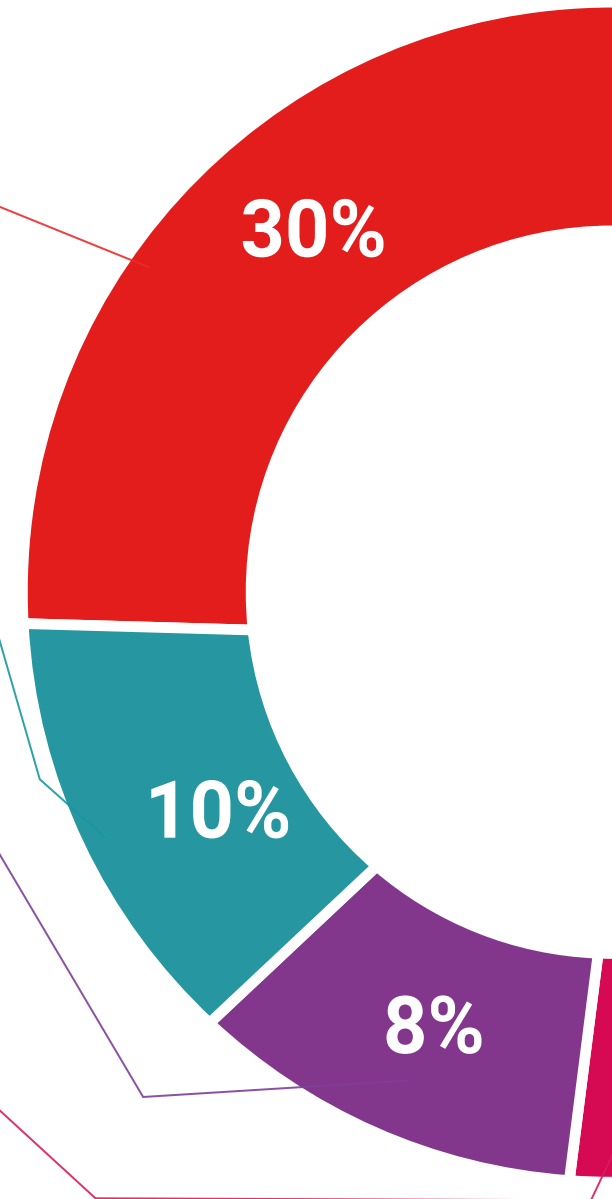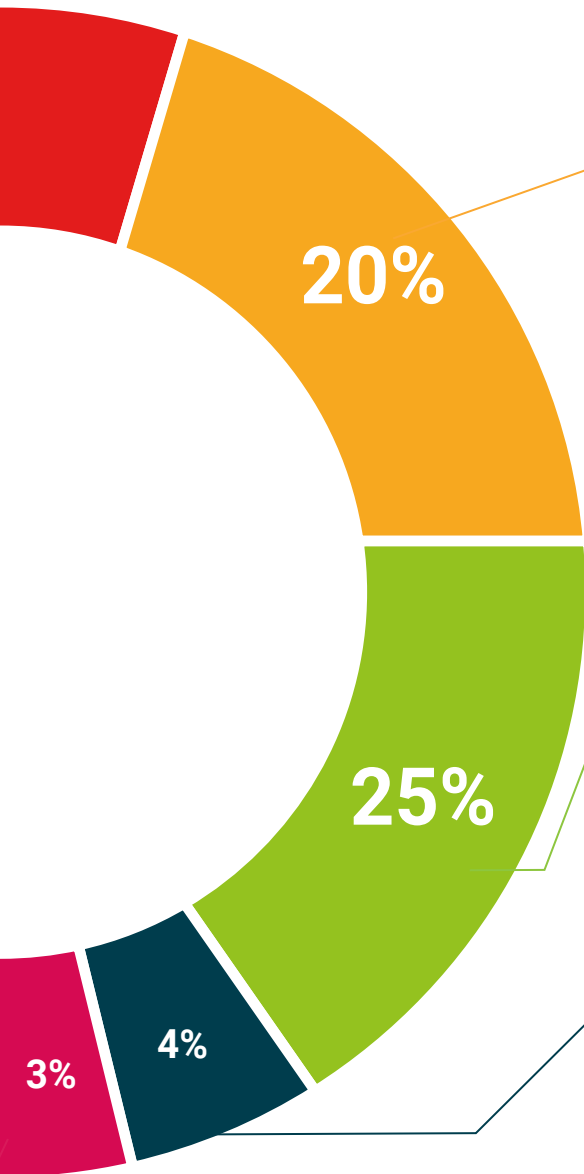
Case Studies

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.

Certificate

The Postgraduate Certificate in Cybersecurity in Cloud Infrastructure 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 program will allow you to obtain your **Postgraduate Certificate in Cybersecurity in Cloud Infrastructure** 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** title 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 Cybersecurity in Cloud Infrastructure**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**

tech global university

Mr./Ms. _____ with identification document _____
has successfully passed and obtained the title of:

Postgraduate Certificate in Cybersecurity in Cloud Infrastructure

This is a program of 180 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

Unique TECH Code: AFWORD23S   techtitute.com/certificates

*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

tech global university

Postgraduate Certificate
Cybersecurity in Cloud Infrastructure

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

Postgraduate Certificate
Cybersecurity in Cloud Infrastructure

tech global university