Postgraduate Certificate

Cloud Integration with Web Services

tech global university

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Postgraduate Certificate
Cloud Integration with Web Services

- 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/cloud-integration-web-services

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01

Introduction

Getting users to make use of any Cloud service with a satisfactory browsing experience is achieved thanks to a correct program and an architecture that allows supporting all the implemented functionality. This course brings the IT professional, who wishes to update his knowledge, closer to SOAP and REST to enable him to create complete APIs with guarantees of success. In addition, in a constantly changing world, students will take a tour of monolithic architectures and the use of microservices, analyzing their advantages and disadvantages. All this, with a Relearning system and a multimedia content library that favors the learning of this 100% online degree, designed by and for the professional advancement of students.

Master the main SOAP and REST service oriented architectures with this Postgraduate Certificate"

In the last decades, technological evolution, new programming techniques, patterns and other elements have allowed a transformation in web development and Cloud environments. This progress has led to the emergence of professional profiles that did not exist before, but are currently in great demand in the new technologies sector.

This education provides the IT professional with the opportunity to specialize in a highly competitive area where the most up-to-date and in-depth knowledge makes the difference. For this reason, the teaching team in this program will take students on a tour of the different architectures for building the web services that support Cloud environments and will analyze the most commonly used service architectures on the market: SOAP and REST.

The field of security is extremely important for companies and organizations, as well as for IT professionals in the technology sector.
This degree will cover the concepts of authentication and authorization, as well as the different methods of implementation that exist today.

An excellent opportunity to progress in one of the fastest growing technology areas with an increasing demand for qualified personnel. For this purpose, TECH offers a 100% modality degree that gives students the freedom to choose the time and place from which to acquire the education. All of this is accompanied by interactive didactic material and essential readings to enrich an innovative and up-to-date curriculum.

This **Postgraduate Certificate in Cloud Integration with Web Services** contains the most complete and up-to-date program on the market. The most important features include:

- 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 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

Go deeper into the integration of applications with Cloud providers thanks to this Postgraduate Certificate and take a step forward in your professional career”

Guarantees the highest security in your web services. Apply authentication and authorization correctly with the learning you acquire in this Postgraduate Certificate"

It implements the best bot and web assistant currently available. Learn how to implement the most demanded services by companies.

Enroll in a Postgraduate Certificate program that will help you improve communication flows with the use of microservices.

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

02

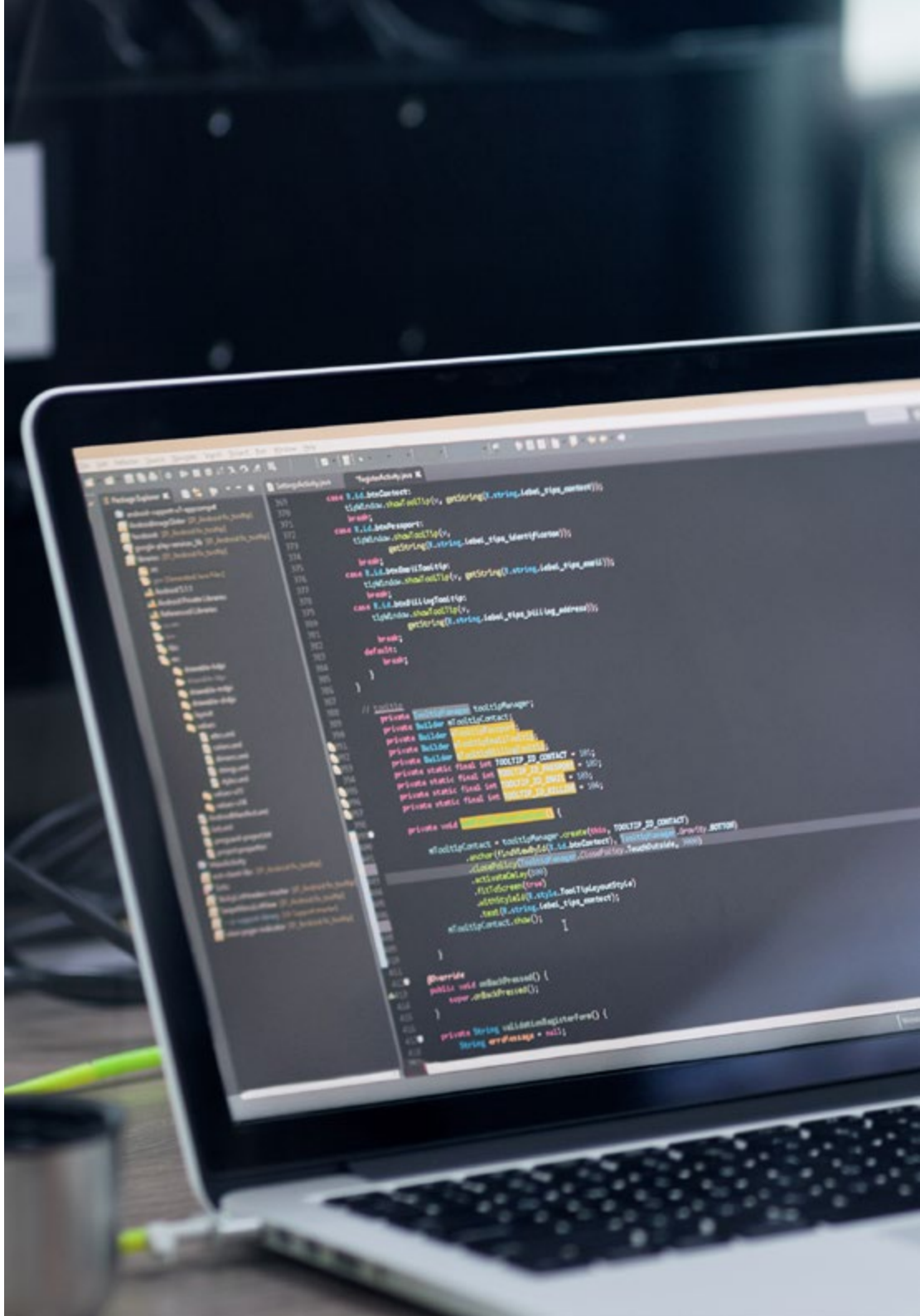
Objectives

This Postgraduate Certificate program trains the IT professional to develop distributed projects in Cloud Computing using web services. Students will also be able to analyze the different implementation technologies and identify the best solution to any problem. A correct detection and analysis of web technologies and architectures will provide the professional with the best software alternative that the company or organization needs at any given moment. In this way, students will be able to progress in their field of work, accompanied by a specialized teaching team.

TECH puts at your disposal 24 hours a day, the most innovative and updated content in the Cloud for you to progress in your professional career"

General Objectives

- Analyze the different approaches to cloud adoption and their contexts
- Acquiring specialized knowledge to determine the right 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 concrete implementations of different public Cloud vendors
- Determine the different technologies applied to containers
- Identify the key aspects in the adoption of a Cloud-Native adoption strategy
- Fundamentals and evaluation of the programming languages most commonly used in *Big Data*, necessary for data analysis and processing



Specific Objectives

- Assess the progress of web technologies and architectures to determine the complexity of the system and, based on this, propose a software solution
- Develop distributed projects in *Cloud Computing* using web services and different functional and security requirements
- Analyze different web services implementation technologies, identifying the one that gives the best support considering the problem scenario
- Assess the correct functions of a server-side web service implementation by launching requests from different types of web clients

Professionally develops distributed projects in Cloud Computing using web services. Sign up with just one click"

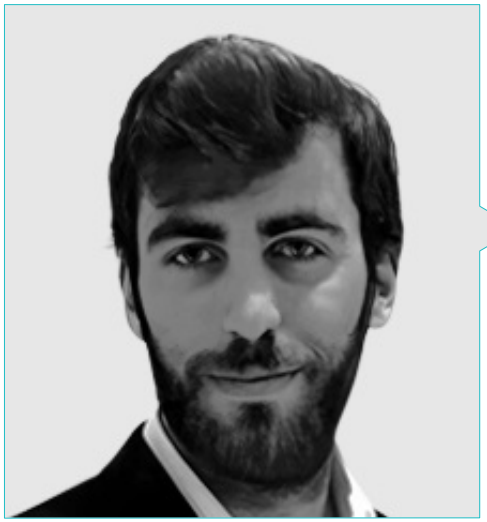
03

Course Management

This Postgraduate Certificate is led by a teaching team with relevant academic qualifications and industry experience. Students will have at their disposal a faculty with extensive knowledge in Full-Stack development, Software architecture or Storage. In the selection of these professionals, TECH has taken into account not only their knowledge, but also their closeness and proximity to the students, as well as their up-to-date knowledge in a constantly changing sector.

The teaching team specialized in Cloud environments will be in charge of guiding you and go hand in hand with you to achieve your goals"

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 OpenWebinar
- Powershel course at OpenWebinar

Professors

Mr. Rodríguez García, Darius

- Software Architect at NEA F3 MASTER
- Full-Stack Developer in NEA F3 MASTER
- Graduate in Computer Software Engineering from the University of Oviedo
- Master's Degree in Web Engineering by the University of Oviedo
- Professor in Web Engineering software
- Course instructor at Udemy e-learning platform

04

Structure and Content

The teaching team of this Postgraduate Certificate has developed a program focused on the application of the theoretical content to the day-to-day work of an IT professional. Thus, during the six weeks of this course, students will start with global concepts on Cloud integration and Web Services to deepen their knowledge of Service Oriented Architecture (SOA) and Service Oriented Architecture. The advancement in content will lead the professional to the invocation of APIs and implementation of bots. Simulated case studies and downloadable interactive content will facilitate the foundation of knowledge.

The simulation of practical cases will make it easier for you to visualize and learn all the content you will learn in this Postgraduate Certificate"

Module 1. *Cloud* Integration with Web Services: Technologies and Protocols

1.1. Web Standards and Protocols
- 1.1.1. Web and Web 2.0.
- 1.1.2. Client-Server Architecture
- 1.1.3. Communication Protocols and Standards

1.2. Web Services
- 1.2.1. Web Services
- 1.2.2. Communication Layers and Mecanisms
- 1.2.3. Service Architectures

1.3. Service Oriented Architectures
- 1.3.1. *ServiceOriented Architecture* (SOA)
- 1.3.2. Web Service Design
- 1.3.3. SOAP and REST

1.4. SOAP *Service Oriented Arquitecture*
- 1.4.1. Structure and Message Passing
- 1.4.2. Web Service Description Language (WSDL)
- 1.4.3. Client Implementation and SOAP Servers

1.5. REST Architecture
- 1.5.1. REST Architectures and RESTful Web Services
- 1.5.2. HTTP Verbs: Semantics and Purposes
- 1.5.3. *Swagger*
- 1.5.4. Client Implementation and REST Servers

1.6. Microservices-Based Architectures
- 1.6.1. Monolithic Architectural Approach vs. Use of Microservices
- 1.6.2. Microservices-Based Architectures
- 1.6.3. Communication Flows with the Use of Microservices

1.7. Invoking APIs from the Client Side
- 1.7.1. Types of Web Clients
- 1.7.2. Development Tools for Web Services Processing
- 1.7.3. Cross-Origin Resources (CORS)

1.8. API Invocation Security
  1.8.1. Web Services Security
  1.8.2. Authentication and Authorization
  1.8.3. Authentication Methods Based on the Degree of Security
1.9. *Cloud* Provider Application Integration
  1.9.1. *Cloud Computing* Suppliers
  1.9.2. Platform Services
  1.9.3. Services Oriented to the Implementation/Consumption of Web Services
1.10. Implementation of *Bots* and Wizards
  1.10.1. Use of Bots
  1.10.2. Use of the Web Service in Bots
  1.10.3. Implementation of *Chatbots* and Web Assistants

Perfect your technical skills in Cloud environments and you will get a step up in your professional field"

05

Methodology

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

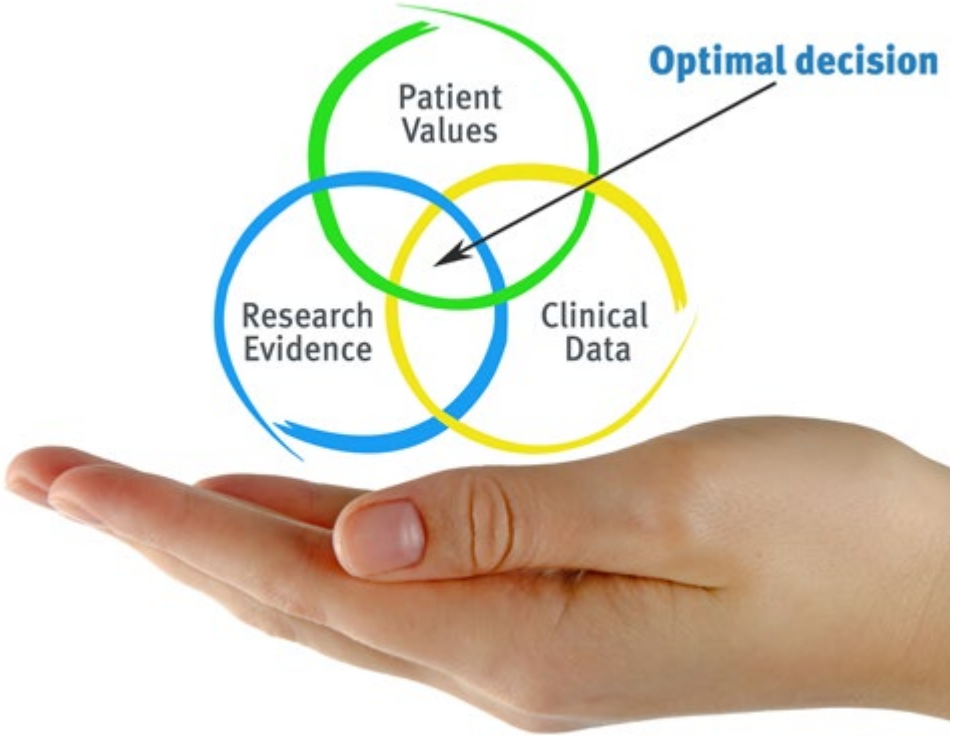
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the ***New England Journal of Medicine*** have considered it to be one of the most effective.

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

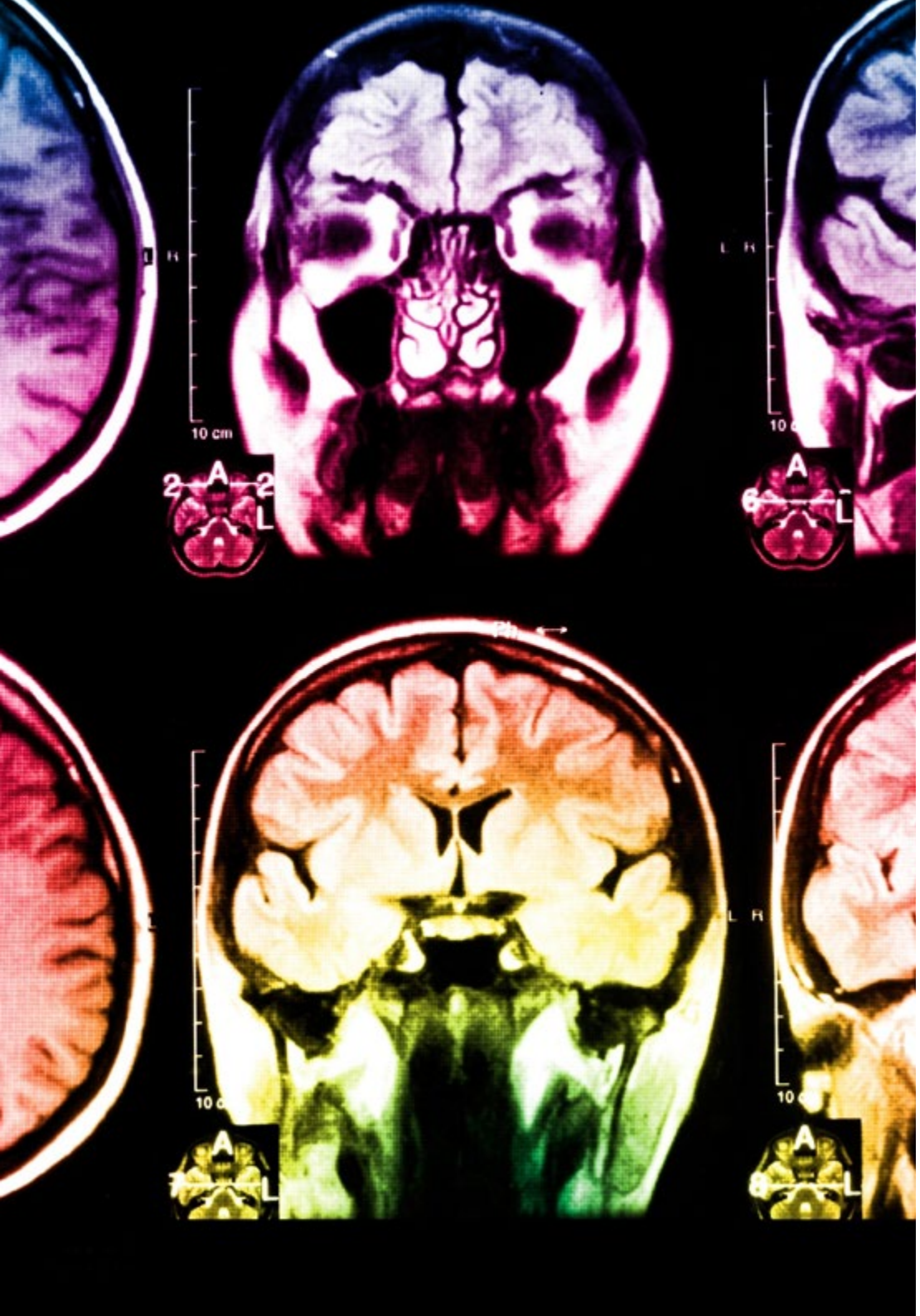
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

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.

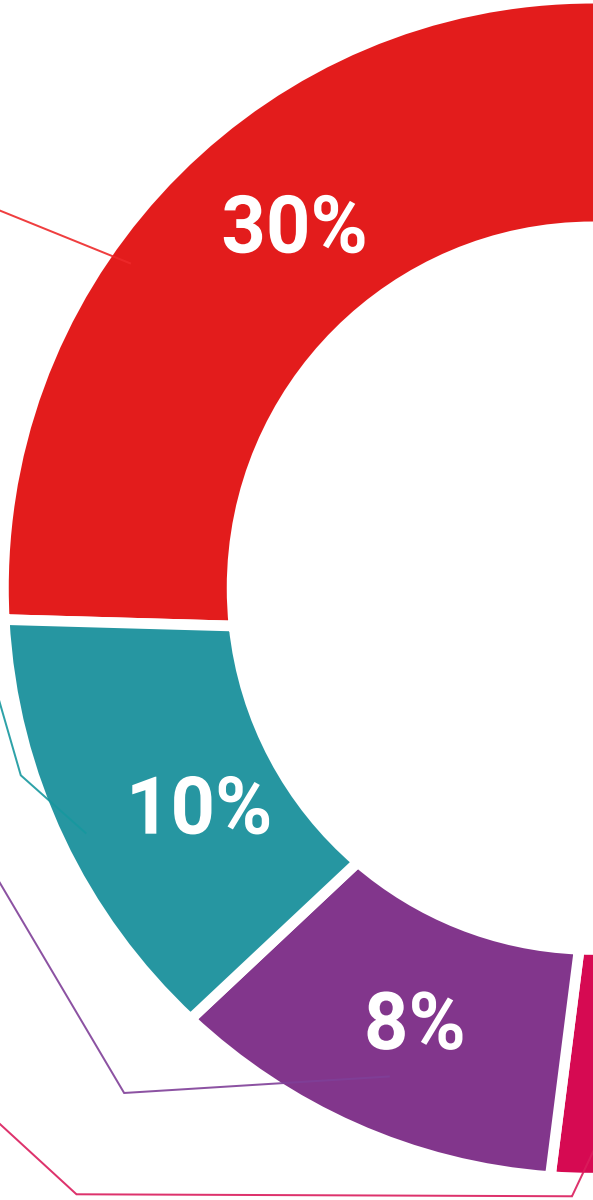
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

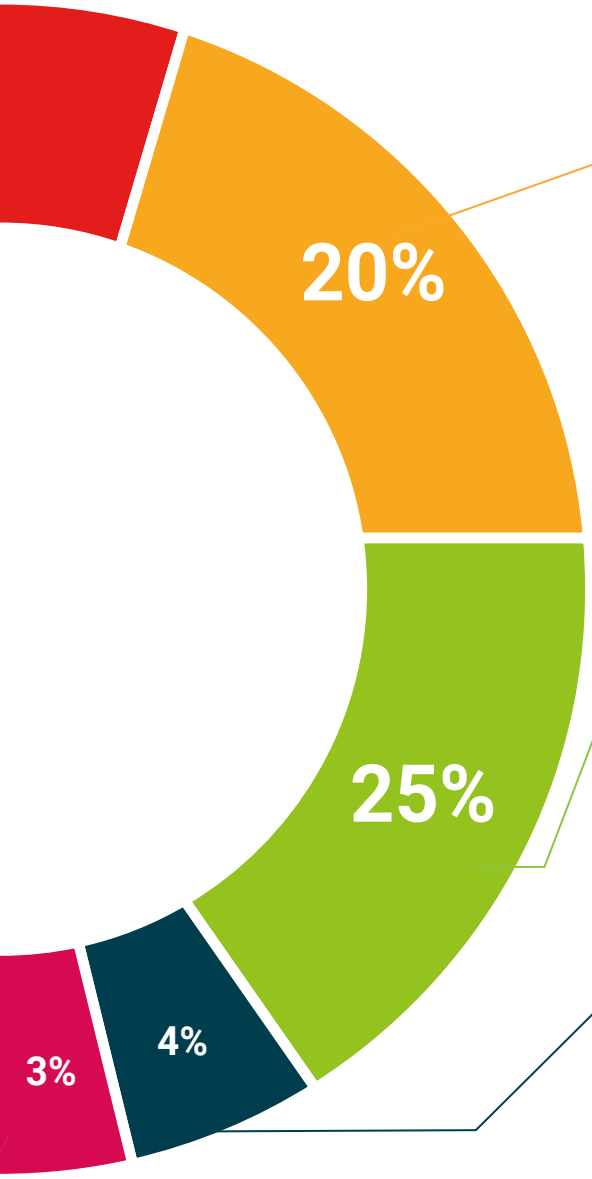
Practising Skills and Abilities

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 Integration with Web Services 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 Cloud Integration with Web Services** 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 Cloud Integration with Web Services**

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 Cloud Integration with Web Services

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.

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