Postgraduate Certificate
Applications and Web Services in the Cloud

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Postgraduate Certificate
Applications and Web Services in the Cloud

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

Website: **www.techtitute.com/in/information-technology/postgraduate-certificate/applications-web-services-cloud**

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01
Introduction

In recent years, cloud computing has established itself as an agile and secure alternative to on-premises environments. This is a departure from web applications that were developed and deployed in local infrastructure, managed and maintained by a dedicated IT team. The evolution has led companies to reduce their economic efforts and additional operations. In this sense, it is essential for IT professionals to be up to date with the techniques, tools and strategies used in the migration process, cost optimization in this type of environment, among other aspects. In this line is developed this 100% online degree, created by experts in this field and numerous teaching materials, accessible from any electronic device with an Internet connection.

"You will achieve advanced learning in Applications and Web Services in the Cloud from the hand of the largest digital university in the world"

The rise of web applications has opened up a range of professional development possibilities for IT professionals in large technology companies. However, achieving this goal requires a mastery of Cloud Computing, of the main existing providers, as well as of the most effective strategies to develop in this type of projects and to propose the most suitable solutions to the main incidents.

In this sense, the work of the Cloud Web Services specialist is essential, as well as the planning of migration scenarios and the necessary skills to adopt leadership roles within the processes required to manage such work. For this reason, TECH has created this 6-week Postgraduate Certificate in Applications and Web Services in the Cloud

This is an advanced Postgraduate Certificate, which will take students over 150 hours of classes to delve into the serverless computing model common in this type of deployments, to delve into Amazon Web Services, Microsoft Azure or Google Cloud Platform and other providers for Web Services and Applications in the Cloud. In this way, at the end of this academic experience, you will be able to successfully manage these applications.

For this purpose, it has multimedia teaching materials such as video summaries, videos in detail, specialized readings and case studies, accessible 24 hours a day, from any digital device with an Internet connection. Also, thanks to the Relearning system, students will not have to invest a great amount of hours studying and memorizing.

Undoubtedly, a unique opportunity to achieve intensive and first class learning through a flexible academic proposal, which facilitates self-management of time to access the content and all this, in addition, through the best digital university in the world according to Forbes.

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

- The development of case studies presented by Applications experts and web Services. in the Cloud

- The graphic, schematic and practical contents of the program provide theoretical and practical information on those 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

Gain a solid understanding of the fundamental features of cloud application management and how to design cloud web architectures"

"

Discover the advantages of Cloud Cost Optimization and Cloud Web Architectures"

Take advantage of the opportunity to specialize in Microsoft Azure and you will open the doors to job opportunities in a constantly growing market.

With the Relearning method, you will reduce study hours and strengthen your understanding in the long run.

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 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, the student will be assisted by an innovative interactive video system created by renowned experts.

02
Objectives

The main objective of this Postgraduate Certificate is to prepare the computer scientist to take advantage of job opportunities in a field of constant growth, such as Web Applications and Services in the Cloud. Thanks to a series of excellent quality contents, the student will obtain a global vision of the characteristics, advantages and challenges of development and deployment in the Cloud. For this purpose, high quality multimedia teaching tools and case study simulations are available, which will allow them to integrate the most advanced strategies in their performance.

With this Postgraduate Certificate you will be up to date with service infrastructures such as Google Cloud Platform and testing it"

General Objectives

- Generate specialized knowledge of advanced web architecture
- Address the development of the Back-end part of the web application, reviewing the available technologies, integration mechanisms such as APIs, message and event queues, deployment and optimization processes
- Develop the necessary steps for the creation of the Front-end of the web application, taking into account programming aspects as well as accessibility requirements, multi-language and multi-platform support
- Create personalized experiences, monitor and monetize the use of the website
- Consolidate application design and development best practices with a project management that favors continuous iteration, integration and deployment

Specific Objectives

- Analyze the use cases and options for cloud computing.
- Develop the serverless computing model common to such deployments
- Examine and compare leading cloud service providers
- Determine strategies and recommendations for migration to the cloud
- Identify and apply cost optimization mechanisms in the cloud
- Incorporate cloud work into the team and the enterprise

Gain a comprehensive and advanced overview of the current use cases and options in Cloud Computing"

03
Course Management

Students who take this program will have at their disposal a syllabus developed by an excellent teaching team with extensive experience in the technology sector. Their versed knowledge on Web Applications and Services in the Cloud is a guarantee for the graduate who wishes to obtain a first level learning and from the hand of real experts. In addition, throughout the 6 weeks of this academic proposal, the computer scientist will be able to solve any doubts they may have about the Postgraduate Certificate with the faculty that makes it up.

A team of highly trained specialists in Software, Systems and Computing will be at your disposal to answer any questions you may have about the content of the Postgraduate Certificate"

Management

Dr. Pantaleón García del Valle, Eduardo

· Solutions Architect at Amazon Web Services (AWS)

· Solutions Architect at Liferay, Inc

· Technical Manager at Jungheinrich AG

· Senior Software Engineer and Team Manager at Liferay

· Project Manager at Protecmedia

· Organization and delivery of online technical webinars within the AWS Customer Proficiency Plan program

· Member of the Alumni Mentoring program at Carlos III University of Madrid, for career advice to students and recent graduates

· Graduated in Telecommunication Engineering from Carlos III University of Madrid

· PhD in Software, Systems and Computing from the Polytechnic University of Madrid

· Master's Degree in Computer Languages and Systems from the National University of Distance Education (UNED)

· Executive Data Science Specialization from Johns Hopkins University

Professors

Ms. Portalatín Romero, Isabel

- IT Engineer
- Responsible for offers in the area of Information Technology to different public and private organizations.
- Online teacher in different Postgraduate Certificate in Professional Training programs
- Technical Engineering in Computer Management by the Polytechnic School of Computer Science of the University of Extremadura.
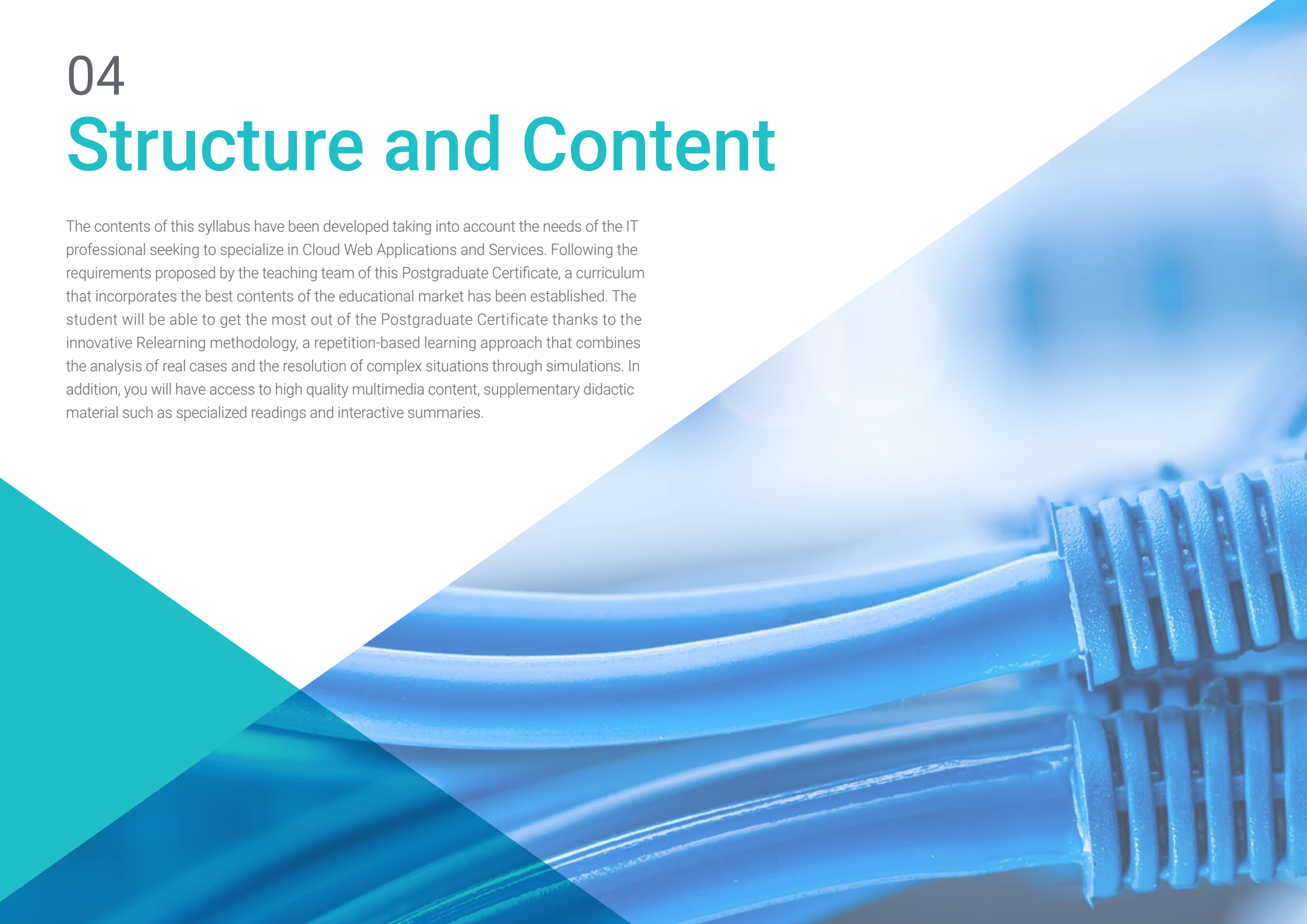
A unique, key, and decisive educational experience to boost your professional development"

04
Structure and Content

The contents of this syllabus have been developed taking into account the needs of the IT professional seeking to specialize in Cloud Web Applications and Services. Following the requirements proposed by the teaching team of this Postgraduate Certificate, a curriculum that incorporates the best contents of the educational market has been established. The student will be able to get the most out of the Postgraduate Certificate thanks to the innovative Relearning methodology, a repetition-based learning approach that combines the analysis of real cases and the resolution of complex situations through simulations. In addition, you will have access to high quality multimedia content, supplementary didactic material such as specialized readings and interactive summaries.

Extend further the information provided in this curriculum through the specialized readings provided by the computer expert faculty"

Module 1. Applications and Web Services in the Cloud

1.1.   Web architectures in the cloud
    1.1.1.   Cloud Computing
    1.1.2.   Security and compliance in the cloud
    1.1.3.   Providers and Modalities (IaaS, PaaS, SaaS)

1.2.   Deployment models of web applications in the cloud
    1.2.1.   Public and private clouds
    1.2.2.   Multi-cloud and hybrid models
    1.2.3.   Edge computing

1.3.   Serverless Computing
    1.3.1.   Case Uses
    1.3.2.   Serverless application design
    1.3.3.   Functions as a Service (FaaS)

1.4.   Amazon Web Services
    1.4.1.   Main services and clients
    1.4.2.   Regional and global availability
    1.4.3.   Free offer

1.5.   Microsoft Azure
    1.5.1.   Main services and clients
    1.5.2.   Regional and global availability
    1.5.3.   Free offer

1.6.   Google Cloud Platform
    1.6.1.   Main services and clients
    1.6.2.   Regional and global availability
    1.6.3.   Free offer

1.7.   Other providers and platforms for web services and applications in the cloud
    1.7.1.   IBM Cloud
    1.7.2.   Oracle Cloud
    1.7.3.   Web hosting: Heroku, Firebase, Cloudflare

1.8.   Migration to the cloud
    1.8.1.   Migration Strategies: 7R's model
    1.8.2.   Migration planning and phases
    1.8.3.   Migration tools

If you dream of creating innovative web applications and cloud services that impact the world, this Postgraduate Certificate is for you. Sign up now and start your journey to success!"

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.
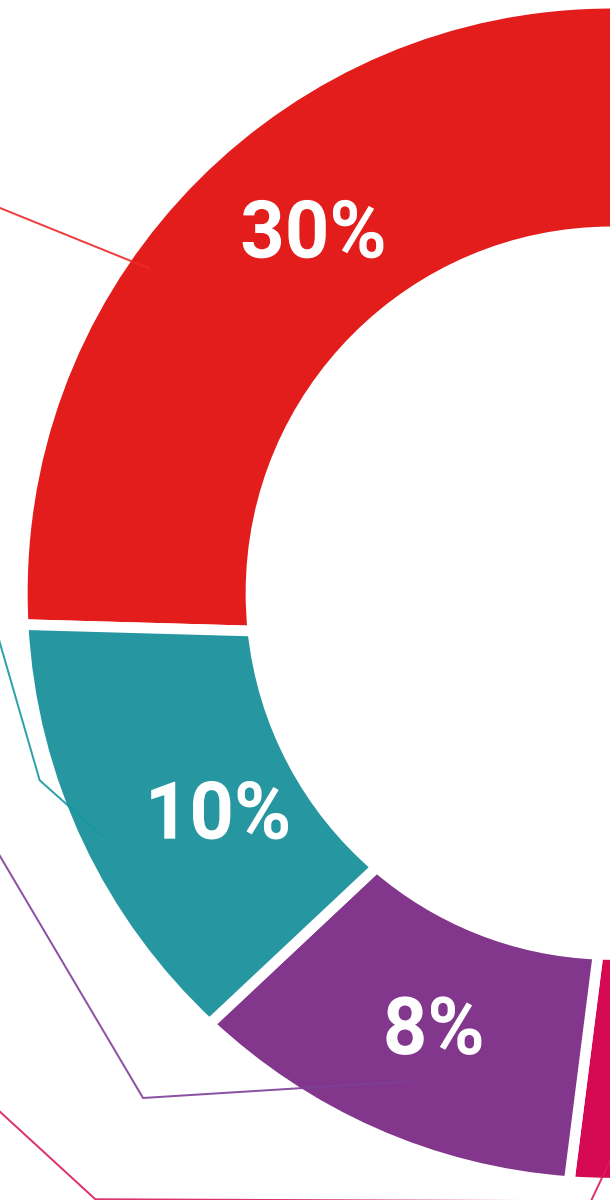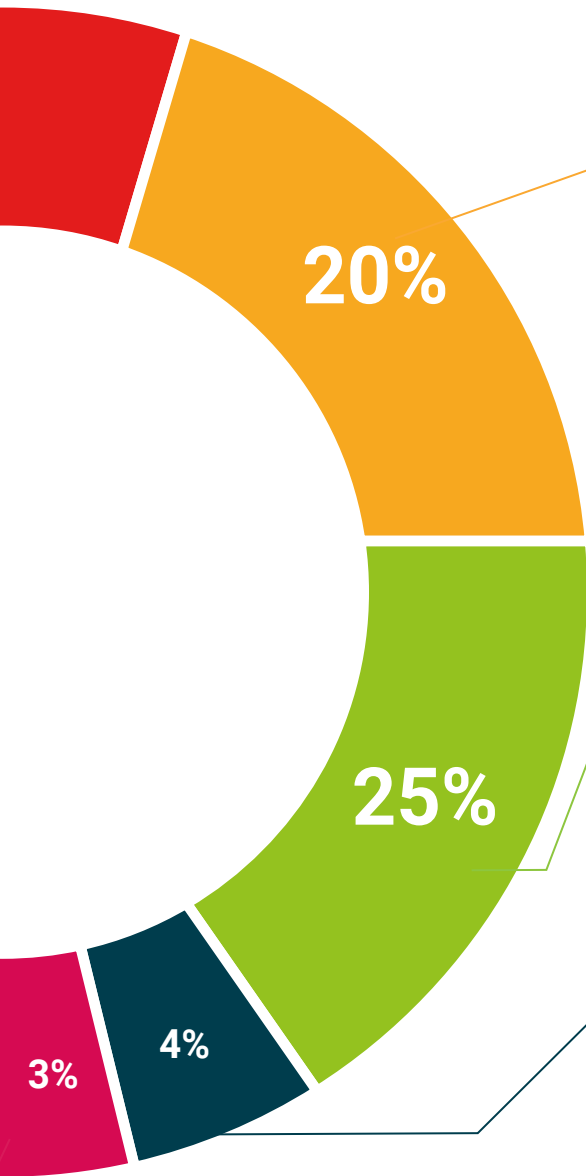
Practising Skills and Abilities

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.

06
Certificate

The Postgraduate Certificate in Applications and Web Services in the Cloud guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

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

This **Postgraduate Certificate in Applications and Web Services in the Cloud** 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 T**ECH Technological University** via tracked delivery*.

The certificate 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 Applications and Web Services in the Cloud**

Official Nº of Hour: **150 h.**

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Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.
For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Applications and Web Services in the Cloud

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

Unique TECH Code: AFWORD23S   techtitute.com/certificates

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

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