Postgraduate Diploma
Cloud Data Management

tech technological university

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Postgraduate Diploma
Cloud Data Management

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

Website: **www.techtitute.com/in/information-technology/postgraduate-diploma/postgraduate-diploma-cloud-data-management**

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01
Introduction

Implementing proper data management in the cloud reduces the risk when migrating database workloads and their storage in the Cloud. In addition, the volume and type of data hosted by companies are very attractive to hackers, so IT professionals must create a system that gives them security and guarantees. In this program, students will learn about the main cloud providers, analyze security issues in Cloud Computing and adopt the best measures. Case Studies and all the multimedia content offered by the virtual platform of this program will facilitate specialization in an area that requires specialized personnel.
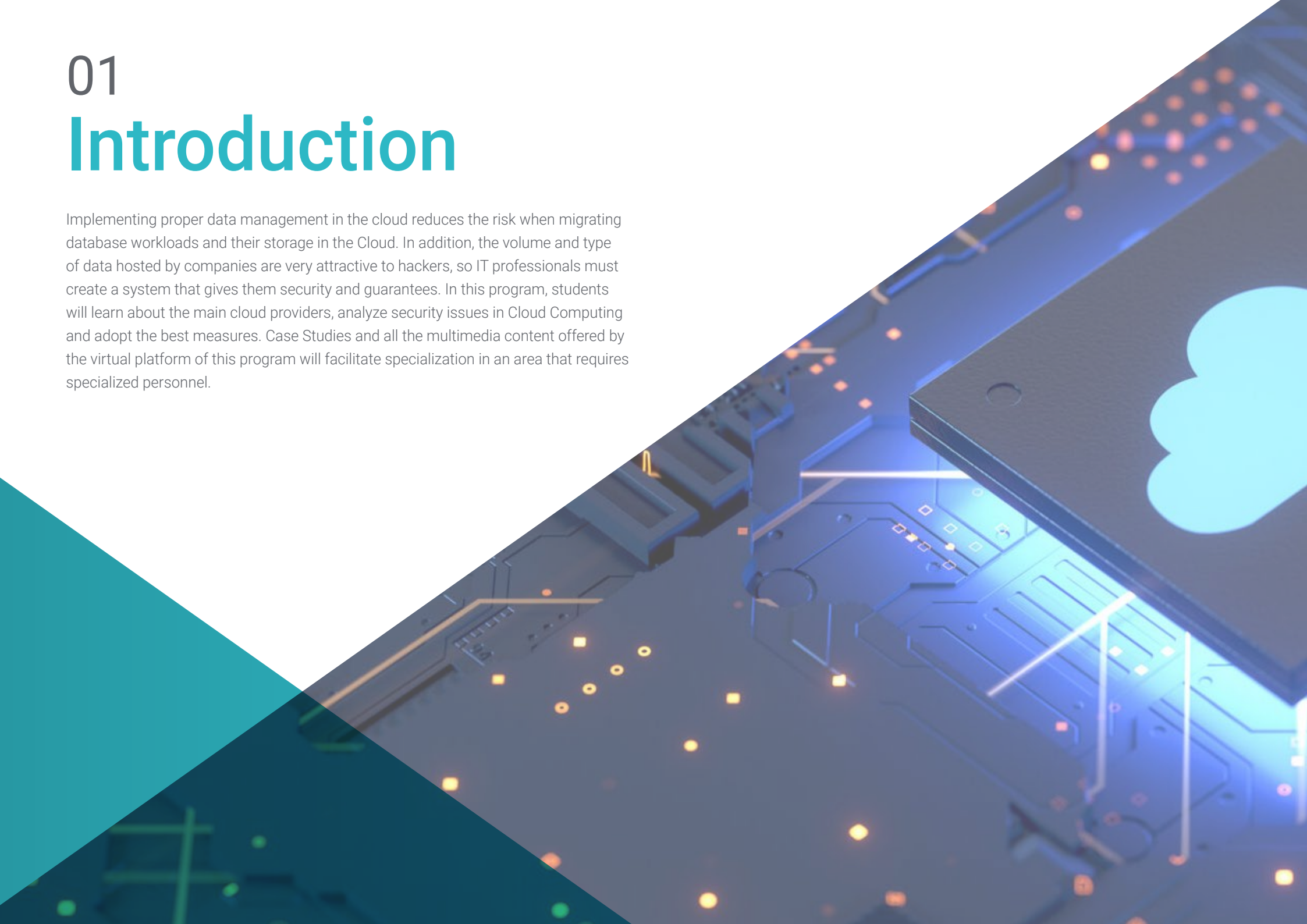
Become part of the teams responsible for the creation, implementation and management of cloud applications thanks to this Postgraduate Diploma"

Efficient and flexible management in Cloud environments make the difference in a sector that is continually advancing and with immense future job projections. This Postgraduate Diploma provides answer to IT professionals who want a specialization that allows them to progress in their area.

This program allows students to delve into cloud management tools. It will mainly address Azure Storage Cloud, its development, operation, implementation of backups, as well as the implementation of an action plan for any disaster.

This program will not only help to specialize in the field of providers, but will also address best practices for deploying secure services in Cloud infrastructures, as well as determine which tools should be used and configured in a secure environment.

The teaching team, specialized in this area, will accompany the students during the six weeks of this 100% online program. Thus, TECH favors the learning of professionals who wish to combine their work and personal life. With the help of the Relearning system, based on the repetition of content, and a platform with extensive multimedia content, students will acquire the knowledge they need to advance in their career.

This **Postgraduate Diploma in Cloud Data Management** 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 Digital Transformation
- 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

Delve into the Public, Private and Hybrid Cloud and be able to effectively manage the data in each of them"

" *Learn how to identify the main risks of a public Cloud infrastructure deployment with this Postgraduate Diploma"*

Click, enroll and start a Cloud Data Management specialization that will help you advance your career.

Establish a Disaster Recovery Plan that provides security to companies in any Cloud environment. Enroll in this Postgraduate Diploma and specialize.

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

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

02
Objectives

Throughout this Postgraduate Diploma, students will acquire specialized knowledge to establish which is the right Cloud depending on the service you want to provide to the company or customer. In addition, they will learn the main elements and components of the cloud and the services offered by Azure, Google Cloud or AWs. Upon completion of this program, you will know how to develop a security plan for a Cloud deployment, thus improving your skills in an area that requires professionals with updated knowledge.

Manage the main resources of Azure and get the most out of it. Companies are grateful for being able to count on highly qualified professionals like you"

General Objectives

- Analyze the different approaches to cloud adoption and their contexts
- Acquire specialized knowledge to determine the appropriate 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 specific implementations of different public Cloud vendors
- Determine the different technologies applied to containers
- Identify the key aspects of a Cloud Native adoption strategy
- Justify and evaluate the programming languages most commonly used in Big Data, necessary for data analysis and processing

Become an expert in generation of virtual networks in fully secure Cloud Environments"

Specific Objectives

Module 1. Cloud Programming Azure, AWS and Google Cloud Services
- Generate specialized knowledge about the cloud and the differences between traditional in-house solutions
- Acquire specialized vocabulary fundamental to the cloud Master the terms used by different vendors
- Establish the main components of the cloud and its uses
- Determine the vendors in the cloud market, their strengths and weaknesses, and contributions

Module 2. Azure Cloud Storage
- Examine a virtual machine in Azure
- Establish the different types of storage
- Evaluate the backup functions
- Manage Azure resources
- Analyze the different types of services
- Examine the different types of security
- Generate virtual networks
- Concretize the different network connections

Module 3. Cloud Environments: Security/Safety
- Identifying risks of a public cloud infrastructure deployment
- Analyze security risks in application development
- Determine security requirements
- Developing a security plan for a cloud deployment
- Establish guidelines for a logging and monitoring system
- Propose incident response actions

03
Course Management

TECH has selected a relevant teaching team in the field of cloud development and management, for this Postgraduate Diploma. With the aim of offering an elite education available to all, the selection of the teaching staff has been rigorous and based mainly on a high level of academic qualifications and extensive experience in Cloud projects. In this way, students are guaranteed to receive content in line with current market demands.
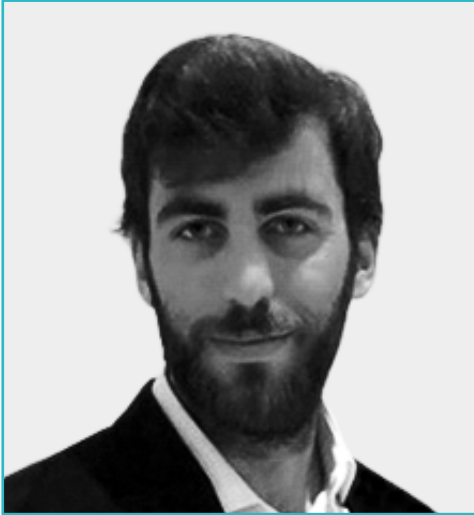
A specialized teaching team, with wide experience in the IT field, will guide you during this six-month Postgraduate Diploma"

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

D. Bernal de la Varga, Yeray

- Big Data Solutions Architect at Orange Bank
- Big Data Architect at Bankia
- Big Data Engineer at Hewlett-Packard
- Adjunct Professor in the Master of Big Data at the University of Deusto
- Degree in IT from the Polytechnic University of Madrid
- Expert in Big Data by U-TAD

### D. Gómez Rodríguez, Antonio

- Principal Cloud Solutions Engineer for Oracle
- Co-organizer of Málaga Developer Meetup
- Specialist Consultant for Sopra Group and Everis
- Team Leader at System Dynamics
- Software Developer at SGO Software
- Master's Degree in E-Business from La Salle Business School
- Postgraduate Degree in Information Technologies and Systems, Catalan Institute of Technology
- Degree in Telecommunications Engineering from the Polytechnic University of Catalonia

04
Structure and Content

The teaching team of this Postgraduate Diploma has developed a study plan divided into three modules that cover the main Cloud services and technologies in a general way to gradually go deeper into each of them. In this way, IT professionals will be able to efficiently and securely manage data in Cloud environments. Interactive summaries, additional readings and case studies will enrich this specialization.
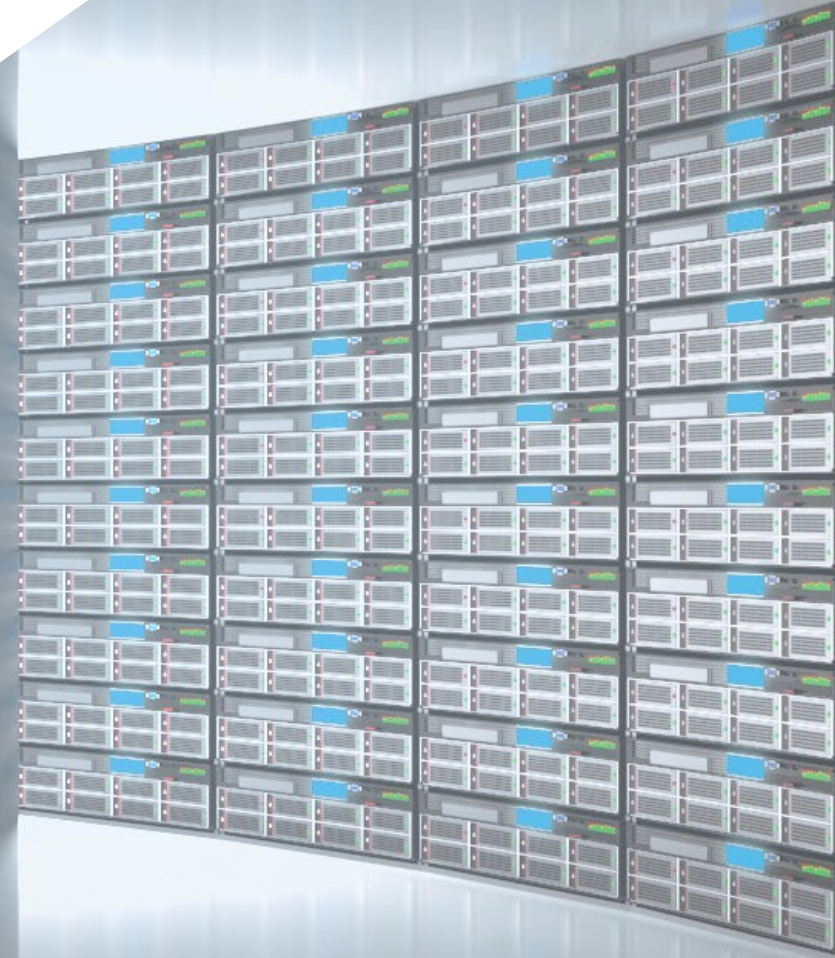
No time to attend in-person classes? TECH offers all its specializations in online modality and without fixed schedules so you can learn at your own pace"

Module 1. Cloud Programming: Azure, AWS and Google Cloud Services

1.1. Cloud Cloud Services and Technologies
    1.1.1. Cloud Services and Technologies
    1.1.2. Cloud Terminology
    1.1.3. Reference Cloud Providers

1.2. Cloud Computing
    1.2.1. Cloud Computing
    1.2.2. Cloud Computing Ecosystem
    1.2.3. Types of Cloud Computing

1.3. Cloud Service Models
    1.3.1. IaaS Infrastructure as a Service
    1.3.2. SaaS Software as a Service
    1.3.3. PaaS Platform as a Service

1.4. Cloud Computing Technologies
    1.4.1. Virtualization Systems
    1.4.2. Service-Oriented Architecture (SOA)
    1.4.3. GRID Computing

1.5. Architecture Cloud Computing
    1.5.1. Architecture Cloud Computing
    1.5.2. Network Types in Cloud Computing
    1.5.3. Cloud Computing Security

1.6. Public Cloud
    1.6.1. Public Cloud
    1.6.2. Public Cloud Architecture and Costs

1.7. Private Cloud
    1.7.1. Private Cloud
    1.7.2. Architecture and Costs
    1.7.3. Private Cloud Typology

1.8. Hybrid Cloud
    1.8.1. Hybrid Cloud
    1.8.2. Architecture and Costs
    1.8.3. Hybrid Cloud. Typology

1.9. Cloud Providers
    1.9.1. Amazon Web Services
    1.9.2. Azure
    1.9.3. Google

1.10. Cloud Security
    1.10.1. Infrastructure Security
    1.10.2. Operating System and Network Security
    1.10.3. Cloud Risk Mitigation

Module 2. Azure Cloud Storage

2.1. MV Installation in Azure
    2.1.1. Creation Commands
    2.1.2. Visualization Commands
    2.1.3. Modification Commands

2.2. Azure Blobs
    2.2.1. Types of Blobs
    2.2.2. Container
    2.2.3. Azcopy
    2.2.4. Reversible Blob Suppression

2.3. Managed Disk and Storage in Azure
    2.3.1. Managed Disk
    2.3.2. Security/Safety
    2.3.3. Cold Storage
    2.3.4. Replication
        2.3.4.1. Local Redundancy
        2.3.4.2. Redundancy in a Zone
        2.3.4.3. Geo-Redundant

2.4. Azure Tables, Queues, Files
    2.4.1. Tables
    2.4.2. Queues
    2.4.3. Files

Module 3. Cloud Environments: Security/Safety

Be an expert in AWS, Azure and Oracle Cloud with this Postgraduate Diploma and advance in your career"

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.

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 Diploma in Cloud Data Management.guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.

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

This **Postgraduate Diploma in Cloud Data Management** 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 Diploma** issued by **TECH Technological University** via tracked delivery*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Cloud Data Management**
Official Nº of Hours: **450 h.**

tech technological university

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

POSTGRADUATE DIPLOMA
in

Cloud Data Management

This is a qualification awarded by this University, equivalent to 450 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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