

# Postgraduate Certificate Cloud Programming Services in Azure, AWS and Google Cloud



## Postgraduate Certificate Cloud Programming Services in Azure, AWS and Google Cloud

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

Website: [www.techtute.com/in/information-technology/postgraduate-certificate/cloud-programming-services-azure-aws-google-cloud](http://www.techtute.com/in/information-technology/postgraduate-certificate/cloud-programming-services-azure-aws-google-cloud)

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# 01

# Introduction

Large companies, and even medium-sized enterprises, already rely on working in the cloud because of the advantages it brings. However, due to the technical ignorance of customers, IT specialists must have a specialization capable of facilitating the best Cloud implementation model. This is why this program covers the main types of cloud services, the technologies that support them and the Cloud software and programming process models. A complete program in 100% online format, which gives students the flexibility to access all the multimedia content available from the first day in the virtual platform.



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*Delve into the AWS, Azure and Google Cloud technology platforms and provide the best service to companies in Cloud environments”*

IT professionals who wish to specialize in Cloud programming and the main servers must be aware of the latest developments in the technology sector, in order to transfer all their information and knowledge to the projects. Security in the cloud is one of the points of great concern for companies that are reluctant to work in Cloud environments. However, with this program, students will delve into the main problems that arise in cloud computing and their solutions.

Likewise, IT professionals will gain full access to software process and programming models to complete their knowledge in a field in constant transformation and expansion. The teaching team that makes up this program has experience in this area, thus supporting a specialization that is close to the reality of the field.

Furthermore, this teaching facilitates learning thanks to a 100% online mode, which allows students to access the content with an internet connection device at any time of the day. The library of resources and real cases complement this program, which offers a great opportunity to specialize in a field with great demand in the technology field.

This **Postgraduate Certificate in Cloud Programming Services in Azure, AWS and Google Cloud** 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 Cloud Programming
- ◆ The graphic, schematic and practical contents of the book provide technical 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 Internet connection



*Advance your professional career with this program and become an expert in Cloud environments”*

“

*All this, in a 100% online education, without fixed schedules and with the syllabus available from the first day. Set your own pace of learning”*

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 arise during the academic year. For this purpose, students will be assisted by an innovative interactive video system developed by renowned experts.

*Master the Cloud Computing Architecture. Delve into its main features and progress in your professional field.*

*Reduce risks in Cloud environments. Offer guarantee and security to companies with this Postgraduate Certificate. Enroll now.*



# 02 Objectives

The design of this Postgraduate Certificate is intended to provide students with specialized knowledge about the cloud upon its completion, so that they are able to identify the main problems and solutions, while knowing how to differentiate them from traditional local alternatives. At the end of this program, IT professionals will be able to develop a virtual machine in Azure and identify the keys to adopting a strategy in Cloud environments. Students will be able to achieve these goals thanks to a Relearning system, which facilitates the consolidation of learning, and case studies that put the students in a real situation.







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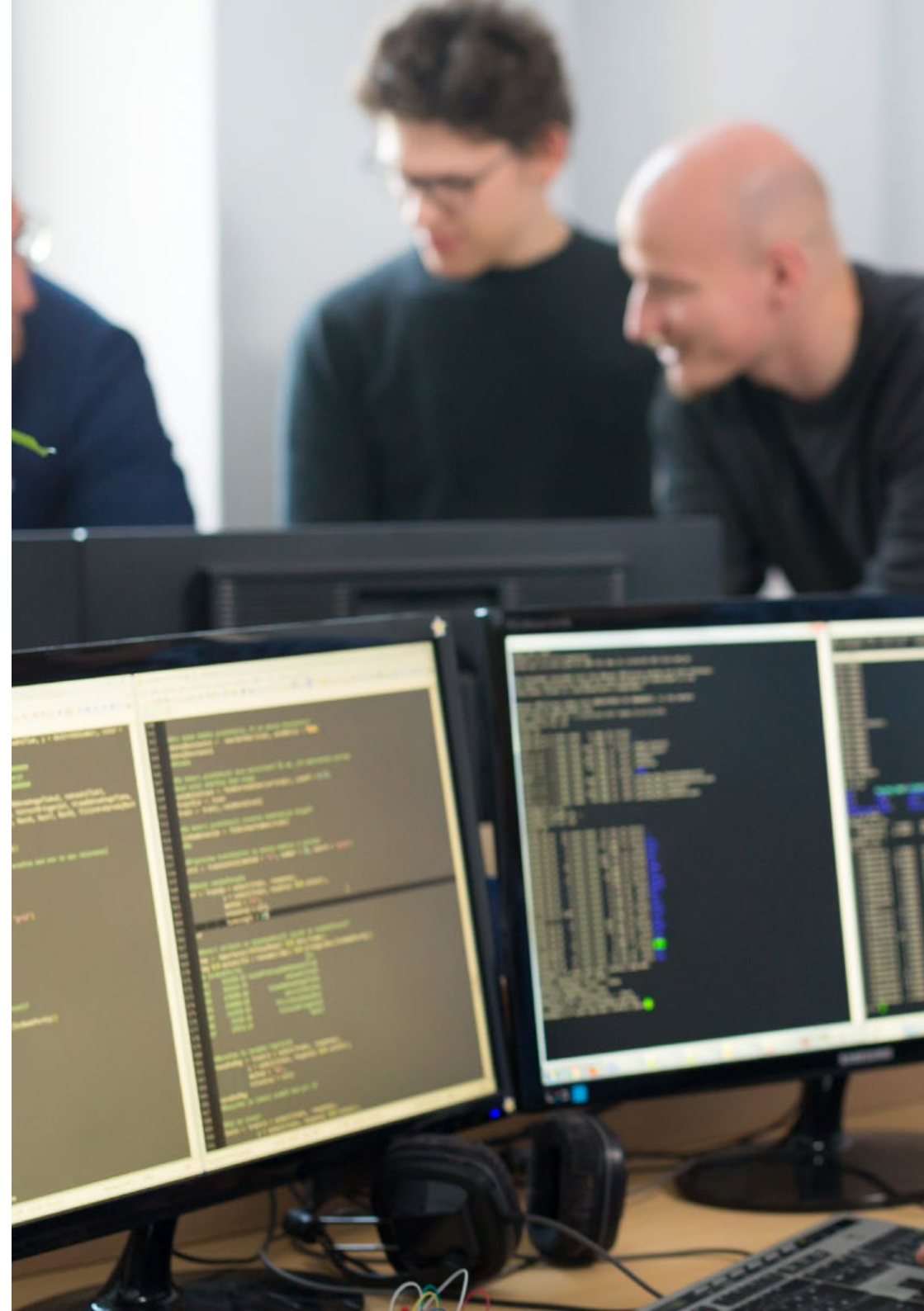
*Launch your career in Cloud Environments.  
Specialize in a technological area that  
require highly qualified personnel”*



## General Objectives

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- ◆ 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





## Specific Objectives

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- ◆ Generate specialized knowledge about the cloud and the differences with traditional on-premise solutions
- ◆ Acquire specialized vocabulary fundamental to the cloud Master the terms used by different vendors
- ◆ Establish the main components of the cloud and its their uses
- ◆ Determine the vendors in the cloud market, their strengths and weaknesses, and contributions



*Improve your knowledge of Public, Private and Hybrid Cloud with the help of relevant teachers from the technology sector”*

# 03

# Course Management

TECH offers quality education within everyone's reach, thanks to a rigorous selection of the teaching staff that make up its specializations. In this program, students will have at their disposal active professionals immersed in Cloud, Storage and Big Data environments. The experience and high academic level of the teachers support the education that the IT Professionals will receive. Throughout the six weeks of this program, students will receive tutoring from the faculty, to achieve their goals in a technology sector on the rise.





“

*A teaching team specialized in Cloud and Big Data will transfer all their knowledge and experience in this Postgraduate Certificate Enroll now"*

## Management



### Mr. Bressel Gutiérrez-Ambrossi, Guillermo

- ◆ Specialist 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
- ◆ Powershell 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



# 04

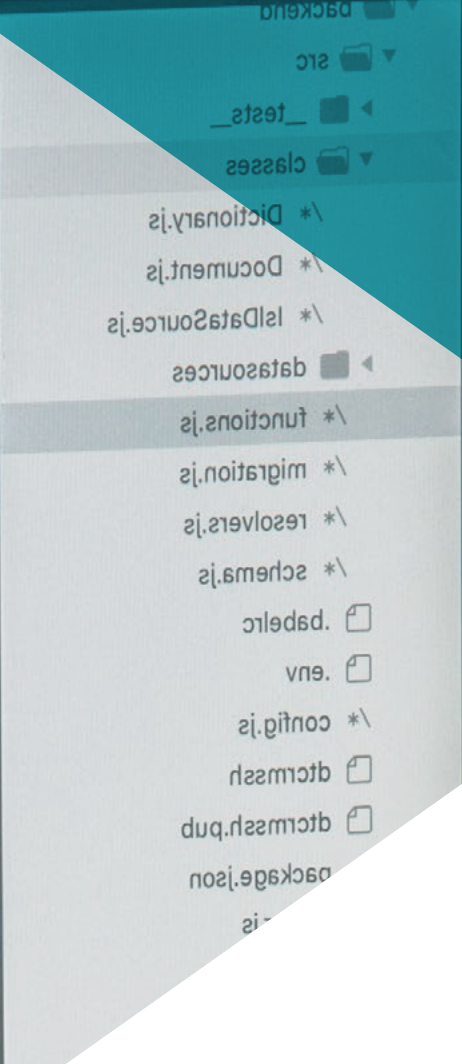
# Structure and Content

The syllabus of this Postgraduate Certificate follows the strict criteria of the teaching team that makes up this degree. Students will learn about Cloud services and technologies, the Cloud Computing ecosystem and cloud service models. Subsequently, they will delve into Azure, Aws and Google Cloud to extract from each of them the best features that can be offered to companies according to their needs and possibilities. The wide range of resources with video summaries of each topic, additional readings and the Relearning system, based on the reiteration of content, complete this study plan.





```
if (this[i] === null || this[i] === undefined) {
  this.remove(i);
}
return this;
}
Array.prototype.remove = function(i) {
  this.splice(i, 1);
}
Array.prototype.unique = function() {
  var n = this.length, k = 0, B = [];
  for (var i = 0; i < n; i++) {
    var j = 0;
    while (j < k && B[j] !== this[i]) j++;
    if (j == k) B[k++] = this[i];
  }
  return B;
}
\\check exist
export async function checkExistInDB(trx0rKnex) {
  idColumnName = leadToAOr(idColumnName);
  let exist;
  if (objectForPut[idColumnName[0]]) {
    let existQuery = trx0rKnex(tablename);
    idColumnName.forEach(c => existQuery = await existQuery;
    exist = !!exist.length;
  } else {
    exist = false;
  }
  return exist;
}
```



*A syllabus that allows you to delve into the main service providers in Cloud environments. Advance firmly”*

## 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
  - 1.6.3. Public Cloud Typology
- 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



*Have access to the entire syllabus from the first day, download it and view it at any time. A Postgraduate certificate designed to combine work and personal and environment. Enroll now"*

# 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

Postgraduate Certificate in Cloud Programming Services in Azure, AWS and Google Cloud guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



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

This **Postgraduate Certificate in Cloud Programming Services in Azure, AWS and Google 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 **TECH 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 Cloud Programming Services in Azure, AWS and Google Cloud**

Official N° of Hours: **150 h.**



\*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.

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



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