



# Postgraduate Certificate

# Web Servers

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Global University

» Credits: 6 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/engineering/postgraduate-certificate/web-servers

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> 06 Certificate

# 01 Introduction

Web servers are one of the fundamental elements that support the Internet. Without servers, websites could not be operational, as they rely on servers in order to be available to the user at all times. Thus, they are key element for Internet browsing and qualified professionals are needed who can take charge of their administration and management. This Postgraduate Certificate provides all the necessary knowledge to administer and manage web servers efficiently and professionally, addressing all the related issues, such as environments and different server configurations.

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This Postgraduate Certificate will teach you everything you need to know to become a Web Server Administrator"

# tech 06 | Introduction

The invisible structure on which Internet services are based is made up of a multitude of elements that are absolutely essential for the operation of applications and web pages. In essence, without certain components, no online utility would work. One such component is the web server, which manages how the user and his or her computer interact with web page content.

For this reason, it is a very important element in the structure of the Internet, since without servers it would not be possible to make a connection between the user and the service they want to visit or use. This makes web server experts key figures in the day-to-day use of the Web. However, there is a lack of well-trained specialists who can handle this important task, so obtaining the right skills can mean success in the industry.

This Postgraduate Certificate in Web Servers offers a comprehensive and innovative program aimed at all those engineers or professionals who want to specialize or deepen their knowledge in the field, so that they can become indispensable people for their organization or their clients.

Through an in depth and focused teaching module, covering the most relevant issues of server management in different work environments, the student will learn all the essential issues to correctly administer these services.

This **Postgraduate Certificate in Web Servers** contains the most complete and up-todate educational program on the market. The most important features include:

- The examination of case studies presented by experts on Web Servers
- Highly specialized contents, focused this professional field
- Practical exercises where self-assessment can be carried out to improve learning
- Content that is accessible from any fixed or portable device with an Internet connection



Without servers there are no websites: become indispensable thanks to this Postgraduate Certificate"



Web servers are an indispensable part of the Internet: skilled professionals are needed to manage them"

Specialization is the key: This Postgraduate Certificate will help you progress professionally.

The teaching staff includes professionals from the sector who contribute their professional experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The 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 immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

Don't think twice: thousands of customers need experts to manage their Web Servers.



# 02 Objectives

The objective of this program is help students to achieve professional success, thanks to its in depth and specialized content, and an expert faculty, who will impart all their knowledge directly to students so that they can apply it immediately in their professional careers.





# tech 10 | Objectives



# **General Objectives**

- Explore the importance of Web Servers
- Learn everything you need to operate in Windows and Linux environments
- Know about general issues with Web Servers and how to resolve them
- Open up new professional development paths thanks to the contents of this program



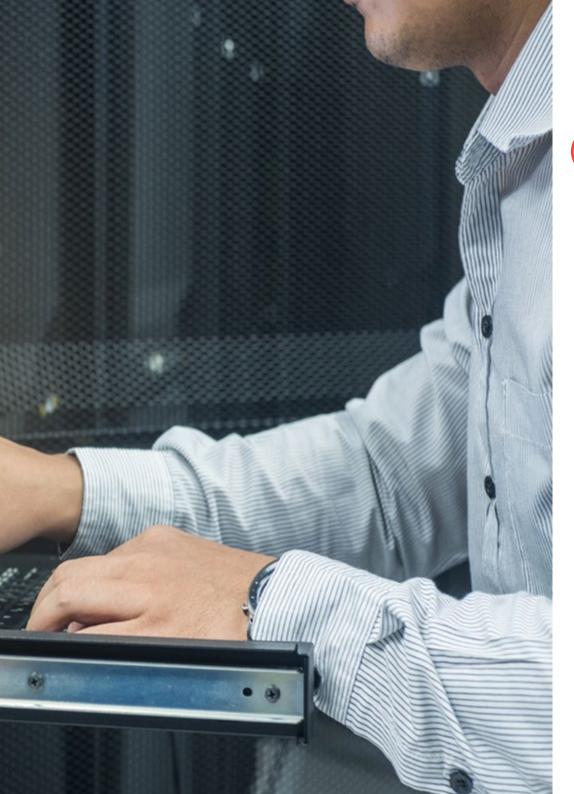






# **Specific Objectives**

- Develop a realistic high availability working environment
- Determine the necessary parameters to create a cloud hosting service
- Examine the different versions of operating systems that best suit your needs
- Determine a web administration environment focused on external customers
- Set up configurations for private/public networks
- Create a complete hosting service for any type of website or platform
- Examine security settings for anti-malware, viruses, brute force attacks and others
- Analyzing a high security backup system with redundancy
- Identify and resolve problems in real environments







# tech 14 | Course Management

## Management



### Mr. Gris Ramos, Alejandro

- Director of Persatrace, web development and digital marketing agency
- Director of Club de Talentos
- Computer Engineer UNED
- Master's Degree in Digital Teaching and Learning Tech Education
- Master's Degree in High Abilities and Inclusive Education
- Business Development Director at Alenda Golf
- Director of Web Applications Engineering Department at Brilogic
- Web programmer at Grupo Ibergest
- Software/web programmer at Reebok Spain

### **Professors**

#### Mr. Méndez Martínez, Brandon

- Specialist in Web Services and Applications Development from the University of Alicante
- Web design and development HIADIS Graduated in Multimedia Engineering, University of Alicante
- Natural Language Processing (NLP) GPLSI (University of Alicante)
- Master's Degree in Web Services and Applications Development from the University of Alicante
- "Analysis of gamification techniques to learn complex subjects through collaborative applications" Bulletin of the Technical Committee on Learning Technology
- "Grama: a web application for learning and generating creative language" INTED Proceedings
- Research in Human Language Technologies (TLH) GPLSI (University of Alicante)

#### Mr. Vicente Miralles, David

- (CSO) Head of Expansion Strategies at 'ICU Medical Technologies'
- (CEO) Executive Director / Co-Founder at 'CE Informática'
- Professor / Trainer in private entities
- Postgraduate Certificate in Technical Computer Engineering from Miguel Hernández University of Elche
- Development Engineer at 'Computer Elche' (COO)
- (COO) Operations Manager at 'VinoTrade'

#### Mr. Del Moral García, Francisco José

- Security Analyst at Page Group
- Degree in Telecommunication Technologies Engineering, University of Granada Specialty: Telecommunication Systems
- Master's Degree in IT Security, International University of La Rioja
- Roca Sanitario (Cyber Security Analyst)
- Allianz Technology (Information Security Analyst)
- Clover Technologies (IT Security Airbus Defense and Space)
- EVERIS (Solutions Assistant)

#### Mr. Boix Tremiño, Jorge

- Founder of HostingTG, professional web hosting services company
- Founder of GrupoTG, a digital marketing and web design services company
- Co-Founder of TiendaWebOnline, a Digital Dropshipping business creation company
- Nortempo, trainer in the field of programming and marketing strategies
- Intergon2000, Graphic designer
- Ibertex, Graphic designer
- Xion Animation, information technology project manager
- Kingest, Sales and marketing director
- Computer Engineer at UNED
- Award for Business Excellence from the Institute for Professional Excellence in 2019
- European Medal of Merit in the Workplace for Professional Career Achievement from the European Association for Economics and Competitiveness
- Gold Star for Professional Excellence from the Institute for Professional Excellence in 2016

#### Mr. Alfaro, José

- Team Leader at DisneyLand Paris
- Journalism Graduate
- Course in Project Management Methodologies

### Mr. Herrero García, Diego

- Computer Applications Analyst, Manager and Developer
- Industrial Technical Engineer, University of La Rioja
- Industrial Engineer, University of La Rioja
- Postgraduate Diploma in Innovation Management, University of La Rioja



Take this opportunity to learn about the latest advances in this area in order to apply them to your daily practice"





# tech 18 | Structure and Content

### Module 1. Web Server Management

- 1.1. Selecting a Work Environment
  - 1.1.1. Operating Systems (Windows or Linux)
  - 1.1.2. Distribution Differences
    - 1.1.2.1. Choosing the Right Operating System
    - 1.1.2.2. Test Working Environment (Development)
    - 1.1.2.3. Professional Working Environment (Production)
- 1.2. Installing and Configuring the Virtual Work Environment
  - 1.2.1. Installing VirtualBox for Windows Development Environment
    - 1.2.1.1. Installation of Windows Server Environment
    - 1.2.1.2. Initial Configuration and Networks for Windows Server
    - 1.2.1.3. Installation of Components for Production
    - 1.2.1.4. Windows Server Optimization
  - 1.2.2. Installing Linux Visual Environment
    - 1.2.2.1. Installation and Configuration of Centos (Operating System for the Enterprise Community)
    - 1.2.2.2. Ubuntu Server Installation and Configuration
    - 1.2.2.3. Debian Installation and Configuration
- 1.3. Command Terminal
  - 1.3.1. Directories and CHMOD Permissions
    - 1.3.1.1. Disk and File Management
  - 1.3.2. Service Analysis
  - 1.3.3. Problem Detection and Analysis / LOGS
  - 1.3.4. Resource Monitoring
    - 1.3.4.1. Commands and Automation
  - 1.3.5. Editors and Administration Commands
- 1.4. Networks
  - 1.4.1. IP Theory and ISO/TCP Models
  - 1.4.2. IP Utilities and Commands
  - 1.4.3. Network and File Configuration
  - 1.4.4. Protocols and Services SCP, FTP, SAMBA, NFS
  - 1.4.5. DNS Service Installation and Configuration

- 1.5. Installation and Control Panels
  - 1.5.1. Selecting an Adequate Control Panel 1.5.1.1. Configuration and Optimization
  - 1.5.2. Installing cPanel
    - 1.5.2.1. Configuration and Optimization
  - 1.5.3. Installing Plesk
    - 1.5.3.1. Configuration and Optimization
  - 1.5.4. Installing Directadmin
    - 1.5.4.1. Configuration and Optimization
- 1.6. Installing Core Web Services
  - 1.6.1. Installing Apache
    - 1.6.1.1. PHP/PHP-FPM Installation
  - 1.6.2. Installing Mysql
  - 1.6.3. Installing MariaDB
  - 1.6.4. Installing PHPmyadmin
  - 1.6.5. Installing Exim / Dovecot
- 1.7. Optimizing Web Services, Databases and Email
  - 1.7.1. Installing Nginx
    - 1.7.1.1. Configuring and Launching Nginx
  - 1.7.2. Optimizing Apache
  - 1.7.3. Optimizing PHP / PHP-FPM
  - 1.7.4. Optimizing Mysql
    - 1.7.4.1. Data Analysis Tools
  - 1.7.5. Optimizing Exim
- 1.8. Backups in Production Environments
  - 1.8.1. Backups
  - 1.8.2. Planning a Secure Environment
    - 1.8.2.1. Base Commands- CP. MV. RSYNC
  - 1.8.3. Automating Backup Copies Systems
  - 1.8.4. Data Redundancy and Security / Replication
  - 1.8.5. Optimizing Secure Environments



## Structure and Content | 19 tech

- 1.9. Security/Safety
  - 1.9.1. Dedicated/Virtual Server Security
  - 1.9.2. Installing Monitoring Tools1.9.2.1. Brute Force and Scanning Prevention
  - 1.9.3. Installing Firewalls
  - 1.9.4. Anti-malware / Anti-virus Systems1.9.4.1. Scanning and Quarantine Automation
  - 1.9.5. Anti-Spam Mail
- 1.10. Problem Solving and Eventualities
  - 1.10.1. Service Stop
  - 1.10.2. Disk Errors in Production Environments
  - 1.10.3. Monitoring and Delegating Services
  - 1.10.4. Web Migration / Databases / Email / Files
  - 1.10.5. Hacked Web Resolution
  - 1.10.6. Email Problems
    - 1.10.6.1. Blacklist IP Difficulties
    - 1.10.6.2. IP Assignment to a Particular Domain
    - 1.10.6.3. Mail Arriving in Spam Folder
  - 1.10.7. Server Not Responding (Rescue Mode)
    - 1.10.7.1. RAM Memory Test
    - 1.10.7.2. Hard Drive Test
    - 1.10.7.3. RAID Test/File System Degradation
  - 1.10.8. Administrating and Monitoring Disc Space
    - 1.10.8.1. Problems with INODOS
  - 1.10.9. Nmap and Tracert for Network Problem Detection



You won't find a better program than this one to become an expert on web servers"





# tech 22 | Methodology

## 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.





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 is the most widely used learning system in the best faculties in the world. 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 program, the studies 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.

# tech 24 | Methodology

## **Relearning Methodology**

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 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.



# Methodology | 25 tech

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.



# Methodology | 27 tech





#### **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.





20%





# tech 30 | Certificate

This program will allow you to obtain your **Postgraduate Certificate in Web Servers** 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 Web Servers

Modality: online

Duration: 6 weeks

Accreditation: 6 ECTS



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

#### Postgraduate Certificate in Web Servers

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



<sup>\*</sup>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

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