Postgraduate Certificate
JavaScript Development from Scratch

tech global university

Postgraduate Certificate
JavaScript Development from Scratch

- » Modality: **online**
- » Duration: **6 weeks**
- » Certificate: **TECH Global University**
- » Accreditation: **6 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

Website: **www.techtitute.com/us/information-technology/postgraduate-certificate/javascript-development-scratch**

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01
Introduction to the Program

Web development has become one of the most in-demand skills in the field of technology, with JavaScript being one of the most widely used programming languages globally. According to Stack Overflow's Developer Survey, JavaScript has topped the charts of the most popular languages for more than a decade, with a 65% preference among developers. As it is an area that is advancing by leaps and bounds, TECH has developed this Postgraduate Certificate that will provide the concepts for programming from scratch with fluency and confidence. Using a 100% online methodology, specialists will cover everything from basic concepts such as variables and functions to the creation of dynamic applications using modern frameworks. In this way, they will successfully integrate into the competitive global technology market.

Conquer the world of web development with JavaScript from scratch. You will study at your own pace with the online methodology, designed to adapt to your lifestyle. Enroll and take the first step towards a successful career in technology!"

Web development is one of the most dynamic sectors with the greatest potential in the field of technology. In this context, JavaScript has established itself as the most widely used programming language globally, thanks to its versatility and the multiple applications it offers in both the front end and the back end. From the creation of interactive websites to the development of complex applications, learning this language from scratch is the first step towards a successful career in the technology sector.

In response to this demand, TECH has developed this program in JavaScript Development from Scratch, which will provide a solid foundation in this programming language, covering essential topics such as variables, functions, control structures, DOM manipulation and the use of APIs. Through a comprehensive and multidisciplinary syllabus, professionals will delve into frameworks such as React and Node.js, which are indispensable tools for the development of modern applications. They will also have a practical approach that will allow them to apply the knowledge acquired in real projects.

Upon completion of this program, graduates will be prepared to assume professional roles in key technology sectors, including software development, web design, and technology project management. In short, proficiency in JavaScript, together with knowledge of current frameworks, will significantly increase the opportunities for access to competitive positions in internationally renowned companies, innovative start-ups or as independent developers.

Finally, the program is delivered 100% online, allowing students to balance their learning with other personal or professional responsibilities. Thanks to the implemented Relearning methodology, a progressive and efficient assimilation of the content will be guaranteed through the strategic repetition of key concepts. In addition, continuous access to up-to-date materials from any device will facilitate a flexible learning experience adapted to current needs. All of this will contribute to the efficient mastery of JavaScript in a more accessible way than ever before.

This **Postgraduate Certificate in JavaScript Development from Scratch** contains the most complete and up-to-date educational program on the market. Its most notable features are:

- The development of case studies presented by experts in programming
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in JavaScript Development from Scratch
- 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

Get ready to stand out in the technology sector! You will learn from anywhere at a time that suits you. Your future as a developer starts here. What are you waiting for to enroll?"

Material available 24/7 and a practical approach that will make you a developer prepared for any challenge: That's what this complete program is all about. Enroll today!

" *With TECH, knowledge is at your fingertips. You will master JavaScript from the ground up with a comprehensive program covering basic concepts and advanced frameworks such as React and Node.js"*

Discover the potential of web development with the best experts in the industry. At TECH we guide you step by step with an up-to-date and practical syllabus so that you can master JavaScript from scratch.

Its teaching staff includes professionals from the field of programming, who bring their work experience to this program, as well as renowned specialists from leading companies 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 an immersive learning experience designed to prepare for real-life situations.

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

Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it relies on an enormous faculty of more than 6,000 professors of the highest international renown.

Study at the world's largest online university and guarantee your professional success. The future starts at TECH"

The world's best online university, according to FORBES

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.

Forbes
The best online university in the world

The most complete **syllabus**

TOP international faculty

The most effective methodology

World's No.1 The World's largest online university

The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.

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NBA
The Official
Online University
of the **NBA**

4.9/5
★★★★★
★global score
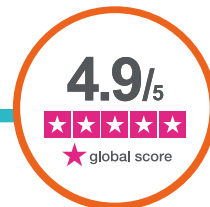
99%
maximun
employability
guaranteed

Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.

The top-rated university by its students

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.

03
Syllabus

This qualification offers a carefully designed syllabus to provide a solid foundation in programming, ensuring that professionals acquire the necessary skills to face the challenges of today's technological environment. The program will cover basic concepts such as data types, operators and control structures, as well as more advanced topics such as DOM manipulation, event creation, promises and asynchronous handling. In addition, emphasis will be placed on the integration of external APIs, the use of libraries such as Axios, and popular frameworks such as React and Node.js, which are fundamental for the development of dynamic and scalable applications.

Do you want to start from scratch and quickly advance to a professional level? You've come to the right place. This qualification will provide you with an innovative educational experience that is in line with current demands"

Module 1. Front End II - JavaScript from Scratch

1.1.   JavaScript from Scratch

    1.1.1.   JavaScript Language

    1.1.2.   Integration of JavaScript in HTML

    1.1.3.   First Program in JavaScript: "Hello World"

1.2.   Variables and Data Types in JavaScript

    1.2.1.   Declaring Variables with var, let and const

    1.2.2.   Data Types: Numbers, Strings, Booleans

    1.2.3.   Converting Between Data Types

1.3.   Control Structures in JavaScript

    1.3.1.   Conditional Statements: if, else if, else

    1.3.2.   Loops: for, while, do...while

    1.3.3.   Switch-case: Alternative to Multiple Conditional Statements

    1.3.4.   Break and Continue in Loops

1.4.   JavaScript Functions

    1.4.1.   Function Declaration

    1.4.2.   Parameters, Return Values and Scope

    1.4.3.   Arrow Functions (=>) and Anonymous Functions

    1.4.4.   Callbacks and Recursion in Functions

1.5.   DOM (Document Object Model) Manipulation with JavaScript

    1.5.1.   DOM: Structure of an HTML Document

    1.5.2.   Selecting DOM Elements (getElementById, querySelector)

    1.5.3.   Manipulating Elements: Changing Text, Styles, and Attributes

    1.5.4.   Events: Click, Input, Submit, and More

1.6.   Arrays and Objects in JavaScript

    1.6.1.   Declaring and Using Arrays

    1.6.2.   Common Array Methods: push, pop, map, filter

    1.6.3.   Creating and Using Objects

    1.6.4.   Iterating over Arrays and Objects

1.7.   Promises and Async in JavaScript

    1.7.1.   Async and Using Callbacks in JavaScript

    1.7.2.   Promises in JavaScript: Creation and Handling

    1.7.3.   Using Async and Await in JavaScript

You will master everything related to JavaScript in a self-managed way, at your own pace and from wherever you are, thanks to TECH's online methodology. Take the leap in your career in technology!"

04
Teaching Objectives

This program is designed to provide a comprehensive educational experience geared towards professional success. Through a practical and dynamic approach, this program will enable professionals to master everything from the basics of programming to the creation of complex projects, guaranteeing comprehensive and up-to-date learning. First, they will understand the essential fundamentals of the JavaScript language, including variables, control structures, functions, and DOM manipulation. Graduates will then acquire skills in asynchronous programming, event management and the use of external APIs, which are key elements for the development of modern and interactive applications.

With TECH you will not only acquire knowledge, but also the confidence to apply what you have learned in real projects and excel in the competitive field of web development"

General Objectives

- Understand the fundamentals of JavaScript programming and its role in web development
- Write functional scripts to manipulate and control elements on web pages
- Use variables, functions, loops and conditionals to create dynamic solutions
- Implement interactivity on websites through DOM events and manipulations
- Integrate asynchronous programming techniques using promises and async/await
- Work with data in JSON format to consume and manage external APIs
- Design modular and reusable applications using good coding practices
- Apply debugging methods to identify and fix errors in the code
- Implement data structures and basic algorithms with JavaScript
- Develop dynamic and responsive applications with a focus on user experience

Specific Objectives

- Understand syntax and data types in JavaScript
- Learn to structure code using functions and control structures
- Manipulate the DOM to interact with dynamic web pages
- Work with APIs and handle asynchrony using Promises and async/await

You will become a developer with a strategic vision and solid skills. Ready to face the challenges of today's technological reality? We look forward to seeing you at the world's largest online university, according to Forbes!"

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career"

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.
The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

"

At TECH you will NOT have live classes (which you might not be able to attend)"

The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

> *TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want"*

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.

Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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)

A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.

The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.

2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.

3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.

4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.

As such, the best educational materials, thoroughly prepared, will be available in this program:

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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.

Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.

Interactive Summaries

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.
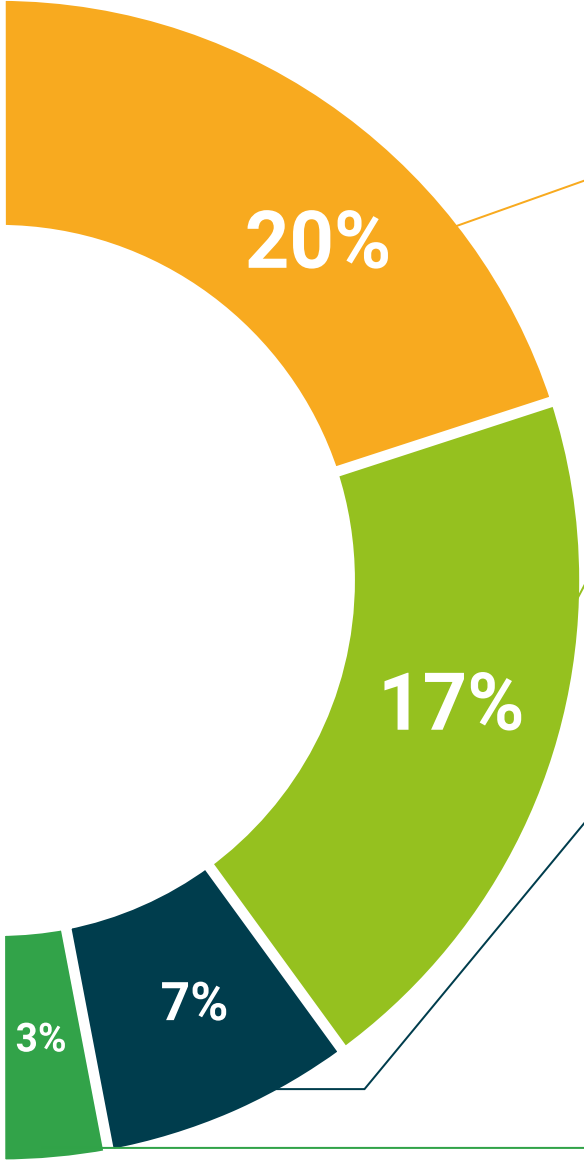
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.

20%

15%

15%

3%

20%

17%

7%

3%

Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.

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 for future difficult decisions.

Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical and effective way to help students progress in their learning.

06
Teaching Staff

This academic program stands out for having a team of highly skilled professionals. The group of experts, made up of senior developers, technology project leaders and programming specialists, will provide a practical and up-to-date vision of the labor market, guaranteeing an enriching educational experience. The lecturers not only have extensive knowledge of JavaScript, but also of complementary technologies such as React, Node.js, API management and agile methodologies. Thanks to their direct experience in real projects and their active participation in the technology sector, they will offer useful tools to face the challenges of web development.

The teaching staff is, without a doubt, one of the program's greatest distinguishing values, making it a safe bet for you to get started and succeed in the world of JavaScript development"

Management

Dr. Lucas Cuesta, Juan Manuel
- Senior Software Engineer and Analyst at Indizen – Believe in Talent
- Senior Software Engineer and Analyst at Krell Consulting and IMAGiNA Artificial Intelligence
- Software Engineer at Intel Corporation
- Software Engineer at Intelligent Dialog Systems
- PhD in Electronic Systems Engineering for Intelligent Environments from the Polytechnic University of Madrid
- Graduate in Telecommunications Engineering at the Polytechnic University of Madrid
- Master's Degree in Electronic Systems Engineering for Intelligent Environments from the Polytechnic University of Madrid

Mr. Márquez Ruiz de Lacanal, Juan Antonio
- Software Developer at GTD Defense & Security Solutions
- Software Developer at Solera Inc
- Development and Research Engineer at GRVC Sevilla
- Co-founder of Unmute
- Co-founder of VR Educa
- Academic Exchange in Engineering and Entrepreneurship at the University of California, Berkeley
- Degree in Industrial Engineering from the University of Sevilla

Professors

Dr. Luna Perejón, Francisco

- Specialist in Computer Architecture and Technology
- PhD in Computer Engineering from the University of Sevilla
- Master's Degree in Computer Engineering from the University of Sevilla
- Degree in Health Engineering from the University of Sevilla
- Degree in Computer Engineering and Computer Technology from the University of Sevilla
- Member of: Robotics and Computer Technology Research Group (TEP108)

A unique, key and decisive learning experience to boost your professional development"

Certificate

This Postgraduate Certificate in JavaScript Development from Scratch guarantees, in addition to the most rigorous and up-to-date program, access to an Postgraduate Certificate diploma issued by TECH Global University.

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

This private qualification will allow you to obtain a diploma for the **Postgraduate Certificate in JavaScript Development from Scratch** 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** private qualification, 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 JavaScript Development from Scratch**

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 JavaScript Development from Scratch

This is a private qualification 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
Dean

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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