Postgraduate Certificate
JavaScript Language Applied to Full-Stack Developer

tech global university

Postgraduate Certificate
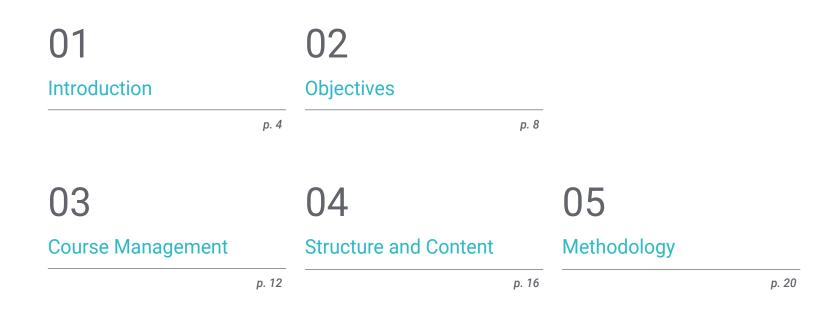JavaScript Language Applied
to Full-Stack Developer

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

Website: **www.techtitute.com/us/information-technology/postgraduate-certificate/javascript-language-applied-full-stack-developer**

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01

Introduction

JavaScript is the most widely used programming language in the world, all web pages use it. Although it was originally designed for web browsers, it has evolved and today it is used in all areas of programming. *JavaScript* can be used to create Web applications as well as mobile, desktop and server applications. Because it is a language in continuous evolution, this 100% online educational program provides the student with the essentials to know the basics of *JavaScript* to be able to adapt to new technologies easily. This program develops the key concepts of the language, the latest features of the language, as well as asynchronous programming or arrow functions.

Expand your knowledge, up to a specialization level, in JavaScript language applied to Full-Stack Developer"

With *JavaScript* you can develop applications at all levels, as it is one of the programming languages used in the development of web applications, as it allows to provide movement and dynamism to the web. It is a client-side programming language, that is, it runs in the browser, not the server, which allows faster actions. This Postgraduate Certificate develops a realistic *Full-Stack* project, which includes content and user management, both on the server and client side.

This program includes updated and specialized content on the *JavaScript* ecosystem and its tools using agile software development methodologies. The entire program is based on 100% hands-on experience using industry standards so that the graduate stands out from minute one in the best technical teams.

Furthermore, as it is a fully online course, the graduates are not conditioned by fixed schedules or the need to move to another physical location, but can access a rich content that will help them to reach the elite of the *JavaScript* language at any time of the day, combining, at their own pace, their work and personal life with their academic life.

This **Postgraduate Certificate in JavaScript Language applied to Full Stack Developer** contains the most complete and up-to-date program on the market. The most important features include:

- Case studies presented by experts in JavaScript language applied to Full Stack Developer
- 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
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions for experts and individual reflection work
- Content that is accessible from any fixed or portable device with an Internet connection

You will be able to develop web applications, desktop applications, servers or mobile applications"

" *Develop the Front and Back of a fully interactive and functional web application from scratch using all the tools and technologies of the JavaScript ecosystem"*

Learn the basics of JavaScript, the most widely used language in the world, to be able to adapt to new technologies easily.

You will be able to create communication between a fully deployed and production application, a database and the server.

The program's teaching staff includes professionals from the industry who contribute their work experience to this 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 students will be assisted by an innovative interactive video system created by renowned and experienced experts.

02
Objectives

Analyzing the different ways of programming with *JavaScript* and making the correct use in each situation, discovering functional programming or examining asynchronous programming and its characteristics, are some of the objectives of this Postgraduate Certificate, which aims to generate specialized knowledge about the *JavaScript* language and provide the ability to develop any type of application with it, among others.

This Postgraduate Certificate will allow you to update your knowledge in JavaScript language using the latest educational technology"

General Objectives

- Generate specialized knowledge about the *JavaScript* language
- Be able to develop any type of application with *JavaScript*

You will be able to incorporate CSS preprocessor and clone websites with the keys that this online program will provide you"

Specific Objectives

- Establish the basic and complex types offered by *JavaScript*
- Analyze the different ways of programming with the language and make a correct use in each situation
- Update knowledge to the latest versions
- Discover functional programming
- Examine asynchronous programming and its characteristics

03
Course Management

TECH, in its maxim of offering an elite education for all, has experts in application development and language. Therefore, this Postgraduate Certificate brings together highly qualified professionals with extensive experience in the sector. In this way, the student will be able to effectively apply the *JavaScript* language in programming.

We offer you the most complete and up-to-date Postgraduate Certificate, with the best teaching methodology"

Management

Mr. Olalla Bonal, Martín

- Senior Blockchain Practice Manager at EY
- Blockchain Client Technical Specialist for IBM
- Director of Architecture for Blocknitive
- Non-Relational Distributed Databases Team Coordinator for wedoIT (IBM Subsidiary)
- Infrastructure Architect at Bankia
- Head of Layout Department at T-Systems
- Department Coordinator for Bing Data Spain S.L.

Professors

Mr. Calzada Martínez, Jesús

- Senior Software Engineer at Devo
- Full-Stack Developer at Blocknitive
- Front-End Manager in Infinia
- Full-Stack Developer at Resem
- Java Developer at Hitec
- Graduate in Computer Engineering from the Complutense University of Madrid

04
Structure and Content

The syllabus has been designed based on the requirements of computer science applied to the *JavaScript* language applied to *Full-Stack Developer* in programming, therefore establishing a syllabus whose module offers a broad perspective of object and array data structure, from primitive types and operators to asynchronous programming, passing through OOP: *prototype* and classes.

"

A module that develops the key concepts of the language, the latest language features, as well as asynchronous programming and arrow functions"
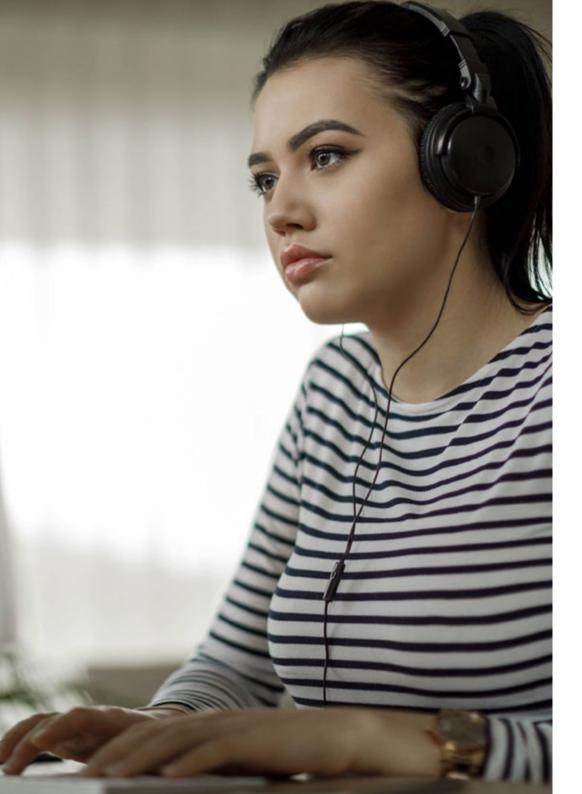
Module 1. Javascript Language Applied to Full-Stack Developer

1.1. Primitive Types and Operators

    1.1.1. *JavaScript* Language

    1.1.2. Numbers and Their Operators

    1.1.3. Text Strings and Their Operators

    1.1.4. Boolean Values

    1.1.5. Conversion Between Types

1.2. Flow Controllers and Structure

    1.2.1. Expressions and Statements

    1.2.2. Variables and Constants

    1.2.3. *If* Statement

    1.2.4. *For, While* Statements

1.3. Functions

    1.3.1. Functions

    1.3.2. Parameters.

    1.3.4. Functions as Parameters

    1.3.5. Scope of Variables

    1.3.6. Nested *Scopes*

    1.3.7. *Hoisting*

    1.3.8. *Closures*

    1.3.9. Recursion

1.4. Data Structures: Objects

    1.4.1. *Object* Type

    1.4.2. Creation of Objects

    1.4.3. Accessing the Values of an Object

    1.4.4. Adding or Deleting Properties

    1.4.5. Nested Objects

    1.4.6. *Destructuring* Objects

    1.4.7. *Object* Type Methods

    1.4.8. *Spread Operator*

    1.4.9. Immutability

1.5. Data Structures: *Array*

    1.5.1. Data Structure. *Array*

    1.5.2. *Array*. Typology

    1.5.3. Nested *Arrays*

    1.5.4. *Array* Methods

1.6. OOP: *Prototype* and Classes

    1.6.1. OOP: Object Oriented Programming

    1.6.2. Prototypes

    1.6.3. Classes

    1.6.4. Private Data

    1.6.5. Subclasses

    1.6.6. *Call* and *Apply*

1.7. *JavaScript* Types

    1.7.1. Set

    1.7.2. *WeakSet*

    1.7.3. *Map*

    1.7.4. *WeakMap*

    1.7.5. Common Expressions

1.8. *JavaScript* Utilities

    1.8.1. *Date*

    1.8.2. *Math*

    1.8.3. *Symbol*

    1.8.4. JSON

1.9. *JavaScript* in the *Browser*

    1.9.1. Inclusion of *JavaScript* in a Web

    1.9.2. DOM

    1.9.3. Events

    1.9.4. Browser *Storage*

1.10. Asynchronous Programming

    1.10.1. The Asynchronous Programming

    1.10.2. *Event Loop*

    1.10.3. *Callbacks*

    1.10.4. *Promises*

    1.10.5. Async / *Await*

The content of this program aims to update your knowledge so that you can stand out in the most advanced IT labor market"

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.

30%

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.

10%

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.

8%

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.

tech

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.

Certificate

The Postgraduate Certificate in JavaScript Language applied to Full-Stack Developer guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.

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

This program will allow you to obtain your **Postgraduate Certificate in JavaScript Language Applied to Full-Stack Developer** 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 JavaScript Language Applied to Full-Stack Developer**

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 Language Applied to Full-Stack Developer

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

Dr. Pedro Navarro Illana
Rector

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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