

Postgraduate Certificate

JavaScript Tools. ReactJs Library



Postgraduate Certificate

JavaScript Tools. ReactJs Library

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

Website: www.techtute.com/us/information-technology/postgraduate-certificate/javascript-tools-reactjs-library

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 16

05

Methodology

p. 20

06

Certificate

p. 28

01

Introduction

WhatsApp, Facebook, Instagram, Netflix, Uber or Paypal use *React* for the development of their applications. Since its launch, its use has been increasing significantly, becoming today one of the most used *Front-End* technologies. *React* helps to solve aspects such as usability, loading speed and accessibility, which is why, today, it is considered one of the most demanded tools in the market. This 100% online program brings together the most up-to-date content, which covers the tools of the *JavaScript* programming language, including *React*, so that the computer scientist who takes it can generate a *Single Page Application* with static content in his department, and acquire the methods to work with dynamic content.



“

Take a decisive step in your career by specializing in the multiple tools of the most widely used programming language in the world”

JavaScript is a language in continuous evolution, with the addition of new features and a large number of *frameworks*, which makes it essential to know the language tools to be able to adapt to new technologies easily. Therefore, it is essential to know how to handle the ReactJs library to develop user interfaces.

In this sense, the present Postgraduate Certificate aims to lead the computer scientist from a simple knowledge of *React* to a competitive level in today's work environment. To do so, this program has theoretical and practical lessons in which, through the development of an application using different tests with *JavaScript*, the student will reach the goal of mastering *React* and the technologies that surround it.

It is, therefore, a 100% online Postgraduate Certificate that provides the students with the ease of being able to take it comfortably, wherever and whenever they want. In just 6 weeks you will acquire the necessary keys to ensure that your application is properly maintained thanks to the latest tools presented in this program.

This **Postgraduate Certificate in JavaScript Tools. ReactJs Library** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of case studies presented by experts in JavaScript Tools. ReactJs Library
- ◆ The graphic, schematic, and practical contents which 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



TECH will guide you to delve into the topics Testing, UI Testing, Debugging and Deployment"

“

Delve into the components of the JavaScript programming language and its associated tools with a focus on CSS, Angular and ReactJS”

Thanks to the distinctive approach of this program, which will take you through all the JavaScript tools, you will meet your professional goals.

Learn how to manage the environment and tools for JavaScript-oriented development.

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.

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



02 Objectives

Configuring a project using *Create-React-App*, analyzing the life cycle of *React* components and *debugging*, testing and deploying *React* applications are some of the objectives presented in this Postgraduate Certificate. This program aims to generate specialized knowledge about the modern functionalities of the *React.js* library such as *Hooks* and *Context*. This program updates the computer scientist in all areas of application programming with *JavaScript*, developing a 360-degree view of the entire process.



“

TECH provides you with the necessary tools to excel in the development of applications and web pages with JavaScript”

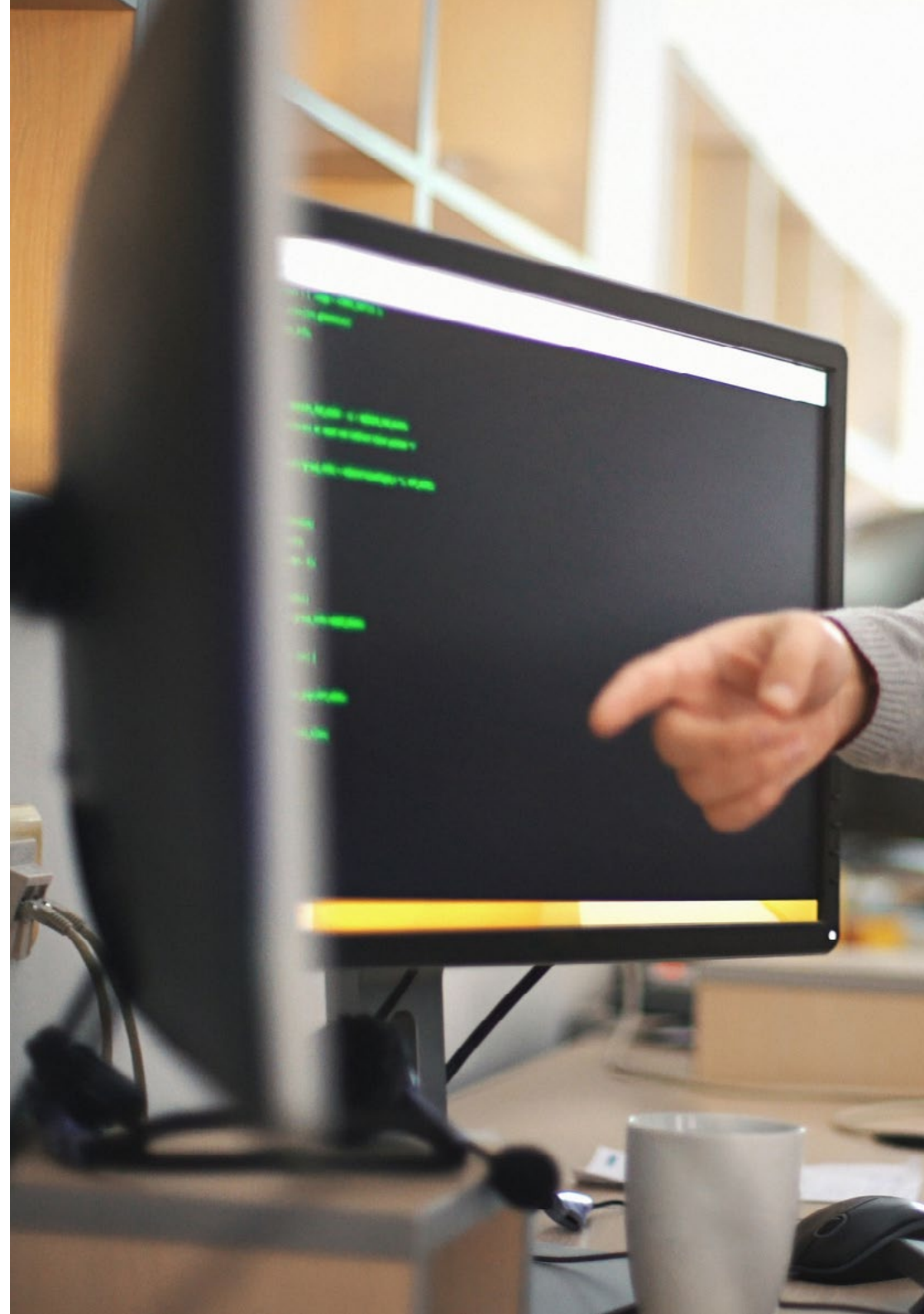


General Objectives

- ♦ Analyze the features and operation of the *React* library
- ♦ Identify *React* syntax and how to program using it
- ♦ Develop advanced knowledge to build applications using *React*
- ♦ Generate specialized knowledge to Deploy and Test Applications

“

Building well-structured user interfaces says a lot about you as a computer scientist. Through ReactJs you can create a series of pages, screens and elements that your user interacts with”





Specific Objectives

- ◆ Determine *React* functionalities
- ◆ Configure a project using *Create-React-App*
- ◆ Analyze the life cycle of *React* components
- ◆ Generate specialized knowledge about modern *React* functionalities such as *Hooks* and *Context*
- ◆ Set global states using context
- ◆ Create and render lists and create forms with *React*
- ◆ Implement field validation in forms
- ◆ Stylize components and elements
- ◆ Debug, test and deploy *React* applications

03

Course Management

TECH has assembled a select group of professionals with multiple years of experience in *JavaScript* language analysis and tools. Students are therefore guaranteed that the knowledge imparted comes from professionals capable of answering any questions they may have while providing them with real cases to better exemplify the contents on the program. In this way, the student will be able to increase *JavaScript* skills.





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A syllabus developed by industry professionals, covering the most up-to-date content on the market to make your learning successful”

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. Frias Favero, Pedro Luis

- ◆ Lead Blockchain Architect at EY
- ◆ Co-founder and Technical Director of Swear IT Technologies
- ◆ IT Support Director in Mexico, Colombia and Spain for Key Business One
- ◆ Degree in Industrial Engineering from Yacambú University
- ◆ Expert in Blockchain and Decentralized Applications from the University of Alcalá de Henares



04

Structure and Content

This Postgraduate Certificate has been designed based on the requirements of computer science applied to the *JavaScript* language specification. For this reason, the student will find specialized and innovative content in this field. This way, the computer scientist will have delved into aspects such as routing, use of styles and code deployment in the ReactJS library. By the end of this program, the computer scientist will have become a true specialist in the field, capable of creating high-level projects thanks to the *JavaScript* language.



“

Develops specialized knowledge to generate a Single Page Application with static content, and the methods to work with dynamic content”

Module 1. Javascript Tools. Reactjs Library

- 1.1. ReactJS *Javascript* Tool
 - 1.1.1. The ReactJS Tool
 - 1.1.2. *Create React App*
 - 1.1.3. *JavaScript* Syntax Extension
- 1.2. ReactJS Components
 - 1.2.1. Components
 - 1.2.2. *Props*
 - 1.2.3. Rendering
- 1.3. Events in the ReactJS Library
 - 1.3.1. Event Handling
 - 1.3.2. Inline Event Handling
 - 1.3.3. Events in the ReactJS Library
- 1.4. Configuring ReactJS *Hooks*
 - 1.4.1. Status of a Component
 - 1.4.2. *Status Hook*
 - 1.4.3. *Hook Effect*
 - 1.4.4. *Custom Hooks*
 - 1.4.5. Other Hooks
- 1.5. *Context* Component in ReactJS
 - 1.5.1. *Context* Component in ReactJS
 - 1.5.2. *Context* Use
 - 1.5.3. *Context* Structure
 - 1.5.4. *React.CreateContext*
 - 1.5.5. *Context.Provider*
 - 1.5.6. *Class.contextType*
 - 1.5.7. *Context.Consumer*
 - 1.5.8. *Context.displayName*
 - 1.5.9. Practical Application of *Context*



- 1.6. Routing in ReactJs
 - 1.6.1. *Router*
 - 1.6.2. *React router*
 - 1.6.3. *Installation*
 - 1.6.4. *Basic Routing*
 - 1.6.5. *Dynamic Routing*
 - 1.6.6. *Primary Components*
 - 1.6.7. *React Router Hooks*
- 1.7. Using Lists and Forms with ReactJS
 - 1.7.1. *Lists and Loops*
 - 1.7.2. *Forms and Validations*
 - 1.7.3. *React Hook Forms*
- 1.8. Using Styles in ReactJS
 - 1.8.1. *Traditional Styling*
 - 1.8.2. *Inline Styling*
 - 1.8.3. *Addition of Design System Library*
- 1.9. Performing Tests in *Javascript*. *Data Science*
 - 1.9.1. *Testing*
 - 1.9.2. *Jest JavaScript Testing Framework*
 - 1.9.3. *Visual testing and Documentation*
- 1.10. Code Deployment with ReactJS
 - 1.10.1. *Hosting*
 - 1.10.2. *Suppliers*
 - 1.10.3. *Project Preparation*
 - 1.10.4. *Deployment on Heroku*

“TECH has designed this program to update your knowledge and strengthen your position in the 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.



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

The Postgraduate Certificate in JavaScript Tools. ReactJs Library 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 JavaScript Tools. ReactJs Library** 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 diploma 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 JavaScript Tools. ReactJs Library**

Official N° of hours: **150 h.**



*Apostille Convention. In the event that the student wishes to have their paper diploma 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 quality
development languages
virtual classroom



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