

# Postgraduate Certificate

## Web Game Design and Development



## Postgraduate Certificate Web Game Design and Development

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

Website: [www.techtitute.com/pk/information-technology/postgraduate-certificate/web-game-design-development](http://www.techtitute.com/pk/information-technology/postgraduate-certificate/web-game-design-development)

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# 01

# Introduction

Given the process of digitalization today, the Internet has become an indispensable tool in the daily lives of millions of people. Thus, a number of tasks that were previously performed exclusively in offline environments are now also performed in digital environments. The world of video games has also reached the web, gaining millions of users. Nowadays, this type of games has become fundamental for the industry and, consequently, more and more specialized experts in the field are in demand. This program offers students all the necessary skills to gain access to large companies in the field by developing the best web games of the present and future.



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*Achieve success by designing the best web games in the world thanks to this Postgraduate Certificate”*

The popularization of the Internet and digitalization have meant that many tasks and activities that were previously performed offline are now carried out online. Bank transactions, payments and purchases, administrative procedures, communicating with family and friends, and so on. All this can now be done through the Internet, although it was done in person and analogically in the recent past.

Video games have also followed suit, and today you can enjoy a large number of titles that are played online or that have been specifically designed to be played over the web. The latter is very important, as it is a growing field with a huge number of users eager for new games to play.

Within the complex and enormous Video Game Industry, there are numerous types of products, each one aimed at different audiences, and each one designed to be enjoyed on different platforms and under different circumstances. A significant number of them correspond to web games, which require fully devoted specialists to develop quality titles.

That is why this Postgraduate Certificate in Web Game Design and Development is a great opportunity for all those professionals in the field who wish to specialize in an area full of possibilities, as it will allow them to access the world's major video game companies.

This **Postgraduate Certificate in Web Game Design and Development** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- ◆ Practical cases presented by experts in web games development
- ◆ The graphic, schematic, and eminently practical contents with which they are created, provide scientific and practical information on the 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 an Internet connection



*Web games are hugely popular, and specialists are needed to develop the next blockbuster titles. You could be one of them”*

“

*The scope of Web Games is enormous. Specializing in this field can lead you to success in the Video Game Industry”*

*Design the great Web Games of the future thanks to this Postgraduate Certificate.*

*Large companies in the field will want to hire you once you finish this course.*

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

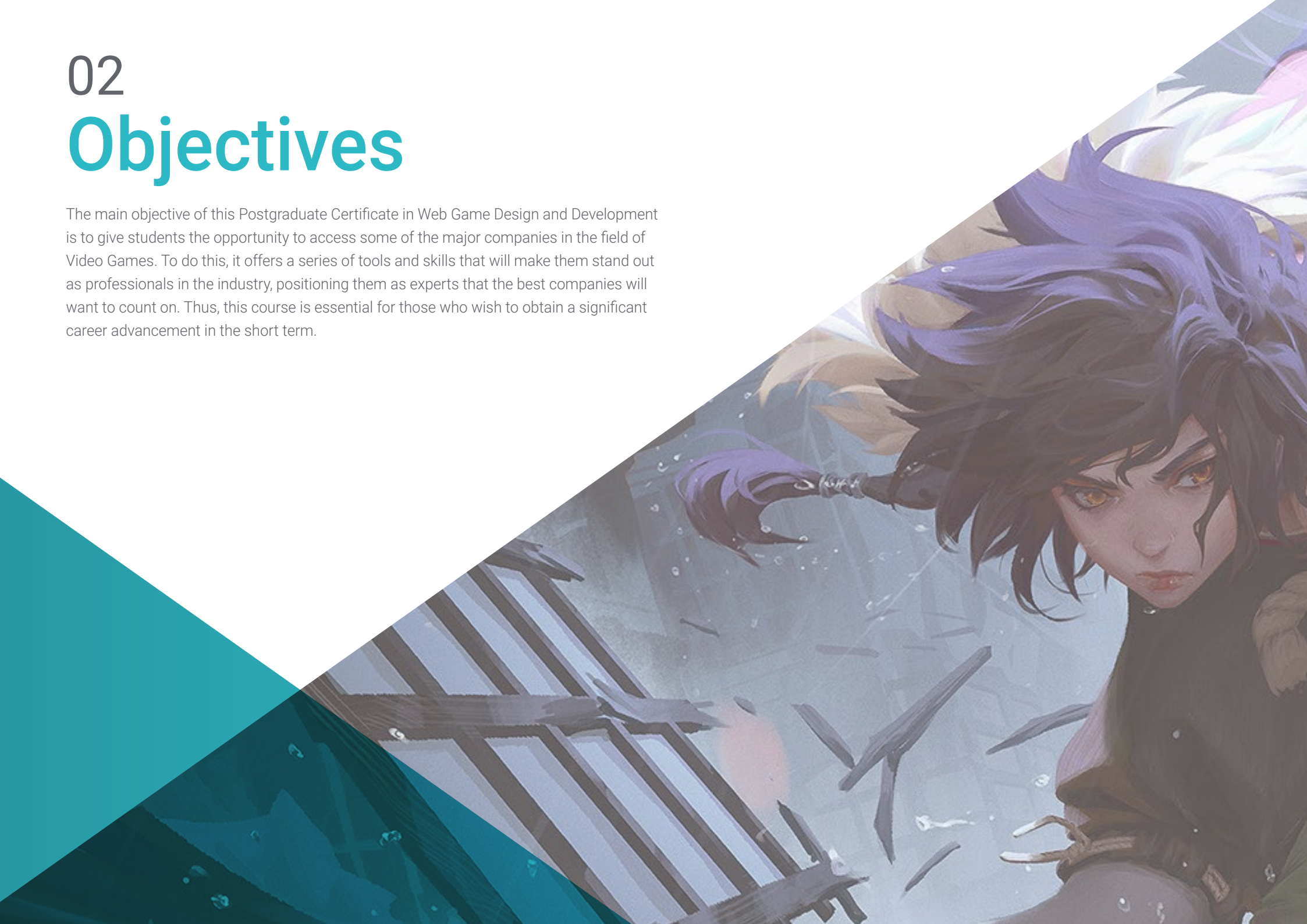
The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training programmed to train in real situations.

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.



# 02 Objectives

The main objective of this Postgraduate Certificate in Web Game Design and Development is to give students the opportunity to access some of the major companies in the field of Video Games. To do this, it offers a series of tools and skills that will make them stand out as professionals in the industry, positioning them as experts that the best companies will want to count on. Thus, this course is essential for those who wish to obtain a significant career advancement in the short term.







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*This Postgraduate Certificate will lead you to success. Don't wait any longer and enroll”*



## General Objectives

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- ◆ Become familiar with the different Programming Methods applied to Video Games
- ◆ Master the Basic Programming Languages used in Video Games
- ◆ Understand the role of Programming in Video Game Development
- ◆ Develop Web Video Games





### Specific Objectives

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- ◆ Design Games and Interactive Web Applications with the corresponding Documentation
- ◆ Evaluate the main features of Games and Interactive Web Applications for professional and adequate communication

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*This course is what you need to advance in your career*

# 03

# Structure and Content

The contents of this Postgraduate Certificate in Web Game Design and Development have been designed with the objective of providing students with the best knowledge and skills to lead a successful professional career. To achieve this, a high-level syllabus has been created with which students will be able to learn about such things as CSS, HTML, JavaScript or Client-Server Structures. At the end of this course, they will have learned everything to be able to develop Web Games with all the guarantees.



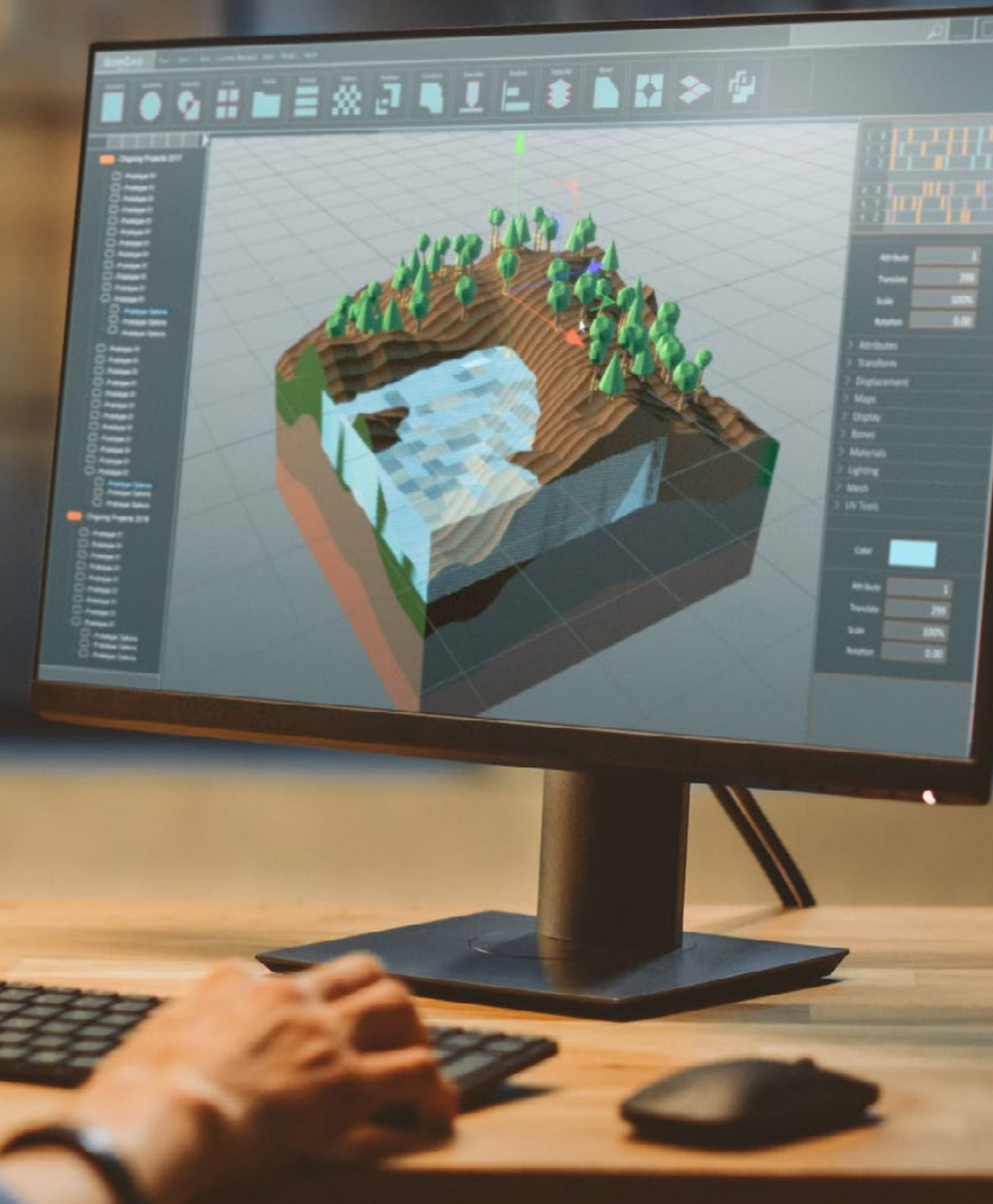


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*This syllabus will give you all the tools you need to develop successful Web Games”*

## Module 1. Web Game Design and Development

- 1.1. Web Origins and Standards
  - 1.1.1. Internet Origins
  - 1.1.2. World Wide Web
  - 1.1.3. First Web Standards
  - 1.1.4. Rise Web Standards
- 1.2. HTTP and Client-Server Structure
  - 1.2.1. Client-Server Role
  - 1.2.2. Client-Server Communication
  - 1.2.3. Recent History
  - 1.2.4. Centralized Computing
- 1.3. Web Programming: Introduction
  - 1.3.1. Basic Concepts
  - 1.3.2. Preparing Web Servers
  - 1.3.3. Basic Concepts of HTML5
  - 1.3.4. HTML Forms
- 1.4. Introduction to HTML and Examples
  - 1.4.1. HTML5 History
  - 1.4.2. HTML5 Elements
  - 1.4.3. Application Programming Interface (API)
  - 1.4.4. CCS3
- 1.5. Document Object Model
  - 1.5.1. What Is a Document Object Model?
  - 1.5.2. Using DOCTYPE
  - 1.5.3. The Importance of Validating the HTML
  - 1.5.4. Accessing Elements
  - 1.5.5. Creating Elements and Texts
  - 1.5.6. Using InnerHTML
  - 1.5.7. Deleting an Element or Text Node
  - 1.5.8. Reading and Writing Element Attributes
  - 1.5.9. Manipulating Element Styles
  - 1.5.10. Attaching Multiple Files at Once
- 1.6. Introduction to CSS and Examples
  - 1.6.1. CSS3 Syntax
  - 1.6.2. Style Sheets
  - 1.6.3. Labels
  - 1.6.4. Selectors
  - 1.6.5. CSS Web Design
- 1.7. Introduction to JavaScript and Examples
  - 1.7.1. What Is JavaScript?
  - 1.7.2. A Brief History of the Language
  - 1.7.3. JavaScript Versions
  - 1.7.4. Displaying Dialog Boxes
  - 1.7.5. JavaScript Syntax
  - 1.7.6. Understanding *Scripts*
  - 1.7.7. Spaces
  - 1.7.8. Comments
  - 1.7.9. Functions
  - 1.7.10. On-Page and External JavaScript
- 1.8. JavaScript Functions
  - 1.8.1. Function Declaration
  - 1.8.2. Function Expression
  - 1.8.3. Calling Functions
  - 1.8.4. Recursion
  - 1.8.5. Nested Functions and Closures
  - 1.8.6. Variable Preservation
  - 1.8.7. Multinested Functions
  - 1.8.8. Name Conflicts
  - 1.8.9. Closings or Closures
  - 1.8.10. Function Parameters



- 1.9. PlayCanvas for Web Game Development
  - 1.9.1. What Is PlayCanvas?
  - 1.9.2. Project Configuration
  - 1.9.3. Creating an Object
  - 1.9.4. Adding Physics
  - 1.9.5. Adding Models
  - 1.9.6. Changing the Gravity and Scene Settings
  - 1.9.7. Executing *Scripts*
  - 1.9.8. Camera Controls
- 1.10. Phaser for Web Game Development
  - 1.10.1. What Is Phaser?
  - 1.10.2. Loading Resources
  - 1.10.3. Building the World
  - 1.10.4. Platforms
  - 1.10.5. Players
  - 1.10.6. Adding Physics
  - 1.10.7. Using the Keyboard
  - 1.10.8. *Pickups*
  - 1.10.9. Points and Scoring
  - 1.10.10. Bouncing Bombs



*Your Web Games will succeed all over the world. Enroll now”*

# 04

# 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.





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*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"*

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.

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*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.*



### 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 student will learn to solve complex situations in real business environments through collaborative activities and real cases.*

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.



# 05 Certificate

The Postgraduate Certificate in Web Games Design and Development guarantees, in addition to the most rigorous and up-to-date training, access to a qualification issued by TECH Technological University.





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*Successfully complete this training program and receive your certificate without travel or laborious paperwork”*

This **Postgraduate Certificate in Web Game Design and Development** contains the most complete and up-to-date program 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 Web Game Design and Development**

Official Number 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.

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



## Postgraduate Certificate Web Game Design and Development

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

# Postgraduate Certificate

## Web Game Design and Development