

# Postgraduate Certificate Video Game Consoles and Devices



## Postgraduate Certificate Video Game Consoles and Devices

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

Website: [www.techtute.com/us/information-technology/postgraduate-certificate/video-game-consoles-devices](http://www.techtute.com/us/information-technology/postgraduate-certificate/video-game-consoles-devices)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Structure and Content

---

*p. 12*

04

Methodology

---

*p. 16*

05

Certificate

---

*p. 24*

# 01

# Introduction

Many of the video games that millions of people enjoy every day are played on consoles and using different devices that enhance user experience. For that reason, video games are designed with these types of peripherals in mind, so their importance is paramount when it comes to making a new title successful. This program offers its students the possibility of knowing these elements in depth, so they can favor the correct development of video game projects, making them succeed thanks to everything learned during the course.



“

*Get an in-depth understanding of how consoles and devices work, making your projects better and more successful”*

Throughout the history of video games, different consoles and platforms have been created and enjoyed by millions of people. From their origins, these devices evolved to the complex devices that exist today, whose graphic processing capacity is enormous and have almost infinite technical capabilities.

Knowing these elements and the consoles for which a video game is going to be designed is essential to achieve success. For this reason, this Postgraduate Certificate in Video Game Consoles and Devices is an essential qualification for all those professionals in this industry who wish to specialize in this essential aspect.

With this program, students will learn about the history of consoles, exploring the different eras such as NES and SNES, PlayStation and Xbox 360, now in the 21st century. And they will also be taught other subjects such as *scripting*, Video Game Architecture or the importance of Peripherals.

Thanks to the flexible approach of this program, students will be able to balance their professional careers with their studies, since TECH has prepared an innovative 100% online teaching methodology that facilitates this purpose.

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

- ◆ Practical cases presented by experts in consoles and Video Games
- ◆ 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

“

*Specialize in Consoles and Devices and improve your future prospects thanks to this Postgraduate Certificate”*

“

*Mastering the area of Consoles and Devices is essential for the Development of a successful Video Game”*

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.

*Specialize in consoles and help focus your company's projects correctly.*

*Peripherals are essential elements for certain video games. Knowing them can be fundamental for the success of a new title.*



# 02 Objectives

This Postgraduate Certificate in Video Game Consoles and Devices offers students in-depth and specialized knowledge in the area, so they can apply what they have learned to their professional fields, improving the projects in which they participate. Thus, the primary objective of this program is to ensure that students contribute new skills and tools to their work environments, increasing their importance and prestige in their companies and making their new Video Games succeed.





“

*Achieve your goal of working for a large company in the industry thanks to this Postgraduate Certificate”*



## General Objectives

---

- ◆ Assimilate the general concepts related to Video Game Consoles and Devices
- ◆ Know the different existing options with respect to Peripherals and Video Game Platforms
- ◆ Learn the basic stages in the History of Video Games
- ◆ Reflect on the importance of the different devices used to play Video Games





## Specific Objectives

---

- ◆ Know the Basic Operation of the main Input and Output Peripherals
- ◆ Understand the main Design implications on different Platforms
- ◆ Study the Structure, Organization, Operation and Interconnection of Devices and Systems
- ◆ Understand the Role of Operating Systems and Development Kits for Mobile Devices and Video Game Platforms

“

*Stop chasing your dreams  
and achieve them at once  
with this high-level program”*

# 03

## Structure and Content

The contents of this Postgraduate Certificate in Video Game Consoles and Devices have been designed to turn students into great specialists in the field, so they can apply everything they have learned in their professional fields. Throughout the course, they will learn to program *scripts* for Unity, they will understand how the integration of peripherals and other devices in video games takes place, and they will know its history in depth, so they can understand the current needs of each project.





“

*This knowledge will help you to improve Video Game Design”*

## Module 1. Video Game Consoles and Devices

- 1.1. History of Programming in Video Games
  - 1.1.1. Atari (1977-1985)
  - 1.1.2. Nintendo and Super Nintendo Entertainment Systems (NES and SNES) (1985-1995)
  - 1.1.3. PlayStation / PlayStation 2 (1995-2005)
  - 1.1.4. Xbox 360, PlayStation 3 and Nintendo Wii (2005-2013)
  - 1.1.5. Xbox One, PlayStation 4 and Nintendo Wii U - Switch (2013-present)
  - 1.1.6. Future
- 1.2. History of Playability in Video Games
  - 1.2.1. Introduction
  - 1.2.2. Social Context
  - 1.2.3. Structural Diagram
  - 1.2.4. Future
- 1.3. Adapting to Modern Times
  - 1.3.1. Motion-Based Games
  - 1.3.2. Virtual Reality
  - 1.3.3. Augmented Reality
  - 1.3.4. Mixed Reality
- 1.4. Unity: *Scripting I* and Examples
  - 1.4.1. What Is a *Script*?
  - 1.4.2. Our First *Script*
  - 1.4.3. Adding a *Script*
  - 1.4.4. Opening a *Script*
  - 1.4.5. MonoBehaviour
  - 1.4.6. *Debugging*
- 1.5. Unity: *Scripting II* and Examples
  - 1.5.1. Enter Keyboard and Mouse
  - 1.5.2. Raycast
  - 1.5.3. Installation
  - 1.5.4. Variables:
  - 1.5.5. Public and Serialized Variables





- 1.6. Unity: Scripting III and Examples
  - 1.6.1. Obtaining Components
  - 1.6.2. Modifying Components
  - 1.6.3. Testing
  - 1.6.4. Multiple Objects
  - 1.6.5. *Colliders* and *Triggers*
  - 1.6.6. Quaternion
- 1.7. Peripherals
  - 1.7.1. Evolution and Classification
  - 1.7.2. Peripherals and Interface
  - 1.7.3. Current Peripherals
  - 1.7.4. Near Future
- 1.8. Video Games: Future Perspectives
  - 1.8.1. Cloud-Based Games
  - 1.8.2. Controller Absence
  - 1.8.3. Immersive Reality
  - 1.8.4. Other Alternatives
- 1.9. Architecture
  - 1.9.1. Special Video Game Requirements
  - 1.9.2. Architecture Evolution
  - 1.9.3. Current Architecture
  - 1.9.4. Differences between Architectures
- 1.10. Development Kits and Evolution
  - 1.10.1. Introduction
  - 1.10.2. Third Generation Development Kits
  - 1.10.3. Fourth Generation Development Kits
  - 1.10.4. Fifth Generation Development Kits
  - 1.10.5. Sixth Generation Development Kits

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.

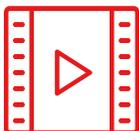
*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

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.



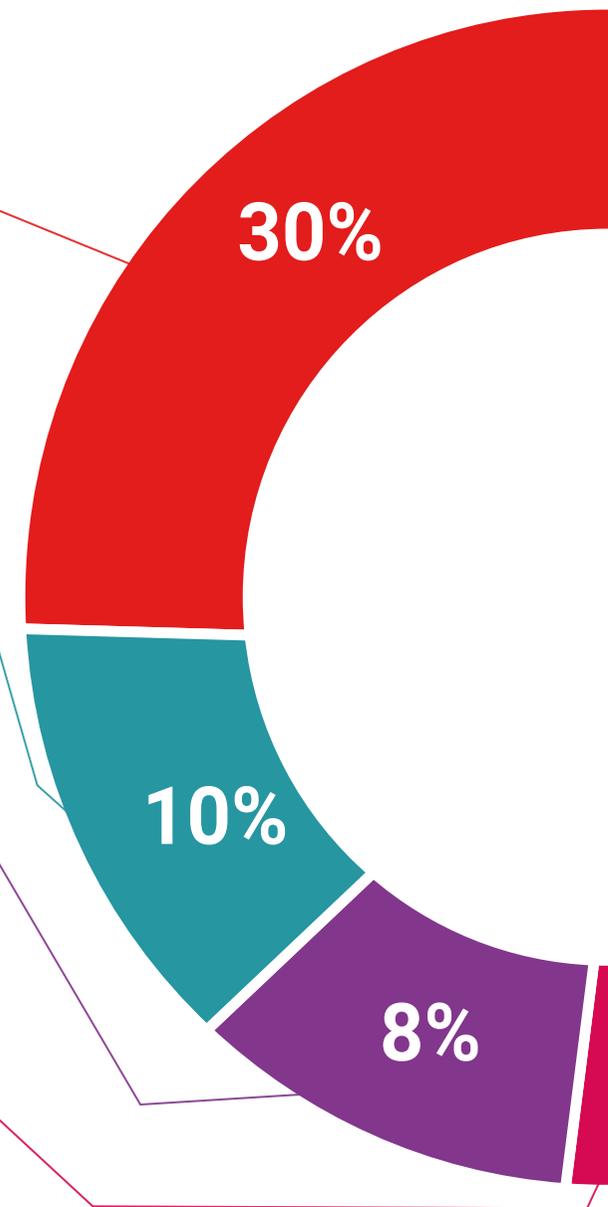
#### Practising Skills and Abilities

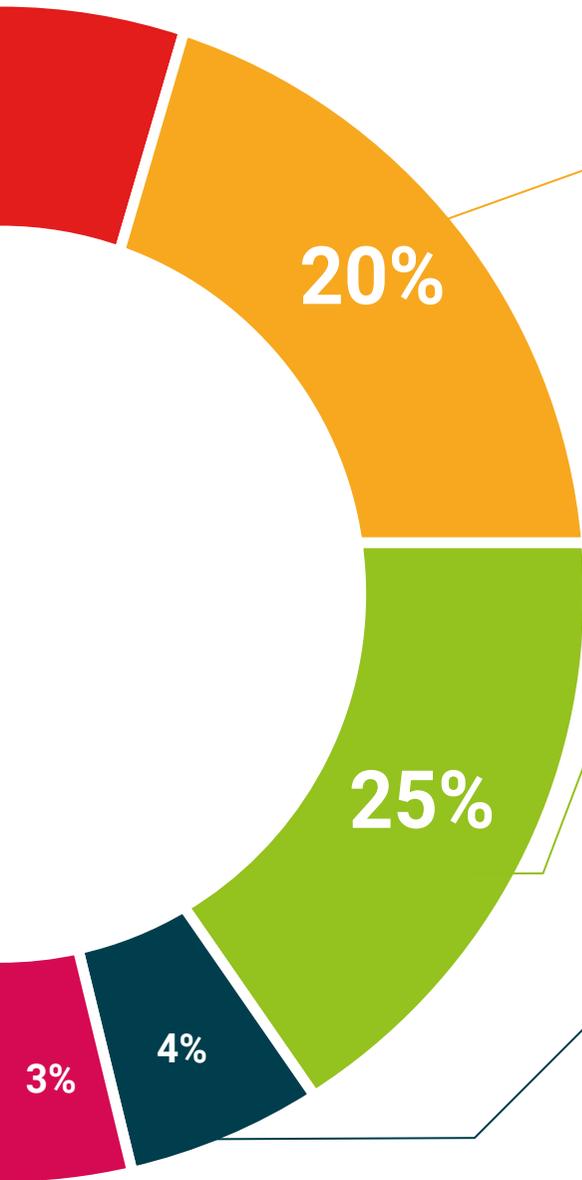
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



#### 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.



# 05 Certificate

The Postgraduate Certificate in Video Game Consoles and Devices guarantees, in addition to the most rigorous and up-to-date training, access to a qualification issued by TECH Global University.



“

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

This private qualification will allow you to obtain an **Postgraduate Certificate in Video Game Consoles and Devices** 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 Video Game Consoles and Devices**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



\*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.

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 Video Game Consoles and Devices

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

# Postgraduate Certificate Video Game Consoles and Devices

