

# Postgraduate Certificate 2D Animation in Video Games





## Postgraduate Certificate 2D Animation in Video Games

Course Modality: **Online**

Duration: **6 weeks**

Certificate: **TECH Technological University**

Official N° of hours: **150 h.**

Website: [www.techtitute.com/pk/videogames/postgraduate-certificate/2d-animation-video-games](http://www.techtitute.com/pk/videogames/postgraduate-certificate/2d-animation-video-games)

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# 01

# Introduction

2D Animation in Video Games is a resource widely used in the development of different types of video games. Mastering this type of technique is not a simple task, and making attractive, fluid 2D animations that work well in the context of the video game being designed is not easy. Without a good use of this animation, games like Super Mario Bros, would not have succeeded. Therefore, in order to be able to contribute to the successful video games of the future, specific competencies in this area are needed, and for this reason, this program offers its students specialized content that will turn them into true experts in this type of animation.





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*You loved Super Mario Bros and with this Postgraduate Certificate, you will be able to create 2D videogames at the same level”*

Today's video game industry is very diverse and includes many types of products. There are big productions destined to be best sellers. Other video games are looking to become the games of reference in multiplayer environments that are perfect for streaming on online channels. There are also independent projects that seek to differentiate themselves and gain a foothold in a small community of gamers. The fact is that this is a gigantic industry in which there is room for all kinds of initiatives.

Although 2D is sometimes associated with old or unsophisticated games, it is actually a fundamental tool for the development of current video games. Thousands of video games made entirely or partially in 2D are published every month with great success, so it is a type of product that is able to reach many gamers.

Therefore, this Postgraduate Certificate in 2D Animation in Video Games offers its students all the necessary knowledge to carry out this type of animation effectively, making it possible for them to become highly qualified professionals in the industry. For that reason, students of this program will be able to obtain great job opportunities thanks to their newly acquired skills.

This **Postgraduate Certificate in 2D Animation in Video Games** 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 2D Animation and Design
- ◆ 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 self-assessment can be used to improve learning
- ◆ 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



*Make successful 2D animations  
and become a leading figure in  
your company"*

“*2D Animation in Video Games is a fundamental technique in the video game industry: specialize and get access to the best positions”*

*Large companies in the industry are looking for 2D animation specialists: you could be one of them.*

*You will go further thanks to this Postgraduate Certificate.*

The program's teaching staff includes professionals from the sector 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 learning 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 throughout the program. 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 2D Animation in Video Games is to provide students with the best knowledge in this type of animation technique, so that they can apply it effectively in the video game projects in which they are involved. To this end, TECH has ensured that this Postgraduate Certificate offers a high-level teaching program that guarantees that its students will be the best professionals specialized in the field.







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*You love 2D Animation in Video Games and with this Postgraduate Certificate you will be able to work in top level video games”*



## General Objectives

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- ◆ Study the perspective of drawing and the different methods of creating human and animal figures
- ◆ Analyze how light, color, textures and movement affect the quality of the graphic work
- ◆ Learn how to correctly compose realistic and visually appealing environments
- ◆ Explore the different digital graphic resources, as well as the most commonly used digital supports
- ◆ Expand knowledge of the implementation of characters in video games
- ◆ Understand the elements that make up motion graphics





## Specific Objectives

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- ◆ Apply the means available for the development of 2D Animation in Video Games
- ◆ Understand the principles of proportion in animated artistic representation in order to understand that animation is a medium that provides freedom
- ◆ Optimize the use of resources to achieve new planned objectives

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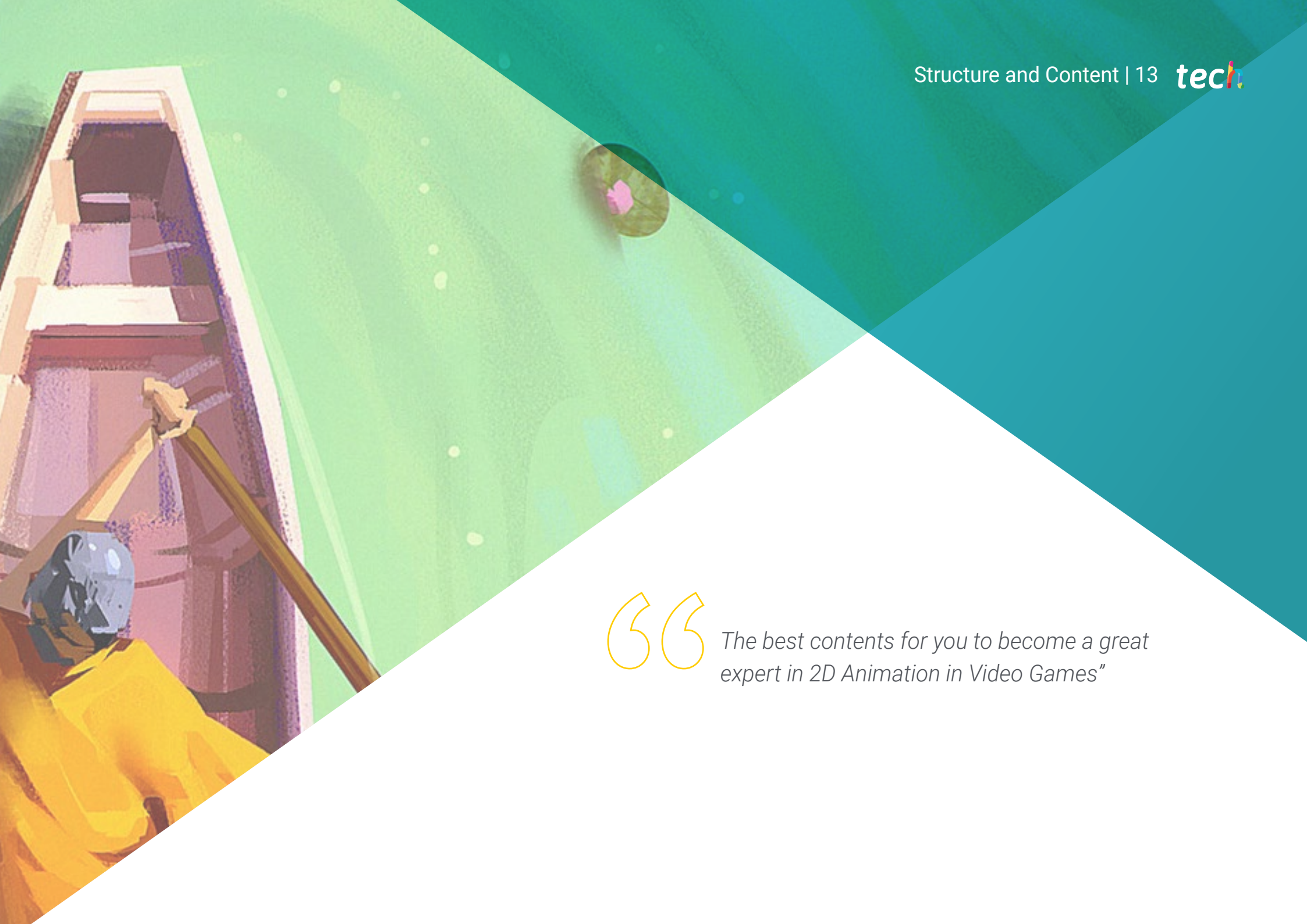
*Don't wait any longer: This program will open the doors to the Video Game industry”*

# 03

## Structure and Content

The contents of this Postgraduate Certificate in 2D Animation in Video Games have been designed by leading experts in the field who know how the video game industry works today. In this way, students will know that they will be able to directly apply the knowledge they have learned into their professional environments, thereby becoming specialists who are in high demand by the best companies in the sector. With this content, therefore, students will be the best 2D animators in their environment.





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*The best contents for you to become a great expert in 2D Animation in Video Games”*

## Module 1. 2D Animation

- 1.1. What is Animation?
  - 1.1.1. History of Animation
  - 1.1.2. Pioneers of Animation
  - 1.1.3. 2D and 3D Animation
  - 1.1.4. Is it Necessary to Know How to Draw?
- 1.2. Animators and Their Roles in Production
  - 1.2.1. Positions in the Department: Junior, Mid, Senior
  - 1.2.2. Lead Animator, Supervisor and Director
  - 1.2.3. Supervision Steps in Production
  - 1.2.4. Quality Criteria
- 1.3. Physical Laws
  - 1.3.1. Push
  - 1.3.2. Friction
  - 1.3.3. Severity
  - 1.3.4. Inertia
- 1.4. Animation Tools
  - 1.4.1. Timeline
  - 1.4.2. Dopesheet
  - 1.4.3. Curve Editor
  - 1.4.4. Use of Rigs
- 1.5. Methods of Animation
  - 1.5.1. Graph Editor: Curves and Types of Curves
  - 1.5.2. Timing and Spacing
  - 1.5.3. Overshoots
  - 1.5.4. Stepped and Spline
  - 1.5.5. Parents and Constraints
  - 1.5.6. Charts and Inbetweens
  - 1.5.7. Extreme Poses and Breakdowns





- 1.6. 12 Principles of Animation
  - 1.6.1. Timing
  - 1.6.2. Squash and Stretch
  - 1.6.3. SlowIn and SlowOut
  - 1.6.4. Anticipation
  - 1.6.5. Overlap
  - 1.6.6. Arches
  - 1.6.7. Pose to Pose and Straight Ahead
  - 1.6.8. Pose
  - 1.6.9. Secondary Action
  - 1.6.10. Staging
  - 1.6.11. Exaggeration
  - 1.6.12. Appeal
- 1.7. Anatomical Knowledge and its Functioning
  - 1.7.1. Human Anatomy
  - 1.7.2. Animal Anatomy
  - 1.7.3. Anatomy of Cartoon Characters
  - 1.7.4. Breaking the Rules
- 1.8. Posing and Silhouettes
  - 1.8.1. Importance of Location
  - 1.8.2. Importance of the Pose
  - 1.8.3. Importance of Silhouette
  - 1.8.4. Final Result. Composition Analysis
- 1.9. Exercise: Ball
  - 1.9.1. Shape
  - 1.9.2. Timing
  - 1.9.3. Spacing
  - 1.9.4. Weight
- 1.10. Exercise: Basic Cycles and Body Dynamics
  - 1.10.1. Walking Cycle
  - 1.10.2. Walking Cycle with Personality
  - 1.10.3. Running Cycle
  - 1.10.4. Parkour
  - 1.10.5. Pantomime

# 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"*

## 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.

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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 business 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. Over the course of 4 years, you will be presented with multiple practical case studies. You will have to combine all your knowledge, and research, argue, and defend your ideas and decisions.

## Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 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.



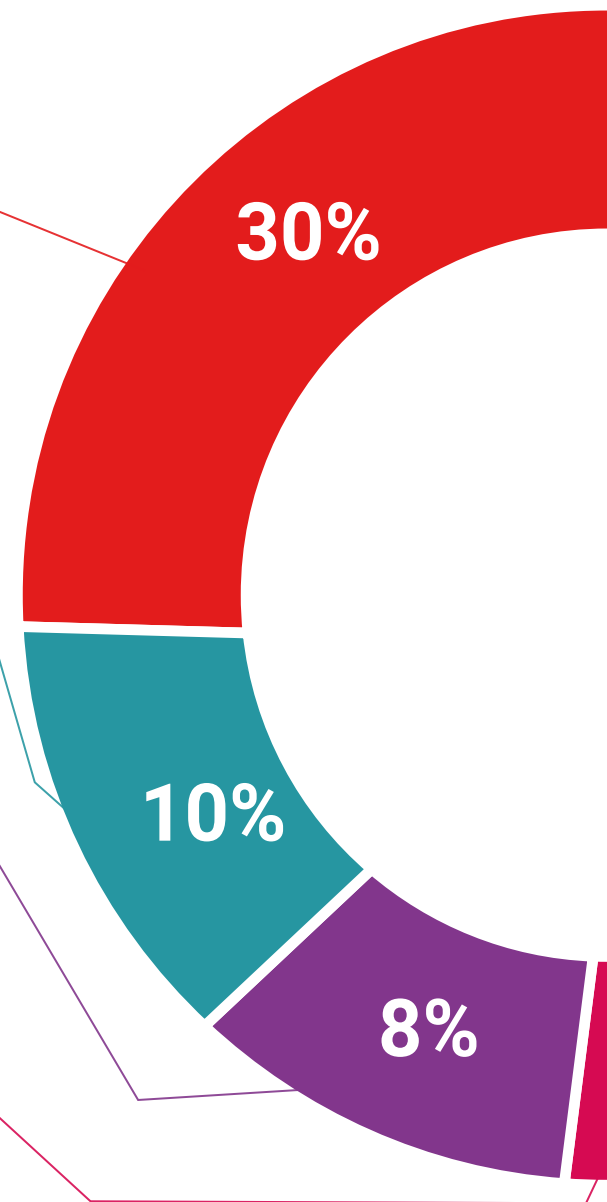
### Practising Skills and Abilities

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 we live in.



### 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 2D Animation in Video Games 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 2D Animation in Video Games** 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 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 2D animation in Video Games**

Official N° 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.

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



**Postgraduate Certificate**  
**2D Animation**  
**in Video Games**

Course Modality: **Online**

Duration: **6 weeks**

Certificate: **TECH Technological University**

Official N° of hours: **150 h.**

# Postgraduate Certificate

## 2D Animation in Video Games

