Postgraduate Diploma
Art and Animation in Video Games

tech global university

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Postgraduate Diploma
Art and Animation in Video Games

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Global University**
- Credits: **18 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/videogames/postgraduate-diploma/postgraduate-diploma-art-animation-video-games

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01

Introduction

Two of the most prominent elements of video game design are animation and art. The most striking aspect of a video game is its visual design, since it is the first thing that players appreciate and is what will catch their attention in the first instance. That is why it is such an important discipline within the field of game design, as it can define if a game is going to be a success or if it is soon to be forgotten. There is, therefore, a need for specific education that studies this area in depth and teaches students to carry out modeling, 3D design and quality animation for new video games that large companies around the world are developing.

Large companies in the video game industry need animators; you could be the solution"

The video game industry is one of the world's major audiovisual sectors. Millions of gamers spend many hours a week playing their favorite games, so the industry's leading companies have to prepare new projects on a continuous and agile basis to meet the existing demand.

The creation process of a video game involves different professionals from various fields such as scriptwriters, sound designers, project managers, etc. One of the most important figures in this process is the animator. The animator models and gives life to the different characters and visual elements that make up the video game, so it is a key element in its development.

In addition, animation is closely related to another discipline, art, which is in charge of creating and designing characters, visual concepts, establishing color codes to harmonize the aesthetics of the video game, etc. This Postgraduate Diploma in Video Game Art and Animation responds, firstly, to the demand of the industry for qualified professionals who can meet the challenges of modeling and animation in video games and, secondly, to the requirements of potential students interested in entering this sector and making a difference by producing quality animation for the new video games that are to be released on the market.

This program is, therefore, a fundamental and differential element for the preparation of future professionals in the Video Game industry, thanks to its powerful contents, created by the best professionals in the field, and to its teaching methodology, which has a strong focus on practical exercises that adequately prepare students to face professional challenges.

This **Postgraduate Diploma in Art and Animation in Video Games** contains the most comprehensive and up-to-date educational program on the market. Its most important features include:

- Practical cases presented by experts in Video Game Art and Animation
- The contents are broad and, at the same time, very specific, and are designed especially to provide students with specific and general knowledge of Video Game Animation
- Practical exercises where the self-assessment process can be carried out to improve learning
- Content that is accessible from any fixed or portable device with an Internet connection

When you finish this degree, you will be able to animate and design characters to match your favorite video games"

Art and Animation are fundamental elements; specialize in the most demanded branch of the video game industry"

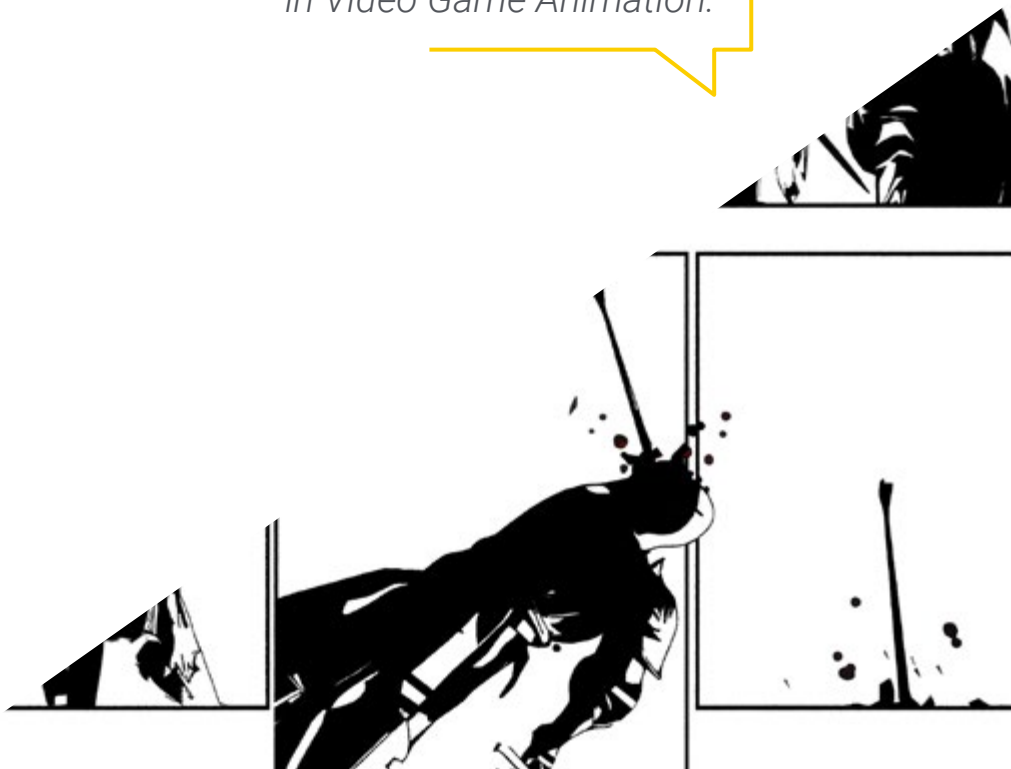
The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

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 immersion 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 throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

If you've always wanted to design your own characters and bring them to life, don't wait any longer and sign up.

Learn everything you need to become a professional specialized in Video Game Animation.



02

Objectives

The main objective of this Postgraduate Diploma is to provide students with the best tools to become animators and artists who are fully qualified to join the most successful video game companies in the world. This objective, in line with the contents and faculty of the program, is ambitious and realistic, and seeks to turn students into professional experts in the sector.

This Postgraduate Diploma gives you the opportunity to work in the video game industry"

General Objectives

- Know the different genres of video games, the concept of gameplay and features in order to apply them in the analysis of video games and in the creation of the design of the video game
- Deepen understanding of the production of video games and in the SCRUM methodology for project production
- Learn the fundamentals of video game design and the theoretical knowledge that a video game designer should know
- Generate ideas and create entertaining stories, plots and scripts for video games
- Know the theoretical and practical foundations of the artistic design of a video game
- In-depth knowledge of 2D and 3D animation, as well as the key elements of object and character animation
- Know how to perform 3D modelling tasks
- Perform professional programming with the Unity 3D engine
- Be able to create an independent digital entertainment startup

Your goal is to design video games: TECH's goal is to help you achieve this"

Specific Objectives

Module 1. Video Game Design

- Understand the theory of video game design
- In-depth study of the elements of design and gamification
- Learn about the types of players, their motivations and characteristics
- Learn about game mechanics, MDA and other Video Game Design theories
- Learn the critical foundations for video game analysis with theory and examples
- Learn about game level design, how to create puzzles within these levels and how to place the design elements in the environment

Module 2. 3D Art

- Model and texturize 3D objects and characters
- Understand 3D Studio Max and Mudbox interfaces for modeling objects and characters
- Understand the theory of 3D modeling
- Know how to extract textures
- Learn how 3D cameras work

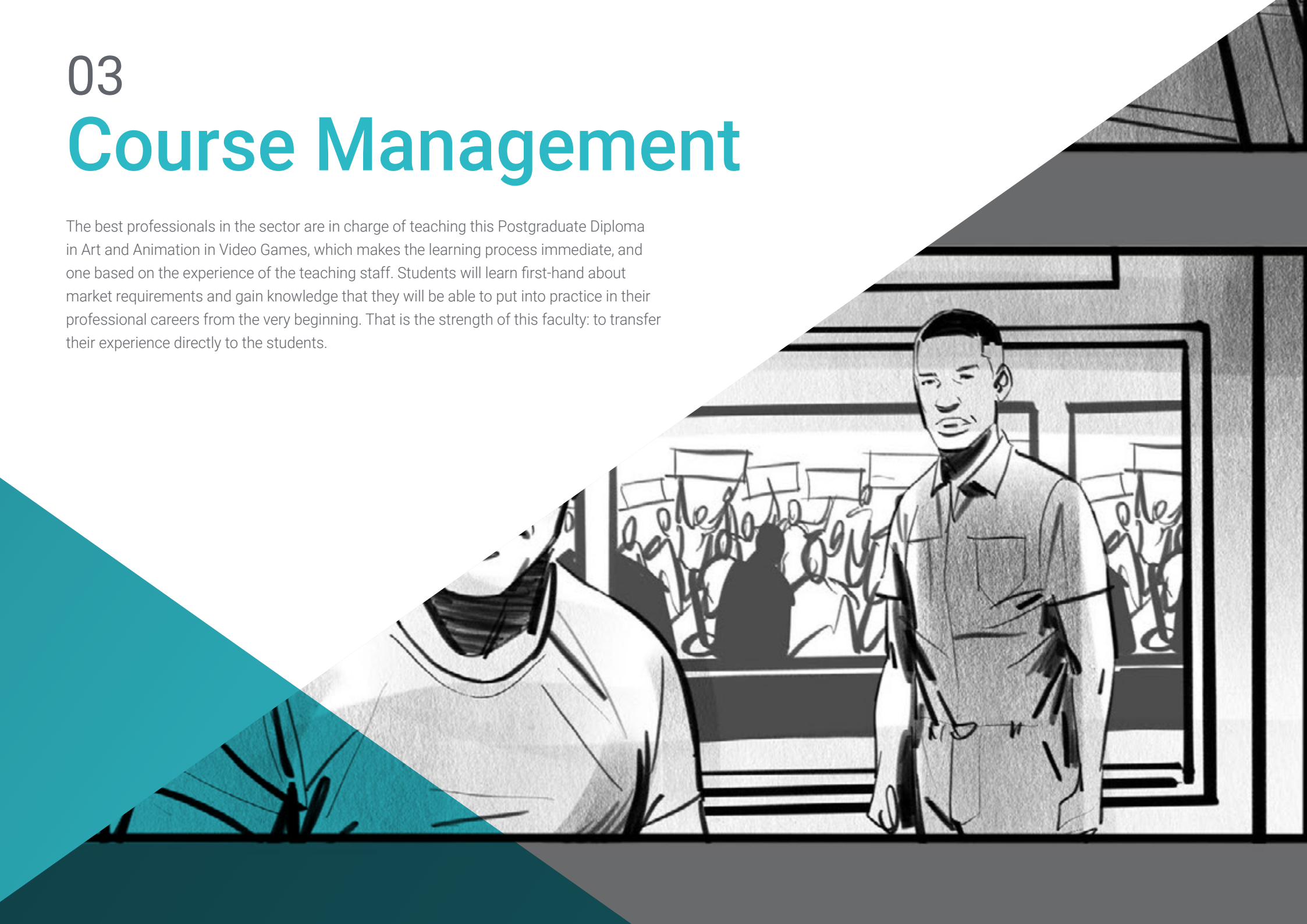
Module 3. Animation

- Perform 2D and 3D animation
- Learn the theory of animation on elements and characters
- Knowledge of 2D animation Rigging
- Perform animation in 3D Studio Max: movement of elements and characters
- Conocer el Rigging de 3D Studio Max
- Know how to perform advanced character animations

03

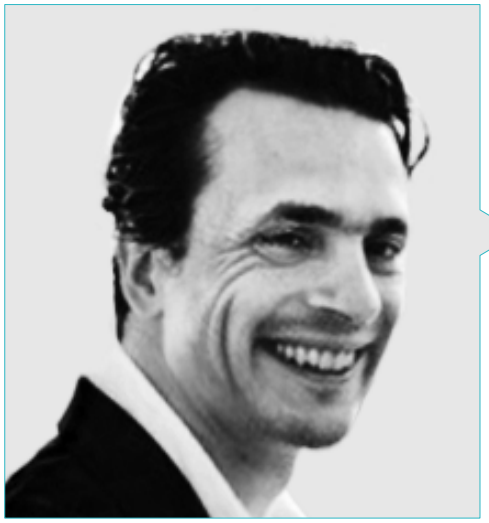
Course Management

The best professionals in the sector are in charge of teaching this Postgraduate Diploma in Art and Animation in Video Games, which makes the learning process immediate, and one based on the experience of the teaching staff. Students will learn first-hand about market requirements and gain knowledge that they will be able to put into practice in their professional careers from the very beginning. That is the strength of this faculty: to transfer their experience directly to the students.



The most experienced professionals give you their tricks so that tomorrow you can become the lastest expert to follow"

Management



Mr. Blasco Vilches, Luis Felipe

- Narrative designer at Stage Clear Studios, developing a confidential product
- Narrative designer at HeYou Games in the "Youturbo" project
- E-learning and serious games product designer and scriptwriter for Telefónica Learning Services, TAK and Bizpills
- Level designer at Indigo for the "Meatball Marathon" project
- Screenwriting teacher in the Master's Degree in Video Game Creation at the University of Malaga
- Lecturer in Video Game Narrative Design and Production at the TAI Film Department, Madrid
- Narrative Design and Script Workshops teacher, and in the Video Game Design Degree at ESCAV, Granada
- Degree in Hispanic Studies from the University of Granada, Spain
- Master's Degree in Creativity and Television Screenwriting, Rey Juan Carlos University

Professors

Ms. Molas, Alba

- Video Game Design
- Graduate in Film and Media Film School of Catalunya 2015
- Student of 3D animation Video Games and Interactive Environments Currnet – CEV 2020
- Specialized training in Children's Animation Scriptwriting. Showrunners BCN 2018
- Member of the association Women in Games
- Member of the FemDevs Association

Don't miss the opportunity to study with the best teachers in the sector"

04

Structure and Content

The contents of this program have been specially designed to transfer specific knowledge of Video Game Art and Animation to students, taken from the best experts in the sector who know all the details of this professional specialty. This Postgraduate Diploma is structured in three modules through which students will learn everything they need to enter the labor market, and with all the assurances.

The best contents in Art and Animation in Video Games are waiting for you"

Module 1. Video Game Design

1.1. The Design
- 1.1.1. Design
- 1.1.2. Types of Design
- 1.1.3. Design Process

1.2. Design Elements
- 1.2.1. Rules
- 1.2.2. Balance
- 1.2.3. Fun

1.3. Types of Players
- 1.3.1. Explorer and Social
- 1.3.2. Assassins and Achievers
- 1.3.3. Differences

1.4. Player Skills
- 1.4.1. Role Skills
- 1.4.2. Action Skills
- 1.4.3. Platform Skills

1.5. Game Mechanics I
- 1.5.1. Components
- 1.5.2. Physical
- 1.5.3. Items

1.6. Game Mechanics II
- 1.6.1. Keys
- 1.6.2. Platforms
- 1.6.3. Enemies

1.7. Other Elements
- 1.7.1. Mechanisms
- 1.7.2. Dynamics
- 1.7.3. Aesthetics

1.8. Video Game Analysis
- 1.8.1. Analysis of Gameplay
- 1.8.2. Artistic Analysis
- 1.8.3. Style Analysis

1.9. Video Level Design
- 1.9.1. Designing Interior Levels
- 1.9.2. Designing Exterior Levels
- 1.9.3. Designing Mixed Levels

1.10. Advanced-Level Design
- 1.10.1. Puzzles
- 1.10.2. Enemies
- 1.10.3. Environment

Module 2. 3D Art

2.1. Advanced Art
- 2.1.1. From Concept Art to 3D
- 2.1.2. 3D Modeling Principles
- 2.1.3. Types of Modeling: Organic/Inorganic

2.2. 3D Max Interface
- 2.2.1. 3D Software
- 2.2.2. Basic Interface
- 2.2.3. Organization of Scenes

2.3. Inorganic Modeling
- 2.3.1. Modeling with Primitives and Deformers
- 2.3.2. Editable Polygon Modeling
- 2.3.3. Graphite Modeling

2.4. Organic Model
- 2.4.1. Character Modeling I
- 2.4.2. Character Modeling II
- 2.4.3. Character Modeling III

2.5. Creation of UVs
- 2.5.1. Basic Materials and Maps
- 2.5.2. Unwrapping and Texture Projections
- 2.5.3. Retopology

2.6. Advanced 3D
- 2.6.1. Texture Atlas Creation
- 2.6.2. Hierarchies and Bone Creation
- 2.6.3. Application of a Skeleton

2.7. Animation Systems
- 2.7.1. Bipet
- 2.7.2. CAT
- 2.7.3. Proper Rigging

2.8. Facial Rigging
- 2.8.1. Expressions
- 2.8.2. Restrictions
- 2.8.3. Controllers

2.9. Principles of Animation
- 2.9.1. Cycles
- 2.9.2. Libraries and Use of MoCap Motion Capture Files
- 2.9.3. Motion Mixer

2.10. Export to Engines
- 2.10.1. Export to Unity Engine
- 2.10.2. Exporting Models
- 2.10.3. Importing Animations

Module 3. Animation

3.1. Animation
- 3.1.1. Traditional Animation
- 3.1.2. 2D Animation
- 3.1.3. 3D Animation

3.2. 12 Principles of Animation I
- 3.2.1. Stretch and Shrink
- 3.2.2. Anticipation
- 3.2.3. Staging

3.3. 12 Principles of Animation II
- 3.3.1. Direct Action and Pose-by-Pose
- 3.3.2. Continuous and Superimposed Action
- 3.3.3. Acceleration and Deceleration

3.4. 12 Principles of Animation III
- 3.4.1. Arches
- 3.4.2. Secondary Action
- 3.4.3. Timing

3.5. 12 Principles of Animation IV
- 3.5.1. Exaggeration
- 3.5.2. Solid Drawing
- 3.5.3. Personality

3.6. 3D Animation
- 3.6.1. 3D Animation I
- 3.6.2. 3D Animation II
- 3.6.3. 3D Kinematics

3.7. Advanced 2D Animation
- 3.7.1. Character Movements I
- 3.7.2. Character Movements II
- 3.7.3. Character Movements III

3.8. 2D Animation Rigging
- 3.8.1. Introduction to 2D Rig
- 3.8.2. 2D Rig Creation
- 3.8.3. 2D Facial Rig

3.9. 2D Animation
- 3.9.1. Object Movement I
- 3.9.2. Object Movement II
- 3.9.3. Object Movement III

3.10. Kinematics
- 3.10.1. Creation of a 2D Kinematic: Basic Introduction
- 3.10.2. Creation of a 2D Kinematic: Movements in the Environment
- 3.10.3. Creation of a 2D Kinematic: Export

Learn every last detail about Art and Animation in Video Games with this Postgraduate Diploma"

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 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

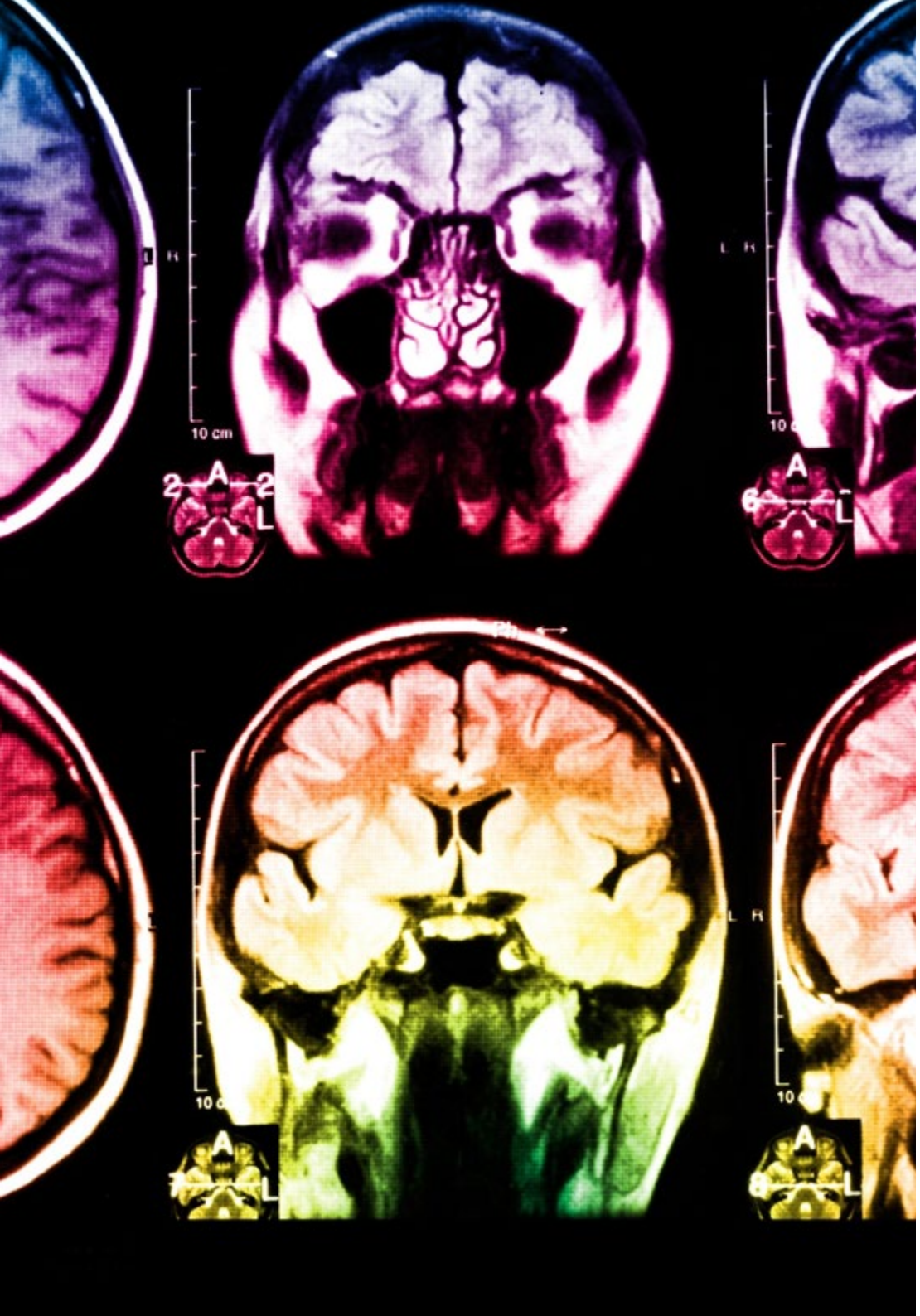
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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.

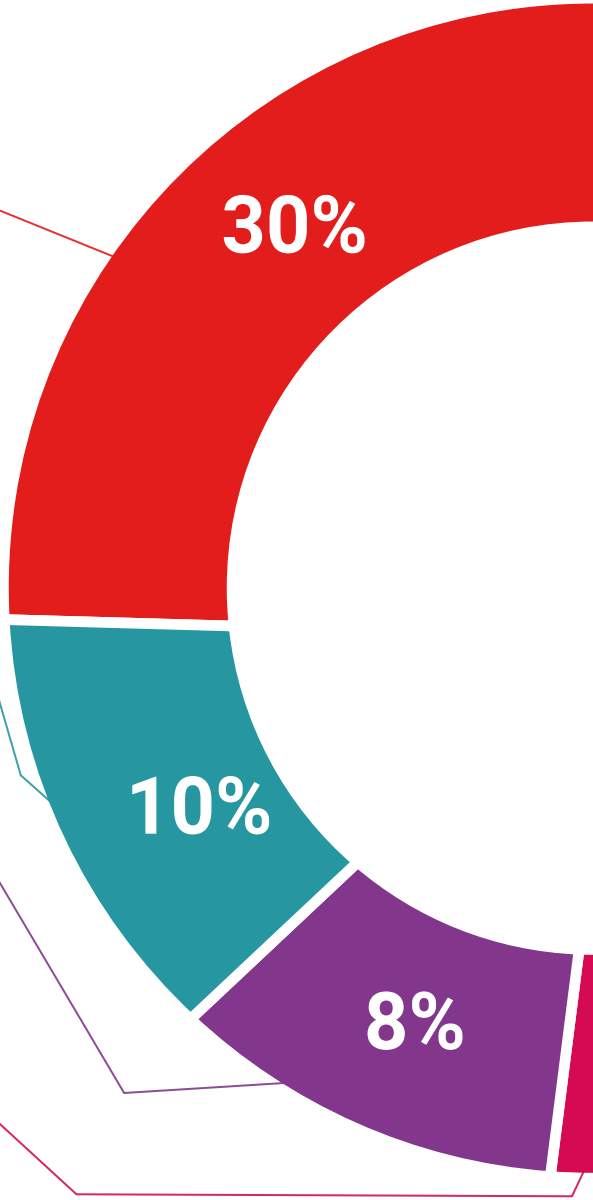
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

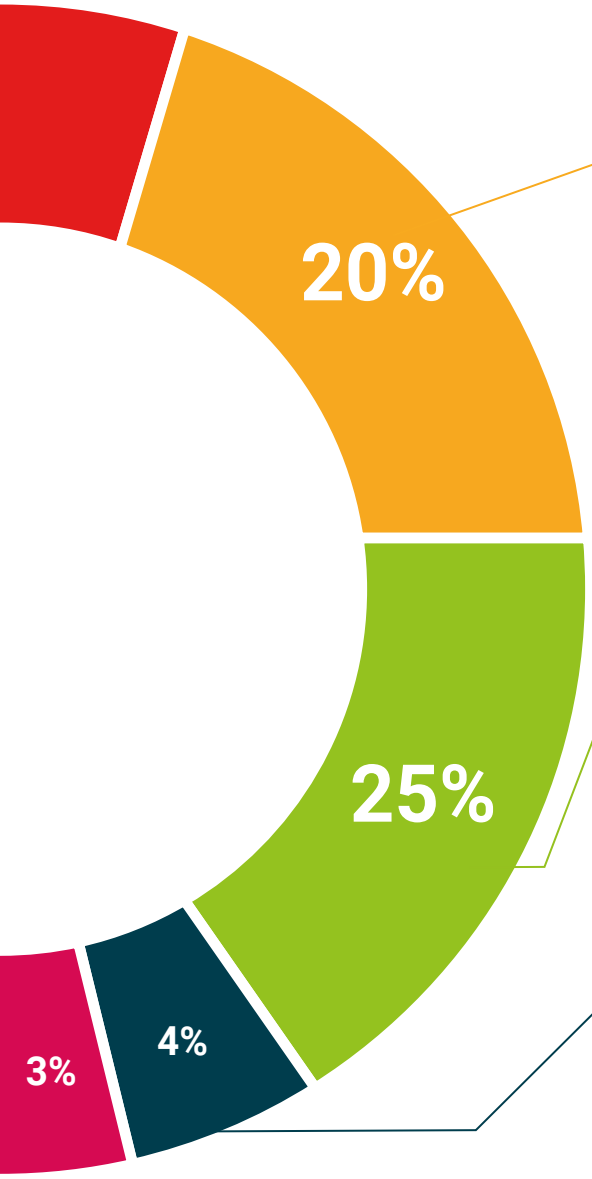
Practising Skills and Abilities

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.

06

Certificate

The Postgraduate Diploma in Art and Animation in Video Games guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma qualification issued by TECH Global University.

Successfully complete this program and receive your university degree without travel or laborious paperwork"

This program will allow you to obtain your **Postgraduate Diploma in Art and Animation in Video Games** 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 Diploma in Art and Animation in Video Games**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**


tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Diploma in Art and Animation in Video Games

This is a program of 450 hours of duration equivalent to 18 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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