

# Postgraduate Certificate 3D Art for Video Games



## Postgraduate Certificate 3D Art for Video Games

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

Website: [www.techtute.com/us/videogames/postgraduate-certificate/3d-art-video-games](http://www.techtute.com/us/videogames/postgraduate-certificate/3d-art-video-games)

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# 01

# Introduction

Video games are one of the most important elements of entertainment today. People from different countries and age groups play video games, so there are millions of gamers in the world, each with their own particular tastes. For that reason, the video game industry needs skilled personnel who are capable of developing different types of experiences, with different narratives and designs. 3D art is a fundamental aspect in this process, and companies in the sector need specialized professionals, so this qualification offers the student the best tools to become an expert in demand by the industry.





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*3D art is a fundamental element of video game design: companies need specialized personnel”*

The video game industry is one of the most important economic and cultural sectors in the world. Hundreds of new titles are released every week, due to the high demand from gamers. These players, moreover, are a very large group of people, as there are millions of them around the world, from different age groups, from different societies and coming from a wide variety of backgrounds.

With this scenario, in which there is a high demand for new works every week, companies in the industry have had to adapt and diversify their offer, varying in styles and genres of video games in order to reach all groups of gamers. For this reason, there is an increasing need for more specialized personnel who can deal with new ways of creating and designing.

One of the most demanded areas by companies in the sector is 3D Art, which combines a part of artistic design and 3D modeling, applying creative ideas to this technical section, so necessary and valued by the largest companies in the video game industry.

This Postgraduate Certificate in 3D Art for Video games responds to the need of students and professionals to specialize and adapt to the demands of companies in this growing industry. This qualification offers all the necessary knowledge to work in the art department of a video game company, but within the specialty of 3D design, which will give a specificity of knowledge to the student, decisive to get new job opportunities.

This **Postgraduate Certificate in 3D Art for Video Games** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ General knowledge about video game design
- ◆ Specific first level contents on 3D Art for video games
- ◆ Practical exercises where the process of self-assessment can be used to improve learning
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



*The video game industry needs 3D Art experts for its new titles: you could be one of them”*

“

*Hundreds of new video games are released every week and companies need specialized personnel”*

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

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive education 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.

*If you love video games and want to be remembered for having participated in a great title: this is your chance.*

*If you have always wanted to design video games: don't wait any longer and specialize in the most demanded area of the sector.*



# 02 Objectives

The main objectives of this Postgraduate Certificate are to offer its students, on the one hand, the best contents on 3D Art for Video Games and on the other hand, to allow them, thanks to this qualification, to make their way in the industry, which needs expert personnel in the field.







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*You are ambitious and this Postgraduate Certificate offers you the contents you need to be noticed by the big video game companies”*



## General Objectives

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- ◆ Gain knowledge about the different video game genres, the concept of gameplay and its characteristics to apply them in the analysis of video games or in the creation of video game design
- ◆ In-depth knowledge of 2D and 3D animation, as well as the key elements of object and character animation
- ◆ Be able to perform 3D modeling tasks
- ◆ Perform professional programming with the Unity 3D engine





## Specific Objectives

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- ◆ Model and texturize 3D objects and characters
- ◆ Gain knowledge about the 3D Studio Max and Mudbox program interface for modelling objects and characters
- ◆ Understand the theory of 3D modeling
- ◆ Be able to extract textures
- ◆ Get to know how 3D cameras work

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*Your goals are TECH's goals.  
This qualification has been  
designed especially for you”*

# 03

# Course Management

This course has been designed by the best experts in the video game industry, who know the ins and outs of the industry and know what companies are demanding. As a result, thanks to their experience, teachers will be able to transmit the best content to students, so that they can immediately apply it to their professional field.





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*The best teachers specialized in the video game industry so that you receive the best teaching”*

## Management



### Mr. Blasco Vilches, Luis Felipe

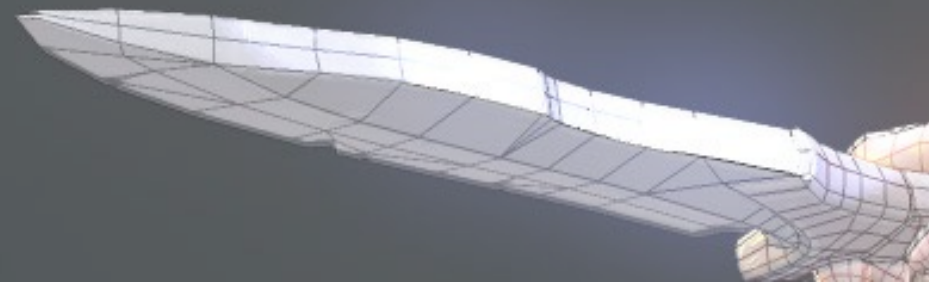
- Narrative designer at Stage Clear Studios, developing a confidential product
- Narrative designer at HeYou Games in the “Youturbo” project
- E-learning and serious games product designer and scriptwriter for Telefónica Learning Services, TAK and Bizpills
- Level designer at Indigo for the “Meatball 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



# 04

# Structure and Content

The contents of this Postgraduate Certificate in 3D Art for Video Games contain all the necessary knowledge to become an expert in the field and be able to access the labor market of the video game industry. Through 10 very complete and in-depth topics, covering different 3D modeling and design techniques, the student will be able to become an expert highly valued by the industry.







*The best content, taught  
by the best teachers"*

## Module 1. 3D Art

- 1.1. Advanced Art
  - 1.1.1. From Concept Art to 3D
  - 1.1.2. 3D Model Principles
  - 1.1.3. Modeling types: Organic / Inorganic
- 1.2. 3D Max Interface
  - 1.2.1. 3D Max Software
  - 1.2.2. Basic Interface
  - 1.2.3. Scene Organization
- 1.3. Inorganic Modeling
  - 1.3.1. Modeling with Primitives and Deformers
  - 1.3.2. Editable Polygon Modeling
  - 1.3.3. Modeling with Graphite
- 1.4. Organic Model
  - 1.4.1. Character Modeling I
  - 1.4.2. Character Modeling II
  - 1.4.3. Character Modeling III
- 1.5. Creation of UVs
  - 1.5.1. Basic Materials and Maps
  - 1.5.2. Unwrapping and Texture Projections
  - 1.5.3. Retopology
- 1.6. Advanced 3D
  - 1.6.1. Creation of Texture Atlas
  - 1.6.2. Hierarchies and Bone Creation
  - 1.6.3. Application of a Skeleton
- 1.7. Animation Systems
  - 1.7.1. Biped
  - 1.7.2. CAT
  - 1.7.3. Own Rigging
- 1.8. Facial Rigging
  - 1.8.1. Expressions
  - 1.8.2. Restrictions
  - 1.8.3. Controllers
- 1.9. Principles of Animation
  - 1.9.1. Cycles
  - 1.9.2. Libraries and Use of MoCap Motion Capture Files
  - 1.9.3. Motion Mixer
- 1.10. Exporting to Engines
  - 1.10.1. Exporting to Unity Engine
  - 1.10.2. Models Export
  - 1.10.3. Animation Export



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*The most complete contents are waiting for you in this Postgraduate Certificate in 3D Art for Video Games”*

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.





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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.*



*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 Certificate in 3D Art for Video Games guarantees students, in addition to the most rigorous and up-to-dated education, access to a Postgraduate Certificate issued by TECH Technological University.





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

This **Postgraduate Certificate in 3D Art for Video Games** 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 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 3D Art for Video Games**

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  
online training  
development language  
classroom

**tech** technological  
university

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# Postgraduate Certificate

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