



## Postgraduate Certificate 3D Character Modeling

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/in/videogames/postgraduate-certificate/3d-character-modeling

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## tech 06 | Introduction

The techniques to recreate characters in three dimensions advance continuously, opening the possibilities for designers of all kinds of video games to create the most impressive and impactful 3D models in the industry.

As the graphic evolution is unstoppable and the deadlines more demanding, the designer must be prepared to assume control of all the production steps of a three-dimensional character: from the choice of its style and base shapes to the last stages of lighting, rendering and posing.

With an in-depth knowledge of the entire process involved in creating a 3D character, the designer will have better options for career advancement and professional improvement, so this TECH degree is an excellent opportunity to not only improve daily workflows but also be able to apply for projects and more relevant jobs.

In addition, TECH provides its students the facility to take this program online, without classes, compulsory attendance or schedules. All the teaching material is available from the first day of the diploma, and can be downloaded on any fixed or mobile device with internet connection.

This **Postgraduate Certificate in 3D Character Modeling** contains the most complete and up-to-date educational program on the market. Its most notable features are:

- The development of case studies presented by experts in 3D modeling
- The graphic, schematic, and practical contents with which they are created, provide 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



This Postgraduate Certificate will give you the keys to improve your current position through the modeling of 3D characters"



Your work methodology will be much more efficient by improving all the processes involved in creating 3D characters"

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.

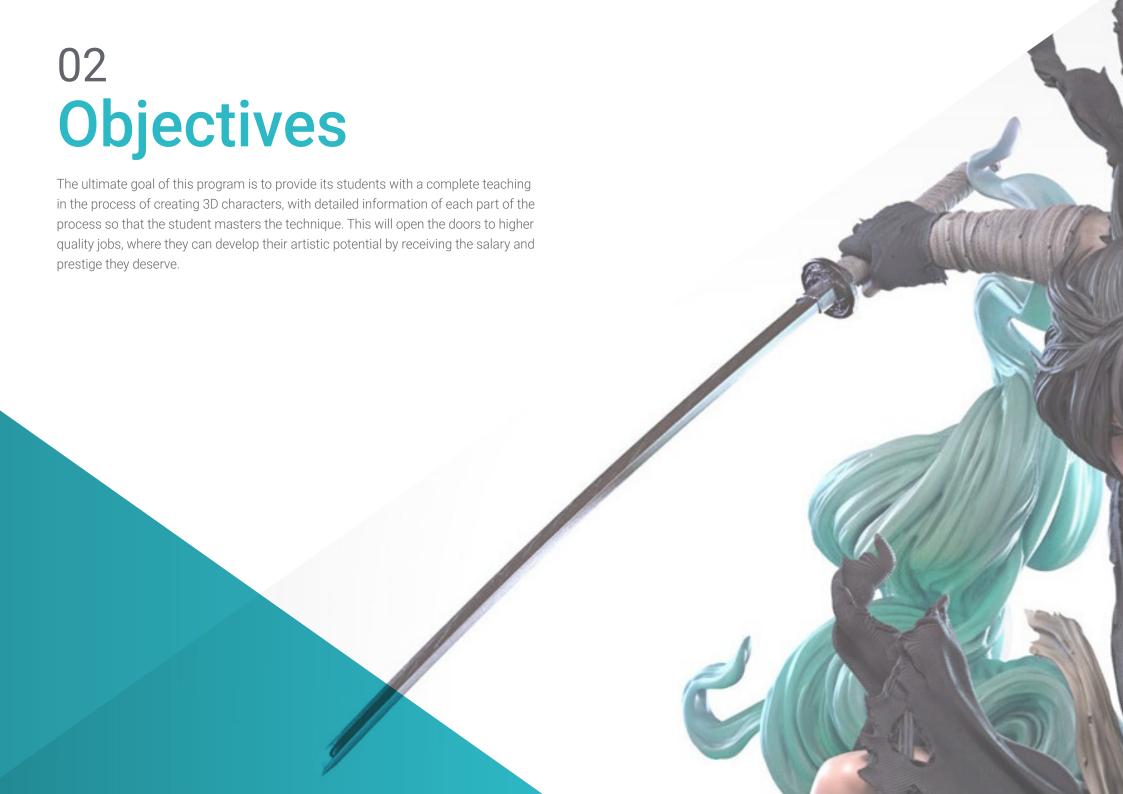
The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training programmed to train in real situations.

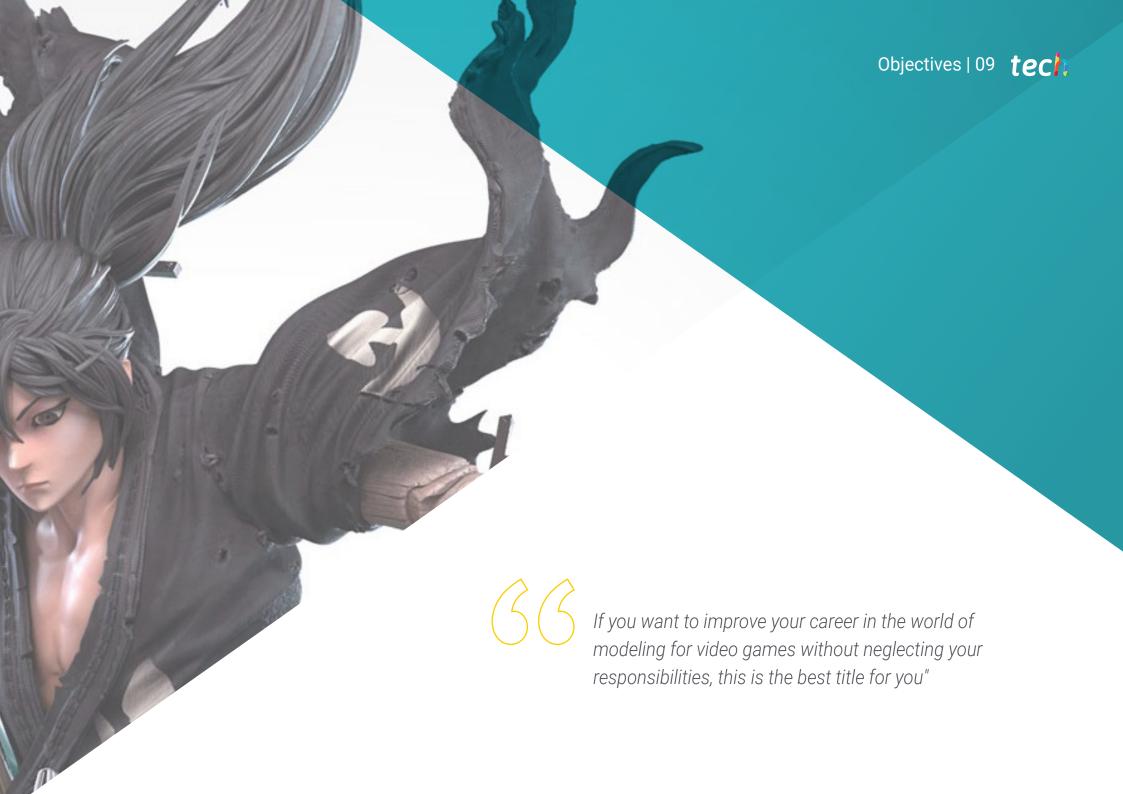
This program is designed around Problem-Based Learning, whereby the professional must try to solve different professional practice situations that arise during the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

Refine your current techniques and prove that you are a professional capable of assuming more responsibilities within your organization"

> Your 3D characters will be remembered by players from all over the world thanks to the care and attention that you will put in every detail after finishing this program"







## tech 10 | Objectives



## **General Objectives**

- Expand knowledge of human and animal anatomy in order to develop hyper-realistic creatures.
- Master the retopology, UVS and texturing to perfect the models created.
- Create an optimal and dynamic workflow to work more efficiently with 3D modeling.
- Have the skills and knowledge most in demand in the 3D industry to be able to apply for the best jobs.





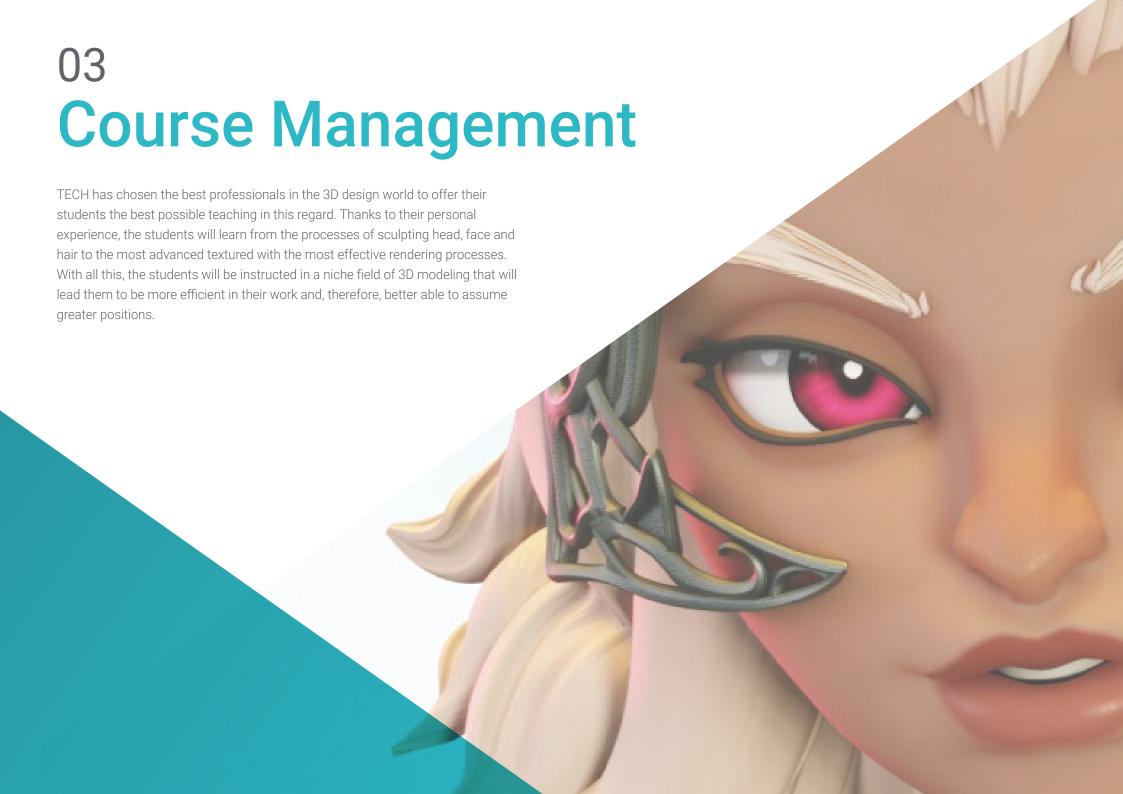


## **Specific Objectives**

- Focus anatomical knowledge in simpler, cartoon-like forms
- Create a cartoon model from the base to the detail by applying what has been previously learned
- Review the techniques learned in the program in a different modeling style



Your professional goals will be much closer after improving your techniques and refinement of models in this Postgraduate Certificate"





## tech 14 | Course Management

#### Management



#### Ms. Gómez Sanz, Carla

- 3D Generalist at Blue Pixel 3D
- Concept Artist, 3D Modeler, Shading in Timeless Games Inc
- $\cdot$  Collaboration with multinational consulting firm for the design of vignettes and animation for commercial proposals
- Advanced Technician in 3D Animation, video games and interactive environments at CEV School of Communication, Image and Sound
- Master's Degree and Bachelor's Degree in 3D Art, Animation and Visual Effects for video games and cinema at CEV School of Communication, Image and Sound.



Course Management | 15 tech

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## **Structure and Content**

Being such a complex theme that of the modeling of characters in 3 dimensions, this Postgraduate Certificate gathers the essential knowledge that the student must have to stand out with an efficient workflow. Being fully aware of all the steps that must be taken, the students can even choose to lead teams dedicated to 3D character modeling. Thanks to the educational methodology of TECH, the teaching material is enriched with a multitude of practical examples and real cases in which the student learns contextually to design the best possible 3D characters.





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This is the occasion you've been waiting for to specialize in 3D video game modeling and relaunch your career. Don't miss it and enroll today"

## tech 18 | Structure and Content

#### Module 1 Stylized Characters

- 1.1. Choice of a Stylized Character and *Blocking* of Base Forms
  - 1.1.1. References and Concept Arts
  - 1.1.2. Base Forms
  - 1.1.3. Deformities and Fantastic Shapes
- 1.2. Conversion of our Low Poly into High Poly Model: Head, Hair and Face Sculpting
  - 1.2.1. Head Blocking
  - 1.2.2. New Hair Creation Techniques
  - 1.2.3. Improvements
- 1.3. Model Refinement: Hands and Feet
  - 1.3.1. Advanced Sculpting
  - 1.3.2. Refinement of General Shapes
  - 1.3.3. Shape Cleaning and Smoothing
- 1.4. Creation of Jaw and Teeth
  - 1.4.1. Creation of Human Teeth
  - 1.4.2. Increase its Polygons
  - 1.4.3. Fine Detailing of Teeth in Zbrush
- 1.5. Modeling Clothing and Accessories
  - 1.5.1. Types of Cartoon Clothing
  - 1.5.2. Zmodeler
  - 1.5.3. Applied Maya Modeling
- 1.6. Retopology and Clean Topology Creation from Scratch
  - 1.6.1. Retopology
  - 1.6.2. Loops According to the Model
  - 1.6.3. Optimization of the Mesh



### Structure and Content | 19 tech



- 1.7. UV Mapping and Baking
  - 1.7.1. UV's
  - 1.7.2. Substance Painter: Baking
  - 1.7.3. Polishing Baking
- 1.8. Texturing and Painting in Substance Painter
  - 1.8.1. Substance Painter: Texturing
  - 1.8.2. Hand Painted Cartoon Techniques
  - 1.8.3. Fill Layers with Generators and Masks
- 1.9. Lighting and Rendering
  - 1.9.1. Lighting of Our Character
  - 1.9.2. Color Theory and Presentation
  - 1.9.3. Substance Painter: Render
- 1.10. Posing and Final Presentation
  - 1.10.1. Diorama
  - 1.10.2. Posing Techniques
  - 1.10.3. Presentation of Models



With a syllabus as complete as this and a teaching staff involved in your professional improvement, you will have all the easiness to become a reference in the modeling of 3D video game characters"





## tech 22 | Methodology

#### 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 are shaking the foundations. 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.



### Methodology | 25 tech

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.



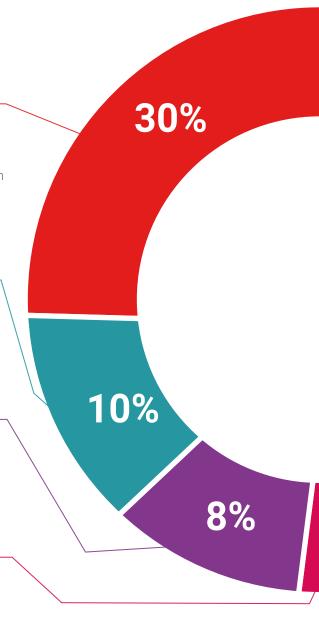
#### **Practising Skills and Abilities**

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.



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#### **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.





## tech 30 | Certificate

This **Postgraduate Certificate in 3D Character Modeling** 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 in 3D Character Modeling Official N° of Hours: 150 h.



technological university

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