



# Postgraduate Certificate Humanoid Modeling

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Global University

» Credits: 6 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/design/postgraduate-certificate/humanoid-modeling

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# 01 Introduction

The visual impact of work in the digital industry is directly related to the improvement of techniques and the use of new technologies. In the art of Digital Sculpting, a professional modeler must know the best practices for the character creation process . This requires a good knowledge of human anatomy and topology applied to sculpture so that the models behave correctly and come to life through animation. Understand the perspective of texturing, integration into game engines or 3D printing. It is possible to learn all these concepts in only 6 weeks, thanks to the syllabus of this online study program.



# tech 06 | Introduction

In this Postgraduate Certificate in Humanoid Modeling, you will study the physiognomy of the human face, its topology to animate it and create the main expressions of a person using the *Morphers* modifier. This technique allows the modeler a high quality of execution that brings realistic results to each work.

In order to turn students into specialists of the medium, they will be taught to conform meshes correctly with different models. This course teaches students to optimize resources and produce results of optimum quality as part of a team or individually.

The student will be able to work with more artistic formats such as *Dynamesh* or use 3D scanning techniques by learning about the conformation of meshes to perform manual retopologies in different software.

With this 6-week online educational program and the support of an expert team of teachers throughout the learning process, the professional will obtain the necessary knowledge that will enable him/her to compete in the labor market. This is one of the most in-demand specializations in recent years.

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

- Practical cases presented by experts in 3D modeling and digital sculpture
- 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 the self-assessment process can be carried out 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



Give a boost to your career with professional training in Humanoid Modeling. This specialty is useful in different sectors of the audiovisual industry"



Knowledge of character creation is essential for a good modeler. Learn everything you need to achieve unique models with this course"

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.

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.

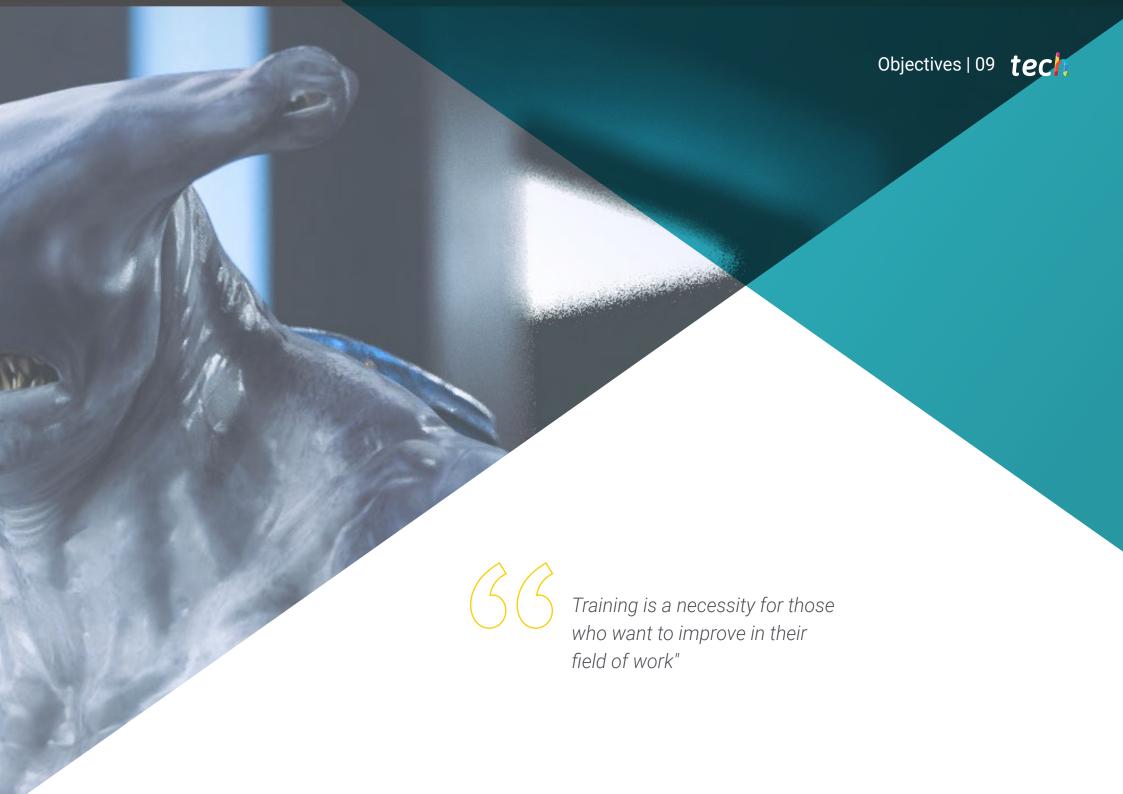
This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. This will be done with the help of an innovative system of interactive videos made by renowned experts.

TECH's educational system allows for quality teacher-student interaction. This facilitates the learning process.

Develop new skills in Hard Surface modeling with this Postgraduate Certificate.







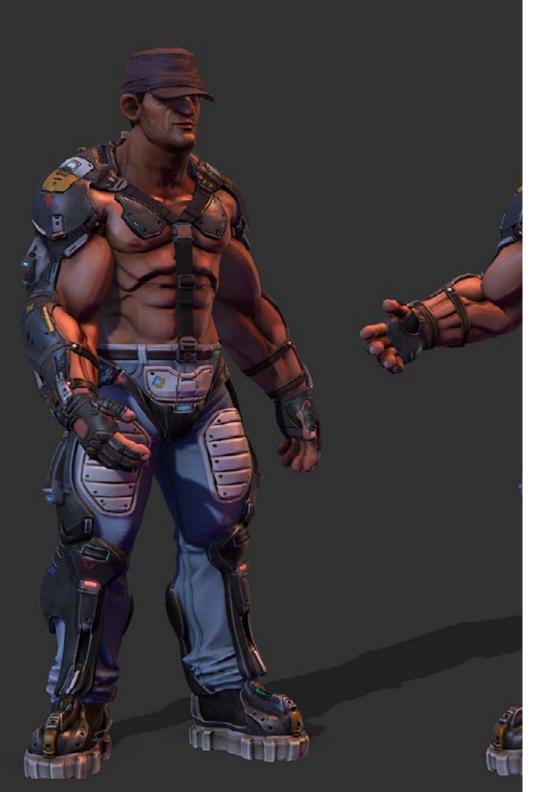
# tech 10 | Objectives



# **General Objectives**

- Understand human and animal anatomy to apply it to modeling, texturing, lighting and rendering processes in a precise way
- Understand the necessity of having an adequate topology at all levels of development and production
- Creation of realistic and high quality cartoon characters
- Advanced management and use of various organic modeling systems
- Understand the current demands of the movie and video game industries in order to offer best results







# **Specific Objectives**

- Manage and apply anatomical knowledge to human sculpture
- Learn the correct topology of models to be used in 3D animation, video games and 3D printing
- Characterize and stylize humanized characters
- Produce manual retopologies with 3D Max, Blender and ZBrush
- Create groups of people and multiple objects
- Use predefined and human base meshes



Train to work in one of the most demanded specializations and boost your career opportunities to another level"





# tech 14 | Course Management

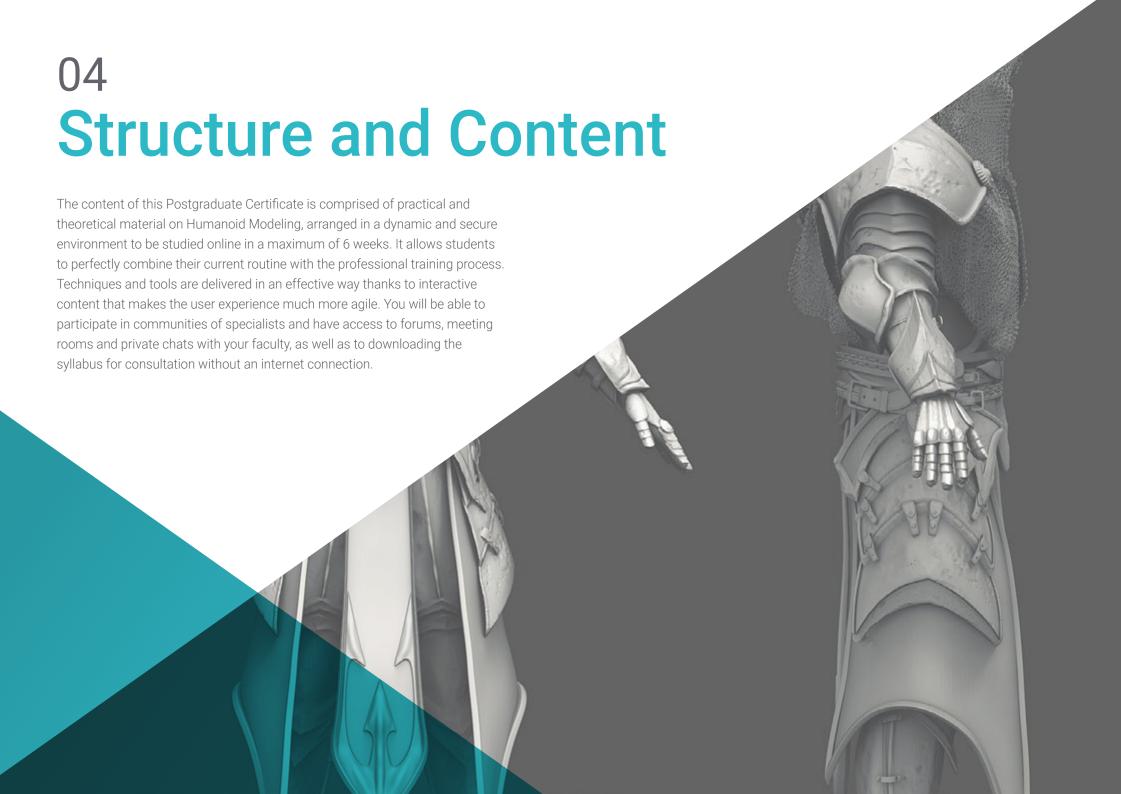
#### Management



#### Mr. Sequeros Rodríguez, Salvador

- Freelance 2D/3D modeler and generalist
- · Concept Art and 3D Models for Slicecore. Chicago
- Videomapping and modeling, Rodrigo Tamariz. Valladolic
- Professor of Higher-Level Training Cycle in 3D Animation. Higher Education School of Image and Sound ESISV. Valladolid
- Professor of Higher-Level Training Cycle GFGS in 3D Animation. European Institute of Design IED Madrid
- 3D modeling for Las Fallas designers Vicente Martinez and Loren Fandos. Castellón
- Master's Degree in Computer Graphics, Games and Virtual Reality. URJC University. Madrid
- Degree in Fine Arts at the University of Salamanca (specializing in Design and Sculpture)







# tech 18 | Structure and Content

#### Module 1. Humanoid

- 1.1. Human Anatomy for Modeling
  - 1.1.1. Canon of Proportions
  - 1.1.2. Evolution and Functionality
  - 1.1.3. Superficial Muscles and Mobility
- 1.2. Lower Body Topology
  - 1.2.1. Trunk
  - 1.2.2. Legs
  - 1.2.3. Feet
- 1.3. Upper Body Topology
  - 1.3.1. Arms and Hands
  - 1.3.2. Neck
  - 1.3.3. Head, Face and Mouth Interior
- 1.4. Characterized and Stylized Characters
  - 1.4.1. Detailing with Organic Modeling
  - 1.4.2. Characterization of Anatomies
  - 1.4.3. Styling
- 1.5. Expressions
  - 1.5.1. Facial Animation and Layer
  - 1.5.2. Morpher
  - 1.5.3. Texture-Based Animation
- 1.6. Posing
  - 1.6.1. Character Psychology and Relaxation
  - 1.6.2. Rig with ZSpheres
  - 1.6.3. Posing with Motion Capture
- 1.7. Characterization
  - 1.7.1. Tattoos
  - 1.7.2. Scars
  - 1.7.3. Wrinkles, Freckles and Spots





### Structure and Content | 19 tech

- 1.8. Manual Retopology
  - 1.8.1. 3D Max Software
  - 1.8.2. Blender
  - 1.8.3. ZBrush and Projections
- 1.9. Predefined
  - 1.9.1. Fuse
  - 1.9.2. VRoid
  - 1.9.3. MetaHuman
- 1.10. Crowds and Recurring Spaces
  - 1.10.1. Scatter
  - 1.10.2. Proxies
  - 1.10.3. Groups of Objects



With the Postgraduate Certificate in Humanoid Modeling, you will learn to work with artistic formats such as Dynamesh or use 3D scanning techniques to perform manual retopologies in different software, all in 6 weeks"



# 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 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 is the most widely used learning system in the best faculties in the world. 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 we face in the case method, an action-oriented learning method. Throughout the program, the studies 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 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. With this methodology we have 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, markets, and financial 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.



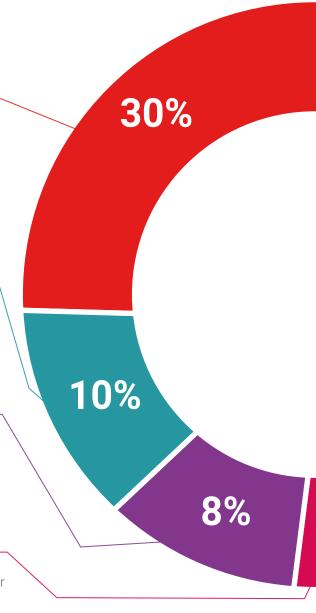
#### **Practising Skills and Abilities**

They will carry out activities to develop specific competencies and skills in each thematic 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.



# Methodology | 27 tech



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.

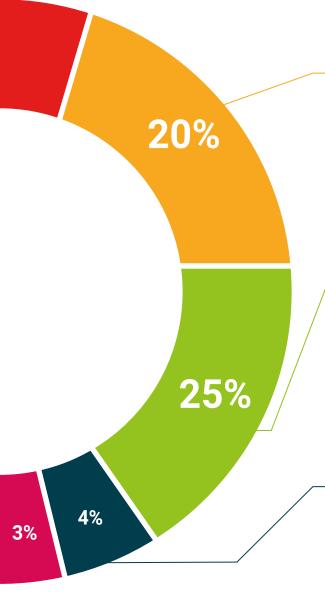


This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

#### **Testing & Retesting**

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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 program will allow you to obtain your **Postgraduate Certificate in Humanoid Modeling** 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 Certificate in Humanoid Modeling

Modality: online

Duration: 6 weeks

Accreditation: 6 ECTS



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

#### **Postgraduate Certificate in Humanoid Modeling**

This is a program of 180 hours of duration equivalent to 6 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



<sup>\*</sup>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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