

# Postgraduate Certificate Rendering, Lighting and Posing of 3D Models



## Postgraduate Certificate Rendering, Lighting and Posing of 3D Models

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

Website: [www.techtitute.com/us/videogames/postgraduate-certificate/rendering-lighting-posing-3d-models](http://www.techtitute.com/us/videogames/postgraduate-certificate/rendering-lighting-posing-3d-models)

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# 01

# Introduction

The work on a 3D model does not end when it is finished. In order to present it in a correct and professional way, checking at the same time that everything is correct, it is necessary that the file goes through a previous rendering process. In addition, it is best to find the lighting and posing that will bring out the best features of the model, in order to make the ideal impression. This is a process that involves several multimedia programs including ZBrush, Mixamo and Maya. This qualification provides an extensive overview of the features of all these programs, in order for the student to improve their skills and acquire greater responsibilities in the most critical stages of a 3D design project.





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*You will bring out the best profile of your models, which will impress your own and your superiors to guarantee you a position of higher relevance in your department"*

Throughout a complete process of design and 3D modeling, the final stage of rendering, lighting and posing is essential to present all the fruit of the effort and dedication put into it. This is a critical step that must be done well, as any mistake can lead to a loss of time and work.

Due to its importance both for the final presentation and for the care in the last details, professionals with knowledge in this field are more likely to surprise with their models and, therefore, have access to better job opportunities.

So much so that TECH has developed this qualification, which only focuses on these fundamental aspects so that the student can polish and use them in the most appropriate way possible. Thanks to this, you will improve your professional performance and the level of your personal portfolio, strengthening your candidacy even for managerial positions or leading more relevant projects.

A qualification with an online format that shares the concerns of its students, allowing them to access all the content from the first day of learning. In this way, they will be able to combine the teaching load with their own personal and professional responsibilities.

This **Postgraduate Certificate in Rendering, Lighting and Posing of 3D Models** 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 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
- ◆ Access to content from any fixed or portable device with an Internet connection



*You will learn, from the hand of professionals versed in 3D modeling, the lighting and posing techniques with which to win the astonishment of the public"*



“

*The advanced rendering you will learn in this Postgraduate Certificate will save you valuable time to devote to other tasks or even your personal projects"*

*You will see how you start getting better projects and jobs thanks to your professionalism in giving that final touch to all your models.*

*Your postproduction, clean and elegant, will speak for you when it comes to making the leap to better jobs.*

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 the different professional practice situations that arise during the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts



# 02 Objectives

The objective of this program is to ensure that its students obtain a substantial improvement both economically and professionally in the world of video games. Since this is not an easy task, as it is a very competitive market, TECH strives to achieve the highest teaching and learning quality for all its students. Thus, the designer will see that the content is adapted to their demands, up to date with the latest technological instances and with the knowledge in Maya and Arnold Render necessary to succeed as a prestigious designer.







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*This is the qualification that will allow you to acquire the knowledge in rendering you are looking for, adapted to the latest trends and developments in the field”*



## General Objectives

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- ◆ 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 odelling
- ◆ Have the skills and knowledge most in demand in the 3D industry to be able to apply for the best jobs







## Specific Objectives

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- ◆ Discover advanced lighting and photography concepts to sell models more efficiently
- ◆ Develop the learning of model posing by means of different techniques
- ◆ Delve into the development of a rig in Maya for the subsequent possible animation of the model
- ◆ Observe the control and use of the Rendering of the model, bringing out all its details

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*You'll get the final professional look for your models to impress your superiors and get that well-deserved promotion”*

# 03

# Course Management

This Postgraduate Certificate is directed by a teaching staff that, in addition to having expertise in the use of all the modelling tools indicated in the syllabus, has the necessary professional experience to meet the demands of their students. Thanks to this, they can better guide all the doubts and queries received, knowing what they need at all times to achieve success as successful 3D designers in the video game industry.





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*You will be supported by a teaching staff that is no stranger to your concerns and aspirations, receiving the best support and advice in 3D modeling for video games that you could ask for"*



## Management



### Ms. Gómez Sanz, Carla

- ♦ 3D Generalist at Blue Pixel 3D
- ♦ Concept Artist, 3D Modeler, Shading in Timeless Games Inc.
- ♦ 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.





# 04

# Structure and Content

This Postgraduate Certificate follows the most rigorous educational structure of TECH, with a special review of all the essential aspects of rendering and presentation of models with tools such as: ZBrush, Maya, Mixamo, Arnold Render, Marmoset Toolbar and even Photoshop. With all this set of knowledge, the student will be much better prepared for a future job where they can demonstrate their expertise in the use of all these tools and access the job in the project of their dreams.



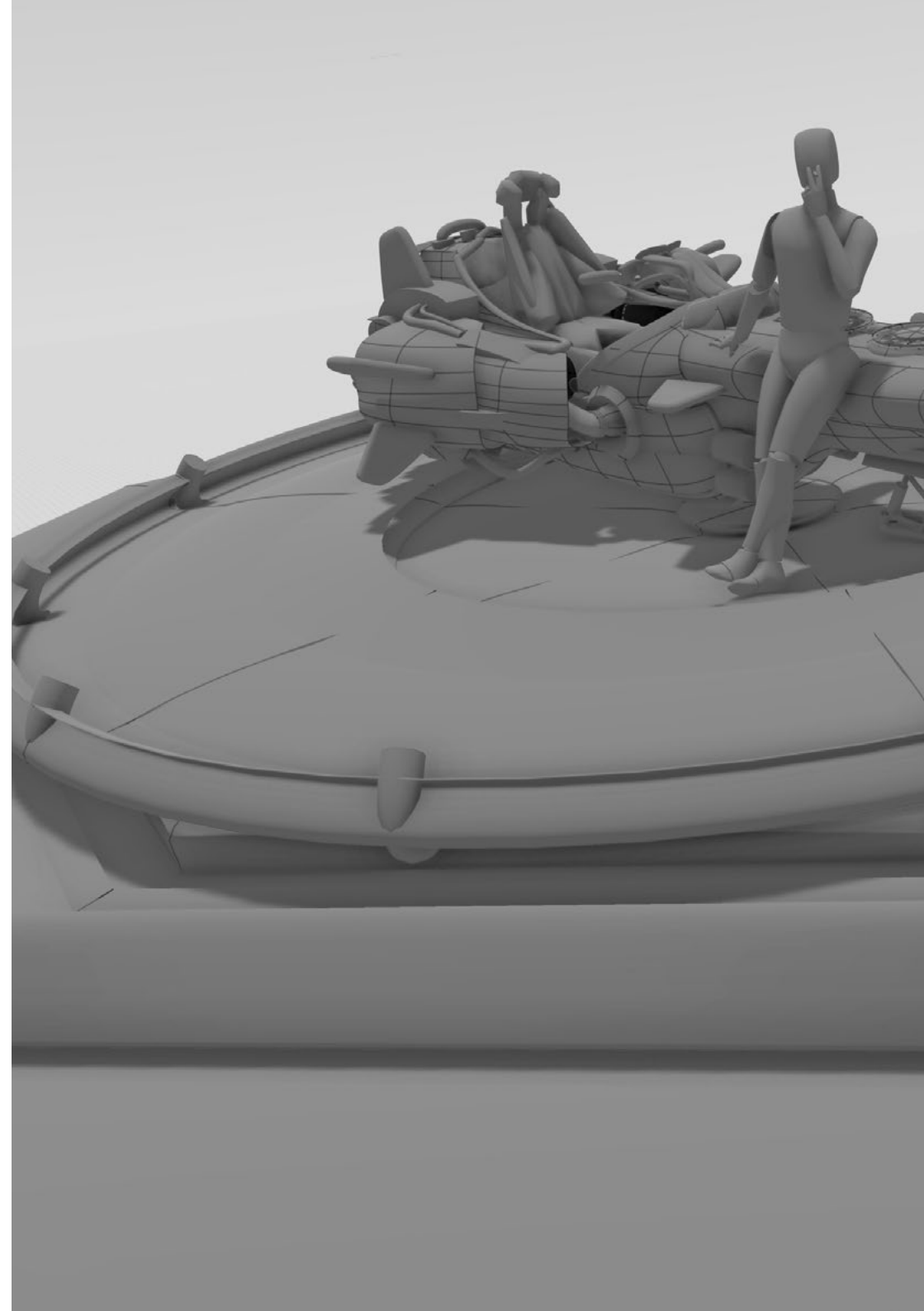


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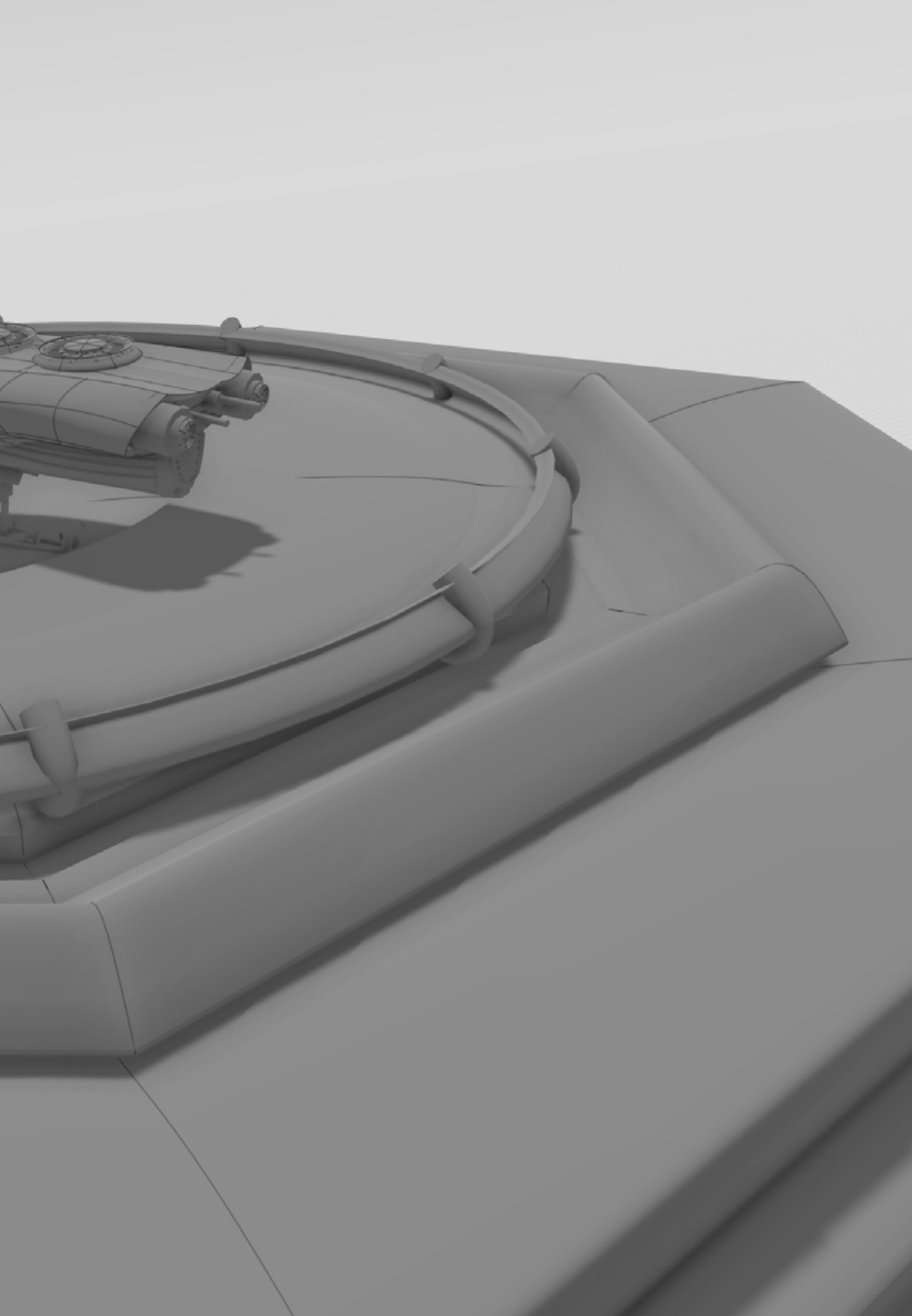
*Don't miss the great opportunity TECH gives you to become a respected and reputable professional in the world of 3D modeling for video games"*

## Module 1. Rendering, Lighting and Posing of Models

- 1.1. Characters Posing in ZBrush
  - 1.1.1. Rig in ZBrush with ZSpheres
  - 1.1.2. Transpose Master
  - 1.1.3. Professional Finish
- 1.2. Rigging and Weighting of our Own Skeleton in Maya
  - 1.2.1. Rig in Maya
  - 1.2.2. Rigging Tools with Advanced Skeleton
  - 1.2.3. Rig Weighting
- 1.3. Blend Shapes to Give Life to Your Character's Face
  - 1.3.1. Facial Expressions
  - 1.3.2. Blend Shapes of Maya
  - 1.3.3. Animation with Maya
- 1.4. Mixamo, a Quick Way to Present Our Model
  - 1.4.1. Mixamo
  - 1.4.2. Mixamo Rigs
  - 1.4.3. Animations
- 1.5. Lighting Concepts
  - 1.5.1. Lighting Techniques
  - 1.5.2. Light and Color
  - 1.5.3. Shade
- 1.6. Arnold Render Lights and Parameters
  - 1.6.1. Lights with Arnold and Maya
  - 1.6.2. Lighting Control and Parameters
  - 1.6.3. Arnold Parameters and Configuration







- 1.7. Lighting of our Models in Maya with Arnold Render
  - 1.7.1. Lighting Set Up
  - 1.7.2. Model Lighting
  - 1.7.3. Mixing Light and Color
- 1.8. Going Deeper in Arnold: Denoising and the Different AOV's
  - 1.8.1. AOV's
  - 1.8.2. Advanced Noise Treatment
  - 1.8.3. Denoiser
- 1.9. Real-Time Rendering in Marmoset Toolbag
  - 1.9.1. *Real-Time* vs. Ray Tracing
  - 1.9.2. Advanced Marmoset Toolbag
  - 1.9.3. Professional Presentation
- 1.10. Post-Production Rendering in Photoshop
  - 1.10.1. Image Processing
  - 1.10.2. Photoshop: Levels and Contrasts
  - 1.10.3. Layers: Characteristics and their Effects

“ Enroll today in this Postgraduate Certificate and start now to head towards a better future, designing the 3D models of video games that you are passionate about, surrounded by the best professional teams and studios”

# 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.



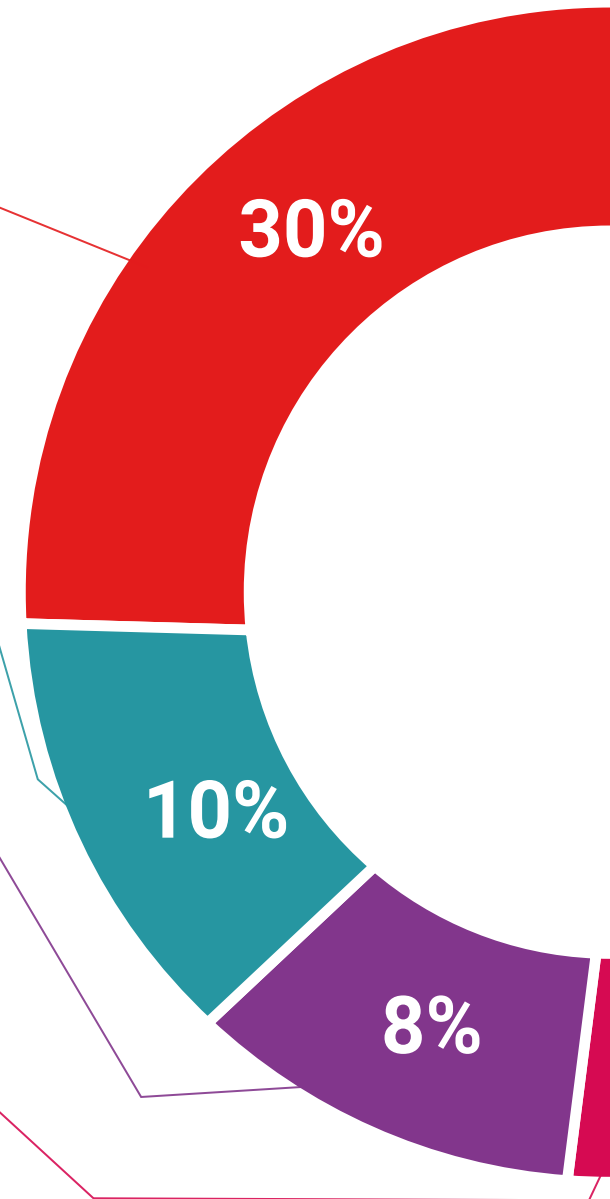
### Practising Skills and Abilities

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 Rendering, Lighting and Posing of 3D Models 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 Rendering, Lighting and Posing of 3D Models** 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 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 Rendering, Lighting and Posing of 3D Models**

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  
development language  
virtual classroom



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- » Modality: **online**
- » Duration: **6 weeks**
- » Certificate: **TECH Technological University**
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- » Exams: **online**



# Postgraduate Certificate

## Rendering, Lighting and Posing of 3D Models

