

# Postgraduate Certificate Rendering





## Postgraduate Certificate Rendering

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

Website: [www.techtitute.com/in/design/postgraduate-certificate/rendering](http://www.techtitute.com/in/design/postgraduate-certificate/rendering)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

---

*p. 28*

# 01

# Introduction

One of the industries that has benefited the most from new technologies is the design industry. Thanks to the creation of software and its tools, digital artists must be constantly learning to perfect techniques such as rendering and achieve light finishes. This program enables them to generate images that provide a sense of depth and texture to make them more realistic.

Through this online program, students will master the Marmoset Toolbag software and acquire basic knowledge of other leading rendering platforms.





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*Learn how to generate digital images  
from a three-dimensional modeling”*

The world of design has been widely impacted by 3D rendering. Many professionals decide to specialize in this area because of the wide possibilities they find in it. However, this requires an expert level management to provide an added value.

Therefore, with this Postgraduate Certificate in Rendering, students will learn in 6 weeks to realistically simulate environments, materials, lights and objects of a 3D project. They will also be able to create and position cameras that will allow them to find a perspective that will make their modeling more interesting.

The Marmoset Toolbag program will be the main tool of this Postgraduate Certificate. An in-depth knowledge of its functions and fields of application will transform the professional career of the users, providing a higher degree of specialization and a more attractive curriculum for their skills in the sector.

All this knowledge will be made available to the student through an online format in its entirety, since TECH Technological University is committed to a teaching methodology based on the Relearning methodology. That is, professionals, depending on their personal and professional responsibilities, will set their learning pace. All this, with the intention of achieving their active participation.

This **Postgraduate Certificate in Rendering** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of practical cases presented by rendering experts
- ◆ 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
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



*Create animated renders and get to produce unique effects. This Postgraduate Certificate is a valuable opportunity for your profession"*

“ *Professionals in this industry not only create and design. They are characterized by knowing in depth each technique. Enroll now and acquire these skills*”

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.

Its multimedia content, developed with the latest educational technology, will allow professionals to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive education programmed to prepare in real situations.

The design of this program focuses on Problem-Based Learning, by means of which professionals must try to solve the different professional practice situations that are presented to them throughout the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Ensure that your added value is based on three elements: quality, differentiation and education. At TECH, you get all three with this program.*

*Knowing how to render is an indispensable requirement for designers. Start your qualification today and stand out in your profession.*



# 02 Objectives

One of the main issues that every designer, regardless of the sector they work in, must know about is the Rendering process. However, those who decide to delve, investigate and implement this technique stand out in their jobs or even in each independent project. Through analysis, control of the work produced, the techniques learned and the positioning of cameras, the objective will be accomplished. In other words, the program is designed to turn professionals into specialists.







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*Attending this Postgraduate Certificate will give you skills and credentials that are in high demand in the design market"*



## General Objectives

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- ◆ Know in depth all the steps to create renderings in a professional 3D modeling
- ◆ Get to know and understand in detail how textures work and how they influence on the modeling
- ◆ Master several programs focused on modeling, texturing and real time used today in the professional world
- ◆ Apply the knowledge acquired in the resolution of problems of a modeling
- ◆ Expertly use the knowledge acquired to create your own projects and intelligently add them to your portfolio
- ◆ Develop the resources of each program to achieve the best effect for your modeling





## Specific Objectives

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- ◆ Know in depth the materials and rendering tool of the Marmoset Toolbag program, widely used by 3D modelers and sculptors
- ◆ Understand how to position the lights to create a suitable ambient environment for our model
- ◆ Create and position cameras to achieve a perspective that makes our 3D modeling more interesting
- ◆ Export professional renderings
- ◆ Delve into the basics of camera animation to create an animated rendering for more effects
- ◆ Know the up-to-date tools of the programs
- ◆ Know how to perform a basic rendering with other programs, such as Iray, Zbrush, Photoshop and Keyshot

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*Having the advantage of mastering several pieces of rendering software is an opportunity that only this program offers you"*

# 03

# Course Management

This program has been designed following the guidelines of a group of experts of the highest prestige. The teachers who teach it are active professionals who have dedicated a large part of their careers to delve into the process of Rendering, therefore, they are masters at the forefront of the sector. Their professional practice has been developed in the best animation studios and their projects are of international stature. Therefore, the student will receive the most up-to-date and sought-after knowledge in the industry.



A close-up photograph of a person's eye, looking slightly to the right. The eye is light-colored and has long, dark eyelashes. The image is partially obscured by a diagonal teal overlay that covers the top right and bottom right portions of the frame. The background is a soft, out-of-focus light color.

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*This Postgraduate Certificate puts experts in Rendering at your fingertips to offer you a program of excellence"*

## Management



### Ms. Sanches Lalaguna, Ana

- ♦ 3D Artist for videogames
- ♦ 3D Generalist at NeuroDigital Technologies
- ♦ 3D Designer at Lalaguna Studio
- ♦ Freelance Video Game Figure Modeler
- ♦ Junior Videogame Artist at InBreak Studios
- ♦ Master's Degree in Videogame Art and Design at U-tad
- ♦ Diploma in 2D and 3D Animation Filmmaking at ESDIP



# 04

## Structure and Content

The Rendering process requires a series of steps to obtain a quality image, therefore, the structure of this Postgraduate Certificate is designed for users to acquire the necessary notions of each of these steps. Throughout its ten sections, the techniques are detailed and, at the same time, the students are taught through eminently practical cases. Thanks to its 100% online format, students have access to the material as many times as necessary. This will allow them to assimilate and thoroughly analyze each of the stages involved in obtaining a good 3D image rendering.







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*At TECH, we achieve excellence through a syllabus that offers a structured and well-organized content”*

## Module 1. Rendering

- 1.1. Marmoset Toolbag
  - 1.1.1. Geometry Preparation and FBX Formatting
  - 1.1.2. Basic Concepts. Importance of Geometry
  - 1.1.3. Links and Materials
- 1.2. Marmoset Toolbag Sky
  - 1.2.1. Environmental Setting
  - 1.2.2. Lighting Points
  - 1.2.3. Lights Outside Sky
- 1.3. Marmoset Toolbag Details
  - 1.3.1. Shadows and Pose
  - 1.3.2. Procedural Materials
  - 1.3.3. Channels and Reflection
- 1.4. Real-Time Rendering with Marmoset Toolbag
  - 1.4.1. Image Export with Transparency
  - 1.4.2. Interactive Export. Marmoset Viewer
  - 1.4.3. Film Export
- 1.5. Marmoset Toolbag. Animated Cameras
  - 1.5.1. Model Preparation
  - 1.5.2. Cameras
  - 1.5.3. Main Camera. Interactive Animation
- 1.6. Marmoset Toolbag. Advanced Animated Cameras
  - 1.6.1. Adding New Cameras
  - 1.6.2. Parametric Animation
  - 1.6.3. Final Details
- 1.7. Marmoset Toolbag 4. Ray Trace
  - 1.7.1. Subsurface
  - 1.7.2. Ray Tracing
  - 1.7.3. Adding Cameras and Map Rendering



- 1.8. Substance Painter Rendering. IRay
  - 1.8.1. IRay Settings
  - 1.8.2. Viewer Settings
  - 1.8.3. Display Settings
- 1.9. Rendering with ZBrush
  - 1.9.1. Material Settings
  - 1.9.2. BPR Render and Lights
  - 1.9.3. BPR Masks and Final Rendering in Photoshop
- 1.10. Keyshot Rendering
  - 1.10.1. From Zbrush to Keyshot
  - 1.10.2. Materials and Lighting
  - 1.10.3. Photoshop Compositing and Final Image



*Design industry experts are at TECH.  
Enroll in this Postgraduate Certificate  
and become one of them"*

# 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 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.





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.





#### 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 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** 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 Rendering**

Official N° of Hours: **150 h.**



\*Apostille Convention. In the event that the student wishes to have their paper certificate 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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