

# 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/pk/information-technology/postgraduate-certificate/rendering](http://www.techtitute.com/pk/information-technology/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

---

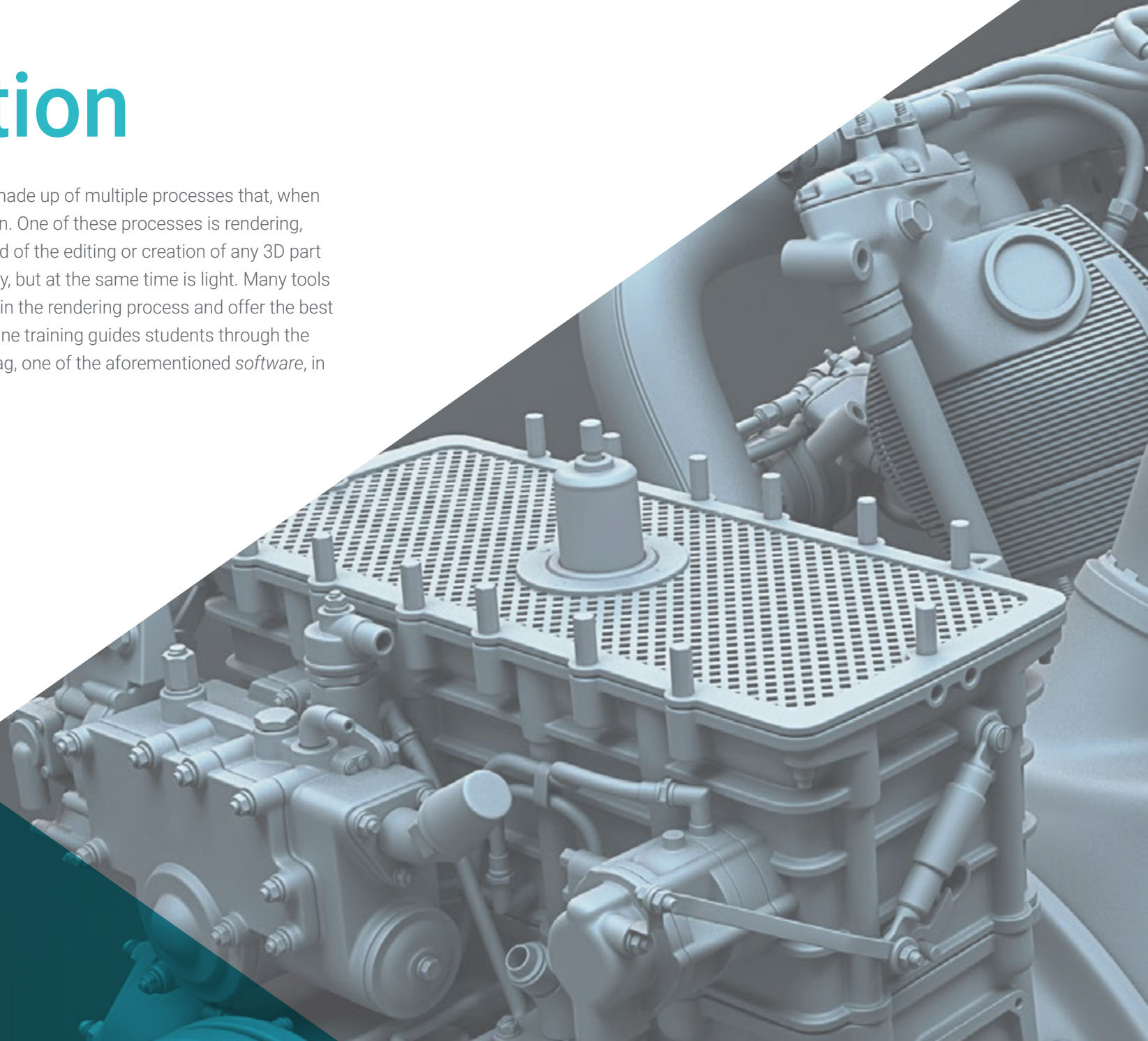
*p. 28*



# 01

# Introduction

Three-dimensional modeling is an activity made up of multiple processes that, when carried out together, result in the final design. One of these processes is rendering, an action that must be carried out at the end of the editing or creation of any 3D part and that ensures that it does not lose quality, but at the same time is light. Many tools and *software* have specialized their activity in the rendering process and offer the best utilities to achieve the best results. This online training guides students through the process of rendering with Marmoset Toolbag, one of the aforementioned *software*, in the most convenient and practical way.



“

*Learn how to render 3D modeling with Marmoset Toolbag in the most practical way: with this fully online training”*

This Postgraduate Certificate in Rendering aims to provide an in-depth knowledge of all the steps to create renderings in a professional 3D modeling and, therefore, to understand in detail how rendering works and how it influences the modeling. For this purpose, the teaching team of this training has developed an educational plan that progressively deepens the rendering process.

The Marmoset Toolbag *software* will be the main tool of this study plan, which focuses on gaining in-depth knowledge of its functions and areas of application. In addition, the course will go into how to position lights to create a suitable environment, how to create and position cameras to achieve a perspective that makes the modeling more interesting, and how to export these renderings.

On the other hand, the content delves into the basic knowledge of a camera animation to create an animated render and thus achieve more effect; in knowing up-to-date tools of the programs, and finally, in knowing how to perform a basic render with other programs such as VRAY, ZBrush, Photoshop and Keyshot.

All this content will be condensed into a program in online format, since TECH Technological University is committed to reconciling academic recycling with other personal and professional projects of the students. Based on Relearning and Learning by Doing methodology, the students' progress through the syllabus will be done autonomously, at their own time and pace. In addition, it will have the backing and support of the faculty, which in turn is made up of true professionals in the field of three-dimensional modeling.

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

- ◆ The development of case studies presented by rendering experts
- ◆ The graphic, schematic, and eminently 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.



*Marmoset Toolbag is the main tool of this study plan, which focuses on gaining in-depth knowledge of its functions and areas of application"*



“

*Based on Relearning and Learning by Doing methodology, the student's progress through the syllabus will be done autonomously, at their own time and pace”*

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 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.

*Delve into the basics of a camera animation to create an animated render for more effect.*

*Learn how to render with Marmoset Toolbag easily with this specialized Postgraduate Certificate.*



# 02

## Objectives

Master the rendering process with different tools and apply it to three-dimensional modeling is the objective of this Postgraduate Certificate, which has been designed by a teaching team made up of professionals in the sector, in response to the needs of the labor market. In addition, this training not only provides theoretical and practical knowledge, but also professional judgment and problem-solving skills to face modeling problems and to expertly use the acquired notions to create their own projects and intelligently add them to the modeler's portfolio.







“

*Take a professional approach to solving modeling problems or intelligently undertake your own projects to add to your portfolio"*



## General Objectives

---

- ◆ Know in depth all the steps to create a 3D modeling of a professional's own
- ◆ 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

---

- ◆ 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 V-Ray, ZBrush, Photoshop and Keyshot



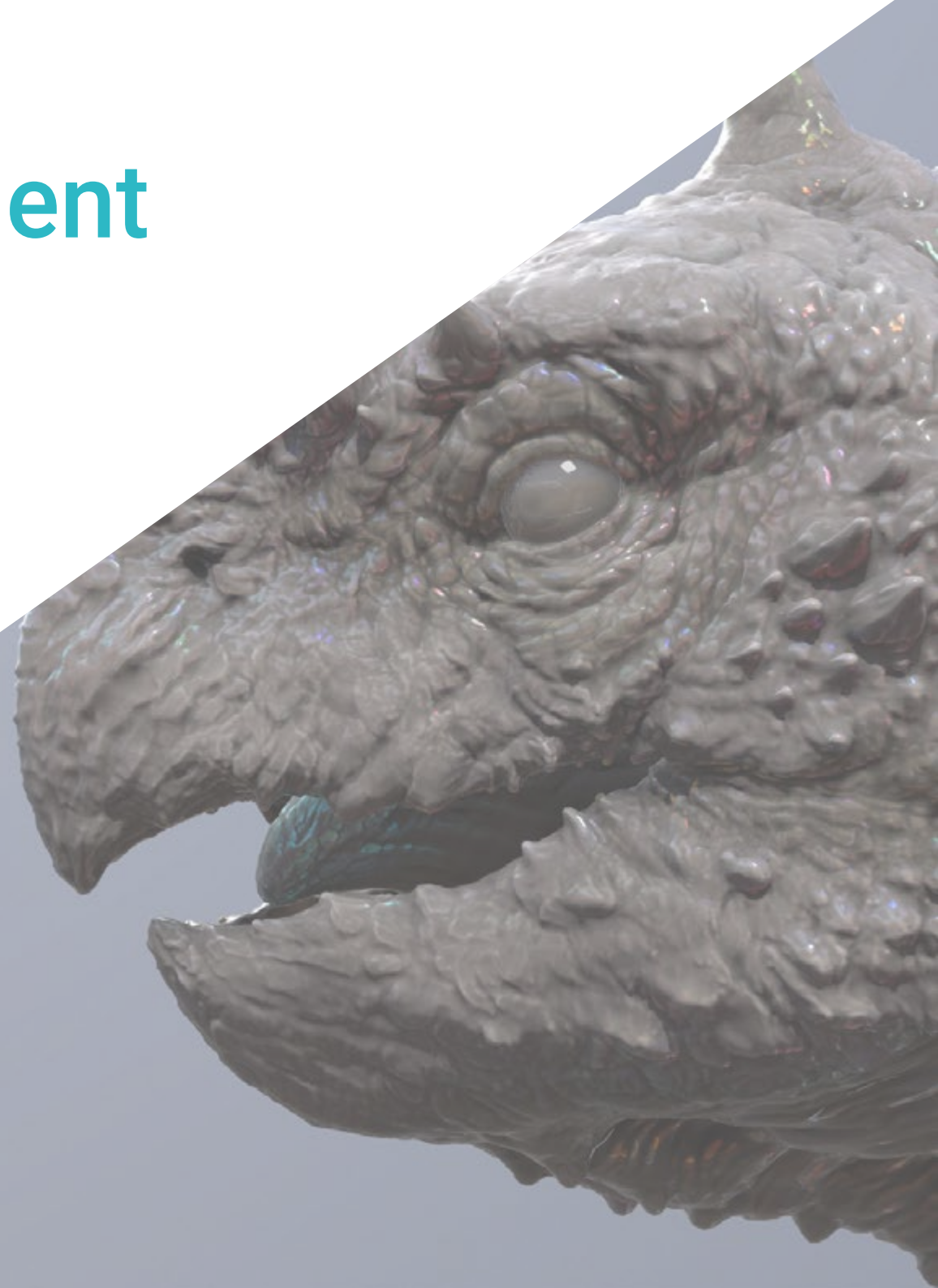
*This Postgraduate Certificate focuses on the mastery of various rendering tools such as Marmoset Toolbag, V-Ray or ZBrush”*

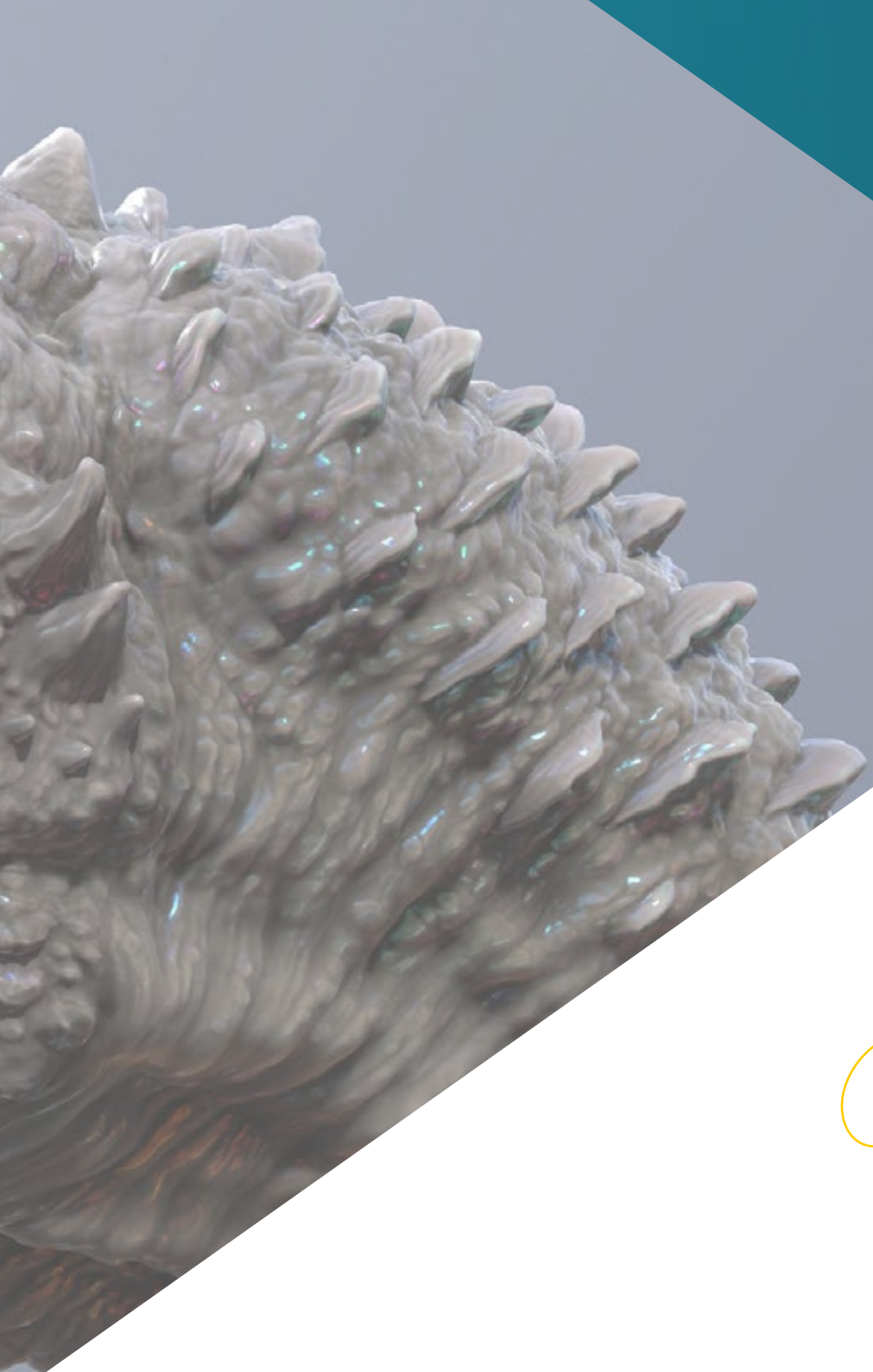


# 03

# Course Management

A group of experts of the highest prestige has designed this study plan, the teachers who provide it are active professionals who have dedicated a large part of their careers to delve into the rendering process. They are specialists at the forefront of a growing and expanding sector. Their professional practice has been developed in the best animation studios and their projects are of international stature. The student will be constantly supported by them and will receive the most up-to-date and requested knowledge in the industry.





“

*You will be constantly supported by faculty,  
you will receive the most up-to-date and  
sought-after knowledge in the industry”*

## Management



### Ms. Sanches Lalaguna, Ana

- 3D Designer at Lalaguna Studio
- 3D Generalist at NeuroDigital Technologies
- Freelance video game figure modeler
- 3D Artist and Narrative Responsible in the videogame "A Rising Bond" (InBreak Studios)
- Master's Degree in Videogame Art and Design (U-tad)
- Diploma in 2D and 3D Animation Filmmaking (ESDIP)
- Winner of the Best Narrative award and nominated for Best Game and Best Art at the PlayStation Awards



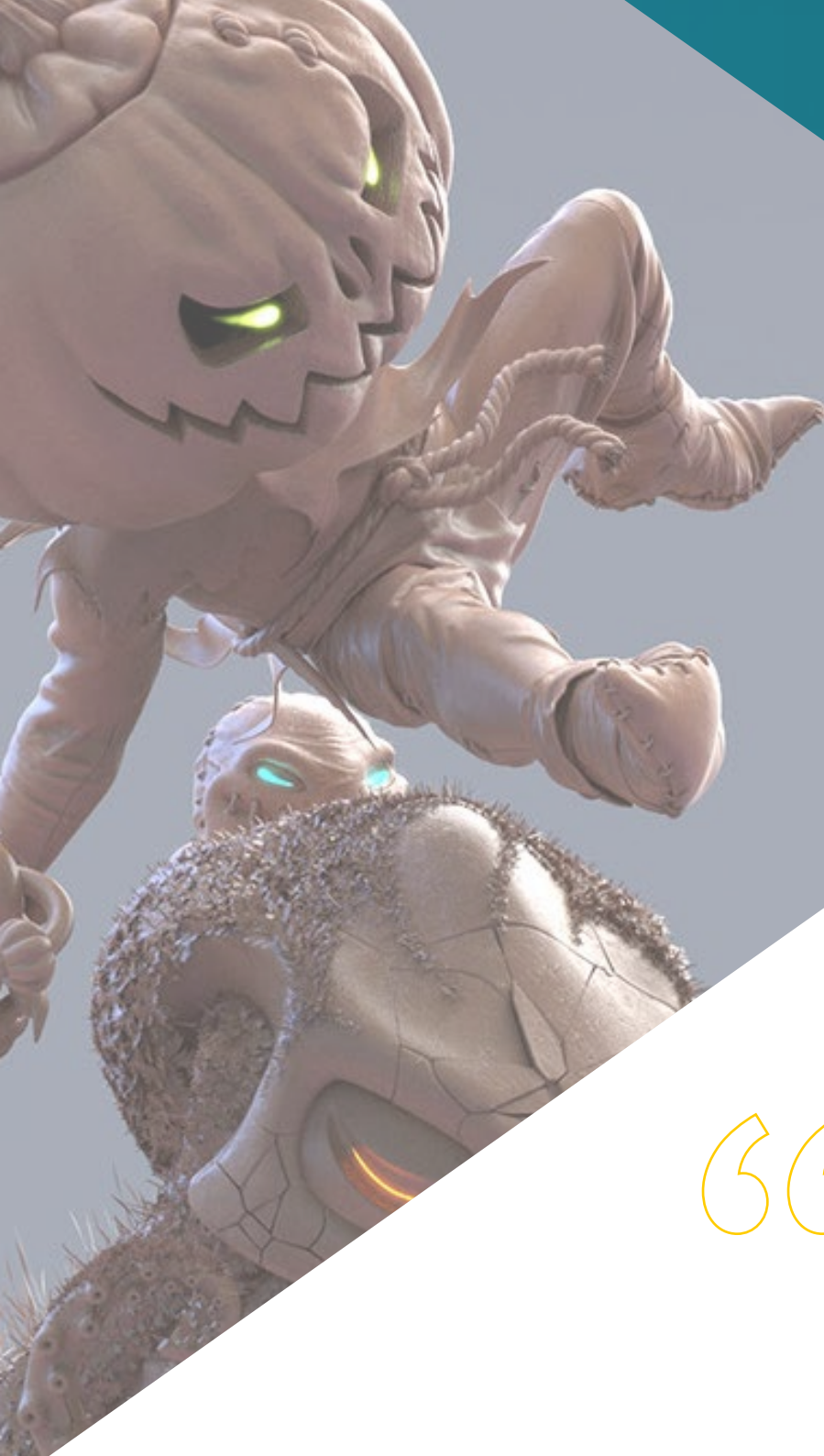


# 04

# Structure and Content

The content of this Postgraduate Certificate in Rendering is distributed in 10 subsections that cover from the most introductory aspects with Marmoset Toolbag, to the deepening of environmental and lighting details. Aspects of real-time rendering and animated cameras are also covered with this tool. Subsequently it delves into rendering with other tools such as Substance Painter, IRay or ZBrush. All this in a 6-week training in online format, available on the virtual platform to deepen at the speed that the student decides.





“

*A content organized in 10 subsections that progressively delve into the rendering process with Marmoset Toolbag and other leading tools in the industry”*



## 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. Shade 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 Raytrace
  - 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



*Delve into rendering with other tools such as Substance Painter, IRay or ZBrush, with this 6-week online training"*

# 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.





“

*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"*

## At TECH we use the Case Method

Our program offers a revolutionary method of skills and knowledge development. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

“

*At TECH, you will experience a way of learning that is shaking the foundations of traditional universities around the world"*



*We are the first online university to combine Harvard Business School case studies with a 100% online learning system based on repetition.*



### A learning method that is different and innovative

This intensive Information Technology program at TECH Technological University prepares you to face all the challenges in this field, both nationally and internationally.

We are committed to promoting your personal and professional growth, the best way to strive for success, that is why, at TECH Technological University, you will use Harvard *case studies*, with which we have a strategic agreement that allows us, to offer you material from the best university in the world.



*Our program prepares you to face new challenges in uncertain environments and achieve success in your career”*

*The student will learn, through collaborative activities and real cases, how to solve complex situations in real business environments.*

The case method has been the most widely used learning system among the world's leading Information Technology 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. Throughout the course, students 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

Our university is the first in the world to combine Harvard University case studies with a 100%-online learning system based on repetition, which combines different teaching elements in each lesson.

We enhance Harvard case studies 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 university 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 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 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

They will complete a selection of the best case studies in the field used at Harvard. Cases that are presented, analyzed, and supervised by the best senior management 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 multimedia content presentation training Exclusive system 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 your goals.



# 06 Certificate

The Postgraduate Certificate in Rendering guarantees, in addition to the most rigorous and up-to-date training, access to a Postgraduate Certificate issued by TECH Technological University.



“

*Successfully complete this training program  
and receive your university certificate  
without travel or 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 specify the qualification obtained through 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 quality  
development language  
classroom



## Postgraduate Certificate Rendering

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

# Postgraduate Certificate Rendering

