

# Postgraduate Certificate

## VRAY Rendering in 3DS Max





## Postgraduate Certificate VRAY Rendering in 3DS Max

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Accreditation: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/us/desing/postgraduate-certificate/vray-rendering-3ds-max](http://www.techtitute.com/us/desing/postgraduate-certificate/vray-rendering-3ds-max)

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# 01

# Introduction

The new generation of rendering works with an engine like VRAY. Visual artists are looking for quality, power, creative control and intelligent integration in their projects. As a result, this program has been designed, where they will get a high-end CPU and GPU rendering, providing hyper-realistic images. With a teaching format 100% online and eminently practical, this program will provide a level of specialization in a competitive market such as design. It is essential for professionals in the sector to expand their knowledge and improve their techniques.





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*Learn how to use VRAY, the most popular rendering engine in the design industry"*

Know how to translate users' ideas into unbeatable images ensures the success of projects. Becoming a major rendering service provider is possible if you have the right techniques and platforms. This Postgraduate Certificate in VRAY Rendering in 3DS Max prepares professionals to produce 3D renderings of photographic quality.

Through a teaching staff of the highest prestige, students will be able to acquire skills in lighting, *Shading* and rendering tools that are essential to create combinations. All this, always having the creative control of the scenes, since the versatility of its functions allows to choose the best approaches, according to the eye of each student.

Therefore, the course, being focused on specialization in the VRAY rendering engine, has an expert faculty in the area. The best in the industry have designed this program to enhance and create high-level student skills. The capacity of analysis together with the skills acquired with this program, positions the professional in front of an international market.

The 100% online learning method collaborates with the process, since it has been structured in such a way that it is the students who set the pace of their work, without neglecting their personal and professional responsibilities.

This **Postgraduate Certificate in VRAY Rendering in 3DS Max** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of case studies presented by experts in VRAY Rendering in 3DS Max
- ◆ 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



*Add more rendering power and market your projects in an international market. Enroll in this Postgraduate Certificate"*

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*Render individual images faster. With the VRAY engine you will be able to combine the computational power of several machines”*

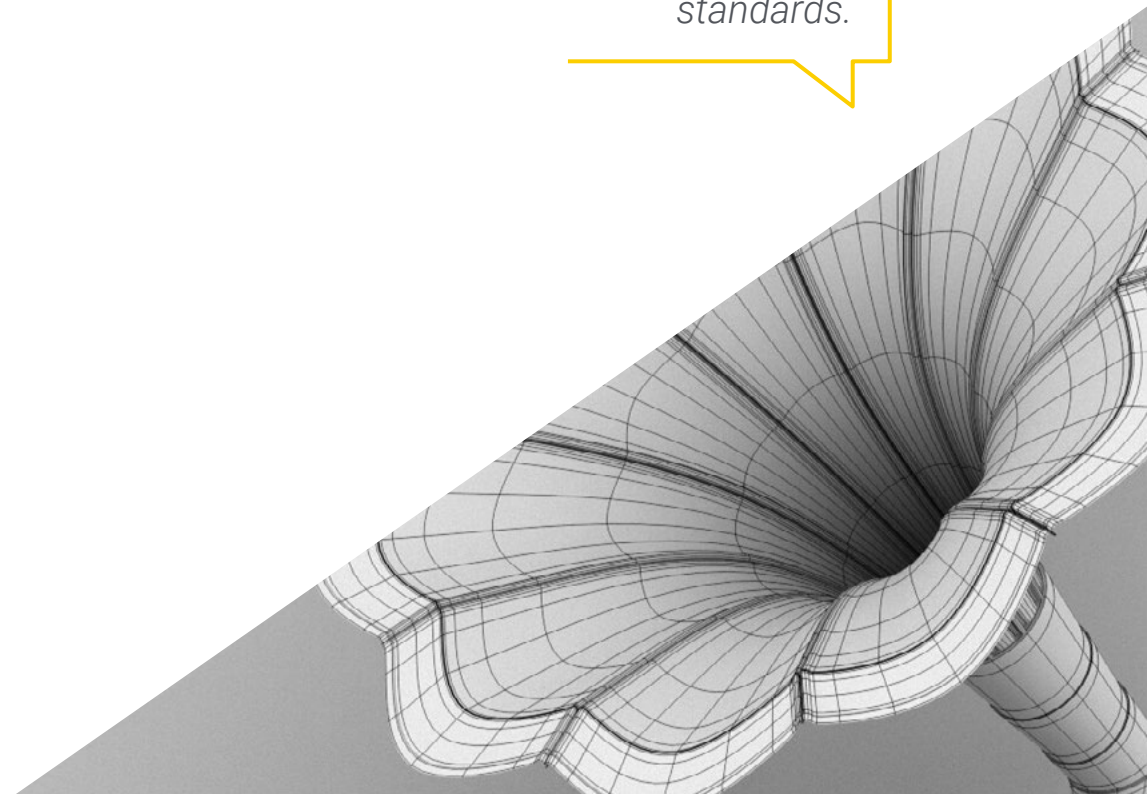
The program’s teaching staff includes professionals from the industry who contribute their work experience to this program, as well as renowned specialists from leading societies and prestigious universities.

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 course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*A fast enrollment process. Learning supported by industry experts and specialist experience.*

*At TECH we design programs that are efficient, effective and meet industry standards.*



# 02 Objectives

This Postgraduate Certificate in VRAY Rendering in 3DS Max is designed for students to acquire expert level skills in VRAY Rendering in 3DS Max, through the fulfillment of specific objectives. Therefore, this program aims for students to learn in depth the VRAY engine to be able to create static and animated *Renderings* of a 3D modeling.







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*Get what you were looking for: learn how to automate steps to have a more accurate rendering”*



## General Objectives

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- ◆ Know in depth all the steps for rendering a 3D modeling of a professional's own
- ◆ Know and understand in detail how rendering engines work and influence modeling
- ◆ Master various programs and engines focused on modeling, texturing and real-time used today in the professional world
- ◆ Apply the knowledge acquired in solving modeling problems
- ◆ 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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- ◆ In-depth knowledge of the Vray engine assigned to the 3DS Max program
- ◆ Configure rendering options to assign the ideal rendering engine
- ◆ Get to know VRay's own materials and work with them through nodes
- ◆ Migrate textures created in Substance Painter to VRay engine
- ◆ Configure the lighting of our VRay scene
- ◆ Give more details to our model without the need to change or add geometry
- ◆ Intelligently position our model and camera to create an interesting scene
- ◆ Make static and animated renders of 3D modeling

“

*This program has been created to handle large projects and their most difficult scenes. Become an expert in your field”*



03

# Course Management

This program has been designed thanks to the expertise of a select teaching staff. They are professionals of the highest level and are the main stakeholders in providing the most current content in the design industry. Their intention is to provide students with the main tools to achieve a good rendering and also to develop skills capable of creating great projects.





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*Let your professional experience meet the needs of an international market: demonstrate the knowledge learned in this Postgraduate Certificate"*



## Management



### Dr. Vidal Peig, Teresa

- ♦ Specialist in Arts and Technology (digital art, 2D, 3D, VR and AR)
- ♦ Designer and creator of 2D character sketches for mobile video games
- ♦ Designer at Sara Lee, Motos Bordy, Hebo and Full Gass
- ♦ Teacher and director of Professional Master's Degree in Video Game Programming
- ♦ Teacher at the University of Girona
- ♦ PhD in Architecture from the Polytechnic University of Catalonia
- ♦ Bachelor of Fine Arts from the University of Barcelona

## Professors

### Ms. Jiménez Vaquero, Laura

- ♦ Organic and props modeler, *grooming, texturing and shading artist*
- ♦ Organic and Inorganic 3D modeler at Utopia Avatars at EGO W3RLD
- ♦ Development of 3D *hard surface* modeling for advertising campaigns at Kutuko Studio
- ♦ Development of organic modeling for advertising campaign at Nein Club
- ♦ Development of 3D modeling for interior design at Miltidesign
- ♦ Realization and coordination of the women's collective exhibition "Femenino plural"
- ♦ Image work for 2D animation "Naturaleza Encendida" at the Royal Botanical Garden of Madrid
- ♦ Graduated in Fine Arts at the Complutense University of Madrid
- ♦ Professional Master's Degree in Organic Modeling by Lightbox Academy



# 04

## Structure and Content

The content of this course focuses on cementing the theoretical knowledge and then deepen with them in practice. The study and management of the tools that the VRAY engine has will boost the student's professional career, since in the world of design it has become an essential requirement to aspire to large projects. Likewise, the techniques to be implemented and the analysis of other renderings will enhance your knowledge and will turn you into the expert you want to be.





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*We design a content that allows you to be in control of your projects. Through it we teach you versatile functions so you can choose the best approach in your scenes"*

## Module 1. Rendering with V-Ray Engine in 3ds Max

- 1.1. V-Ray Render Engine Assignment
  - 1.1.1. Preparation of the Rendering Space
  - 1.1.2. Render Setup Options and Assign Render
  - 1.1.3. Optimize Rendering Time
- 1.2. Lighting and Light Creation
  - 1.2.1. 3-Point Lighting
  - 1.2.2. Light Setup
  - 1.2.3. Render Region
- 1.3. Creation and Application of Materials
  - 1.3.1. V-Ray Materials
  - 1.3.2. V-Ray Materials Settings
  - 1.3.3. Self-Illumination
- 1.4. From Substance Painter to V-Ray
  - 1.4.1. Connect Nodes and Material Settings
  - 1.4.2. Export Presets
  - 1.4.3. Set Up Smart Material in V-Ray
- 1.5. Details and Positioning in the Scene
  - 1.5.1. Application of Shades According to the Position of the Model
  - 1.5.2. Adjust Model and Silhouette
  - 1.5.3. Metallic Base
- 1.6. Surface Rounding
  - 1.6.1. V-RayEdgeTex
  - 1.6.2. Functionality and Setup
  - 1.6.3. Rendering With and Without Rounding
- 1.7. Field of View
  - 1.7.1. Camera and Shot
  - 1.7.2. Camera Aperture
  - 1.7.3. Field of View







- 1.8. Ambient Occlusion and Global Illumination
  - 1.8.1. GI and Render Elements
  - 1.8.2. V-RayExtraTex and V-RayDirt
  - 1.8.3. Global Illumination Multiplier
- 1.9. Rendering of a Static Frame
  - 1.9.1. Adjust Render Values
  - 1.9.2. Save Final Render
  - 1.9.3. Composition of Ambient Occlusion
- 1.10. Rendering of a Sequence
  - 1.10.1. Camera Animation
  - 1.10.2. Rendering Options for Sequence
  - 1.10.3. Frame Assembly for the Sequence



*Test your knowledge. Our teaching methodology is based on learning by doing"*

# 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.

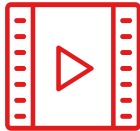
*Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.*

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.



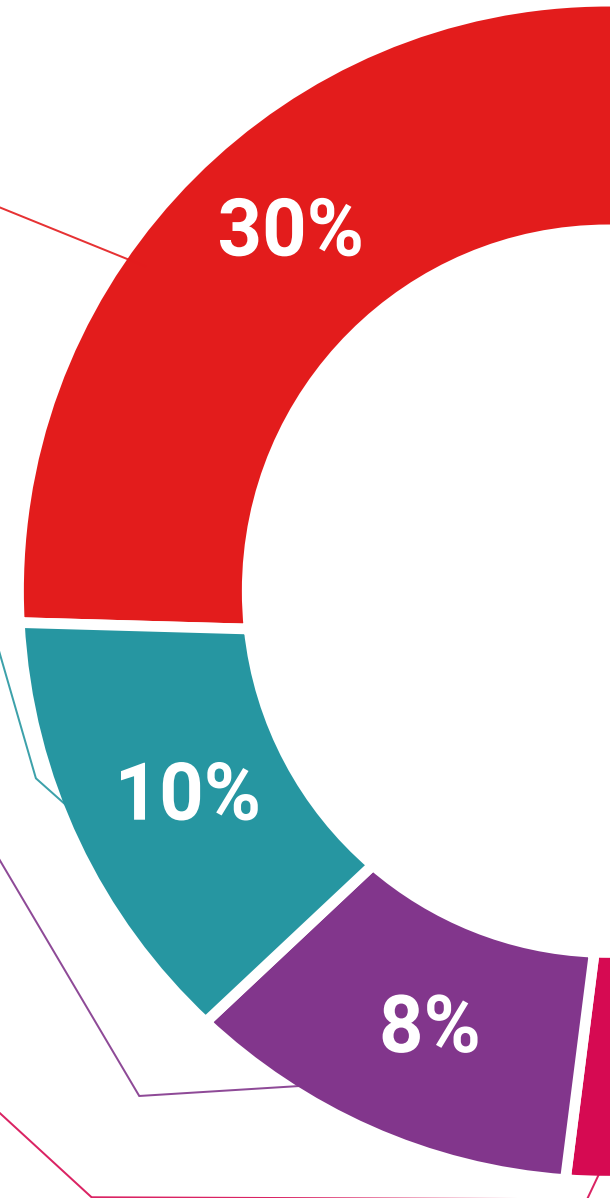
### Practising Skills and Abilities

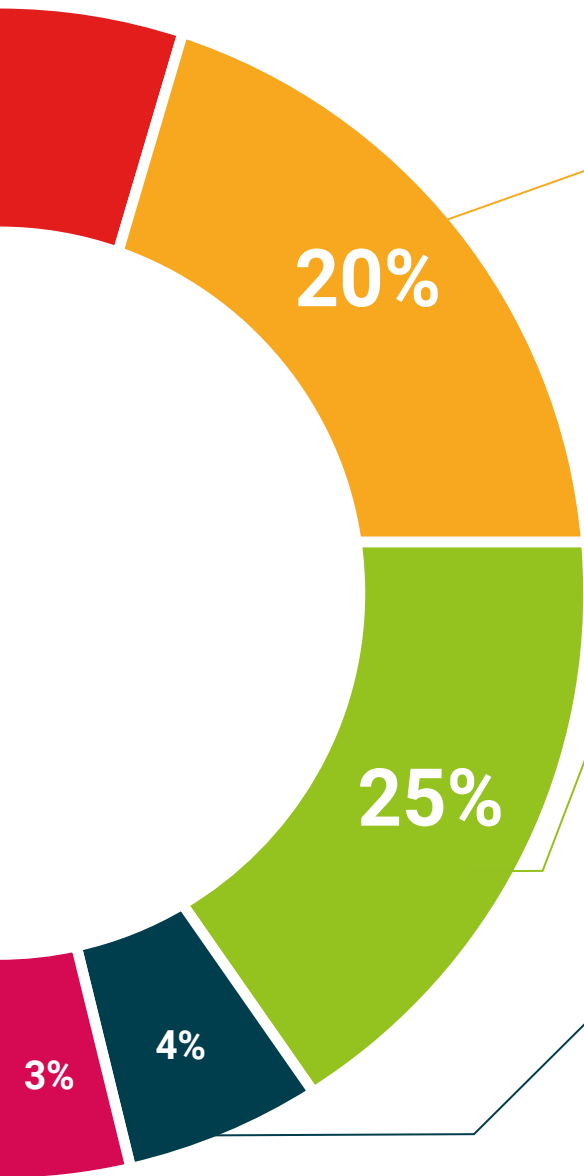
They will carry out activities to develop specific competencies and skills in each thematic area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



### 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 VRAY Rendering in 3DS Max guarantees students, in addition to the most rigorous and up to date education, access to a Postgraduate Certificate issued by TECH Global University.



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*Successfully complete this program  
and receive your university qualification  
without having to travel or fill out  
laborious paperwork"*

This program will allow you to obtain a **Postgraduate Certificate in VRAY Rendering in 3DS Max** endorsed by TECH Global University, the largest digital university in the world.

**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 educational framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of joint 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 continuous education and professional updating that guarantees the acquisition of competencies in its area of knowledge, conferring a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in VRAY Rendering in 3DS Max**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University make the necessary arrangements to obtain it, at an additional cost.





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