

# Postgraduate Certificate

## Baking in Art for Virtual Reality



## Postgraduate Certificate Baking in Art for Virtual Reality

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

Website: [www.techtitute.com/us/videogames/postgraduate-certificate/baking-art-virtual-reality](http://www.techtitute.com/us/videogames/postgraduate-certificate/baking-art-virtual-reality)

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# 01

# Introduction

The artistic professionals who seek to boost their career in the field of video games based on Virtual Reality technology are aware that a correct mastery of the modeling technique is essential in an increasingly competitive industry. Baking is one of the most important design phases, since it allows the optimization of the 3D object and the use of the maps in texturing programs. Knowing how Baking works and its key points will be easier thanks to this program and the specialized teacher team that will give this 100% online teaching with a wide range of practical cases.





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*Learn how to bake, texture and create a spectacular dossier with your 3D modeling in this Postgraduate Certificate"*

The Postgraduate Certificate in Art Baking for Virtual Reality will allow professionals to improve their artistic creations mainly designed to be part of Virtual Reality video game projects.

This program provides a specialization in one of the most important creation phases in 3D modeling: Baking. Transferring all the information from a High Poly modeling to the Low Poly mesh with a professional result requires a solid knowledge of Baking, which can be acquired during the 6 weeks of this program.

A team of teachers who are experts in the field of artistic design and video game creation will pour their knowledge into this program to help boost the careers of professionals who want to thrive in an up-and-coming industry.

A unique opportunity within everyone's reach, thanks to the TECH philosophy, which allows quality learning with a 100% online methodology and the Relearning system, students only need a device with an Internet connection to access video summaries, complementary readings and simulations of real cases.

This **Postgraduate Certificate in Baking in Art for Virtual Reality** 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 Art for Virtual Reality.
- ◆ 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 self-assessment can be used 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



*With this Postgraduate Certificate your artistic creations will attract the attention of the big VR game studios"*

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*Your artistic creations will reach the level of the best character creators for VR video games”*

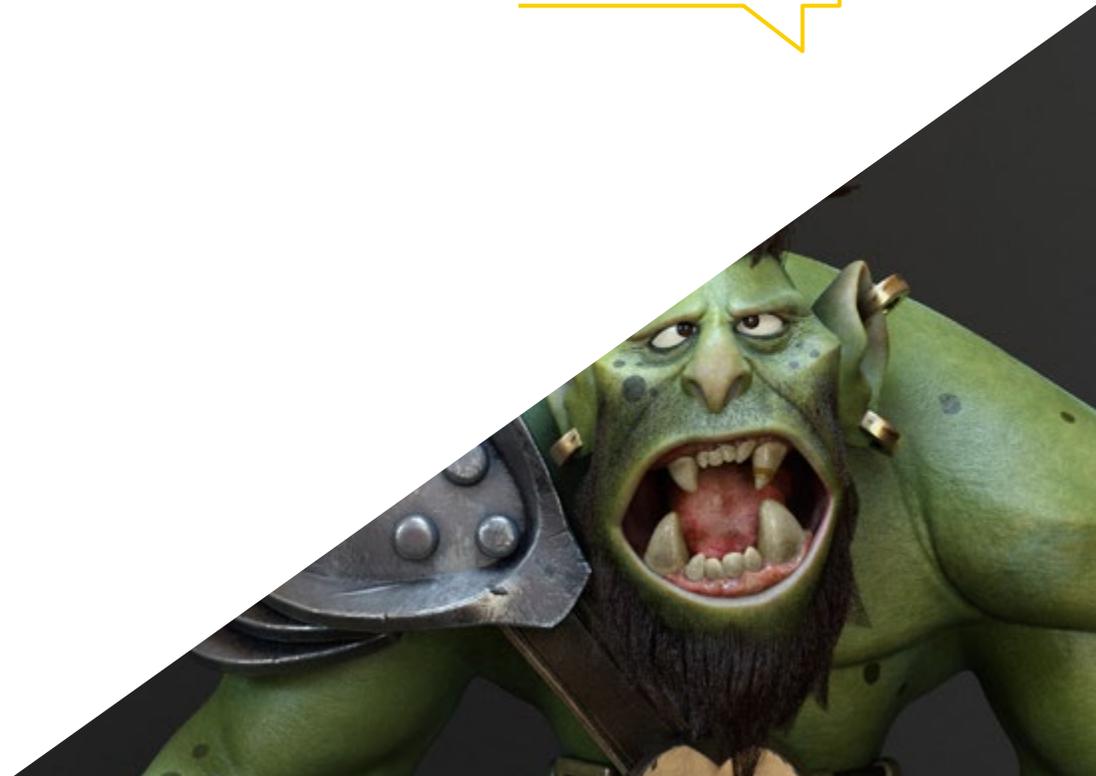
The program’s teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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 education programmed to learn 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 educational year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Perfect the technique of Baking in your 3D modeling and immerse yourself in the Virtual Reality videogame industry”*

*Be part of the teams of the major studios in the VR video game industry. Specialize with this Postgraduate Certificate”*



# 02 Objectives

In this Postgraduate Certificate the students will be able to acquire the essential knowledge to execute a quality Baking. You will also learn how to use the main software and its tools to get the most out of 3D modeling. The professional looking for specialization will be able to bake any modeling and master in real time with Marmoset. The experience of the teachers and the multimedia resources will facilitate the learning of a technique that will improve job opportunities in the VR videogame industry.





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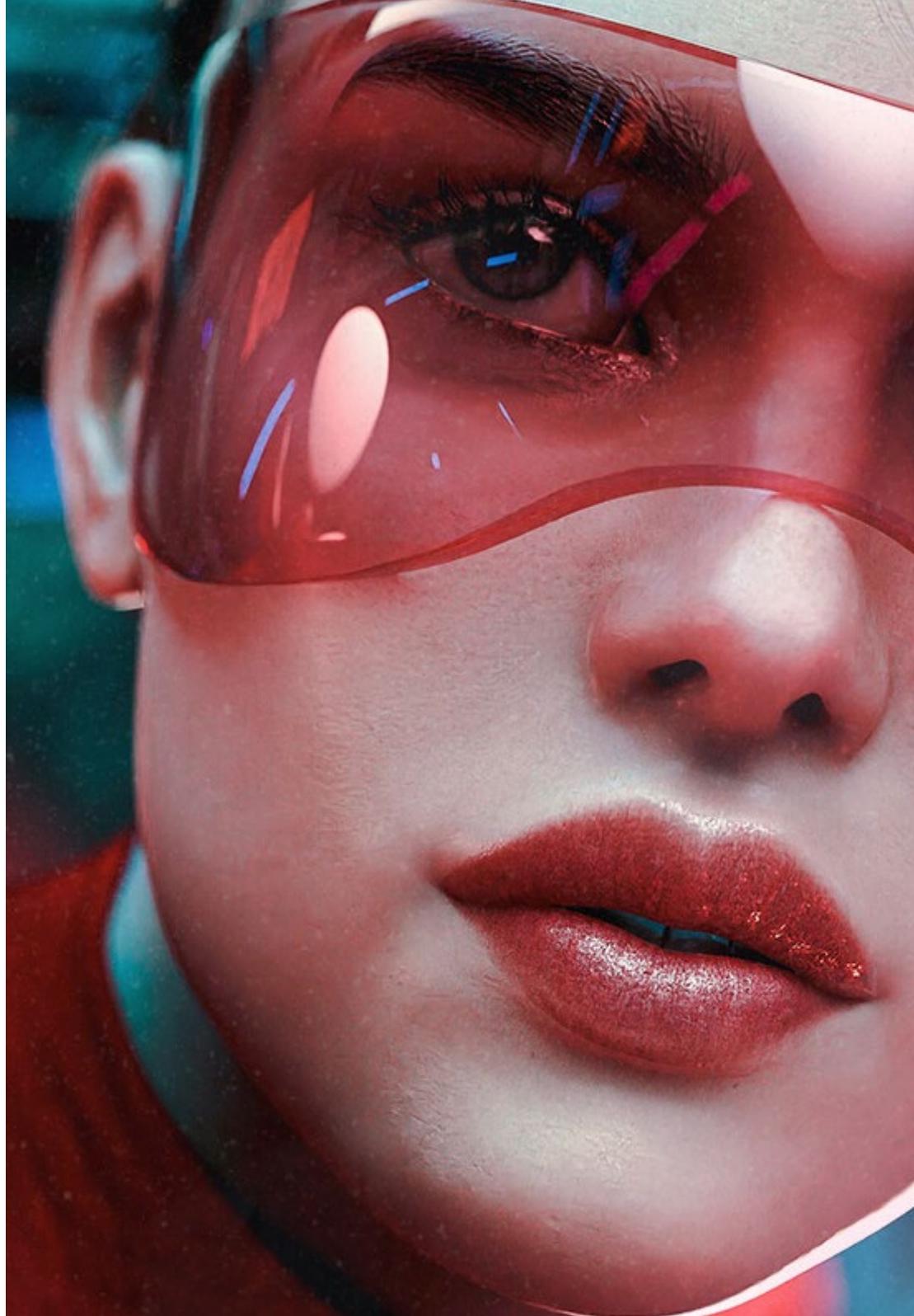
*You are one step closer to improving your 3D modeling and your artistic creations are one step closer to becoming part of the Virtual Reality video game industry"*



## General Objectives

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- ◆ Understand the advantages and constraints provided by Virtual Reality
- ◆ Develop quality Hard Surface modeling
- ◆ Create high-quality organic modeling
- ◆ Understand the principles of retopology
- ◆ Understand the basics of UV
- ◆ Master Baking in Substance Painter
- ◆ Expertly manage layers
- ◆ Be able to create a dossier and submit works at a professional level, at the highest quality
- ◆ Make a conscious decision on which programs best fit the Pipeline





## Specific Objectives

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- ◆ Understand the principles of Baking
- ◆ Learn how to solve the problems that may arise when Baking a model
- ◆ Be able to bake any modeling
- ◆ Master baking in Marmoset in real time

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*The 100% online methodology is an advantage for those seeking to specialize without neglecting other areas of their personal lives"*

03

# Course Management

TECH's philosophy is to provide students with an elite education within everyone's reach. That is why it carefully selects the teachers who teach each program. In this Postgraduate Certificate, a team of professors specialized in the field of artistic design and creation of video games focused on Virtual Reality has been formed. This will allow the professional to specialize in one of the most powerful technology industries.



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*A team of teachers experienced in VR game art design will help you create powerful 3D modeling"*

## Management



### Mr. Menéndez, Antonio Iván

- 3D model designer and texture artist at INMO-REALITY
- Props and environment artist for PS4 games at Rascal Revolt
- Graduated in Fine Arts at the UPV
- Specialist in Graphic Techniques from the University of the Basque Country
- Professional Master's Degree in Sculpture and Digital Modeling by the Voxel School of Madrid
- Professional Master's Degree in Art and Design for Video Games by U-Tad University of Madrid



## Professors

### Mr. Márquez, Mario

- ◆ Audiovisual Operator PTM Pictures That Moves
- ◆ Gaming tech support agent at 5CA
- ◆ 3D and VR environment creator and designer at Inmoreality
- ◆ Art Designer at Seamantis Games
- ◆ Founder of Evolve Games
- ◆ Graduated in Graphic Design at the School of Art of Granada
- ◆ Graduated in Video Games and Interactive Content Design at the School of Art of Granada
- ◆ Professional Master's Degree in Game Design by U-Tad University of Madrid

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*A unique, key, and decisive training experience to boost your professional development”*

# 04

## Structure and Content

The syllabus of this Postgraduate Certificate covers from the general basics of Baking to the use of the different tools that allow baking any modeling that the artistic professional has created. Theoretical learning will be accompanied by practical cases to improve specialization in this technique. Throughout this program, the teacher's team will give the keys so that the final result can be presented by the professionals to the main studios of the Virtual Reality videogame industry.



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*Transform your artistic creations into authentic 3D modeling works of art with this Postgraduate Certificate"*

## Módulo1. Baking

- 1.1. Model Baking
  - 1.1.1. Preparing the Model for Baking
  - 1.1.2. Baking Principles
  - 1.1.3. Processing Options
- 1.2. Model Baking: Substance Painter
  - 1.2.1. Baked in Substance Painter
  - 1.2.2. Low Poly Baking
  - 1.2.3. High Poly Baking
- 1.3. Model Baking: Boxes
  - 1.3.1. Using Boxes
  - 1.3.2. Adjusting Distances
  - 1.3.3. Computing Tangent Space per Fragment
- 1.4. Map Baking
  - 1.4.1. Normal
  - 1.4.2. ID
  - 1.4.3. Ambient Occlusion
- 1.5. Map Baking: Curvatures
  - 1.5.1. Curvature
  - 1.5.2. Thickness
  - 1.5.3. Improving Map Quality
- 1.6. Baking in Marmoset
  - 1.6.1. Marmoset
  - 1.6.2. Functions
  - 1.6.3. Baking in Realtime





- 1.7. Setting Up the Document for Baking in Marmoset
  - 1.7.1. High Poly and Low Poly in 3Ds Max
  - 1.7.2. Organizing the Scene in Marmoset
  - 1.7.3. Verifying That Everything Is Correct
- 1.8. Panel Bake Project
  - 1.8.1. Bake Group, High and Low
  - 1.8.2. The Geometry Menu
  - 1.8.3. Load
- 1.9. Advanced Options
  - 1.9.1. Output
  - 1.9.2. Adjusting the Cage
  - 1.9.3. Setting Up Maps
- 1.10. Baking
  - 1.10.1. Maps
  - 1.10.2. Result Preview
  - 1.10.3. Baking Floating Geometry

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*Make a perfect bake and your artistic creations will reach a higher level, thanks to this Postgraduate Certificate"*

# 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

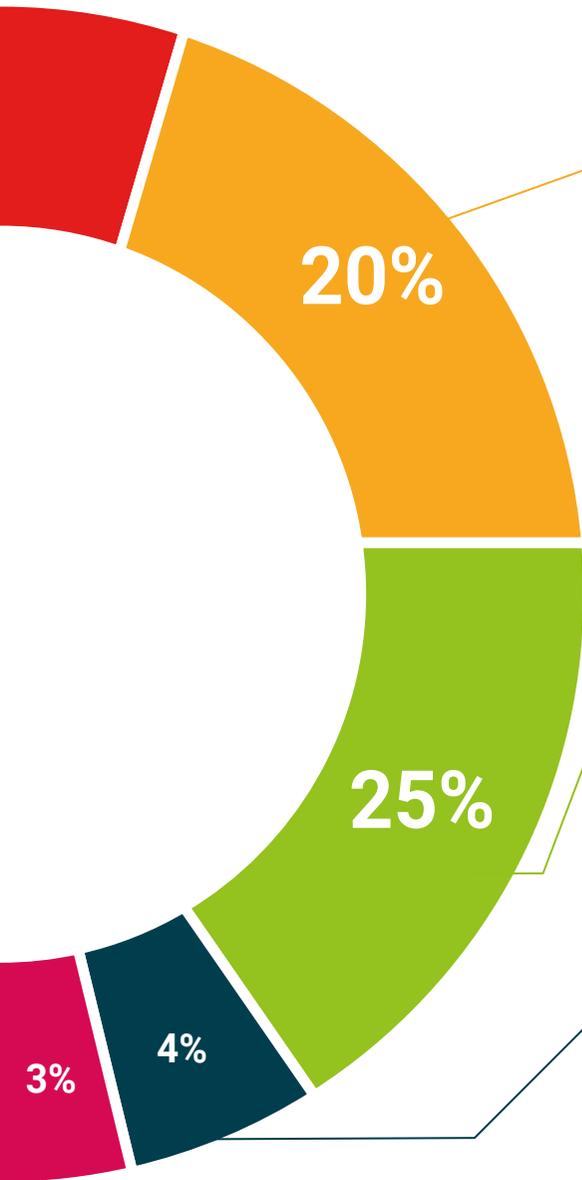
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization we live in.



### 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 Baking in Art for Virtual Reality 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 your **Postgraduate Certificate in Baking in Art for Virtual Reality** 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 Baking in Art for Virtual Reality**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





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