

# Professional Master's Degree Art for Virtual Reality



## Professional Master's Degree Art for Virtual Reality

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/us/design/professional-master-degree/master-art-virtual-reality](http://www.techtitute.com/us/design/professional-master-degree/master-art-virtual-reality)

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# 01

# Introduction

A designer has a comprehensive and more versatile profile in the field of artistic creation in the video game sector. The graphic development of VR games requires an exhaustive mastery of the software to meet an increasingly higher demand. Thanks to this program, designers will be able to achieve a specialization in 3D modeling that will lead them to the best studios in the Virtual Reality video game industry. The teaching team and the quality multimedia content will facilitate learning and expand the broad artistic background of the participants of this program. A program that also allows total flexibility in a 100% online format adaptable to the most demanding work and personal responsibilities.





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*This Professional Master's Degree will immerse you in the 3D modeling required by the main studios that create video games with Virtual Reality"*

The Professional Master's Degree in Art for Virtual Reality aims to address all the essential tools that will accompany graphic designers in the development of their creations for Augmented Reality video games. Mastering all the elements that make up an excellent artistic design in the game industry requires a specialized faculty, which you will find in this program.

Leading companies in the sector request specialized personnel with a deep knowledge of programs such as Blender, 3ds Max, and Marmoset, as well as the tools available to execute a retopography of the highest level.

Designers will increase their capacity for artistic creation through the work methodology that they will acquire throughout this program, allowing them to be more efficient in the different processes and offer a high-quality creative product in the world of VR games.

In this program, the graphic designer will be able to perform 3D modeling by applying the different processes for a correct texturing, application of filters and lighting, as well as the creation of low-poly and high-poly models, to export work with excellent results.

Given the high competitiveness of the sector, students will acquire the essential knowledge to learn which design software is most suitable for each project, its possibilities, and how to solve the difficulties that may be encountered during the process of artistic creation. This Professional Master's Degree is 100% online, and allows professionals to broaden their competencies with an education from anywhere and at any time. All they need is a device with Internet access and the desire to succeed in a growing industry.

This **Professional Master's Degree in Art for Virtual Reality** 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 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 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



*Show the most powerful studios in the VR game industry your artistic talent thanks to this Professional Master's Degree"*

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*Now is the time to specialize in a design industry that wants artistic creatives like you on its team. Enroll in this Professional Master's Degree”*

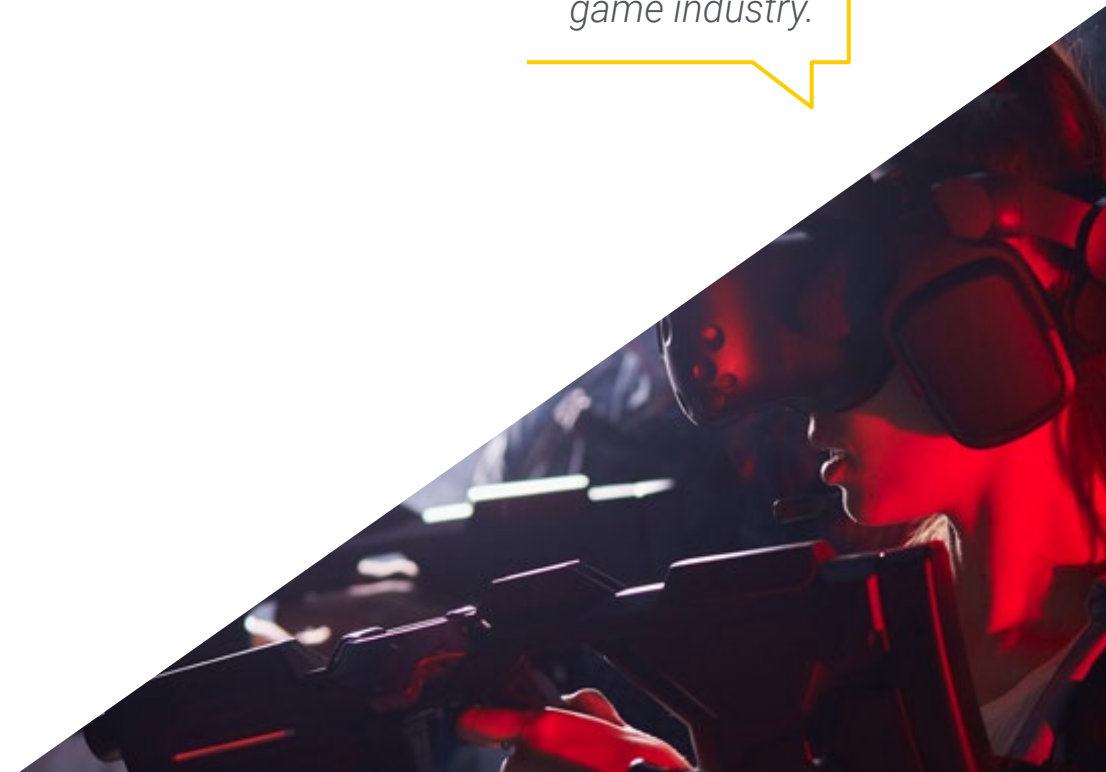
The program's teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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.

*Create high-quality 3D modeling with this Professional Master's Degree. It will be your best letter of introduction to the big companies in the video game industry.*

*Enhance your artistic skills and grow professionally in a booming VR video game industry.*



# 02 Objectives

The program of this Professional Master's Degree will enable designers to develop a creative artistic project focused on video games using Virtual Reality technology. To do so, the teaching team will guide students to correctly use the main design software used by companies in the market, to distinguish which tools should be used for each type of modeling, and the potential that can be obtained from each of them. The knowledge gained will boost designers in a field that demands specialized professionals.







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*TECH's objective is to help you achieve the professional goals you are looking for. The leading VR game studios are waiting for you"*



## General Objectives

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- ◆ Understand the advantages and constraints provided by Virtual Reality
- ◆ Develop high-quality hard surface modeling
- ◆ Understand the principles of retopology
- ◆ Understand the principles of UVs
- ◆ 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 as to which programs best fit your Pipeline

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*The Relearning Methodology and the variety of multimedia resources will be your greatest allies in the learning process of this Professional Master's Degree"*





## Specific Objectives

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### Module 1. The Project and the Unity Graphics Engine

- ◆ Develop a VR project
- ◆ Delve into Unity for VR
- ◆ Import textures and implement the necessary materials efficiently
- ◆ Create realistic and optimized lighting

### Module 2. Blender

- ◆ Develop procedural materials
- ◆ Be able to animate the modeling
- ◆ Use fluid, hair, particle, and clothing simulations with ease
- ◆ Create high-quality renders in both Eevee and Cycles
- ◆ Learn how to operate the new grease pencil and how to get the best out of it
- ◆ Learn how to use the new geometry nodes and be able to do fully procedural modelings

### Module 3. 3ds Max

- ◆ Master modeling in 3ds Max
- ◆ Learn the compatibility of 3ds Max with Unity for VR
- ◆ Learn the most used modifiers and be able to handle them with ease
- ◆ Use real workflow techniques

#### Module 4. ZBrush

- ◆ Be able to create any kind of meshes to start modeling
- ◆ Be able to create any type of mask
- ◆ Master IMM and Curve brushes
- ◆ Transform a low poly model into high poly one
- ◆ Create high-quality organic models

#### Module 5. Retopology

- ◆ Master the Zbrush retopology
- ◆ Learn when to use Zremesher, Decimation Master, and Zmodeler
- ◆ Be able to do the retopology of any modeling
- ◆ Master the specialized professional tool Topogun
- ◆ Train the professional in the creation of complex retopos

#### Module 6. Uvs

- ◆ Master the UV tools available in Zbrush
- ◆ Learn where to cut a modeling
- ◆ Get the best out of the UV space
- ◆ Master the UV specialized tool Rizom

#### Module 7. Baking

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







### Module 8. Substance Painter

- ◆ Use substance textures in a smart way
- ◆ Be able to create any type of mask using Substance Painter
- ◆ Master generators and filters using Substance Painter
- ◆ Create high-quality textures for a hard surface modeling with Substance Painter
- ◆ Create high-quality textures for an organic modeling with Substance Painter
- ◆ Make a good rendering to show props using Substance Painter

### Module 9. Marmoset

- ◆ Analyze this tool in depth and give the professional an idea of its advantages
- ◆ Create any type of mask using Marmoset
- ◆ Manage generators and filters using Marmoset
- ◆ Create-quality textures for a hard surface modeling with Marmoset
- ◆ Create high-quality textures for an organic modeling with Marmoset
- ◆ Create a good rendering to show props using Marmoset

### Module 10. Sci-Fi Environment

- ◆ Understand the knowledge acquired
- ◆ Understand the usefulness of all the tips applied to a real project
- ◆ Make a conscious decision as to which programs best fit your Pipeline
- ◆ Have a professional quality work in your dossier
- ◆ Analyze and understand an Environment from start to finish



# 03 Skills

The syllabus of this Professional Master's Degree is aimed at graphic design professionals who wish to bring all their artistic background applied to Virtual Reality video games. With the knowledge acquired in this course, students will be able to transfer any object they imagine to Virtual Reality technology using the most widely used programs in the industry, such as 3ds Max, Blender, or Zbrush. All this will allow graduates to give a distinguished touch to their graphic designs and boost their professional career in the video game industry.





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*The skills you will acquire in this Professional Master's Degree will position you in the graphic design sector of VR video games”*



## General Skills

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- ◆ Learn how to carry out a real project from start to finish
- ◆ Master the necessary tools for the creation of Virtual Reality projects
- ◆ Apply the acquired knowledge and problem solving skills to optimize the workflow as much as possible
- ◆ Be able to integrate knowledge and get a deep insight into the different uses of Virtual Reality
- ◆ Learn how to identify the limitations and differences regarding other sectors of the 3D industry
- ◆ Understand and internalize the most used materials in Virtual Reality that are applied to the sector systems to be more efficient and competitive in the current market
- ◆ Be able to correctly organize the files of a professional project
- ◆ Promote the optimization of the existing resources in the different software for the creation of Virtual Reality



*This Professional Master's Degree prepares you to take on any artistic design project you may encounter in the field of design of Art for Virtual Reality"*







## Specific Skills

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- ◆ Learn, master, and optimize all the design tools and software used in Virtual Reality
- ◆ Delve into the concepts of rendering, modeling, texturing, and lighting in the creation of Virtual Reality
- ◆ Differentiate the necessary strategies to create a project from scratch with an orderly methodology, saving resources and time with a professional result
- ◆ Obtain an exhaustive knowledge of the alternatives to the most common problems faced by a designer in the execution of a Virtual Reality project
- ◆ Obtain a complete vision of all the aspects related to Virtual Reality, an essential phase to improve in a specialized professional field
- ◆ Understand the usefulness of the different tips shown and their real application in the creation of VR projects
- ◆ Consolidate the knowledge acquired during the learning process thanks to the practical application of the contents
- ◆ Master the design of the main stages in the creation of a Virtual Reality material
- ◆ Elaborate an effective control plan of the creation work and follow up on the project until its completion
- ◆ Submit professional Virtual Reality projects

# 04

# Course Management

The teaching team for this course has been carefully selected by TECH to offer students an elite, high-quality, and affordable education for everyone. With this philosophy, we have formed a specialized faculty with extensive experience in the creation and graphic design of video games focused on Virtual Reality technology. Their guidance throughout this course will allow designers to grow as professionals in the sector with the greatest expansion in recent years.

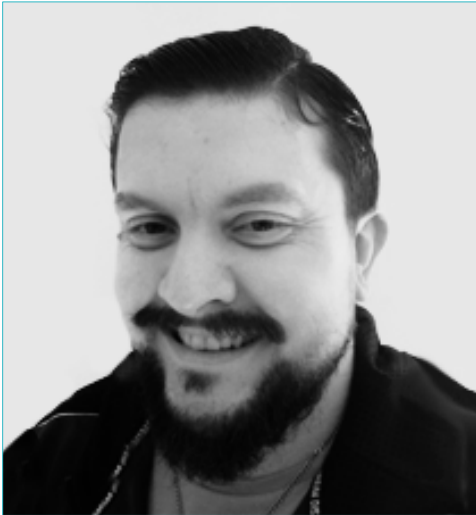




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*Excellent professionals of the video game design and creation sector will introduce you to Virtual Reality technology and will open up a world of artistic possibilities”*

## Management



### Mr. Menéndez Menéndez, Antonio Iván

- Senior environment and element artist and 3D consultant at The Glimpse Group VR
- 3D model designer and texture artist at Inmoreality
- 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
- Master's Degree in Sculpture and Digital Modeling by the Voxel School of Madrid
- Master's Degree in Art and Design for Video Games by U-Tad University of Madrid

## Professors

### Mr. Márquez Maceiras, 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
- ◆ Master's Degree in Game Design by U-Tad University of Madrid

### Mr. Morro, Pablo

- ◆ 3D Artist specialized in modeling, VFX, and textures
- ◆ 3D Artist at Mind Trips
- ◆ Graduated in Video Game Creation and Design at Jaume I University





# 05

# Structure and Content

The syllabus of this Professional Master's Degree uses a Relearning Methodology that facilitates the easiest and most practical retention of the content developed throughout this syllabus. Under the guidelines established by the specialized teaching team, we have developed a program that will enhance the knowledge in the software and essential tools for 3D modeling applied to the technology of virtual reality-based video games. Additionally, this syllabus shows a global and detailed vision of the complete development of a graphic design project in the video game industry.



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*All you need is the high-quality content and teaching team of this Professional Master's Degree to update your knowledge in graphic design for VR games”*



## Module 1. The Project and the Unity Graphics Engine

- 1.1. Design
  - 1.1.1. Pureref
  - 1.1.2. Scaling
  - 1.1.3. Differences and Limitations
- 1.2. Project Planning
  - 1.2.1. Modular Planning
  - 1.2.2. Blockout
  - 1.2.3. Assembly
- 1.3. Visualization in Unity
  - 1.3.1. Setting up Unity for Oculus
  - 1.3.2. The Oculus App
  - 1.3.3. Collision and Camera Adjustments
- 1.4. Visualization in Unity: Scene
  - 1.4.1. Setting up Scene for VR
  - 1.4.2. Export of APKs
  - 1.4.3. Installing APKs on Oculus Quest 2
- 1.5. Materials in Unity
  - 1.5.1. Standard
  - 1.5.2. Unlit: Features of This Material and When to Use It
  - 1.5.3. Optimization
- 1.6. Textures in Unity
  - 1.6.1. Importing Textures
  - 1.6.2. Transparency
  - 1.6.3. Sprite
- 1.7. Lighting
  - 1.7.1. VR Lighting
  - 1.7.2. Lighting Menu in Unity
  - 1.7.3. VR Skybox
- 1.8. Lighting: Lightmapping
  - 1.8.1. Lightmapping Settings
  - 1.8.2. Types of Lights
  - 1.8.3. Emissive

- 1.9. Lighting 3: Baking
  - 1.9.1. Baking
  - 1.9.2. Ambient Occlusion
  - 1.9.3. Optimization
- 1.10. Organizing and Exporting
  - 1.10.1. Folders
  - 1.10.2. Prefab
  - 1.10.3. Exporting and Importing Unity Packages

## Module 2. Blender

- 2.1. Interface
  - 2.1.1. Software Blender
  - 2.1.2. Controls and Shortcuts
  - 2.1.3. Scenes and Customization
- 2.2. Modeling
  - 2.2.1. Data Science
  - 2.2.2. Mesh
  - 2.2.3. Curves and Surfaces
- 2.3. Modifiers
  - 2.3.1. Modifiers
  - 2.3.2. How Are They Used
  - 2.3.3. Types of Modifiers
- 2.4. Hard Surface Modeling
  - 2.4.1. Prop Modeling
  - 2.4.2. Prop Modeling's Evolution
  - 2.4.3. Prop Modeling's Final Assessment
- 2.5. Materials
  - 2.5.1. Assignment and Components
  - 2.5.2. Creating Materials
  - 2.5.3. Creating Procedural Materials
- 2.6. Animation and Rigging
  - 2.6.1. Keyframes:
  - 2.6.2. Armatures
  - 2.6.3. Constraints



- 2.7. Simulation
  - 2.7.1. Fluids
  - 2.7.2. Hair and Particles
  - 2.7.3. Clothing
- 2.8. Rendering
  - 2.8.1. Cycles and Eevee
  - 2.8.2. Light
  - 2.8.3. Cameras
- 2.9. Grease Pencil
  - 2.9.1. Structure and Primitives
  - 2.9.2. Properties and Modifiers
  - 2.9.3. Examples:
- 2.10. Geometry Nodes
  - 2.10.1. Attributes
  - 2.10.2. Types of Nodes
  - 2.10.3. Practical Example

### Module 3. 3ds Max

- 3.1. Interface Set-up
  - 3.1.1. Project Start
  - 3.1.2. Automatic and Incremental Saving
  - 3.1.3. Measuring Units
- 3.2. The Create Menu
  - 3.2.1. Objects
  - 3.2.2. Light
  - 3.2.3. Cylindrical and Spherical Objects
- 3.3. The Modify Menu
  - 3.3.1. The Menu
  - 3.3.2. Button Configuration
  - 3.3.3. Uses
- 3.4. Edit Poly: Polygons
  - 3.4.1. Edit Poly Mode
  - 3.4.2. Edit Polygons
  - 3.4.3. Edit Geometry

- 3.5. Edit Poly: Selection
  - 3.5.1. Selection
  - 3.5.2. Soft Selection
  - 3.5.3. IDs and Smoothing Groups
- 3.6. The Hierarchy Menu
  - 3.6.1. Pivot Conditions
  - 3.6.2. Reset XForm and Freeze Transform
  - 3.6.3. Adjusting the Pivot Menu
- 3.7. Material Editor
  - 3.7.1. Compact Material Editor
  - 3.7.2. Slate Material Editor
  - 3.7.3. Multi/Sub-object
- 3.8. Modifier List
  - 3.8.1. Modeling Modifiers
  - 3.8.2. Modeling Modifiers' Evolution
  - 3.8.3. Modeling Modifiers' Final Assessment
- 3.9. XView and Non-Quads
  - 3.9.1. XView
  - 3.9.2. Checking for Errors in Geometry
  - 3.9.3. Non-Quads
- 3.10. Exporting to Unity
  - 3.10.1. Triangulating the Asset
  - 3.10.2. DirectX or Open GL for Normals
  - 3.10.3. Conclusions

## Module 4. ZBrush

- 4.1. ZBrush
  - 4.1.1. Polymesh
  - 4.1.2. Subtools
  - 4.1.3. Gizmo 3D
- 4.2. Creating Meshes
  - 4.2.1. Quick Mesh and Primitives
  - 4.2.2. Mesh Extract
  - 4.2.3. Booleans

- 4.3. Sculpting
  - 4.3.1. Symmetry
  - 4.3.2. Main Brushes
  - 4.3.3. Dynamesh
- 4.4. Masks
  - 4.4.1. Brushes and the Mask Menu
  - 4.4.2. Brush Masks
  - 4.4.3. Polygroups
- 4.5. Sculpting Organic Prop K
  - 4.5.1. Sculpting Low Poly
  - 4.5.2. Low Poly Sculpting Evolution
  - 4.5.3. Low Poly Sculpting Final Assessment
- 4.6. IMM Brushes
  - 4.6.1. Controls
  - 4.6.2. Inserting Multi Mesh
  - 4.6.3. Creating IMM Brushes
- 4.7. Curve Brushes
  - 4.7.1. Controls
  - 4.7.2. Creating Curve Brushes
  - 4.7.3. IMM Curve Brushes
- 4.8. High Poly
  - 4.8.1. Subdivisions and Dynamic Subdivisions
  - 4.8.2. HD-geometry
  - 4.8.3. Projecting Noise
- 4.9. Other Types of Mesh
  - 4.9.1. MicroMesh
  - 4.9.2. NanoMesh
  - 4.9.3. ArrayMesh
- 4.10. High Poly Organic PropSculpting
  - 4.10.1. Prop Sculpting
  - 4.10.2. Prop Sculpting Evolution
  - 4.10.3. Prop Sculpting Final Assessment

## Module 5. Retopology

- 5.1. Retopology in ZBrush-ZRemesher
  - 5.1.1. ZRemesher
  - 5.1.2. Guidelines
  - 5.1.3. Examples:
- 5.2. Retopology in ZBrush-Decimation Master
  - 5.2.1. Decimation Master
  - 5.2.2. Combining It with Brushes
  - 5.2.3. Workflow
- 5.3. Retopology in ZBrush- ZModeler
  - 5.3.1. ZModeler
  - 5.3.2. Modes
  - 5.3.3. Correcting Meshes
- 5.4. Prop Retopology
  - 5.4.1. Hard Surface Prop Retopology
  - 5.4.2. Organic Prop Retopology
  - 5.4.3. Hand Retopology
- 5.5. Topogun
  - 5.5.1. Advantages of Topogun
  - 5.5.2. The Interface
  - 5.5.3. Import
- 5.6. Tools: Edit
  - 5.6.1. Simple Edit Tool
  - 5.6.2. Simple Create Tool
  - 5.6.3. Draw Tool
- 5.7. Tools: Bridge
  - 5.7.1. Bridge Tool
  - 5.7.2. Brush Tool
  - 5.7.3. Extrude Tool
- 5.8. Tools: Tubes
  - 5.8.1. Tubes Tool
  - 5.8.2. Symmetry Set-up
  - 5.8.3. Feature Subdivision and Map Baking

- 5.9. Head Retopology
  - 5.9.1. Facial Loops
  - 5.9.2. Mesh Optimization
  - 5.9.3. Export
- 5.10. Full Body Retopology
  - 5.10.1. Body Loops
  - 5.10.2. Mesh Optimization
  - 5.10.3. VR Requirements

## Module 6. UVs

- 6.1. Advanced UVs
  - 6.1.1. Warnings
  - 6.1.2. Cuts
  - 6.1.3. Cuts
- 6.2. Creating UVs in ZBrush -UVMaster
  - 6.2.1. Controls
  - 6.2.2. Unwrap
  - 6.2.3. Unusual Topology
- 6.3. UVMaster: Painting
  - 6.3.1. Painting Control
  - 6.3.2. Creating Seams
  - 6.3.3. Checkseams
- 6.4. UVMaster: Packing
  - 6.4.1. UV Packing
  - 6.4.2. Creating Islands
  - 6.4.3. Flatten
- 6.5. UVMaster: Clones
  - 6.5.1. Working With Clones
  - 6.5.2. Polygroups
  - 6.5.3. Control Painting
- 6.6. Rizom UV
  - 6.6.1. Rizom Script
  - 6.6.2. The Interface
  - 6.6.3. Importing With or Without UVs

- 6.7. Seams and Cuts
  - 6.7.1. Keyboard Shortcuts
  - 6.7.2. 3D Panel
  - 6.7.3. UV Panel
- 6.8. UV Unwrap and Layout Panel
  - 6.8.1. Unfold
  - 6.8.2. Optimize
  - 6.8.3. Layout and Packing
- 6.9. UV: More Tools
  - 6.9.1. Align, Straighten, Flip, and Fit
  - 6.9.2. TopoCopy and Stack1
  - 6.9.3. Edge Loop Parameters
- 6.10. Advanced UV Rizom
  - 6.10.1. Auto Seams
  - 6.10.2. UVs Channels
  - 6.10.3. *Texel Density*

## Module 7. Baking

- 7.1. Model Baking
  - 7.1.1. Preparing the Model for Baking
  - 7.1.2. Baking Principles
  - 7.1.3. Processing Options
- 7.2. Model Baking: Painter
  - 7.2.1. Baking in Painter
  - 7.2.2. Low Poly Baking
  - 7.2.3. High Poly Baking
- 7.3. Model Baking: Boxes
  - 7.3.1. Using Boxes
  - 7.3.2. Adjusting Distances
  - 7.3.3. Computing Tangent Space per Fragment
- 7.4. Map Baking
  - 7.4.1. Normal
  - 7.4.2. ID
  - 7.4.3. Ambient Occlusion

- 7.5. Map Baking: Curvatures
  - 7.5.1. Curvature
  - 7.5.2. Thickness
  - 7.5.3. Improving Map Quality
- 7.6. Baking in Marmoset
  - 7.6.1. Marmoset
  - 7.6.2. Functions
  - 7.6.3. Real-Time Baking
- 7.7. Setting up the Document for Baking in Marmoset
  - 7.7.1. High Poly and Low Poly in 3dsMax
  - 7.7.2. Organizing the Scene in Marmoset
  - 7.7.3. Verifying That Everything Is Correct
- 7.8. Bake Project Panel
  - 7.8.1. Bake Group, High and Low
  - 7.8.2. The Geometry Menu
  - 7.8.3. Load
- 7.9. Advanced Options
  - 7.9.1. Output
  - 7.9.2. Adjusting the Cage
  - 7.9.3. Setting up Maps
- 7.10. Baking
  - 7.10.1. Maps
  - 7.10.2. Result Preview
  - 7.10.3. Baking Floating Geometry

## Module 8. Substance Painter

- 8.1. Creating a Project
  - 8.1.1. Importing Maps
  - 8.1.2. UVs
  - 8.1.3. Baking
- 8.2. Layers
  - 8.2.1. Types of Layers
  - 8.2.2. Layer Options
  - 8.2.3. Materials



- 8.3. Painting
  - 8.3.1. Types of Brushes
  - 8.3.2. Filling Projections
  - 8.3.3. Advance Dynamic Painting
- 8.4. Effects
  - 8.4.1. Filling
  - 8.4.2. Levels
  - 8.4.3. Anchor Points
- 8.5. Masks
  - 8.5.1. Alphas
  - 8.5.2. Procedurals and Grunges
  - 8.5.3. Hard Surfaces
- 8.6. Generators
  - 8.6.1. Generators
  - 8.6.2. Uses
  - 8.6.3. Examples:
- 8.7. Filters
  - 8.7.1. Filters
  - 8.7.2. Uses
  - 8.7.3. Examples
- 8.8. Hard Surface Prop Texturing
  - 8.8.1. Prop Texturing
  - 8.8.2. Prop Texturing's Evolution
  - 8.8.3. Prop Texturing's Final Assessment
- 8.9. Texturing Organic Prop
  - 8.9.1. Prop Texturing
  - 8.9.2. Prop Texturing's Evolution
  - 8.9.3. Prop Texturing's Final Assessment
- 8.10. Render
  - 8.10.1. IRay
  - 8.10.2. Post-Processing
  - 8.10.3. Col Use

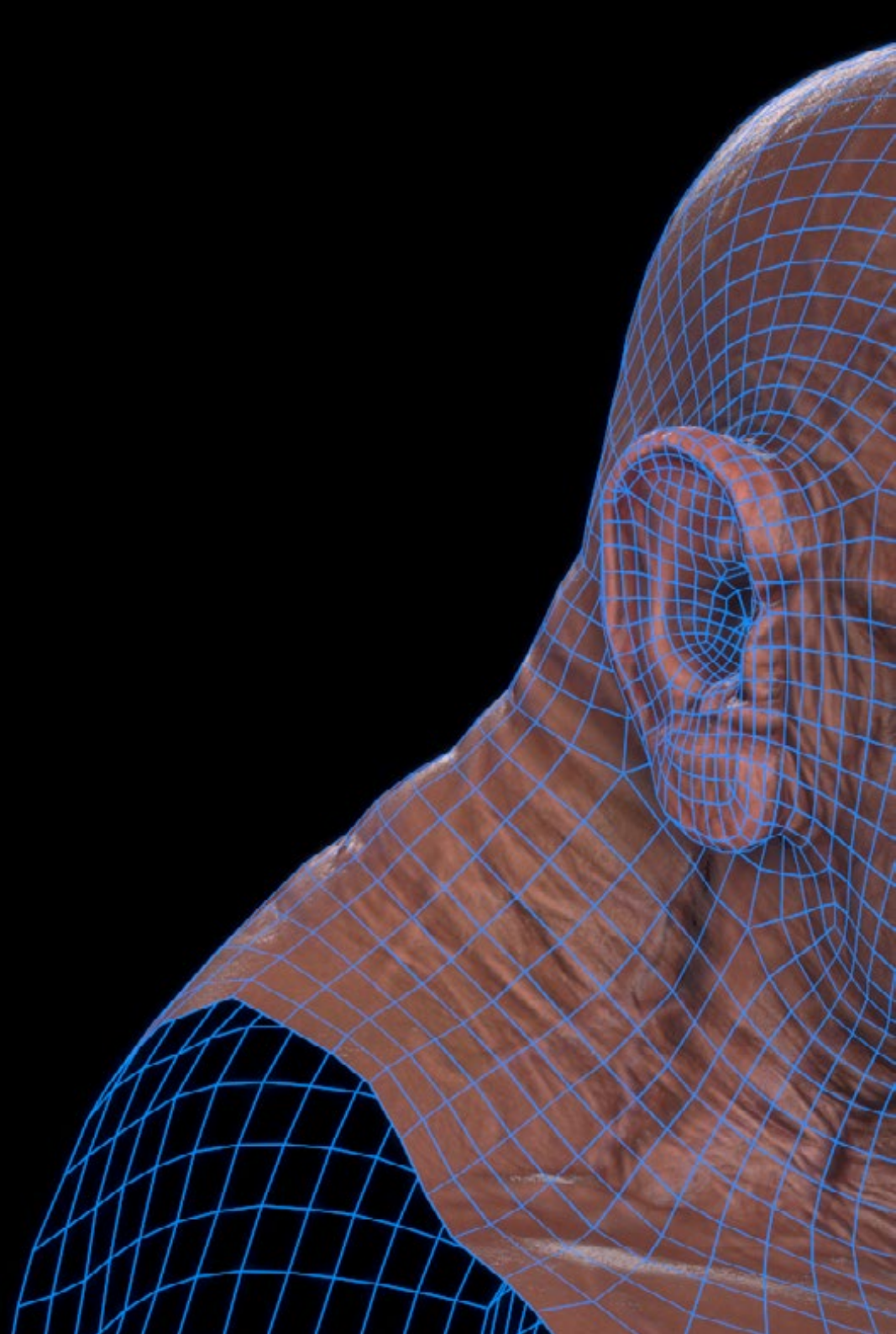
## Module 9. Marmoset

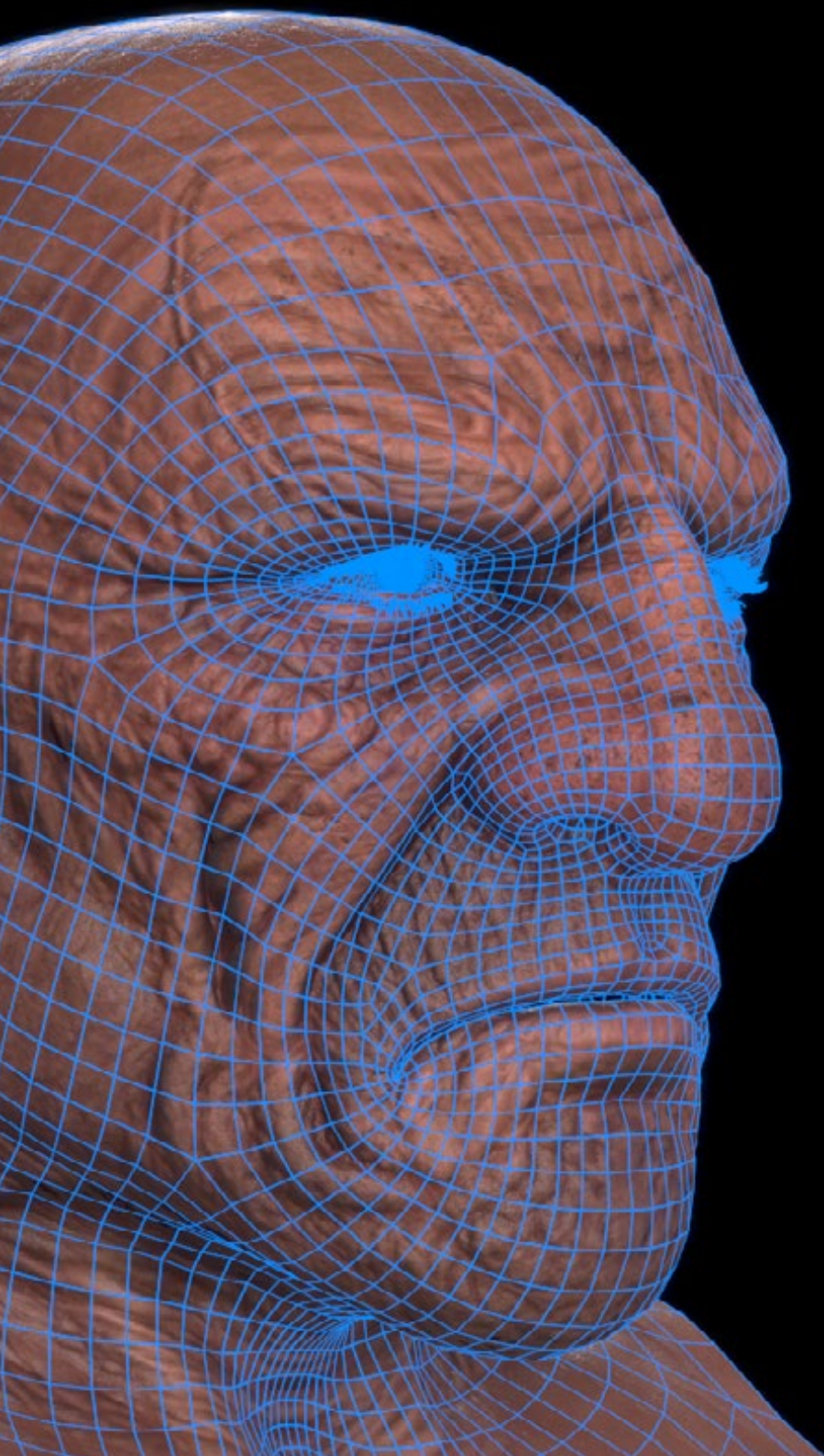
- 9.1. The Alternative
  - 9.1.1. Import
  - 9.1.2. Interface
  - 9.1.3. Viewport
- 9.2. Classic
  - 9.2.1. Scene
  - 9.2.2. Tool Settings
  - 9.2.3. History
- 9.3. Inside Scene
  - 9.3.1. Render
  - 9.3.2. Main Camera
  - 9.3.3. Sky
- 9.4. Lights
  - 9.4.1. Types
  - 9.4.2. Shadow Catcher
  - 9.4.3. Fog
- 9.5. Texture
  - 9.5.1. Texture Project
  - 9.5.2. Map Import
  - 9.5.3. Viewport
- 9.6. Layers: Paint
  - 9.6.1. Paint Layer
  - 9.6.2. Fill Layer
  - 9.6.3. Group
- 9.7. Layers: Adjustments
  - 9.7.1. Adjustment Layer
  - 9.7.2. Input Processor Layer
  - 9.7.3. Procedural Layer
- 9.8. Layers: Mask
  - 9.8.1. Mask
  - 9.8.2. Channels
  - 9.8.3. Maps

- 9.9. Materials
  - 9.9.1. Types of Material
  - 9.9.2. Settings
  - 9.9.3. Applying Them to the Scene
- 9.10. Dossier
  - 9.10.1. Marmoset Viewer
  - 9.10.2. Exporting Render Images
  - 9.10.3. Exporting Videos

## Module 10. Sci-Fi Environment

- 10.1. Sci-Fi Concept and Planning
  - 10.1.1. References
  - 10.1.2. Planning
  - 10.1.3. Blockout
- 10.2. Implementation in Unity
  - 10.2.1. Importing Blockout and Verifying Scaling
  - 10.2.2. Skybox
  - 10.2.3. Files and Preliminary Materials
- 10.3. Module 1: Floors
  - 10.3.1. High to Low Modular Modeling
  - 10.3.2. UVs and Baking
  - 10.3.3. Texturing
- 10.4. Module 2: Walls
  - 10.4.1. High to Low Modular Modeling
  - 10.4.2. UVs and Baking
  - 10.4.3. Texturing
- 10.5. Module 3: Roofs
  - 10.5.1. High to Low Modular Modeling
  - 10.5.2. Retopology, UVs, and Baking
  - 10.5.3. Texturing
- 10.6. Module 4: Extras (Pipes, Railings, Etc.)
  - 10.6.1. High to Low Modular Modeling
  - 10.6.2. UVs and Baking
  - 10.6.3. Texturing





- 10.7. Hero Asset 1: Mechanical Doors
  - 10.7.1. High to Low Modular Modeling
  - 10.7.2. Retopology, UVs, and Baking
  - 10.7.3. Texturing
- 10.8. Hero Asset 2: Hibernation Chamber
  - 10.8.1. High to Low Modular Modeling
  - 10.8.2. Retopology, UVs, and Baking
  - 10.8.3. Texturing
- 10.9. In Unity
  - 10.9.1. Importing Textures
  - 10.9.2. Application of Materials
  - 10.9.3. Scene Lighting
- 10.10. End of Project
  - 10.10.1. VR Visualization
  - 10.10.2. Prefab and Export
  - 10.10.3. Conclusions

“

*A program designed for you to squeeze the juice out for your creativity in the best video game studios"*



06

# 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"*

## 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.

“

*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 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 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.



# 07 Certificate

The Professional Master's Degree in Art for Virtual Reality guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree 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"*

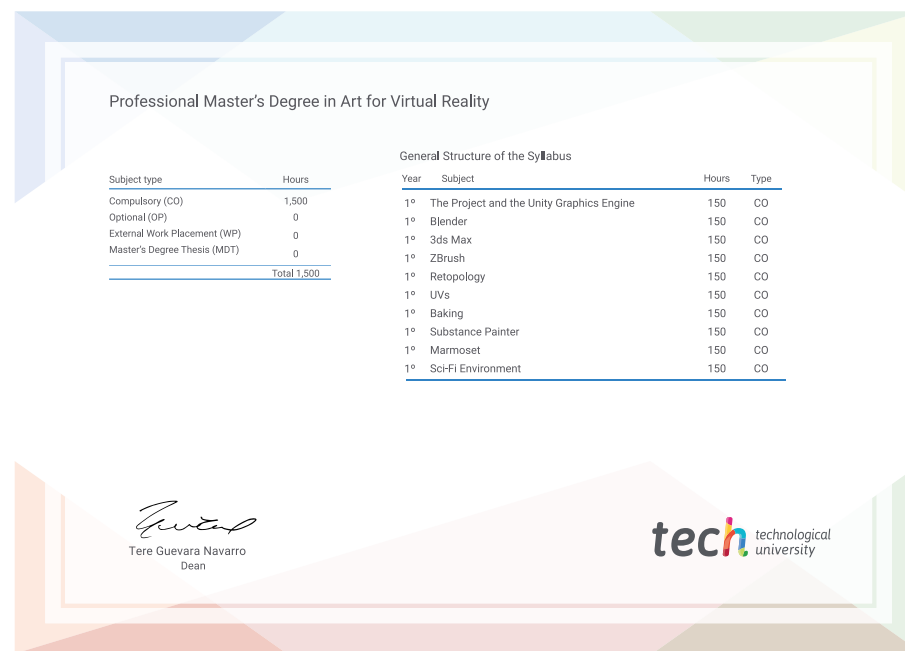
This **Professional Master's Degree in Art for Virtual Reality** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Professional Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Professional Master's Degree in Art for Virtual Reality**

Official N° of hours: **1,500 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.



## Professional Master's Degree Art for Virtual Reality

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

# Professional Master's Degree Art for Virtual Reality

