Master's Degree
Art for Virtual Reality

tech global university

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Master's Degree
Art for Virtual Reality

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Global University**
- Credits: **60 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/videogames/master-degree/master-art-virtual-reality

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01

Introduction

Virtual Reality has been developed in the military or medical field, but where it has impacted socially is in the world of Video Games. Half-Life:Alyx, Beat Saber or The Walking Dead Saints & Sinners are some of the immersive proposals most demanded by Gamers. The development of VR Video Games requires exhaustive knowledge that the professionals will be able to acquire thanks to this degree. The mastery of programs and tools for the creation of a project of great potential are key to launch with guarantees a VR Video Game in this industry. Thanks to a specialized teaching staff and practical multimedia content, the professionals will acquire the necessary skills to be part of the most powerful artistic teams in the industry.

This Master's Degree will be the Virtual Reality immersion that will catapult your professional project into the Videogames sector"

The program in Art for Virtual Reality imparted at TECH Global University has the following objectives to boost the career of Video Game Design professionals who wish to master their knowledge in Virtual Reality, with the complete creation of projects that can be launched to the Video Game industry. The program stands out for the scope of its content, as it covers all the available tools: Blender, 3ds Max, Marmoset or retopography and their use in the different stages of creation.

The professionals will not only delve into the knowledge related to this field, but they will also increase their skills of strategic vision in the creative development and execution of Video Games for their later professional presentation.

During this program, the professionals in charge of the creation of VR Video Games will delve into all the aspects related to textures, lighting, rendering and baking to achieve 3D objects. In addition, due to the demand for specialized professionals in this booming sector we will present real simulations of existing problems during the creation process and the alternative solutions to be applied in each case. Being decisive in all phases to become a valuable asset in any type of work in this industry.

A Master's Degree 100% online that provides students with the knowledge they need whenever and wherever they wish.to learn. You will only need internet connection and an electronic device with which to access to boost their career. A modality that follows the Relearning methodology that provides all the guarantees to consolidate the acquired knowledge and its application in a growing Video Game sector.

This **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

Expand your creativity in the Graphic Design sector , focused on the field of VR Video Games and broaden your professional possibilities"

By 2023 there are expected to be 1.7 billion Mobile Augmented Reality users, what are you waiting for to specialize in an expanding market?"

Learn how to efficiently design 3D creations for Virtual Reality Video Games and express all your creativity thanks to this degree.

Increase your knowledge and show what you can offer in the field of Virtual Reality in Video Games.

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

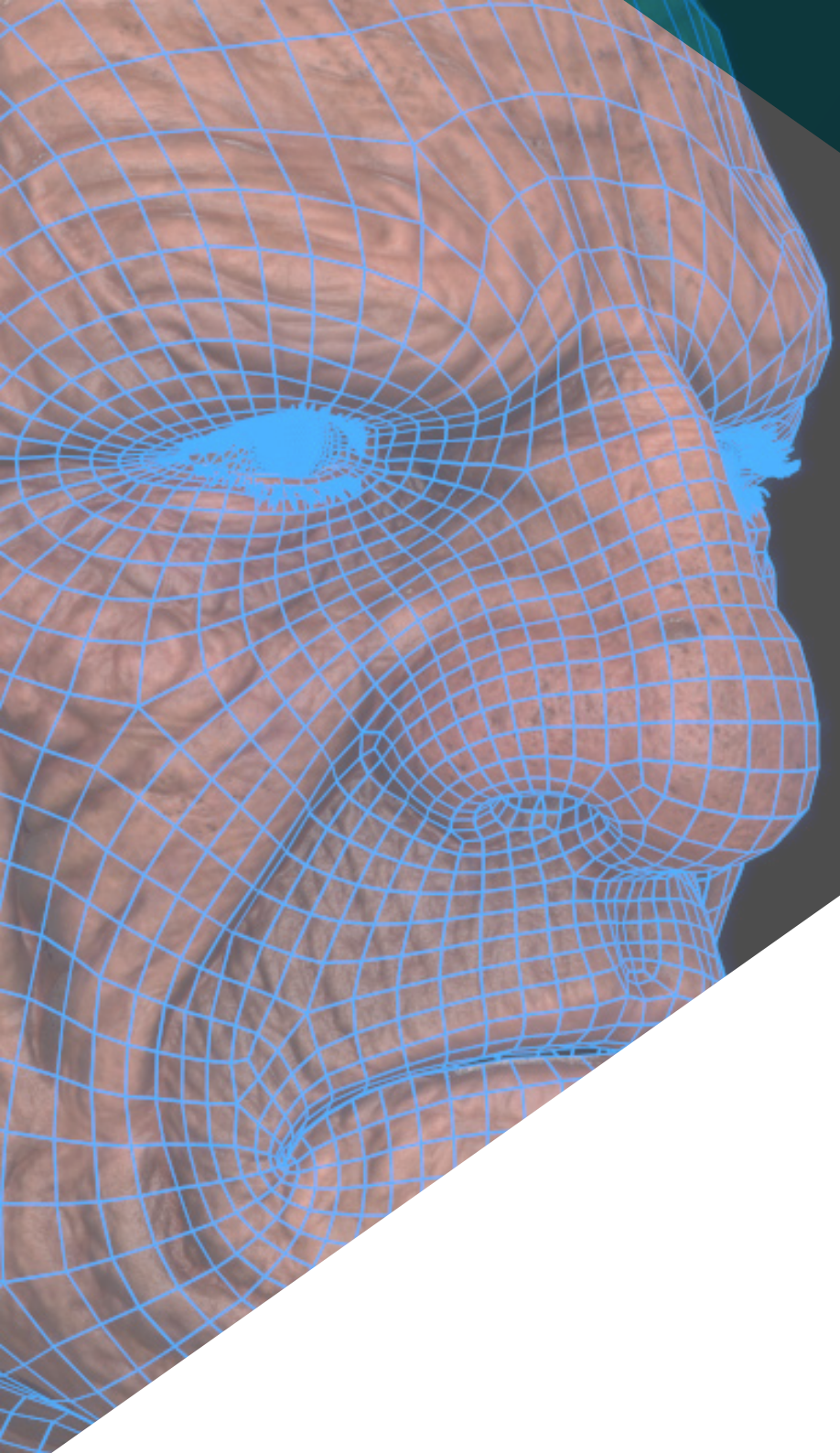
Its multimedia content, developed with the latest educational technology, will allow professionals to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive education programmed to prepare in real situations.

This program's design focuses on Problem-Based Learning, through which the professional must try to solve the different professional practice situations that arise during the academic program. For this purpose, it will be aided by an innovative system of interactive videos produced by renowned experts.

02

Objectives

The design of this program will allow students to approach the global concept of Graphic Design of a Video Game based on Virtual Reality technology. They will acquire the necessary skills to master the tools and software used in the modeling of 3D objects, as well as the skills to present their project in a professional manner. The knowledge imparted in the development of the topics of the syllabus will propel the participants in a field of the Video Game that has been transformed notably in the last years.



TECH's objective is launching your career. Companies like Oculus VR, HTC, Samsung or Microsoft require specialized professionals like you"

General Objectives

- Understand the advantages and constraints provided by Virtual Reality
- Develop a high-quality hard surface modeling
- Create high-quality organic 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

You will achieve your goals thanks to a methodology and quality content that adapts to you and to the demands of the Virtual Reality Gaming sector"

Specific Objectives

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 a 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 modeling

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 modeling

Module 5. Retopology
- Master 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 real-time baking in Marmoset

Module 8. Substance Painter
- Use substance textures in a smart way
- Be able to create any type of mask
- Master generators and filters
- Do high-quality textures for a hard surface modeling
- Do quality textures for an organic modeling
- Be able to do a good Render to show the Props

Module 9. Marmoset
- Analyze this tool in depth and give the professional an idea of its advantages
- Be able to create any type of mask
- Master generators and filters
- Do high-quality textures for a hard surface modeling
- Do-quality textures for an organic modeling
- Be able to do a good Render to show the Props

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
- In a study, Environment is rarely carried out from start to finish. Here, we will analyze it and you will assimilate the complete process

03

Skills

The structure of this Master's Degree has been designed in such a way that the professionals will be able to conceive, design and elaborate the Graphic Arts of a Virtual Reality Video Game, thanks to a unique methodology and the support of the specialized teachers who have developed it. TECH Global University guarantees professionals a quality content according to the reality and demand of companies in the gaming sector. With the knowledge of all the tools available for the creation of a game, the professionals will acquire the skills to stand out in their work area. Likewise, they will be prepared to offer the most innovative immersive proposals in the field of video games.

The skills you will acquire after completing this Master's Degree will position you in the booming market of Video Games"

General Skills

- 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
- Integrate knowledge and obtain an in-depth vision of the different uses of Virtual Reality
- Know how to identify the limitations and differences with respect to 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

Specific Skills

- 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

In accordance with the aim of offering an elite education for all, TECH Technological counts on renowned professionals so students can acquire a solid body of knowledge of the Video Game Virtual Reality. For this reason, this Master's Degree has a highly qualified team with extensive experience in the sector, which will offer the best possible tools for students to obtain their maximum potential. In this way, students will be guided by experts who will provide the boost they are looking for in the labor market.

Learning from prestigious experts makes the difference between being among the best in the gaming industry or not"

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

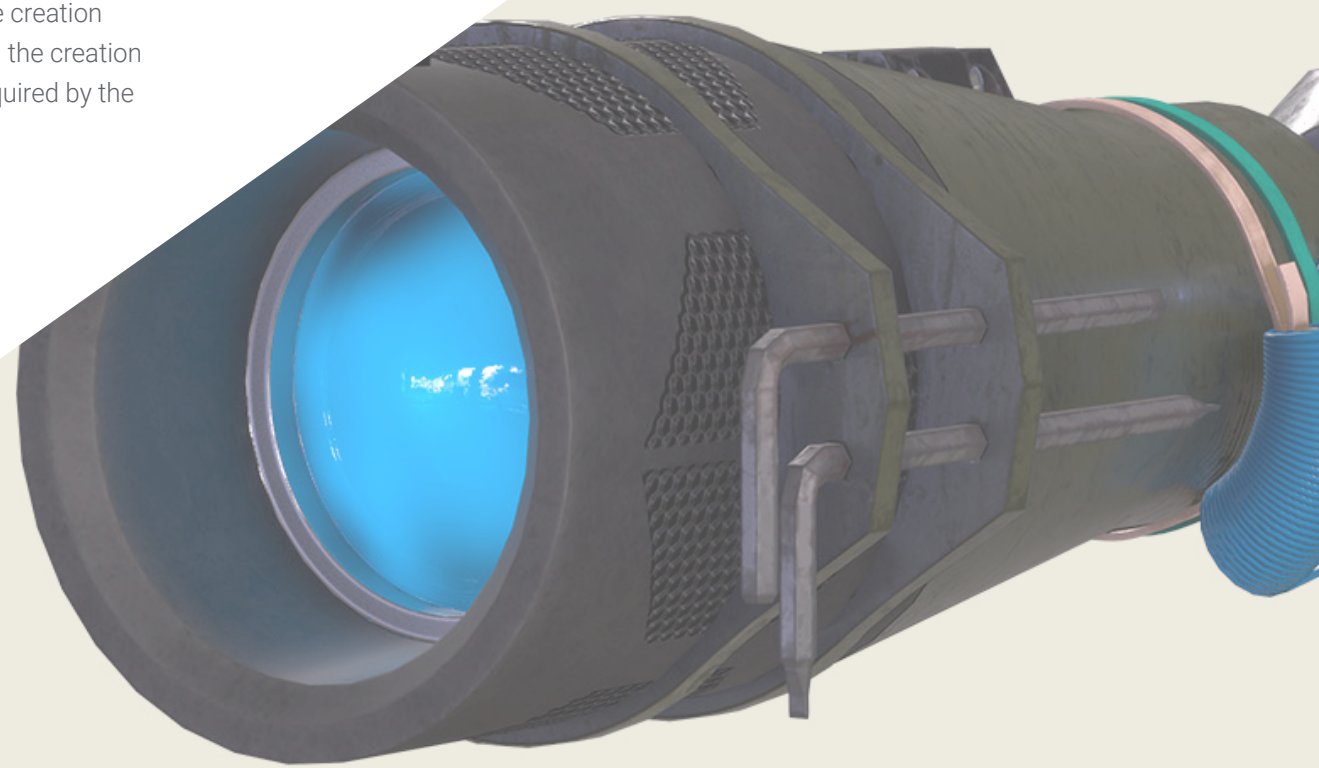
Mr. Morro, Pablo

- 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 Relearning methodology and the quality multimedia content used in the study plan of this program will allow the consolidation of the knowledge that the professional will have to put into practice in the labor market. Following the requirements proposed by the teaching team of this Master's Degree, a syllabus has been established whose modules offer a detailed teaching of each of the creation programs in VR content. It also incorporates a practical and real vision in the creation of Virtual Reality Video Game projects in order to acquire all the skills required by the most important companies in this Video Game industry.



A syllabus led by professionals in the Virtual Reality Videogame industry, which will provide you with the highest quality and most up-to-date content available today"

Module 1. The Project and the Unity Graphics Engine

1.1. The 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 XFom 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 Modifier Evolution
- 3.8.3. Modeling Modifier 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 u OpenGL for Normal Maps
- 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. Organic Prop K's Sculpting
- 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. Props Sculpting Evolution
- 4.10.3. Props 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: Pipelines
- 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. Texture Density

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 Max
- 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 Evolution
- 8.8.3. Prop Texturing's Final Assessment

8.9. Organic Prop Texturing
- 8.9.1. Prop Texturing
- 8.9.2. Prop Texturing 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: Masks
- 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 to help you succeed with your Virtual Reality creations in the video game industry"

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 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

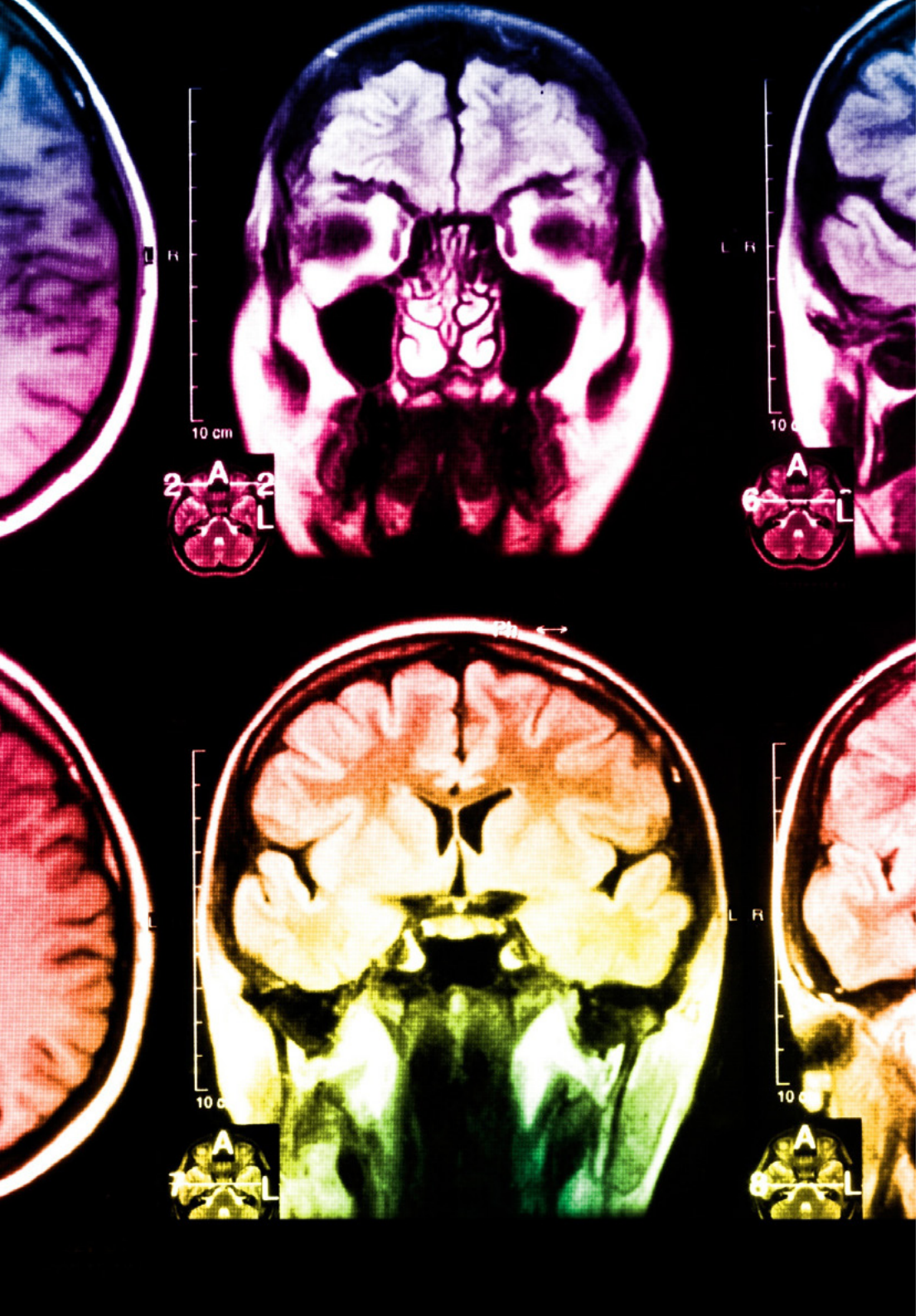
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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.

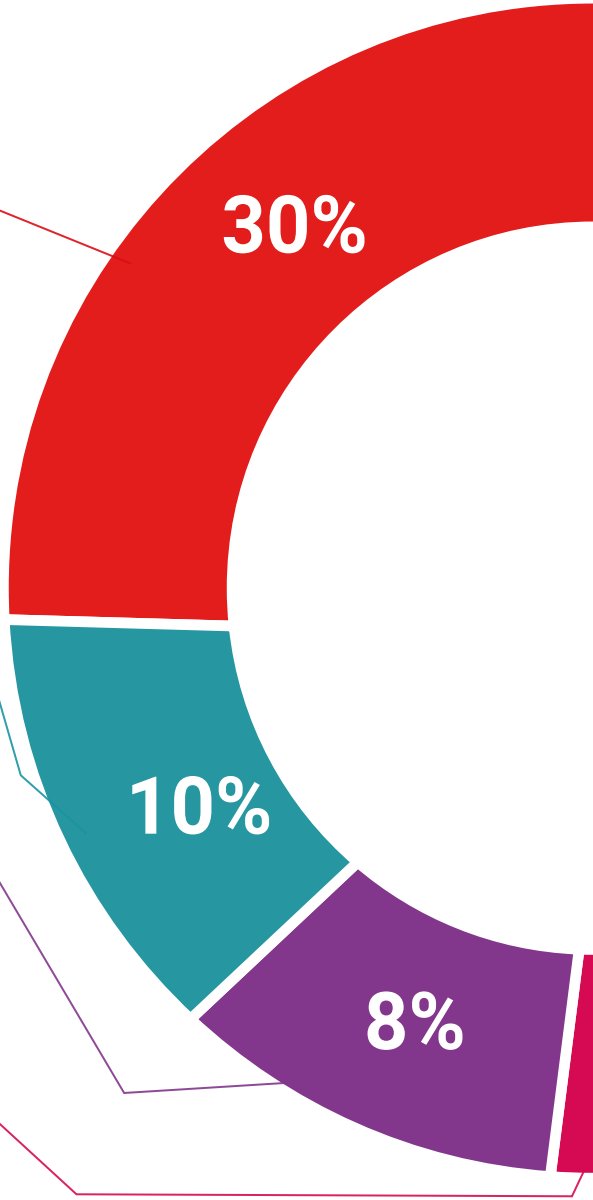
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

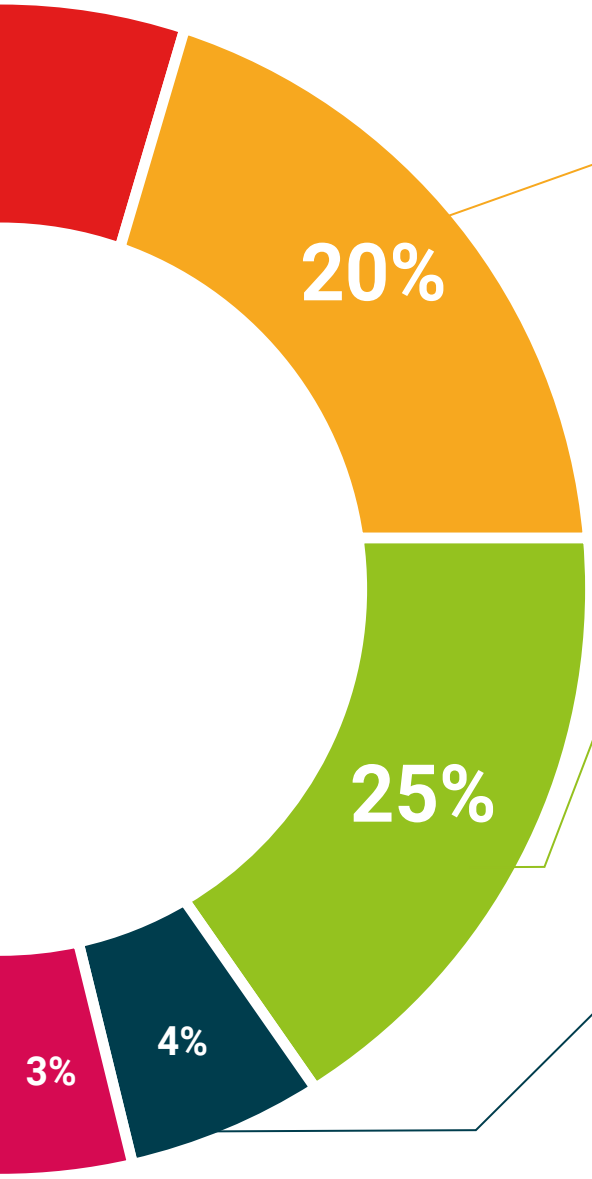
Practising Skills and Abilities

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.

07

Certificate

The Master's Degree in Master's Degree in Art for Virtual Reality guarantees students, in addition to the most rigorous and up-to-date education, access to a Master's Degree diploma issued by TECH Global University.

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 **Master's Degree diploma 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: **Master's Degree in Art for Virtual Reality**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**

tech global university

Mr./Ms. _____ with identification document _____
has successfully passed and obtained the title of:

Master's Degree in Art for Virtual Reality

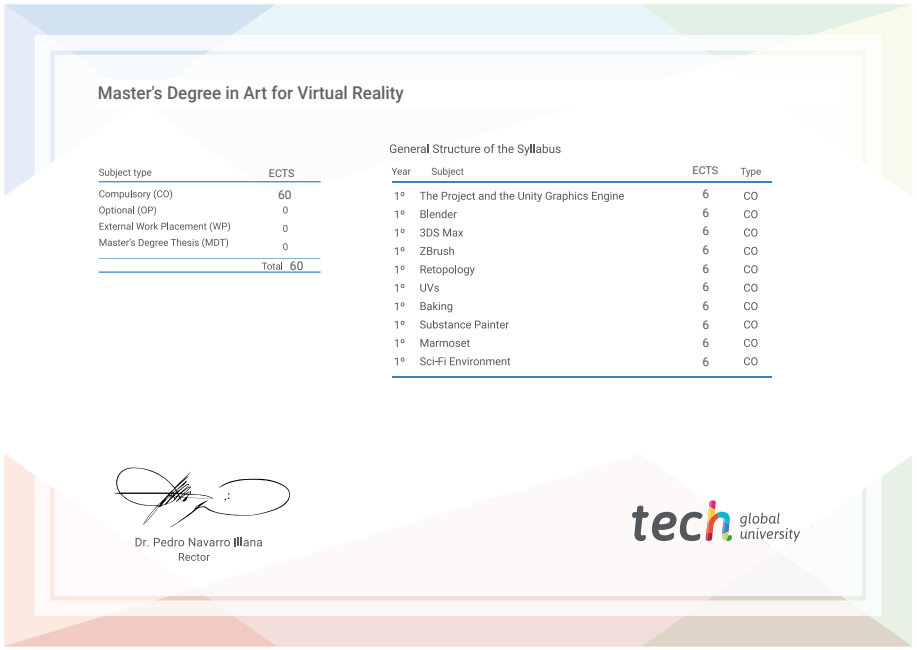
This is a program of 1,500 hours of duration equivalent to 60 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

Unique TECH Code: AFWORD23S techtitute.com/certificates


Master's Degree in Art for Virtual Reality

Subject type	ECTS
Compulsory (CO)	60
Optional (OP)	0
External Work Placement (WP)	0
Master's Degree Thesis (MDT)	0
Total	60

General Structure of the Syllabus

Year	Subject	ECTS	Type
1º	The Project and the Unity Graphics Engine	6	CO
1º	Blender	6	CO
1º	3DS Max	6	CO
1º	ZBrush	6	CO
1º	Retopology	6	CO
1º	UVs	6	CO
1º	Baking	6	CO
1º	Substance Painter	6	CO
1º	Marmoset	6	CO
1º	Sci-Fi Environment	6	CO

Dr. Pedro Navarro Illana
Rector

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

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Master's Degree
Art for Virtual Reality

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Global University**
- Credits: **60 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Master's Degree
Art for Virtual Reality

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