

# Postgraduate Certificate

## Retopology in Art for Virtual Reality





## Postgraduate Certificate Retopology 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.techtute.com/us/design/postgraduate-certificate/retopology-art-virtual-reality](http://www.techtute.com/us/design/postgraduate-certificate/retopology-art-virtual-reality)

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Certificate

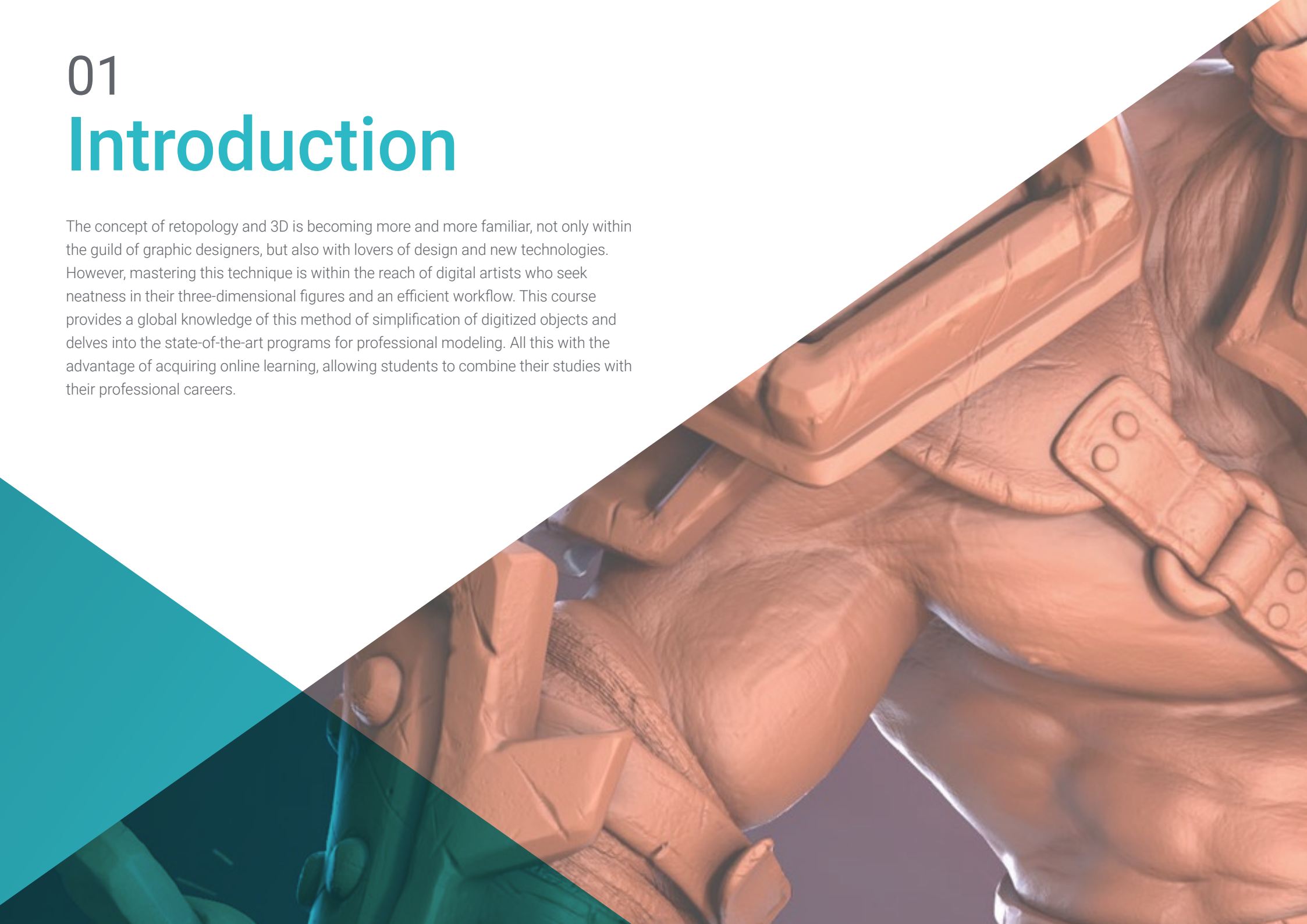
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# 01

# Introduction

The concept of retopology and 3D is becoming more and more familiar, not only within the guild of graphic designers, but also with lovers of design and new technologies. However, mastering this technique is within the reach of digital artists who seek neatness in their three-dimensional figures and an efficient workflow. This course provides a global knowledge of this method of simplification of digitized objects and delves into the state-of-the-art programs for professional modeling. All this with the advantage of acquiring online learning, allowing students to combine their studies with their professional careers.





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*Make your high-quality 3D designs more realistic with this Postgraduate Certificate”*

The Postgraduate Certificate in Retopology in Art for Virtual Reality aimed at designers and artistic creators highlights the value of the retopology technique in the video game industry, where players are demanding more realism.

This program provides an in-depth look at the principles of this technique, teaching students how to detect the main mistakes that are made during its execution and how to solve them in a real situation. Additionally, the specialized teaching team will show students how the popular ZBrush and Topogun programs are used to obtain high-quality results.

The experience of the teaching team of this program will favor the learning of students who are looking for up-to-date and renewed content on 3D modeling oriented to the VR video game sector. A good opportunity to specialize through a 100% online methodology and with an extensive library of multimedia content provided by TECH for the acquisition of knowledge.

This **Postgraduate Certificate in Retopology 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 Video 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



*Design your three-dimensional figures in a quick and effective way with this Postgraduate Certificate”*

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*Mastering the ZBrush retopology technique will be very useful to succeed in the gaming industry. Enroll in this Postgraduate Certificate”*

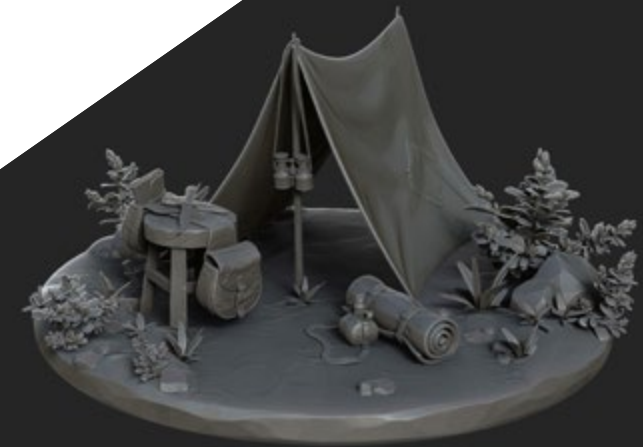
The program's teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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.

*The use of Virtual Reality technology is on the rise. Make your creations part of the great VR titles with this Postgraduate Certificate.*

*Move up the career ladder in the VR gaming industry. You just need that little push that will lead you to perfect your art.*



# 02

## Objectives

In this course, students will improve their retopology technique and will learn about the main tools and programs, such as ZRemesher, Decimation Master, and ZModeler. All of them are used to achieve maximum quality in the modeling of three-dimensional characters and objects. The application of real cases during this program will allow the digital artist to be able to put into practice all the learned concepts, which are applicable in the great creative studios of VR video games.







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*Work quickly and efficiently on your 3D digital creations and be part of the best professional teams in the gaming industry”*



## General Objectives

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





## Specific Objectives

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- ◆ 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
- ◆ Specialize the professional in the creation of complex retopos

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*The Relearning system and the simulation of cases will be two key learning techniques in this Postgraduate Certificate”*

03

# Course Management

TECH offers high-quality education for all. With this objective in mind, a professional trained in the field of graphic design and video game creation has been selected for this teaching. His extensive experience in the gaming industry and participation in Virtual Reality projects makes him familiar with the strengths and weaknesses of the creative process. Digital artists who take this program will learn from one of the most relevant specialists in the sector.





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*A specialized professional with experience in Virtual Reality design will guide you in this Postgraduate Certificate”*

## 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



# 04

## Structure and Content

The syllabus of this Postgraduate Certificate has been designed following the guidelines of the teaching team that knows the needs of the leading Virtual Reality video game studios. In this way, a six-week syllabus has been designed to unravel the principles of retopology and the different elements that make up the 3D modeling applied to the gaming industry. The wide range of multimedia content of this completely online modality will be the key to a correct specialization.







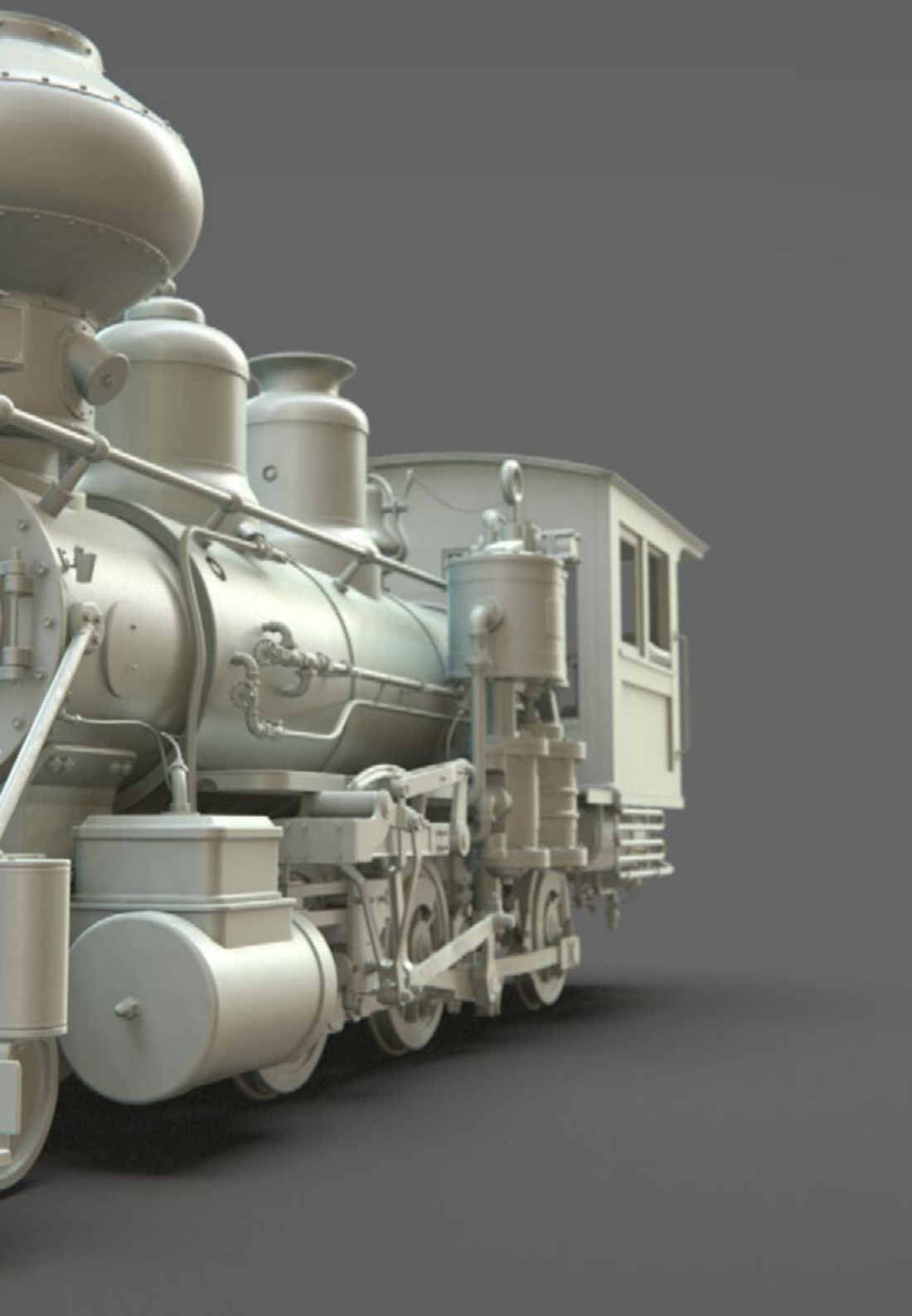
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*The Relearning system, based on content repetition, will allow you to easily consolidate your learning. Take the leap to Virtual Reality with this Postgraduate Certificate”*

## Module 1. Retopology

- 1.1. Retopology in ZBrush-ZRemesher
  - 1.1.1. ZRemesher
  - 1.1.2. Guidelines
  - 1.1.3. Examples:
- 1.2. Retopology in ZBrush-Decimation Master
  - 1.2.1. Decimation Master
  - 1.2.2. Combining It with Brushes
  - 1.2.3. Workflow
- 1.3. Retopology in ZBrush-ZModeler
  - 1.3.1. ZModeler
  - 1.3.2. Modes
  - 1.3.3. Correcting Meshes
- 1.4. Prop Retopology
  - 1.4.1. Hard Surface Prop Retopology
  - 1.4.2. Organic Prop Retopology
  - 1.4.3. Hand Retopology
- 1.5. Topogun
  - 1.5.1. Advantages of Topogun
  - 1.1.2. The Interface
  - 1.5.3. Import
- 1.6. Tools: Edit
  - 1.6.1. Simple Edit Tool
  - 1.6.2. Simple Create Tool
  - 1.6.3. Draw Tool
- 1.7. Tools: Bridge
  - 1.7.1. Bridge Tool
  - 1.7.2. Brush Tool
  - 1.7.3. Extrude Tool





- 1.8. Tools: Tubes
  - 1.8.1. Tubes Tool
  - 1.8.2. Symmetry Set-up
  - 1.8.3. Feature Subdivision and Map Baking
- 1.9. Head Retopology
  - 1.9.1. Facial Loops
  - 1.9.2. Mesh Optimization
  - 1.9.3. Export
- 1.10. Full Body Retopology
  - 1.10.1. Body Loops
  - 1.10.2. Mesh Optimization
  - 1.10.3. VR Requirements

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*The fascinating world of Virtual Reality video games wants your artistic designs. Improve your technique with this Postgraduate Certificate and embark on the digital adventure”*

# 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.

“

*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.



# 06 Certificate

The Postgraduate Certificate in Retopology 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 Retopology 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 Retopology in Art for Virtual Reality**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development language  
virtual classroom



## Postgraduate Certificate Retopology in Art for Virtual Reality

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

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