# Postgraduate Certificate
## Retopology in Art for Virtual Reality

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## Retopology in Art for Virtual Reality

- Modality: **online**
- Duration: **6 weeks**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/pk/videogames/postgraduate-certificate/retopology-art-virtual-reality

# Index

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# Introduction

The quality of the 3D character modeling depends, among other factors, on an optimal Retopology. An essential design work that artistic professionals who wish to improve their career in the field of Virtual Reality Video Games must understand perfectly. This program will delve into the basics of Retopology and the main programs to perform a correct execution. Mastering this technique makes the difference among excellent designers. To achieve specialization in this field, students can count on a teaching staff with extensive experience in the industry and a variety of practical cases to facilitate a 100% online learning.

*Perfect your retopology technique and make high quality 3D designs, thanks to this Postgraduate Certificate"*

The main focus of this Postgraduate Certificate in Retopology for Virtual Reality Art is the control and improvement of the 3D modeling technique. A professional who masters Retopology will expand their job possibilities in the industry of Virtual Reality Video Games.

This program will delve into the basics of Retopology, the main mistakes that are made during its execution and the programs such as ZBrush or TopoGun used to achieve an excellent result. The teaching staff of this program has extensive experience in the field, which will favor the learning of students who seek to update their knowledge and be aware of the latest developments in 3D Modeling in the VR Video Game field.

A good opportunity for specialization through a 100%-online methodology, which provides flexibility to professionals who wish to combine their career with learning. It only requires an electronic device with internet to access all the multimedia material offered by TECH Technological University to facilitate the acquisition of knowledge.

This **Postgraduate Certificate in Retopology for Virtual Reality Art** 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 Virtual Reality Art
- 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

*The 3D modeling applied to VR Video Games requires a mastery of the technique that you will achieve thanks to this Postgraduate Certificate"*

*The big studios that create VR video games require qualified professionals like you. Enroll in this Postgraduate Certificate now"*

*Thanks to this Postgraduate Certificate, you will achieve the quality that the studies require by mastering the technique of Retopology.*

*Progress in your career and reach perfection in your 3D artistic creations.*

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 provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. This will be done with the help of an innovative system of interactive videos made by renowned experts.

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# Objectives

Thanks to this Postgraduate Certificate, the professionals will be able to use the technique of Retopology and will learn the main software, as well as tools such as ZRemesher, Decimation Master and ZModeler all of them used to perform 3D modeling of the highest quality. Also, with the case studies shown by the specialized teaching staff, you will be able to to acquire a learning experience that is close to the reality of the VR Video Game industry.

*Be the professional whose 3D artistic designs are requested by the big companies in the VR Video Game industry"*

## General Objectives

- Understand the advantages and constraints provided by Virtual Reality
- Develop 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



## Specific Objectives

- 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 professionals in the creation of complex retopologies

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

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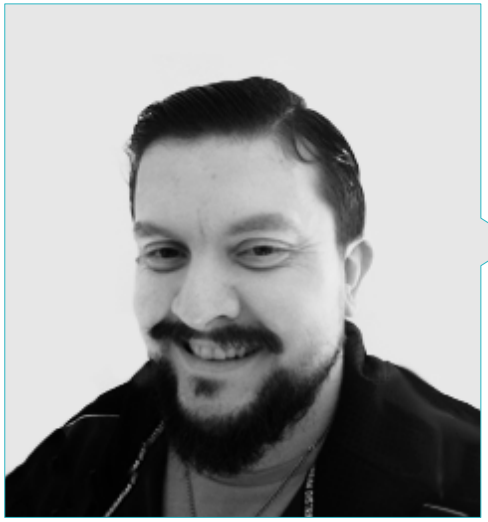
# Course Management

The teaching staff of this Postgraduate Certificate has been meticulously selected by TECH Technological University to offer specialized teaching with guarantees for all students. With this philosophy, we have incorporated a teaching team qualified in Artistic Design and creation of VR Video Games, which will also contribute their knowledge in an industry that few control to perfection.

*The teaching team will focus its efforts on improving your Retopology technique so that you can enter fully into the VR Video Game field"*

## 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
- Professional Master's Degree in Sculpture and Digital Modeling by the Voxel School of Madrid
- Professional Master's Degree in Art and Design for Video Games by U-Tad University of Madrid

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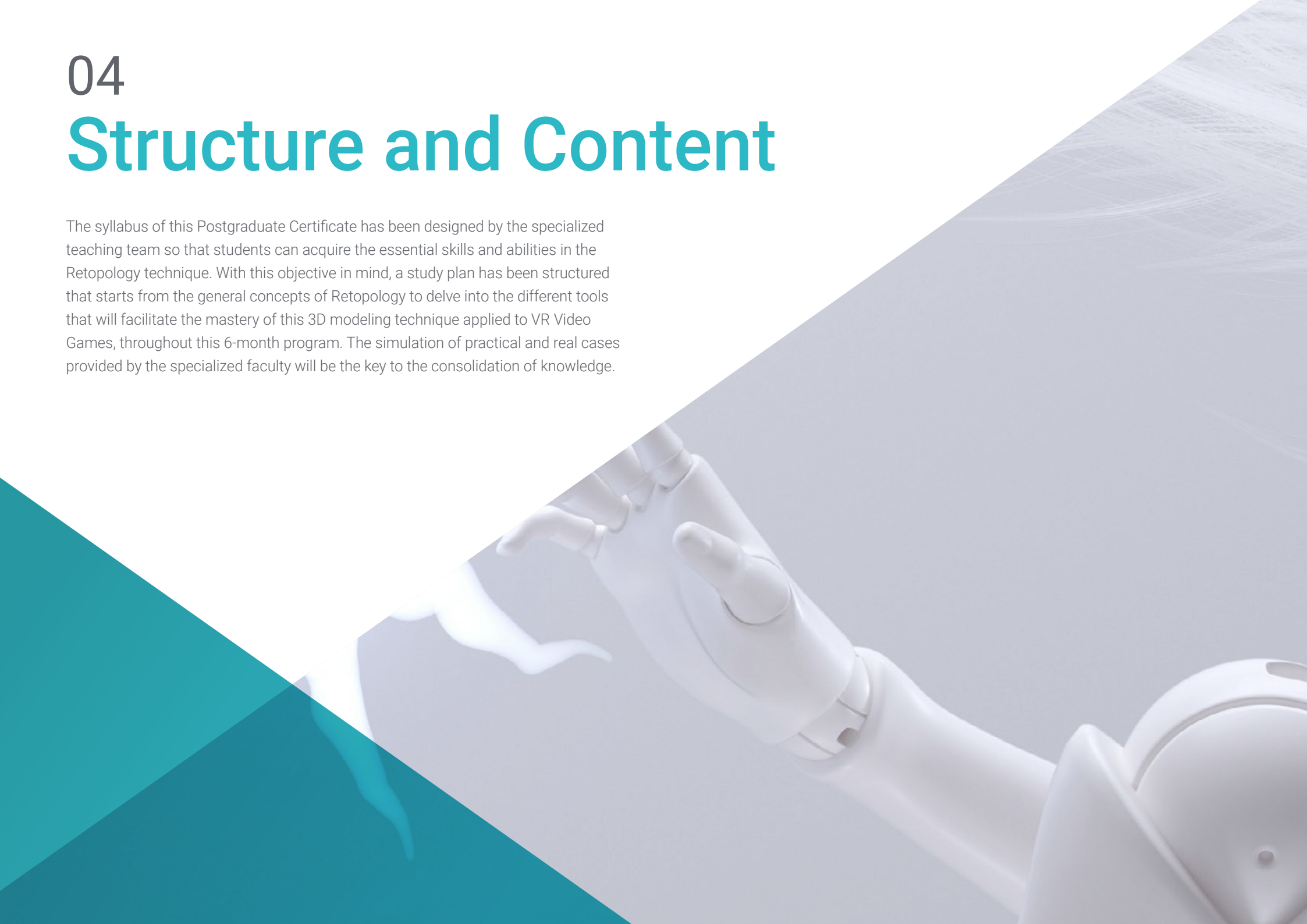
# Structure and Content

The syllabus of this Postgraduate Certificate has been designed by the specialized teaching team so that students can acquire the essential skills and abilities in the Retopology technique. With this objective in mind, a study plan has been structured that starts from the general concepts of Retopology to delve into the different tools that will facilitate the mastery of this 3D modeling technique applied to VR Video Games, throughout this 6-month program. The simulation of practical and real cases provided by the specialized faculty will be the key to the consolidation of knowledge.



*A 100%-online Postgraduate Certificate with a Relearning system, which will allow you to combine your work and your studies"*

## **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
- 1.5.2. 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: Pipelines
- 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

*Your 3D artistic designs will take a leap in unsurpassed quality with this Postgraduate Certificate. Open doors to the 3D video game field"*

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# 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

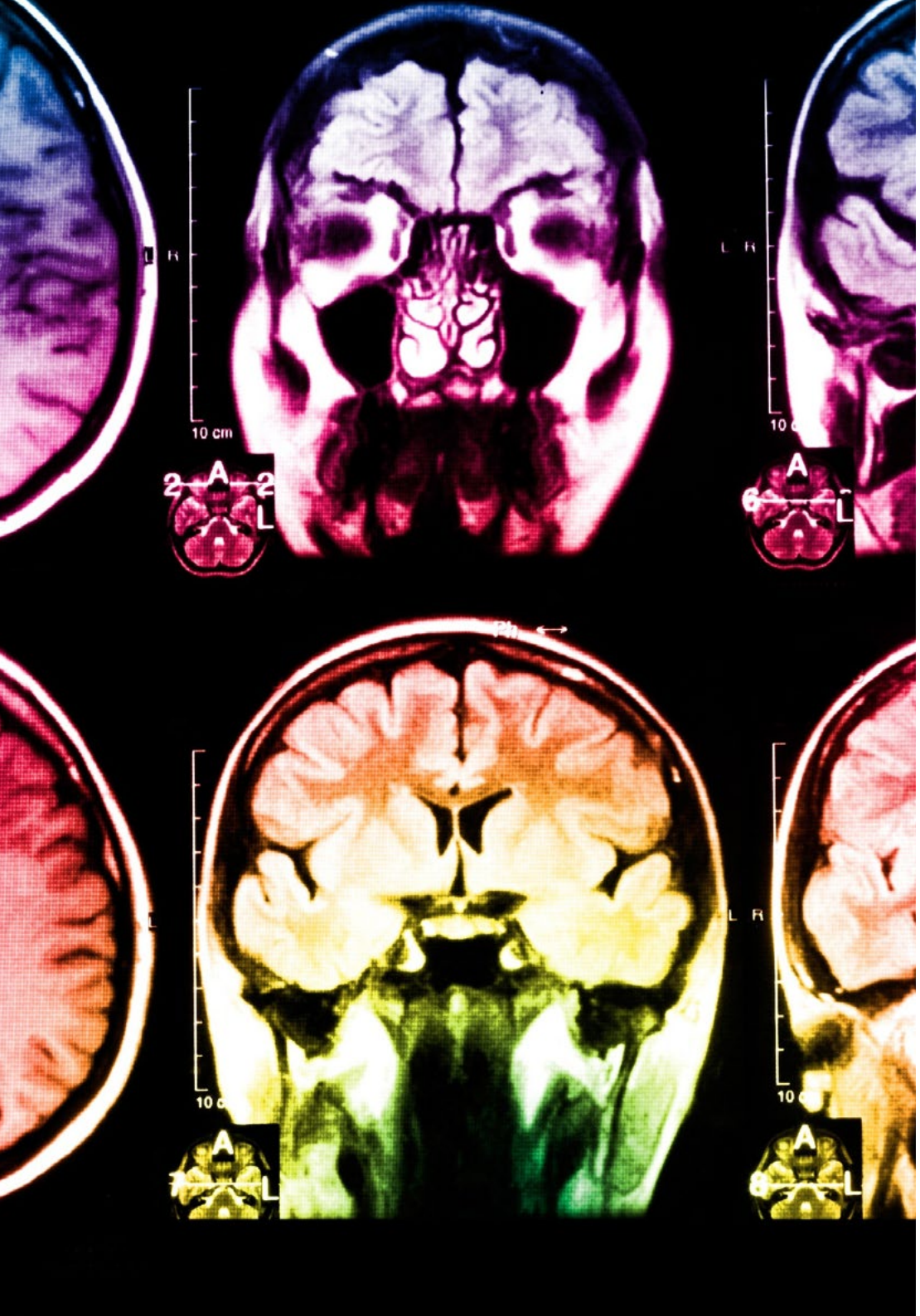
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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.

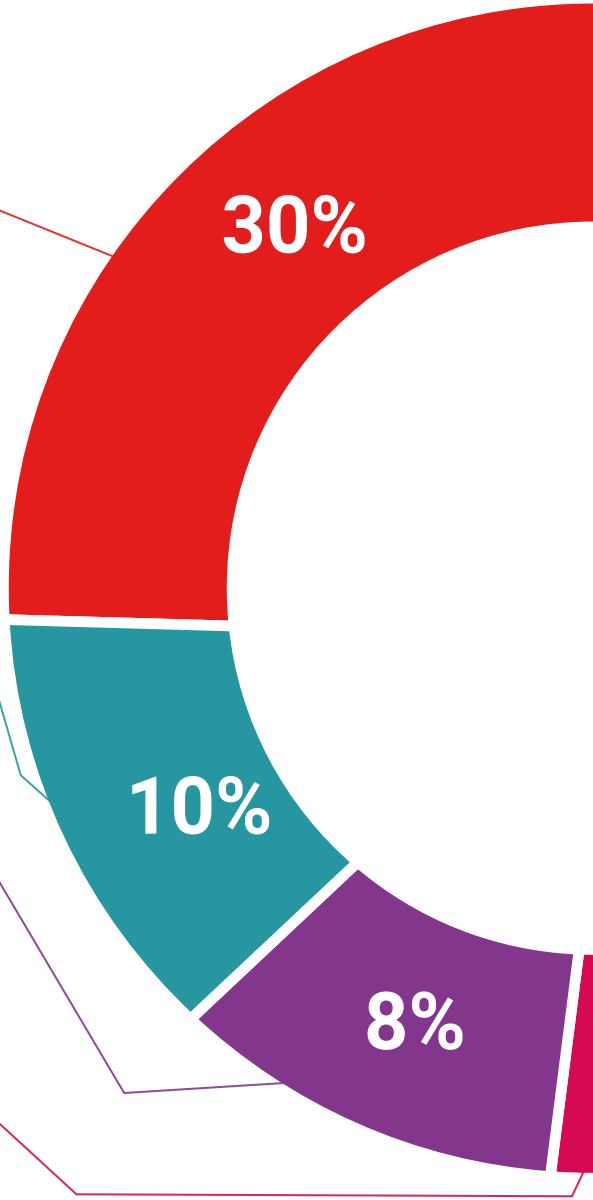
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

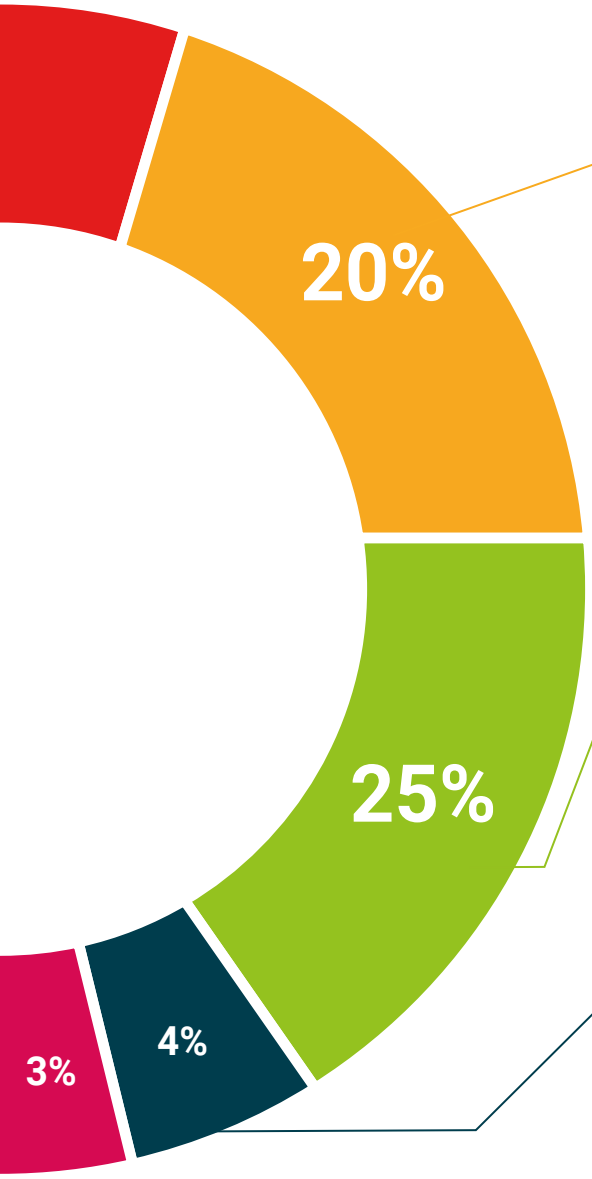
### Practising Skills and Abilities

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.

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# 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 Technological University.

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

This **Postgraduate Certificate in Retopology 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 **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: **Postgraduate Certificate in Retopology in Art for Virtual Reality**

Official N° of Hours: **150 h.**


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Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Retopology in Art for Virtual Reality

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro

Dean

Unique TECH Code: AFWORD23S techtitute.com/certificates

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

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