# Postgraduate Certificate

## Texturing

tech technological university

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# Postgraduate Certificate
## Texturing

- Modality: **online**
- Duration: **6 weeks**
- Certificate: **TECH Technological University**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/information-technology/postgraduate-certificate/texturing

# Index

01

# Introduction

Texturing three-dimensional modeling is a process that manages to give the desired finish to the object or figure that has been designed, i.e.: the result will be more or less realistic based on the texturing process. Therefore, professionals in the field of three-dimensional modeling not only know how to model, but also master the process of texturing, rendering and lighting of their creations. This educational plan has been formulated so that the student acquires knowledge in texturing and can apply it to 3D design.  In a completely online format, the program has been designed to allow students to balance educational recycling and learning with other personal and professional projects.

*Learn the keys to the texturing process in three-dimensional modeling in the most comfortable way: through this completely online program"*

Within the three-dimensional modeling there are multiple processes that, depending on how they are applied, result in more or less realistic finishes. This Postgraduate Certificate in Texturing focuses on offering the user an introductory experience in this area, so the content is focused on the concepts, tools and utilities necessary to perform a correct texturing process.

The study plan makes a tour through texture maps and their application to modeling, as well as the types of materials existing today and how they work, being able to create them from their origin or modify the pre-existing ones. In addition, the educational program also emphasizes the generation and understanding of mapping coordinates of a 3D model for subsequent work in texturing.

On the other hand, the content elaborates on explaining the assignment of object IDs to work more efficiently in texturing; on models from high to low resolution and vice versa, to optimize the model while preserving the same levels of detail and on creating textures for 3D modeling with different programs.

All this summarized in a pedagogical online content, which is available on the virtual platform for consultation from any electronic device with an Internet connection. This modality facilitates the balance between educational recycling and other personal and professional projects. In addition, the program is supported by a teaching team made up of experts in the area of three-dimensional modeling, who not only teach in theory and practice, but also in the most professional and critical aspects.

This **Postgraduate Certificate in Texturing** ccontains 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 three-dimensional modeling texturing
- 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

*Introduce yourself to the texturing process with this Postgraduate Certificate, in the most convenient and practical way possible”*

*The online modality makes it easy to balance the educational recycling with other personal and professional projects"*

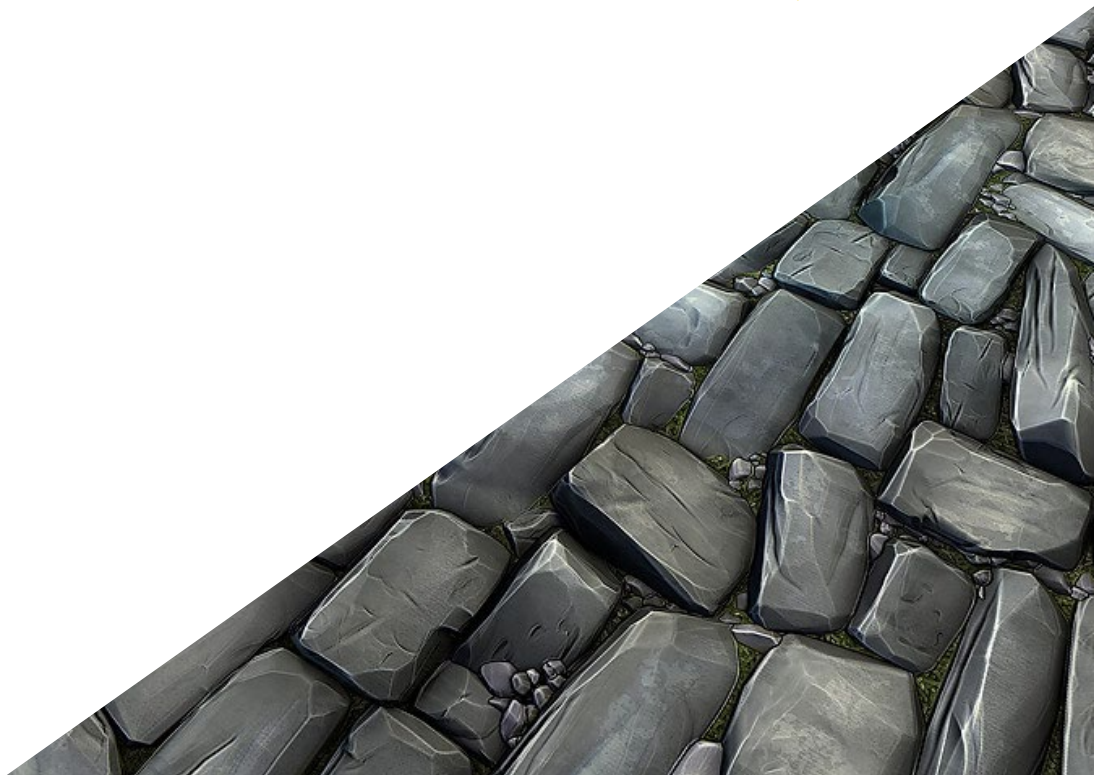
*Learn how to handle texture maps to apply them in your future modeling.*

*Specialize in the texturing process with this online 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.

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

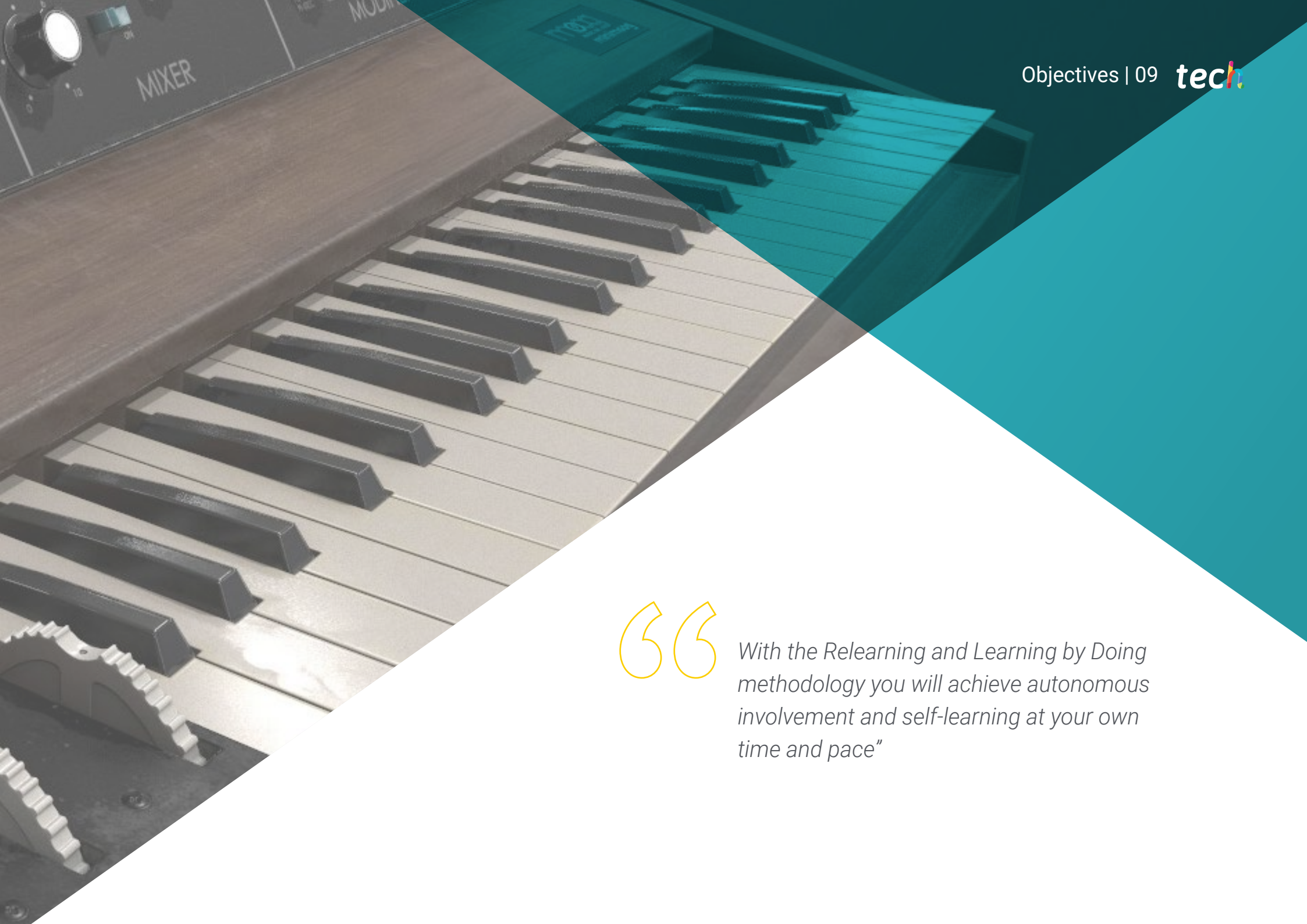
This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the course. For this purpose, students will be assisted by an innovative, interactive video system created by renowned and experienced experts.



02

# Objectives

The objective of this Postgraduate Certificate in Texturing is to ensure that students know, understand and know how to apply texture maps and different materials to their modeling. To do this, the educational plan also covers the different tools that can be used in the process of creating textures for 3D models, as well as how to assign object IDs to work more efficiently. The teaching methodology used: Relearning and Learning by Doing, which favors the autonomous learning of the students.




*With the Relearning and Learning by Doing methodology you will achieve autonomous involvement and self-learning at your own time and pace"*

## General Objectives

- Know in depth all the steps to create a professional 3D modeling
- Know and understand in detail how textures work and how they influence modeling
- Master several programs focused on modeling, texturing and real time used today in the professional world
- Apply the knowledge acquired in solving modeling problems
- Expertly use the knowledge acquired to create your own projects and intelligently add them to your portfolio
- Develop the resources of each program to achieve the best effect for your modeling



## Specific Objectives

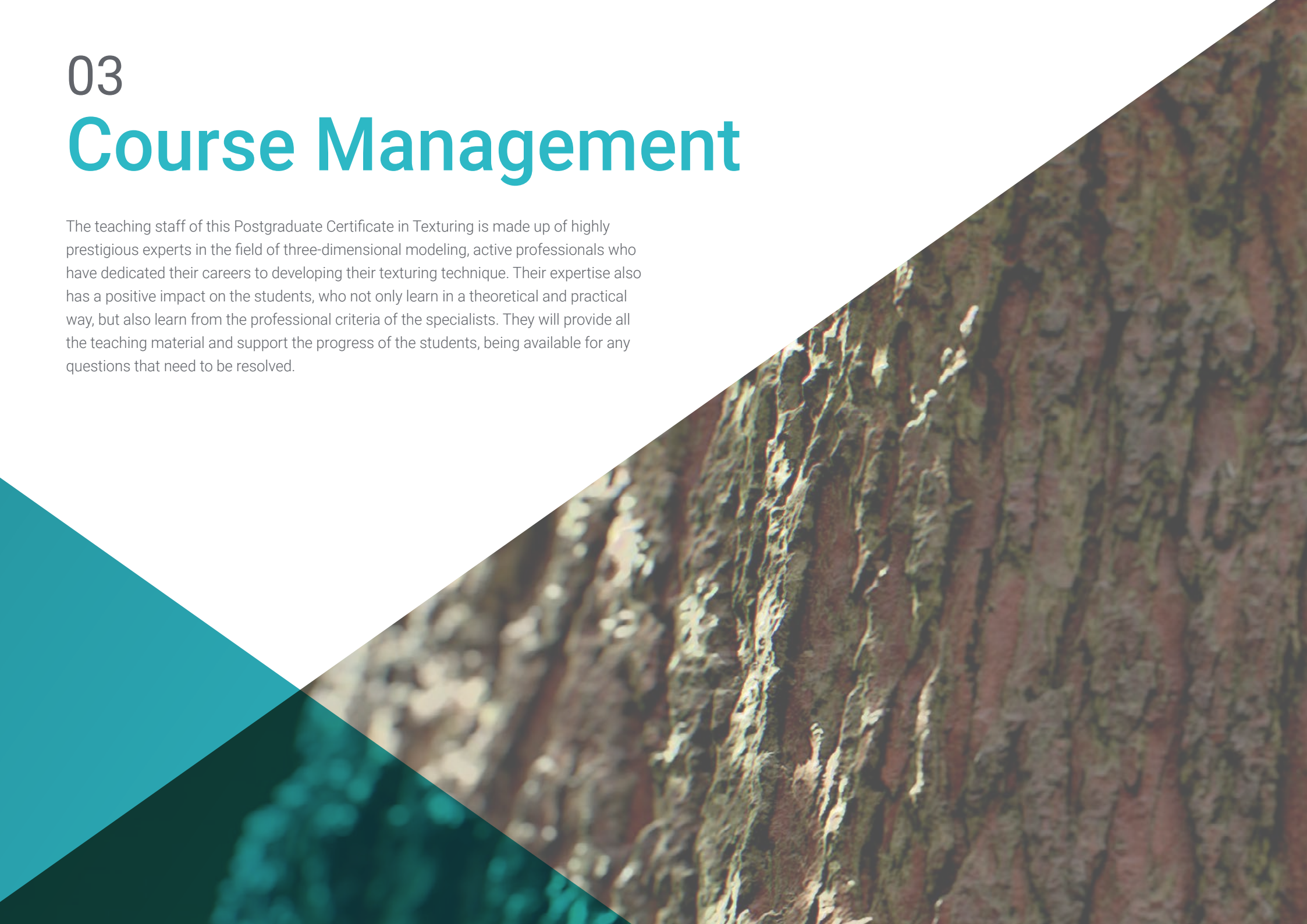
- Know and understand all texture maps and their application to modeling
- Get to know the types of materials existing today and how they work, being able to create one from scratch or modify an existing one
- Generate and understand mapping coordinates of a 3D Model for subsequent work in Texturing
- Assign object IDs to work more efficiently on textures
- Work models from high to low resolution and vice versa to further optimize the model, while retaining the same levels of detail
- Create textures for the 3D model with different programs

*Thanks to this online qualification you will be able to learn everything related to the texturing process in the easiest way"*

03

# Course Management

The teaching staff of this Postgraduate Certificate in Texturing is made up of highly prestigious experts in the field of three-dimensional modeling, active professionals who have dedicated their careers to developing their texturing technique. Their expertise also has a positive impact on the students, who not only learn in a theoretical and practical way, but also learn from the professional criteria of the specialists. They will provide all the teaching material and support the progress of the students, being available for any questions that need to be resolved.



*The expertise of the teaching staff also has a positive impact on the students, who not only learn in a theoretical and practical way, but also learn from the professional criteria of the specialists"*

## Management

### Dr. Vidal Peig, Teresa

- Specialist in Arts and Technology (digital art, 2D, 3D, VR and AR)
- Designer and creator of 2D character sketches for mobile video games
- Designer at Sara Lee, Motos Bordy, Hebo and Full Gass
- Teacher and director of Master's Degree in Video Game Programming
- Professor at the University of Girona
- PhD in Architecture from the Polytechnic University of Catalonia
- Degree in Fine Arts from the University of Barcelona

04

# Structure and Content

This Postgraduate Certificate has been designed to provide an autonomous and progressive learning for the students, since it starts with the general and introductory concepts and ideas for the texturing process and gradually goes into the specific tools, techniques and practical applications. The content is organized in 10 subsections, in which the student becomes familiar with texture maps, material editing, object modification and editing, and the different leading tools in the industry for texturing.

*This Postgraduate Certificate has been designed to provide students with an autonomous and progressive learning process"*

## **Module 1.** Texturing

1.1. Texturing
- 1.1.1. Baking
- 1.1.2. PBR. Physically Based Rendering
- 1.1.3. Basic and Composite Texturing
- 1.1.4. Tileable Textures

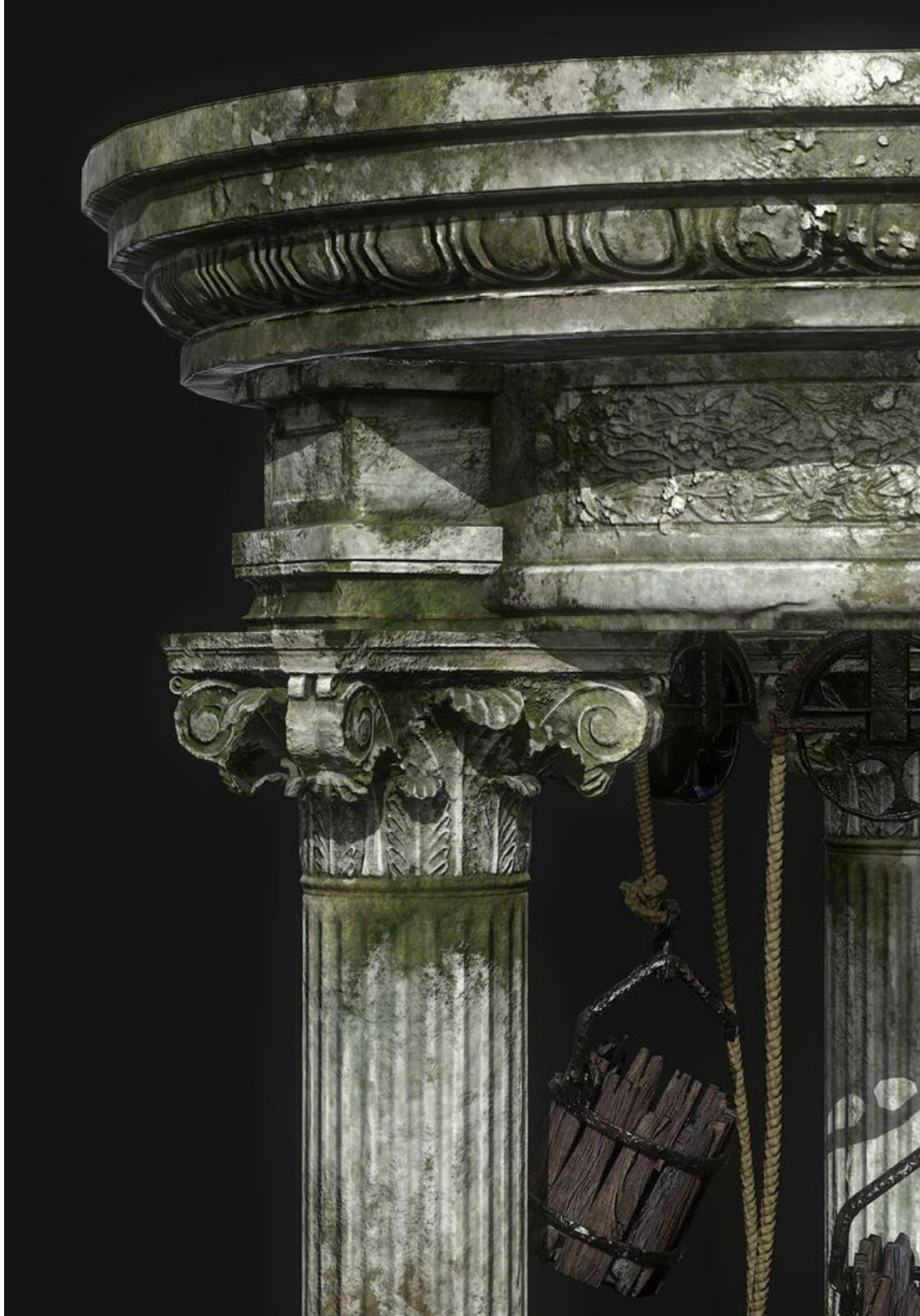
1.2. Mapping Coordinates. University of Valencia
- 1.2.1. Unwrap and Seams
- 1.2.2. UVW Editor
- 1.2.3. Editor Options

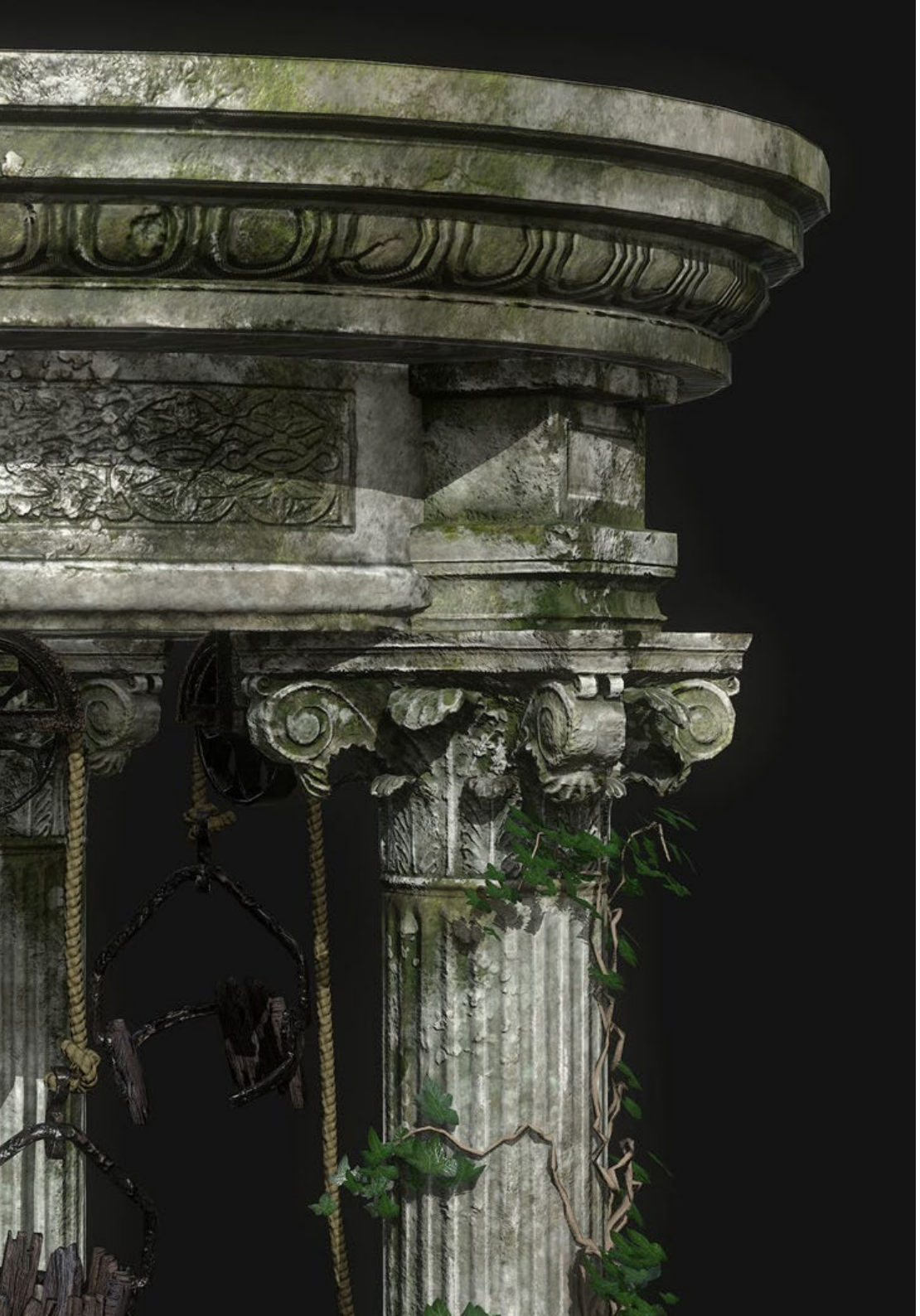
1.3. Object ID
- 1.3.1. ID Assignment and Functionality
- 1.3.2. Multisubject Material
- 1.3.3. Application of Materials as Instances

1.4. HighPoly and Normal Baking in 3DS Max
- 1.4.1. HighPoly and LowPoly
- 1.4.2. Projection Settings for Normal Map Baking
- 1.4.3. Normal Map Texture Baking
- 1.4.4. Normal Map Settings

1.5. Bake other materials in 3DS Max
- 1.5.1. Application and Diffuse Map Baking
- 1.5.2. Composite Material
- 1.5.3. Mask Adjustment

1.6. Retopology in 3DS Max
- 1.6.1. Retopology Tools
- 1.6.2. Retopology with Graphite Tool
- 1.6.3. Rhetopology Settings







1.7. Texturing with 3DS Max
- 1.7.1. Material Properties
- 1.7.2. Texture Baking
- 1.7.3. Texture Baking. Complete Map, Normal Map and AO Map

1.8. Texturing with Photoshop
- 1.8.1. Coordinate Template
- 1.8.2. Adding details in Photoshop and Reimporting Template with Textures
- 1.8.3. Shading a Texture
- 1.8.4. Create Normal Map

1.9. Mapping Coordinates with Zbrush
- 1.9.1. UV Master
- 1.9.2. Control Painting
- 1.9.3. Unwrap and Flatten

1.10. Texturing with Zbrush
- 1.10.1. Painting Mode
- 1.10.2. Noise Maker
- 1.10.3. Projection of Images

*Enter the world of texturing and learn how to handle the leading tools in the industry: ZBrush, Graphite Tool and 3DS Max”*

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.

*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 Information Technology 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. Throughout the course, students 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

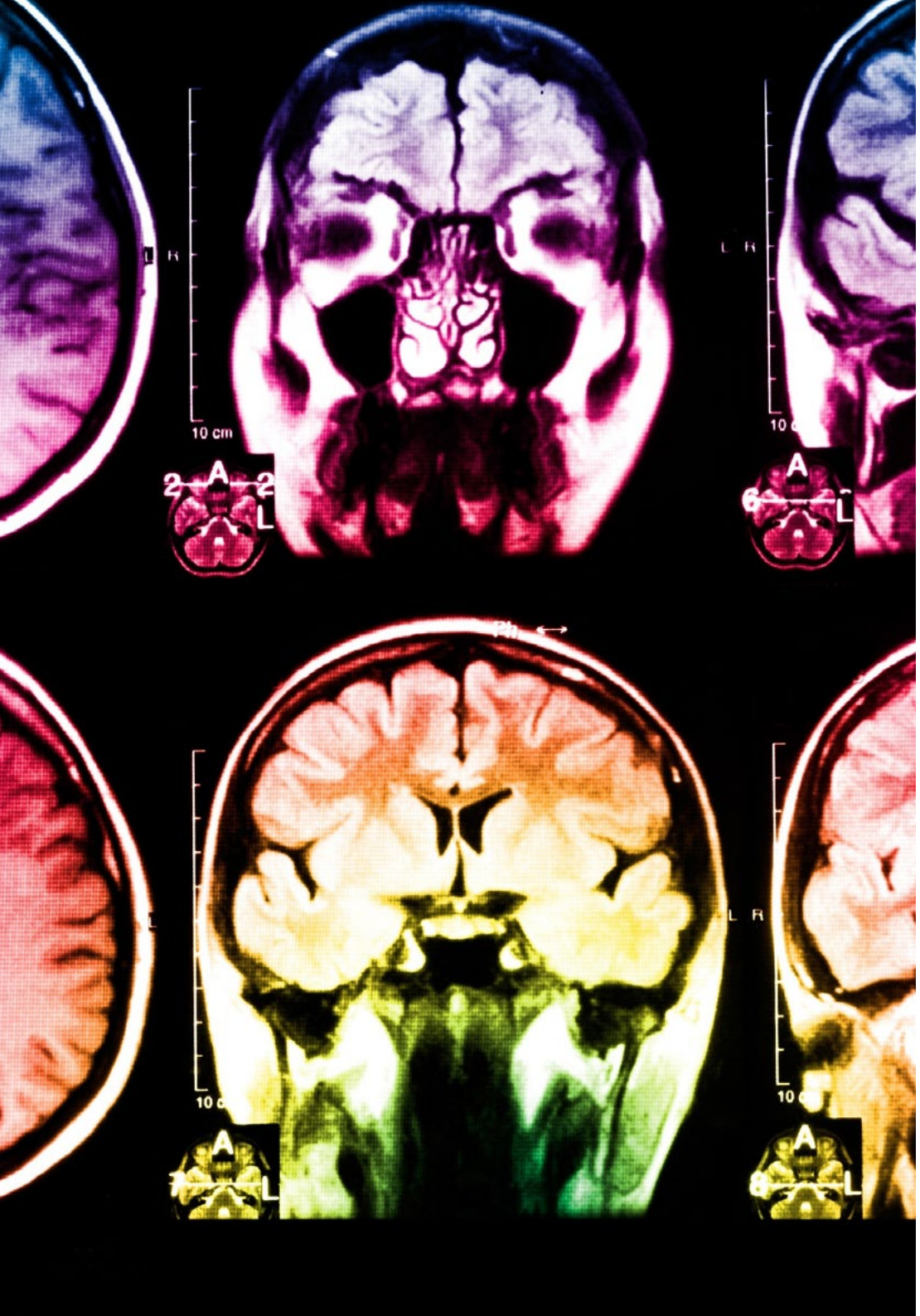
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

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.

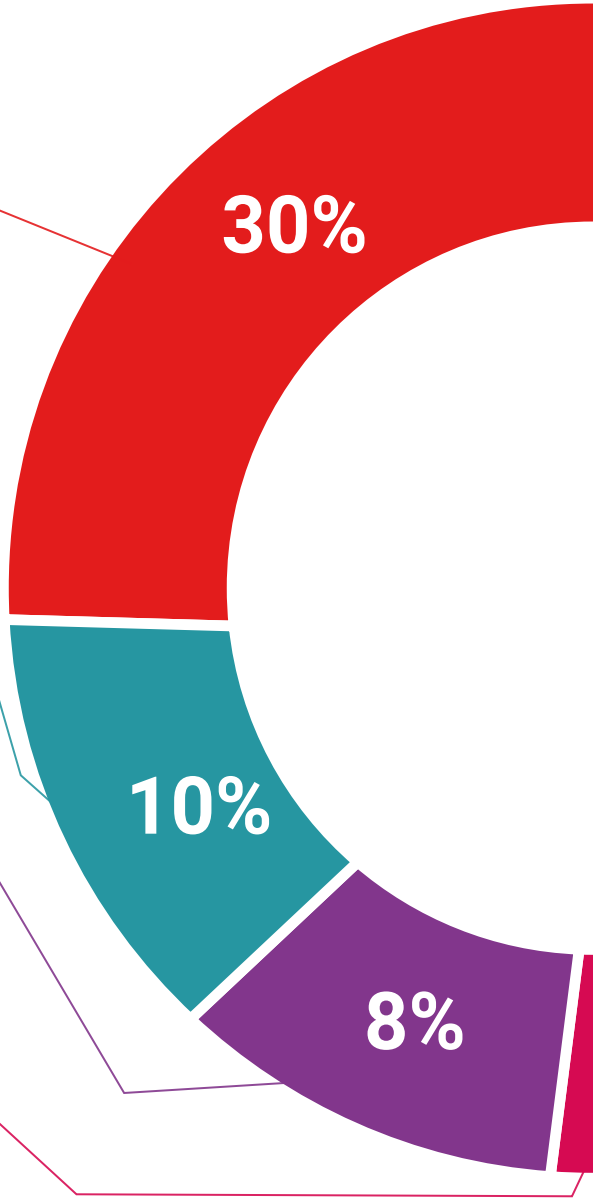
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

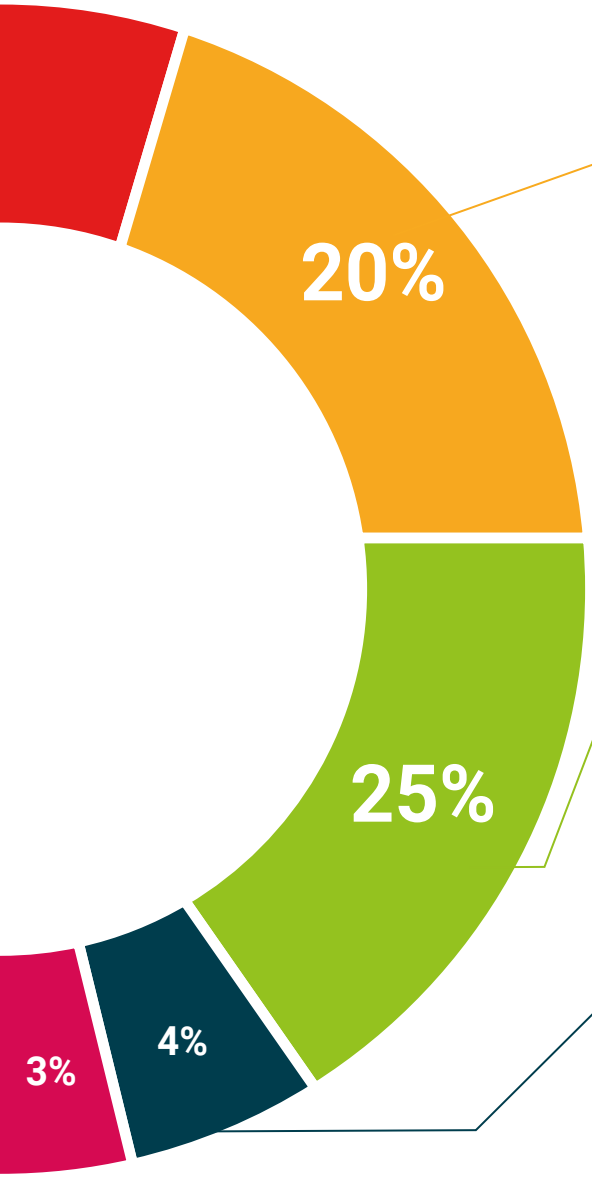
### Practising Skills and Abilities

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 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

This Postgraduate Certificate in Texturing 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 Texturing** contains the most complete and up-to-date scientific 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 diploma 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 Texturing**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**


tech technological university

Awards the following

DIPLOMA

to

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

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Texturing

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 diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

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