

# Postgraduate Certificate Texture Creation for Hard Surface





## Postgraduate Certificate Texture Creation for Hard Surface

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

Website: [www.techtute.com/us/information-technology/postgraduate-certificate/texture-creation-hard-surface](http://www.techtute.com/us/information-technology/postgraduate-certificate/texture-creation-hard-surface)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

---

*p. 28*

# 01

# Introduction

Texturing processes are part of the integral approach to three-dimensional modeling, which means that, in order to make a complete 3D design it is necessary to apply textures to the object or shape that has been designed. More and more developers, designers or modelers are specializing in the texturing process, since the development of software and tools for this purpose is becoming more and more specialized. This educational program brings together the knowledge and notions necessary for the creation and application of textures in three-dimensional *Hard Surface* modeling. This program is delivered in a completely online format, making it easy to reconcile other personal or professional projects with learning.





“

*Learn how to create and apply textures  
in 3D modeling with this fully online  
Postgraduate Certificate”*



Hard Surface texturing, or the application of hard surface textures, is one of the most valued techniques in three-dimensional design, due to the finished results achieved, such as milling, sheet metal or metal scratches, among others, on objects. This educational program has been designed to enable the user of this technique to create these textures, as well as to apply them to his 3D modeling. It is intended that the students who take this program apply all the texturing techniques for Hard Surface models.

Therefore, the syllabus makes a journey that stops at the explanation of a fundamental tool in this process: Substance Painter. This cutting-edge texture creation software will allow you to obtain the necessary materials and masks to texture objects and shapes. Also, the content continues to delve into the application in real cases of textures as in the texturing section of a combat knife, roughness or metallicity.

With all this, the student will learn to identify variations in PBR materials and have extensive knowledge of the differences in metallic materials, through the execution of specific designs such as texturing a motorcycle or creating details. Finally, you will be able to finish the texturing even exporting maps.

This Postgraduate Certificate in Texture Creation for Hard Surface is taught online and provides students with the teaching materials on the virtual platform, where they will always be available for consultation. All you need is an electronic device and an Internet connection to download the material and start developing the content proposed by an expert teaching staff.

This **Postgraduate Certificate in Texture Creation for Hard Surface** contains the most complete and up-to-date educational program on the market. The most important features include:

- ◆ The development of practical cases presented by experts in Hard Surface Texture Creation
- ◆ 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



*In only 6 weeks you will earn, by direct qualification, the accreditation as a texture creator for Hard Surface"*

“

*The Postgraduate Certificate you were waiting for to be able to combine the acquisition of knowledge in Texture Creation for Hard Surface with your personal and professional responsibilities”*

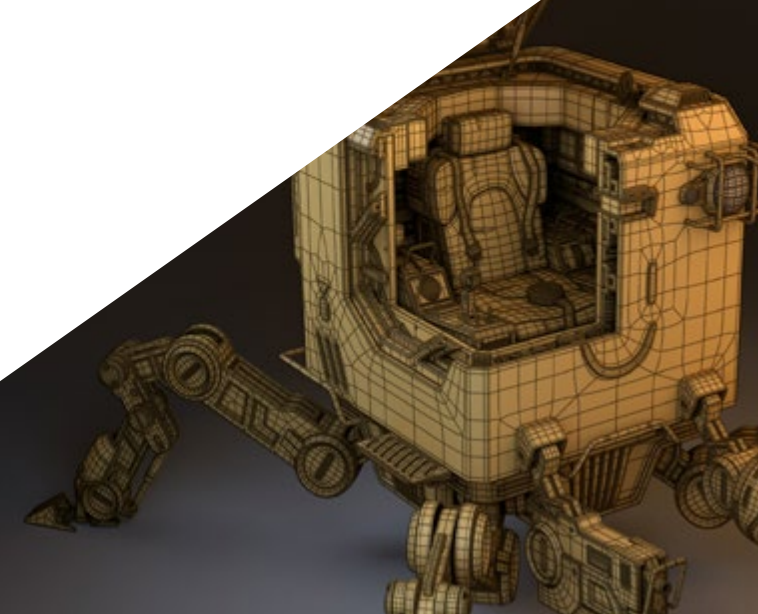
The program’s teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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 throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Learn how to apply different textures to your three-dimensional models made in Hard Surface.*

*At your own pace, delve deeper into Texture Creation for Hard Surface with this online program and all the teaching material available in the virtual classroom.*



# 02 Objectives

This Postgraduate Certificate in Texture Creation for Hard Surface is designed so that the student can know in depth the different types of texturing for Hard Surface modeling, as well as delve into the development of textures and apply them to three-dimensional models. This educational program is focused on students putting their skills and abilities into practice from the very beginning, as they will work on concepts and techniques while creating designs.







“

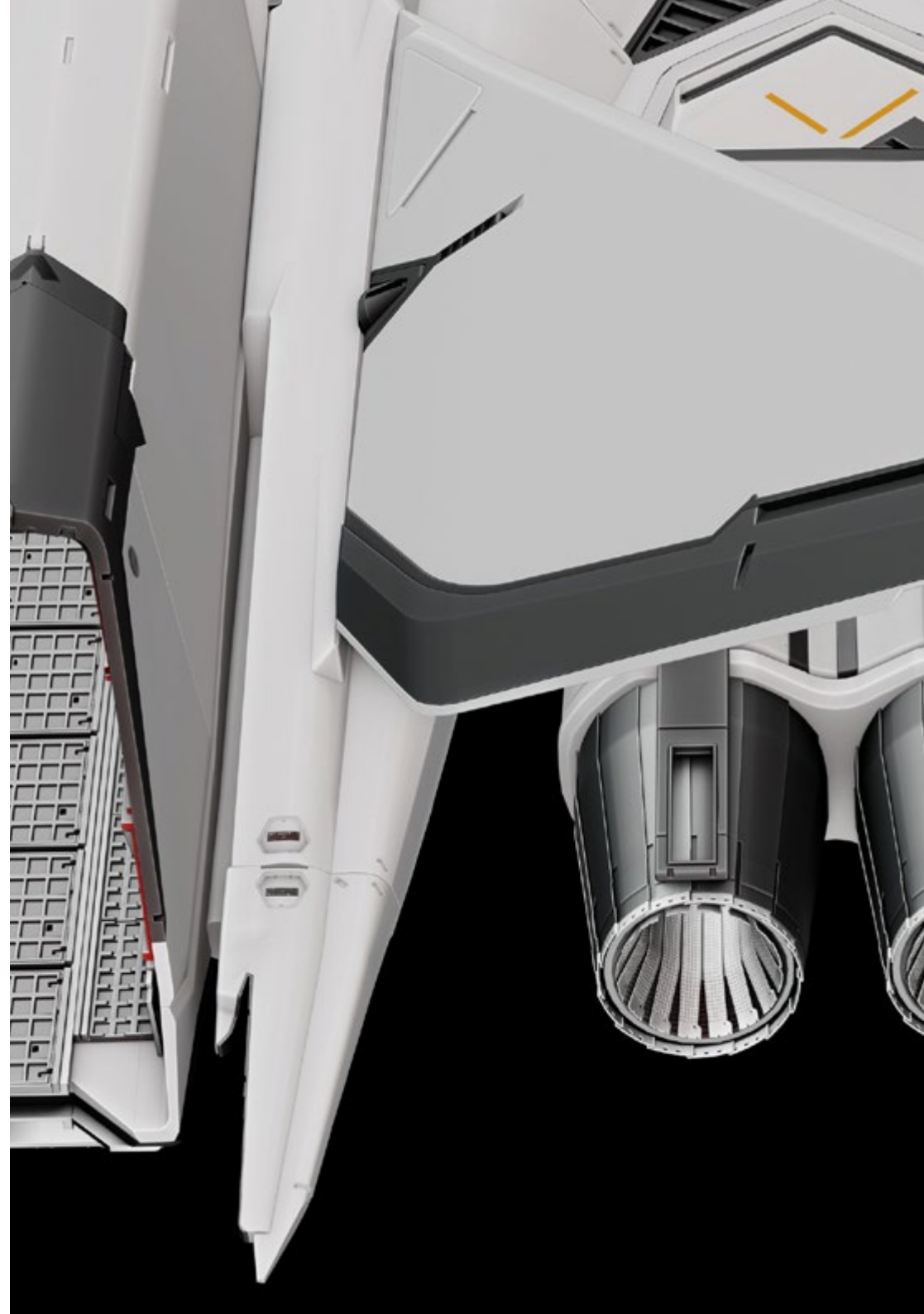
*Test your skills and abilities creating textures for Hard Surface with this eminently practical Postgraduate Certificate”*

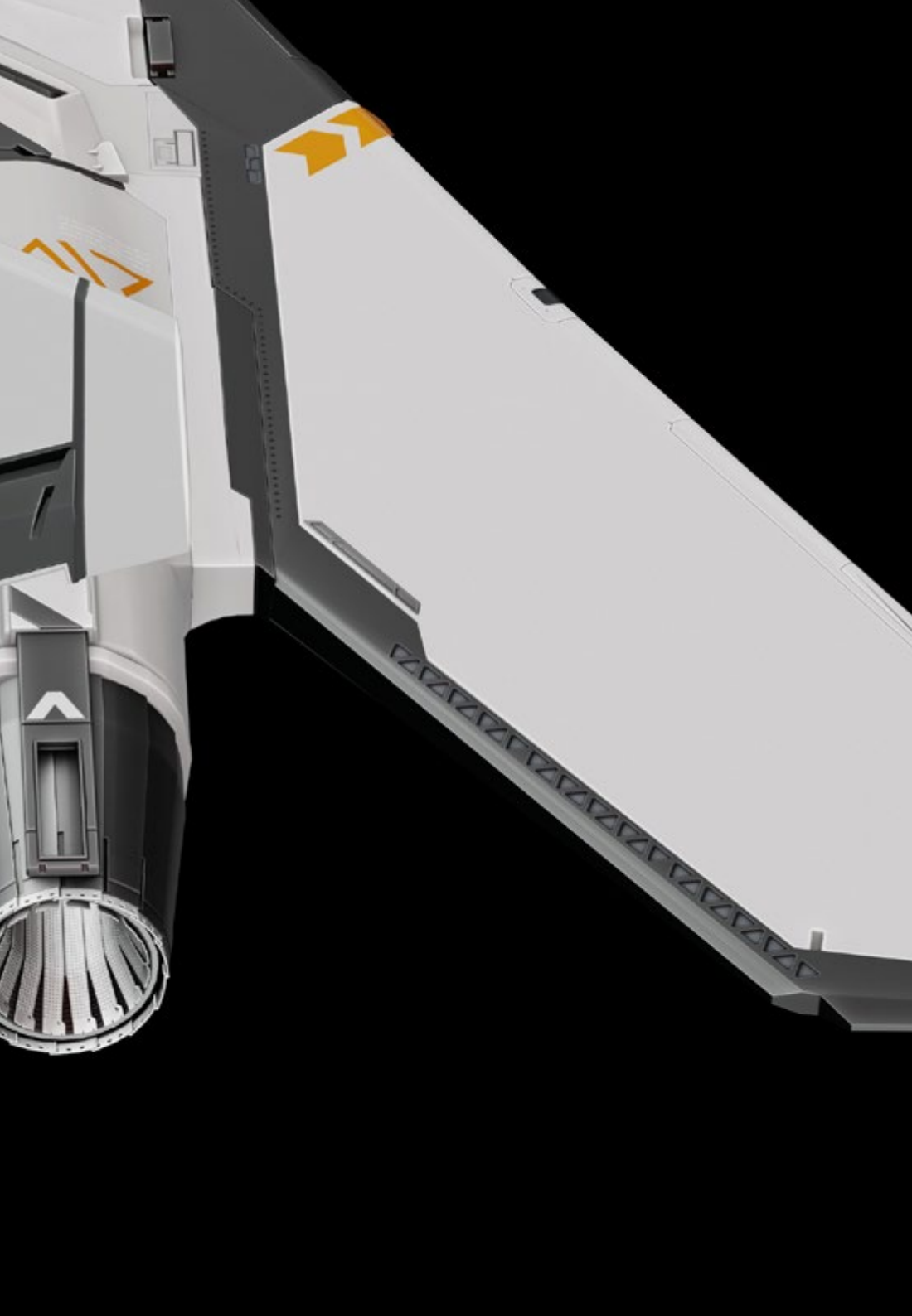


## General Objectives

---

- ◆ Learn in depth the different types of Hard surface modeling, the different concepts and features to apply them in the 3D modeling industry
- ◆ Learn in detail the basics of 3D modeling in its different forms
- ◆ Generate designs for different industries and their application
- ◆ Be a technical expert and/or artist in 3D modeling for Hard surface
- ◆ Know all the tools involved in the 3D modeling profession
- ◆ Acquire skills for the development of textures and FX of 3D models





## Specific Objectives

---

- ◆ Apply all texturing techniques for Hard surface models
- ◆ Work on real cases in the application of textured details
- ◆ Identify variations in PBR materials
- ◆ Have extensive knowledge of the differences in metallic materials
- ◆ Resolve technical details using maps
- ◆ Learn how to export materials and maps for different platforms

“

*Create and apply all texturing techniques for Hard Surface modeling with this convenient online educational program”*

# 03

## Course Management

Experts and professionals of high prestige within their field are part of the management and teaching staff of this Postgraduate Certificate. They are specialists who have dedicated their professional careers to the development of modeling, texturing, rendering and digital lighting techniques. They will be available through the virtual platform so that they can be consulted at any time, in addition to being the designers of this study plan. Their extensive experience means that they know the ins and outs and challenges that can arise in real professional life.







“

*From the hand of the greatest experts and professionals in the field of modeling, texturing, rendering and digital lighting. This is how you learn in the University Courses that TECH designs"*

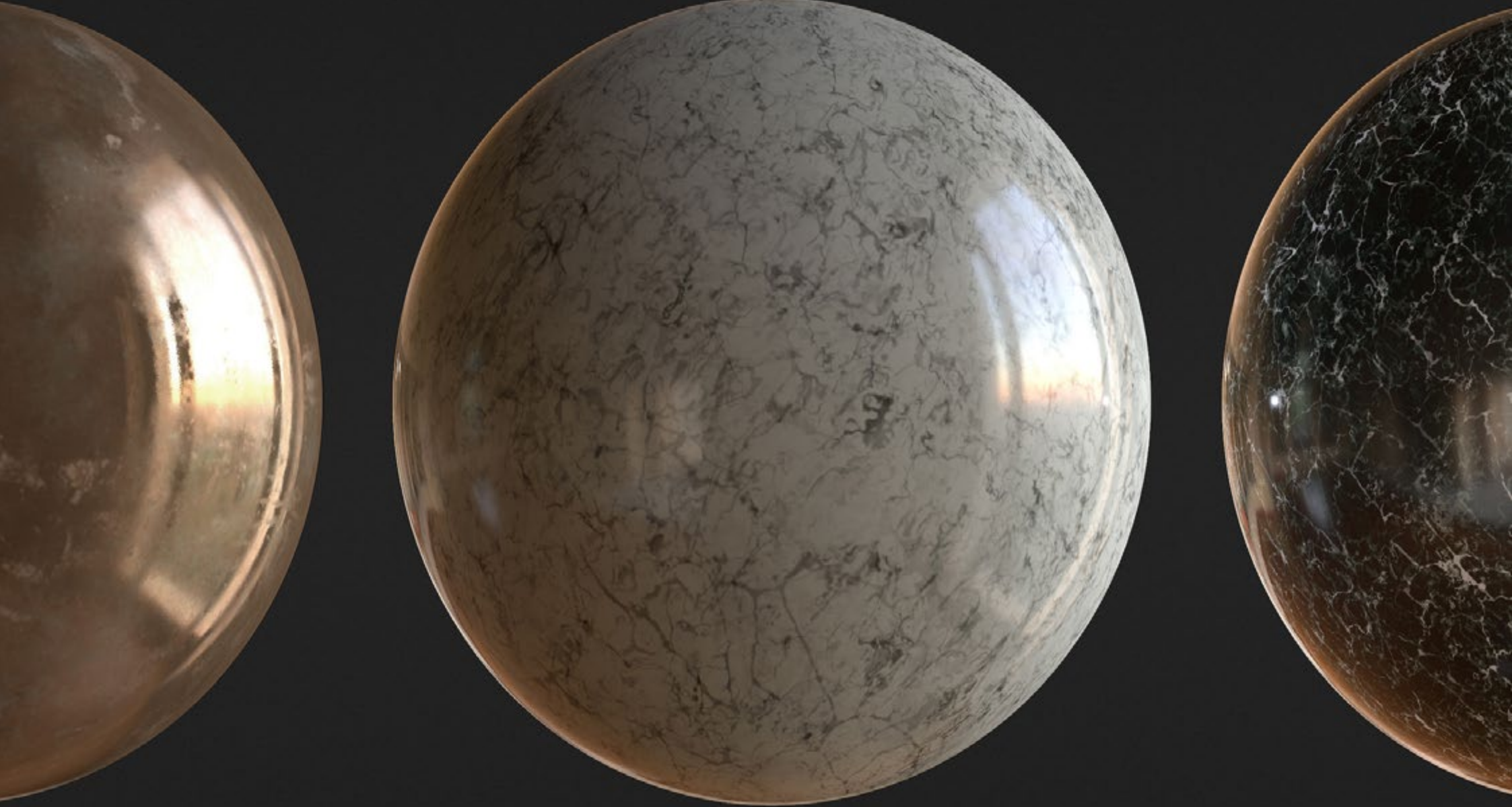


## Management



### Mr. Salvo Bustos, Gabriel Agustín

- ◆ 3D Artist at 3D VISUALIZATION SERVICE INC
- ◆ 3D Production for Boston Whaler
- ◆ 3D Modeler at Shay Bonder Multimedia TV Production Company
- ◆ Audiovisual Producer at Digital Film
- ◆ Product Designer for Escencia de los Artesanos by Eliana M
- ◆ Industrial Designer Specializing in Products. National University of Cuyo
- ◆ Exhibitor at the Regional Visual Arts Salon Vendimia
- ◆ Digital Composition Seminar. National University of Cuyo
- ◆ National Congress of design and production. C.P.R.O.D.I



# 04

## Structure and Content

This Postgraduate Certificate is perfectly distributed in 10 sub-sections so that the student is able to progressively investigate the content and apply the learning in practical elaborations. For this, the first thing that will be done is to introduce the *Substance Painter* software, which will allow the practical application of different textures. We will work on different techniques such as adding color, blurring, burning and opacity in different figures.







“

*Become an expert in creating and applying textures for Hard Surface. This Postgraduate Certificate will give you the keys you need”*

## Module 1. Texture Creation for Hard Surface

- 1.1. Substance Painter
  - 1.1.1. Substance Painter
  - 1.1.2. Burning Maps
  - 1.1.3. Materials in Color ID
- 1.2. Materials and Masks
  - 1.2.1. Filters and Generators
  - 1.2.2. Brushes and Paints
  - 1.2.3. Flat Projections and Tracings
- 1.3. Texturing a Combat Knife
  - 1.3.1. Assigning Materials
  - 1.3.2. Adding Textures
  - 1.3.3. Coloring Parts
- 1.4. Asperities
  - 1.4.1. Variations
  - 1.4.2. Details
  - 1.4.3. Alphas
- 1.5. Metallicity
  - 1.5.1. Polishes
  - 1.5.2. Oxides
  - 1.5.3. Scratches
- 1.6. Normal and Height Maps
  - 1.6.1. Bumps Maps
  - 1.6.2. Burning Normal Maps
  - 1.6.3. Displacement Map







- 1.7. Other Types of Map
  - 1.7.1. Ambient Occlusion Map
  - 1.7.2. Specularity Map
  - 1.7.3. Opacity Map
- 1.8. Texturing a Motorcycle
  - 1.8.1. Tires and Basket Materials
  - 1.8.2. Luminous Materials
  - 1.8.3. Editing Burned Materials
- 1.9. Details
  - 1.9.1. Stickers
  - 1.9.2. Smart Masks
  - 1.9.3. Paint Generators and Masks
- 1.10. Finalizing Texturing
  - 1.10.1. Manual Editing
  - 1.10.2. Exporting Maps
  - 1.10.3. Dilation Vs. No Padding

“

*Enroll now: in only 6 weeks you will be able to create your own textures and apply them to 3D modeling. Face new professional challenges without fear of success”*

# 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

The Postgraduate Certificate in Texture Creation for Hard Surface guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 **Postgraduate Certificate in Texture Creation for Hard Surface** 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 Texture Creation for Hard Surface**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

**tech** global  
university

personalized service innovation

knowledge present  
online training

development language

classroom

## Postgraduate Certificate

Texture Creation  
for Hard Surface

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



# Postgraduate Certificate Texture Creation for Hard Surface

