

# Postgraduate Certificate

## Hard Surface Texture Creation





## Postgraduate Certificate Hard Surface Texture Creation

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

Website: [www.techtitute.com/us/videogames/postgraduate-certificate/hard-surface-texture-creation](http://www.techtitute.com/us/videogames/postgraduate-certificate/hard-surface-texture-creation)

# 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

The texturing process is one that gives designs a more realistic and less flat character. In particular, Hard Surface modeling is one of the most commonly used techniques to produce this realistic effect. Professionals in the video game development and animation sector are becoming more and more necessary, with specialized profiles in specific techniques such as this and with the ability to create textures. This program is ideal for acquiring all the necessary skills for the development of high-resolution textures. It is an easy to follow, online and flexible program.





“

*Become a true expert in the creation  
of textures for Hard Surface”*

Learning how to create textures for the Hard Surface technique is easier with this training. Designed to strengthen and perfect texturing techniques, this Postgraduate Certificate responds to the increasing demand for this skill. Thanks to the methodology that TECH Global University uses, based on Relearning and Learning by Doing, learning is achieved in its theoretical dimension, but above all practical.

In order to learn how to create different textures, the student will begin this training by identifying variations in surface materials. Subsequently, you will delve into texturing techniques such as roughening, polishing and oxides. The objective is to acquire a broad understanding of the differences between them.

The contents prepare students for possible professional challenges and enable them not only to know how to create textures, but also to correct them and be able to give vivacity and dynamism to the projects they take on.

This Postgraduate Certificate in Hard Surface Texture Creation is characterized by being totally online. The multimedia materials and teaching resources will always be available to the student on the virtual platform, so that it will only be necessary to have an electronic device and internet connection to download the material and start developing the content proposed by the best teaching staff.

This **Postgraduate Certificate in Hard Surface Texture Creation** contains the most complete and up-to-date educational program on the market. Its most notable features are:

- ◆ 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 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



*Be prepared to face professional texturing challenges and approach with a critical eye the new projects you take on as a video game graphics and image designer”*

“

*With the Relearning and Learning by Doing methodologies, learn in an eminently practical way how to model with texturing for Hard Surface”*

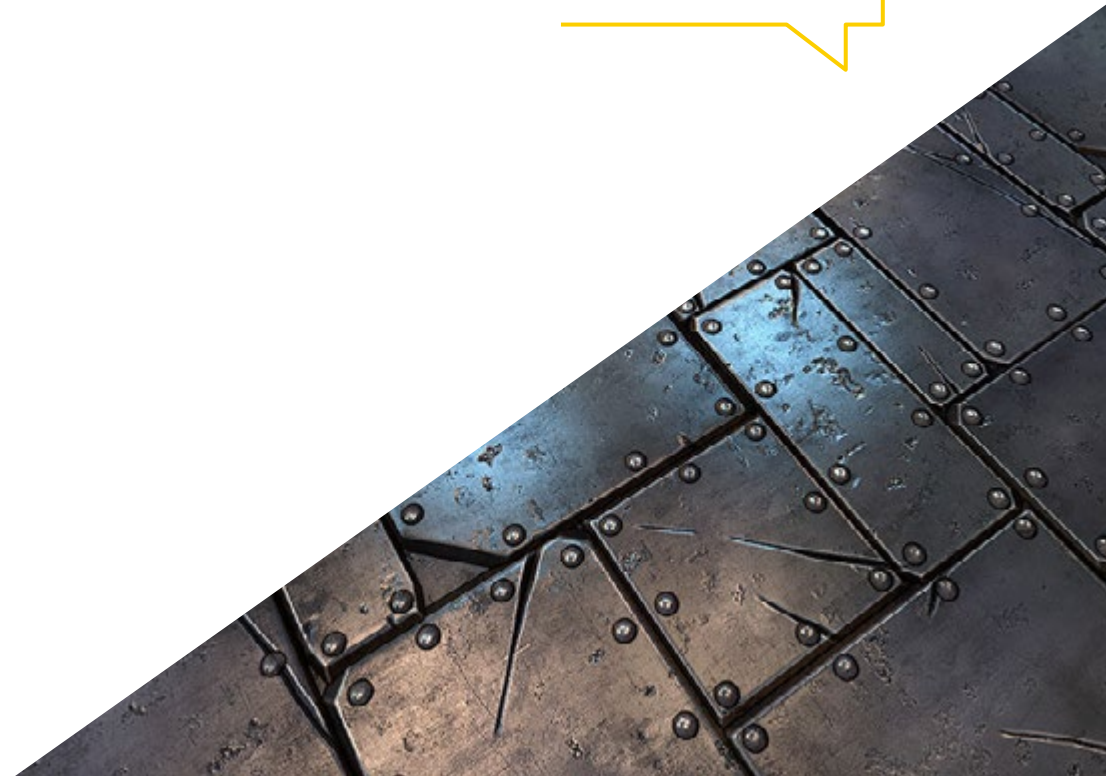
The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

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. This will be done with the help of an innovative system of interactive videos made by renowned experts.

*Start applying and distinguishing the different texturing techniques for Hard Surface modeling with this convenient online program.*

*A Postgraduate Certificate that specializes your professional career in the most convenient way: online, flexible and at your own pace.*



# 02 Objectives

Thanks to this program, the student will be able to know in depth the different types of texturing for Hard Surface modeling and delve into the development of textures of three-dimensional models. Additionally, the curriculum focuses on knowing how to apply these techniques to bring realism to designs. Likewise, the content taught from a theoretical and practical perspective, allows working on real cases in the application of details with textures.





“

*Learn in depth about the different types of texturing for Hard Surface modeling and delve into the development of textures for three-dimensional models"*



## General Objectives

---

- ◆ In-depth knowledge of the different types of Hard Surface modeling, the different concepts and characteristics to apply them in the 3D modeling industry
- ◆ Learn in detail the basics of 3D modeling in its various 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 related to 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 details with textures
- ◆ Identify variations in PBR materials
- ◆ Have a broad knowledge of the differences in metallic materials
- ◆ Solve technical details using maps
- ◆ Learn how to export materials and maps for different platforms



*TECH always offers a theoretical and practical perspective of the content so that the knowledge can be applied in real professional development"*

# 03

## Course Management

This program is backed by a professional faculty and staff, accustomed to working in the teaching field on a daily basis, with a broad professional background. For this reason, they are in charge of developing the structure and content of this Postgraduate Certificate, as they truly know the ins and outs and challenges that can arise in real professional life. Its relaxed experience within the world of 3D modeling and texture creation will help the students to position themselves as competent designers for the international market.





“

*Take the step and specialize in the universe of texturing in Hard Surface modeling with the help of great professionals of the sector"*

## Management



### Mr. Salvo Bustos, Gabriel Agustín

- 9 years of experience in Aeronautical 3D modeling
- 3D Artist at 3D Visualization Service Inc
- 3D production for Boston Whaler
- 3D Modeler for Shay Bonder Multimedia TV Production Company
- Audiovisual Producer in Digital Film
- Product Designer for Escencia de los Artesanos by Eliana M
- Industrial Designer Specializing in Products National University of Cuyo
- Mendoza Late Contest Honorable Mention
- Exhibitor in Regional Visual Arts Salon Vendimia
- Digital Composition Seminar National University of Cuyo
- National Congress of Design and Production CPRODI



# 04

## Structure and Content

The key factor of this qualification lies in its syllabus. This Postgraduate Certificate includes all the knowledge and methods that the student needs to be able to design any project related to texture modeling. Therefore, through the application of different techniques such as the addition of color, blurring, burning and opacity in different figures, students will become a true specialist.





“

*Reach the top of the design world with this innovative Postgraduate Certificate. Acquire all the knowledge to perform high quality texturing”*

## Module 1. Hard Surface Texture Creation

- 1.1. Substance Painter
  - 1.1.1. Substance Painter
  - 1.1.2. Burn Mapping
  - 1.1.3. Materials in ID Color
- 1.2. Materials and Masks
  - 1.2.1. Filters and Generators
  - 1.2.2. Brushes and Paints
  - 1.2.3. Flat Projections and Tracing
- 1.3. Texturing a Combat Knife
  - 1.3.1. Allocating Materials
  - 1.3.2. Adding Textures
  - 1.3.3. Coloring Parts
- 1.4. Rough Edges
  - 1.4.1. Variations
  - 1.4.2. Details
  - 1.4.3. Alphas
- 1.5. Metallicity
  - 1.5.1. Polishing
  - 1.5.2. Oxidants
  - 1.5.3. Scratches
- 1.6. Normal and Height Mapping
  - 1.6.1. Bump Maps
  - 1.6.2. Normal Mapping Burn
  - 1.6.3. Displacement Map
- 1.7. Other Map Types
  - 1.7.1. Ambient Occlusion Map
  - 1.7.2. Map of Specularity
  - 1.7.3. Map of Opacity



- 1.8. Texturizing 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. Final Texturization
  - 1.10.1. Manual Editing
  - 1.10.2. Exporting Maps
  - 1.10.3. Dilation vs. No Padding

“

*If you were looking to comfortably update your knowledge on texture creation for Hard Surface, this fully online program with all its content available on the virtual platform is the solution"*

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.*



### 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 student will learn to solve complex situations in real business environments through collaborative activities and real cases.*

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.



06

# Certificate

The Postgraduate Certificate in Hard Surface Texture Creation 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 Hard Surface Texture Creation** 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.

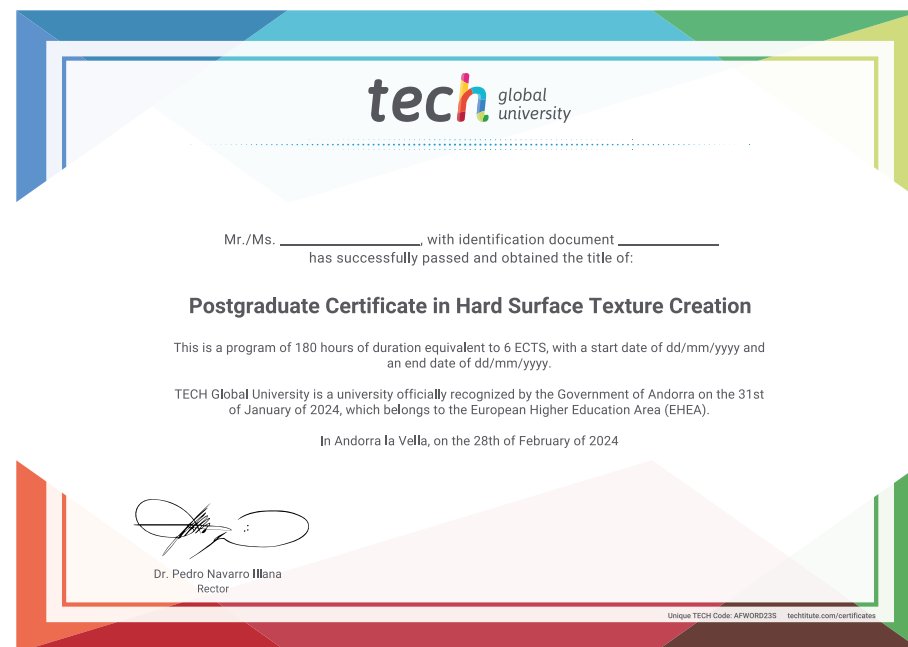
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Hard Surface Texture Creation**

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**  
Hard Surface  
Texture Creation

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

# Postgraduate Certificate

## Hard Surface Texture Creation

