

Postgraduate Diploma Texturing





Postgraduate Diploma Texturing

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Accreditation: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/design/postgraduate-diploma/postgraduate-diploma-texturing

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01

Introduction

New digital technologies have made it possible to give life to flat images. Therefore, they can be included in advertising *Spots*, video clips, movies and any audiovisual media in general. This work requires precise care in order to emulate reality by means of modeling software. That is why, in this program, students will learn to perfectly manipulate the most advanced programs in the design world, highlighting 3DS Max, Photoshop and ZBrush. All content will be presented in a 100% online mode, allowing students to combine their professional life with their academic activities.





“

Realize a great amount of detail without losing the performance of the image, thanks to the contents of this university program"

It's no secret that texturing has changed the way an image is appreciated. Thanks to this, it is possible to have hyper-realistic effects in film animations, video games, advertising *Spots* and more. That is why, in this Postgraduate Diploma, the student will be able to acquire the knowledge needed to develop professionally as an expert designer in Texturing. To do so, they will have to make use of the most important programs in the sector, such as 3DS Max, Photoshop and ZBrush.

So, first of all, you will learn the concepts prior to the creation of a model, such as baking, which is the projection of a high-resolution model on a low-resolution one, in order to appreciate the greatest amount of detail without losing the performance of the image. With this in mind, we will be able to move on to the Texturing module with *Substance Painter*, a software that offers a wide range of options when working with hyper-realistic textures. In this sense, students will learn how to configure the different values and their effects on each layer of a material, and how to work with masks to recreate dirt or wear effects.

Finally, once the model is finished it is time to move on to rendering, thanks to which the work can be shown with different sets of lights and the highest possible image quality. In this module we will go deeper into this process using Marmoset, a pioneer program in the world of digital sculpture.

For all these reasons, this Postgraduate Diploma is the most complete in the academic market, being taught online and making it easier for students to study. Similarly, they will have an excellent teaching staff, who will provide various teaching materials to consolidate the theoretical content.

This **Postgraduate Diploma in Texturing** 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 3D Modeling with 3D Studio Max
- ◆ 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



Know in depth the materials and rendering tool of the Marmoset Toolbag program, widely used by 3D modelers and sculptors"

“

At the end of the program you will be able to create the most hyper-realistic textures that the public can see, thanks to your skills in ZBrush"

The program includes, in its teaching staff, professionals from the sector who bring to this program the experience of their work, in addition to recognized specialists from prestigious reference societies and 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 course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

Thanks to the 100% online content of this program, you will be able to continue with your professional activities and study at your own pace.

Enroll today in this Postgraduate Diploma and develop your ability to create any type of 3D textures.



02 Objectives

The objective of this Postgraduate Diploma is to provide students with the knowledge and tools they need to specialize in the Texturing of any object. To do this, you must practice many hours until you reach perfection and in this program you will find several exercises to achieve this goal. Thanks to a better mastery of ZBrush or Substance Painter, you will be able to create hyper-realistic textures and render them to include them in your portfolio or present them to a client.



“

You will have access to several exercises to practice and improve your mastery of the most important programs for object texturing”



General Objectives

- ◆ Know in depth all the steps to create a 3D modeling of a professional's own
- ◆ Know and understand in detail how textures work and how they influence on the 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
- ◆ Learn how to organize and control the time spent on a complete 3D modeling, learning to value their work in the face of possible jobs
- ◆ Know the latest updates in the world of modeling and video games, learning about the most updated and used tools of each program
- ◆ 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
- ◆ Be professionally qualified to organize adequate working time for a job
- ◆ Solve complex problems and make responsible decisions





Specific Objectives

Module 1. Texturing

- ◆ Know and understand all texture maps and their application to modeling
- ◆ 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
- ◆ Creating textures for the 3D model with different programs

Module 2. Substance Painter Texturing

- ◆ Know in depth the Substance Painter program, the most widely used for texturing in the world of video games today
- ◆ Understand the process of baking from a high resolution model to a low resolution model.
- ◆ Know and understand the different layers of a material and how they affect it
- ◆ Create materials from scratch and modify existing materials to achieve a fully customized material
- ◆ Know how to work with mapping coordinates and masks to correctly apply textures to the model
- ◆ Learn about brushes, how to use them and how to create customized brushes
- ◆ Learn how to use program and external resources to enhance textures
- ◆ Know different methods to create or modify textures

Module 3. Rendering

- ◆ Know in depth the materials and rendering tool of the Marmoset Toolbag program, widely used by 3D modelers and sculptors
- ◆ Understand how to position lights to create an appropriate environmental setting
- ◆ Create and position cameras to achieve a perspective that makes 3D modeling more interesting
- ◆ Export professional renderings
- ◆ Basic knowledge of a camera animation to create an animated render to achieve more effects
- ◆ Know the up-to-date tools of the programs
- ◆ Know how to perform a basic rendering with other programs, such as Iray, Zbrush, Photoshop and Keyshot



This Postgraduate Diploma will mark a before and after in your professional career, allowing you to start working on your own in the world of Texturing"

03

Course Management

The teachers in charge of this program are professionals of the highest prestige, who have come a long way to perfect their Texturing technique and the handling of the corresponding software. This makes them professionals of the highest level and qualifies them to teach the contents of the Postgraduate Diploma. This way, through the content they will present and the diverse didactic materials they have developed, the student will receive the most current and requested knowledge of this industry.





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The best professionals in the world of Texturing will teach you the tricks they have perfected over the course of their careers”

Management



Ms. 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 Professional Master's Degree in Video Game Programming
- ◆ Teacher at the University of Girona
- ◆ PhD in Architecture from the Polytechnic University of Catalonia
- ◆ Bachelor of Fine Arts from the University of Barcelona

Professors

Ms. Jiménez Vaquero, Laura

- ◆ Organic and props modeler, grooming, texturing and shading artist
- ◆ Organic and Inorganic 3D modeler at Utopia Avatars at EGO W3RLD
- ◆ Development of 3D hard surface modeling for advertising campaigns at Kutuko Studio
- ◆ Development of organic modeling for advertising campaign at Nein Club
- ◆ Development of 3D modeling for interior design at Miltidesign
- ◆ Realization and coordination of the women's collective exhibition "Femenino plural".
- ◆ Image work for 2D animation "Naturaleza Encendida" at the Royal Botanical Garden of Madrid
- ◆ Graduated in Fine Arts at the Complutense University of Madrid
- ◆ Professional Master's Degree in Organic Modeling by Lightbox Academy

Mr. Llorens Aguilar, Víctor

- ◆ Postgraduate Diploma in 3D Modeling
- ◆ Teacher in courses related to 3D Modeling
- ◆ Scratch teacher in private schools
- ◆ Degree in 3D Animations, Games and Interactive Environments



04

Structure and Content

This Postgraduate Diploma has been developed following the most avant-garde educational methodology in the academic market, *Relearning*. With it, it is intended to provide a large amount of audiovisual material to guide students, teaching them all the intricacies of creating hyperrealistic textures with the most used software in the industry.





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Work models from high to low resolution, and vice versa, to further optimize the final result, while retaining the same levels of detail and hyperrealism"

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. Projection Settings for Normal Map Baking
 - 1.4.4. Normal Map Settings
- 1.5. Bake Other Materials in 3DS Max
 - 1.5.1. Application and Bakeo Fuzzy Map
 - 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. Textural Toasting. 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 yandFlatten
- 1.10. Texturing with Zbrush
 - 1.10.1. Painting mode
 - 1.10.2. Noise Maker
 - 1.10.3. Projection of images

Module 2. Substance Painter Texturing

- 2.1. Substance Painter
 - 2.1.1. Create New Project and Reimport Models
 - 2.1.2. Basic Controls and Interface 2D and 3D Views
 - 2.1.3. *Baking*
- 2.2. Baking Layers
 - 2.2.1. *World Space Normal*
 - 2.2.2. *Ambient Occlusion*
 - 2.2.3. *Curvature*
 - 2.2.4. *Position*
 - 2.2.5. ID, Normal, Grosor
- 2.3. Layers
 - 2.3.1. *Base Color*
 - 2.3.2. *Roughness*
 - 2.3.3. *Metallic*
 - 2.3.4. Material
- 2.4. Masks and Generators
 - 2.4.1. Layers and UVs
 - 2.4.2. Masks
 - 2.4.3. Procedural Generators

- 2.5. Base Material
 - 2.5.1. Types of Material
 - 2.5.2. Customized Generators
 - 2.5.3. Creation of a Base Material from Scratch
 - 2.6. Brushes
 - 2.6.1. Predefined Parameters and Brushes
 - 2.6.2. Alphas, Lazy Mouse and Symmetry
 - 2.6.3. Create Custom Brushes and Save Them
 - 2.7. Particles
 - 2.7.1. Particle Brushes
 - 2.7.2. Properties of Particles
 - 2.7.3. Particles Using Masks
 - 2.8. Projections
 - 2.8.1. Preparing Textures
 - 2.8.2. Stencil
 - 2.8.3. Cloning
 - 2.9. Substance Share/Source
 - 2.9.1. Substance Share
 - 2.9.2. Substance Source
 - 2.9.3. Textures.com
 - 2.10. Terminology.
 - 2.10.1. *Normal Map*
 - 2.10.2. *Padding or Bleed*
 - 2.10.3. *Mipmapping*
- Module 3. Rendering**
- 3.1. Marmoset Toolbag
 - 3.1.1. Geometry Preparation and FBX Formatting
 - 3.1.2. Basic Concepts. Importance of Geometry
 - 3.1.3. Links and Materials
 - 3.2. Marmoset Toolbag Sky
 - 3.2.1. Environmental Setting
 - 3.2.2. Lighting Points
 - 3.2.3. Lights outside Sky
 - 3.3. Marmoset Toolbag Details
 - 3.3.1. Shadows and Pose
 - 3.3.2. Procedural Materials
 - 3.3.3. Channels and Reflection
 - 3.4. Real-Time Rendering with Marmoset Toolbag
 - 3.4.1. Image Export with Transparency
 - 3.4.2. Interactive Export. Marmoset Viewer
 - 3.4.3. Film Export
 - 3.5. Marmoset Toolbag Animated Cameras
 - 3.5.1. Model Preparation
 - 3.5.2. Cameras
 - 3.5.3. Main Camera Interactive Animation
 - 3.6. Marmoset Toolbag Advanced Animated Cameras
 - 3.6.1. Adding New Cameras
 - 3.6.2. Parametric Animation
 - 3.6.3. Final Details
 - 3.7. Marmoset Toolbag 4 Raytrace
 - 3.7.1. *Subsurface*
 - 3.7.2. *Ray Tracing*
 - 3.7.3. Adding Cameras and Map Rendering
 - 3.8. Substance Painter Rendering IRay
 - 3.8.1. IRay Settings
 - 3.8.2. *Viewer Settings*
 - 3.8.3. *Display Settings*
 - 3.9. Rendering with ZBRush
 - 3.9.1. Material Settings
 - 3.9.2. BPR *Render* and Lights
 - 3.9.3. BPR Masks and Final Rendering in Photoshop
 - 3.10. Keyshot Rendering
 - 3.10.1. From Zbrush to Keyshot
 - 3.10.2. Materials and Lighting
 - 3.10.3. Photoshop Compositing and Final Image

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.





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.

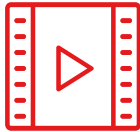
Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

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.



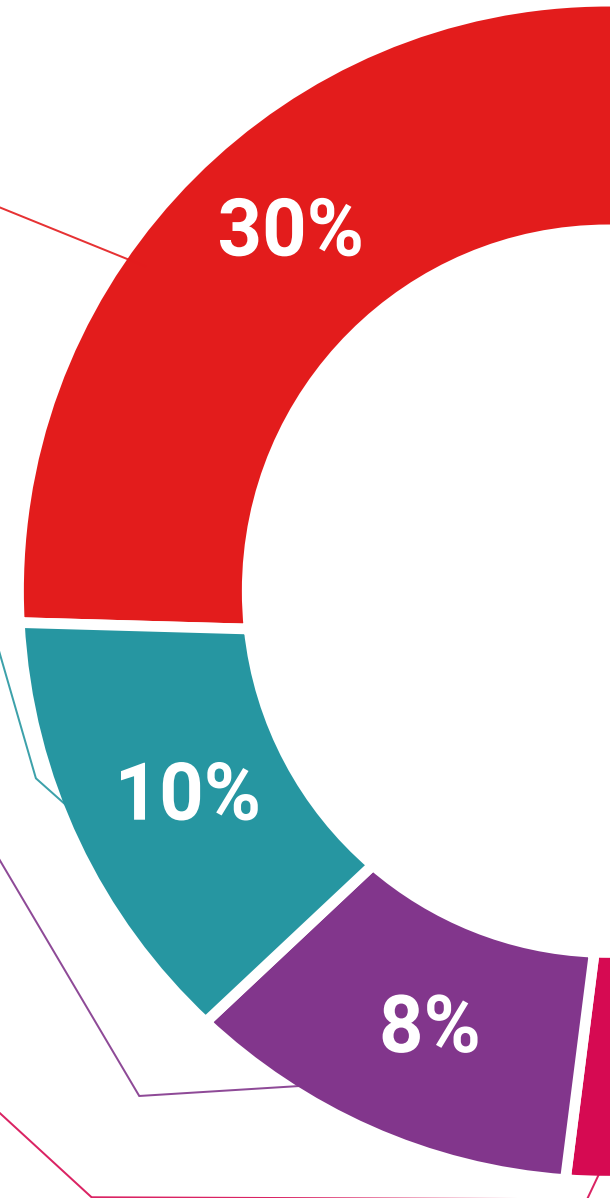
Practising Skills and Abilities

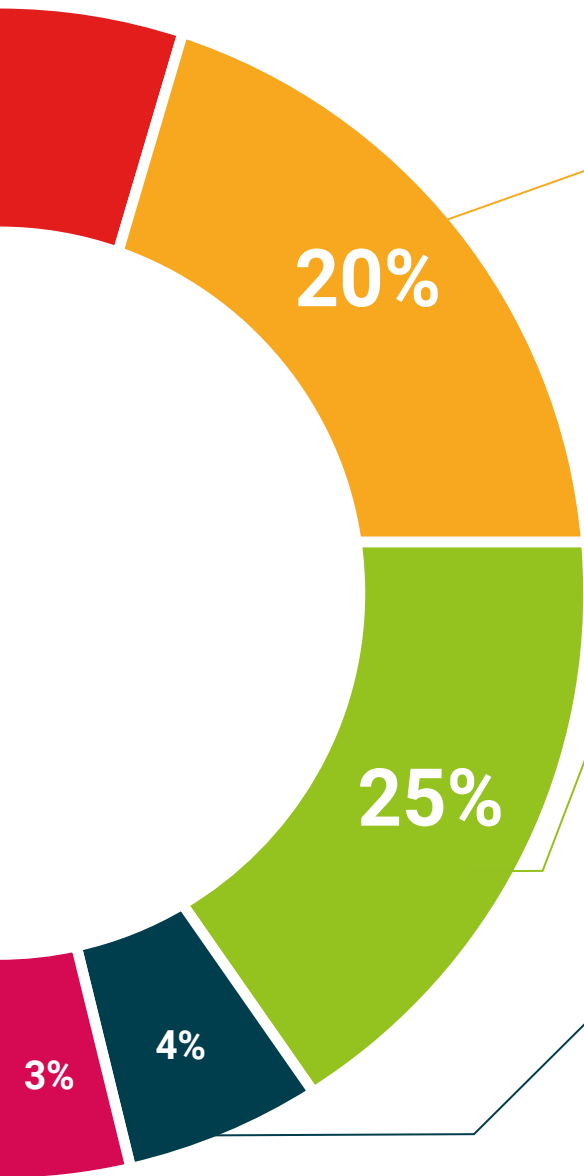
They will carry out activities to develop specific competencies and skills in each thematic area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



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 Diploma in Texturing guarantees, in addition to the most rigorous and up to date education, access to a Postgraduate Diploma 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 a **Postgraduate Diploma in Texturing** endorsed by TECH Global University, the largest digital university in the world.

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 educational framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of joint 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 continuous education and professional updating that guarantees the acquisition of competencies in its area of knowledge, conferring a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Texturing**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



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

tech global
university

Postgraduate Diploma Texturing

- » Modality: **online**
- » Duration: **6 months**
- » Certificate: **TECH Global University**
- » Accreditation: **18 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

Postgraduate Diploma Texturing

