Postgraduate Diploma
Texturing

tech global university

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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/information-technology/postgraduate-diploma/postgraduate-diploma-texturing

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01

Introduction

The Texturing process is fundamental within the three-dimensional modeling, since it is the one that "dresses" the design. Which could give it a flatter or deeper and more or less realistic dimension. Currently 3D Modeling is applied to many technological fields such as: 3D printing, industrial production, animation designs, video games or drawings, and the demand for professionals in this sector is increasingly high. For all these reasons, this online program brings together the necessary knowledge to be an expert in Texturing and thus give a good finish to the modeling.

Become an expert in 3D modeling Texturing process, learn how to use the leading tools in this sector"

This University Expert in Texturing is intended to cover the leading tools for this process, such as 3DS Max, Photoshop or ZBrush. The student thus acquires the knowledge he needs to develop as a true expert in Texturing and will be able to generate the effects he wants in his modeling, for example, to achieve hyper-realistic effects in animations for movies, video games, advertising spots and more.

The first area is an introductory preamble of the indispensable concepts for the creation of a model such as Baking, in order to appreciate the greatest amount of detail without losing the performance of the image. The curriculum also delves into Texturing with the Subastance Painter tool, a software that provides a wide range of options when working with hyper-realistic textures.

The educational program also delves into the rendering process, a phase almost as essential as texturing, which occurs at the end of each model to optimize the image quality and weight of the model. In addition, the rendering achieves deeper design posing, lighting and the highest possible image quality. All this using Marmoset, a pioneer software in the world of digital sculpture.

All the content of this Postgraduate Diploma in Texturing is offered in a totally virtual format, favoring the deepening of knowledge at the speed and pace set by the student. This allows us to combine personal and professional projects with the continuous recycling of knowledge. In addition, an expert teaching staff is always available to tutor the student.

This **Postgraduate Diploma in Texturing** contains the most complete and up-to-date educational program on the market. Its most notable features are:

- The development of case studies presented by experts in 3D Modeling with 3D Studio Max
- The graphic, schematic and practical contents with which it is conceived provide and practical information on those 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

Learn how to use state-of-the-art texturing tools such as 3DS Max, Substance Painter or Marmoset Toolbag"

Learn how to texture your 3D modeling, as well as how to render them, to specialize and become an expert in the field"

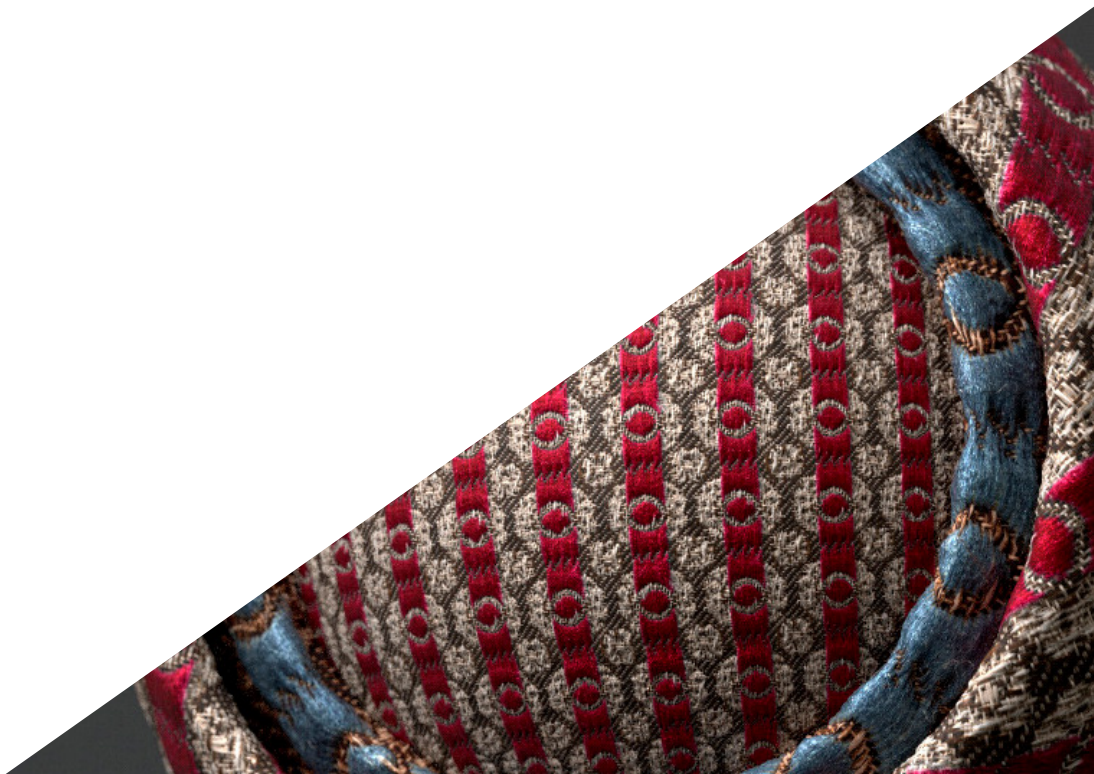
At your own pace and combining it with other personal and professional projects, that's how easy it is to learn texturing with this Postgraduate Diploma.

Enroll now in this Postgraduate Diploma in Texturing and learn the tricks and keys to give a good finish to your 3D designs.

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

With this Postgraduate Diploma, the user will not only be able to create a 3D model, but also texture and render it. For this purpose, the study plan covers the most basic concepts and elements for texturing, the state-of-the-art tools to carry out this process, as well as the rendering process. Thanks to a better mastery of ZBrush or Substance Painter, the student will be able to create hyper-realistic textures and render them to achieve the best image quality with the lowest possible weight.

Master all the strategies for texturing a 3D modeling and turn your resume into an eye-catcher with this fully online training"

General Objectives

- Gain in-depth knowledge about all the steps to create a professional 3D Modeling
- 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
- Know how to organize and control the time spent on a complete 3D modeling, learning to value their work when dealing with possible jobs
- Get to 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
- 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 on 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

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 the resources found in the program or externally to improve our 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 the lights to create a suitable ambient environment for our model
- Create and position cameras to achieve a perspective that makes our 3D modeling more interesting
- Export professional renderings
- Acquire basic knowledge of a camera animation to create an animated render to achieve more effects
- Know the up-to-date tools of the programs
- Get to know how to perform a basic rendering with other programs, such as IRay, Zbrush, Photoshop and Keyshot

Learn not only texturing, but also rendering with programs like VRay, ZBrush, Photoshop or Keyshot, in an easy and comfortable way"

03

Course Management

The management and teaching staff of this program is composed of professionals in the sector, who have dedicated their professional lives to three-dimensional modeling. Each in their own field and with their own experiences, they will be able to provide students with a comprehensive view of the applications of Texturing and Rendering, achieving that not only theoretical and practical knowledge is retained, but also professional criteria. Through the content they will present and the diverse teaching materials they have developed, the student will receive the most current and requested knowledge of this industry.

Experts and professionals who have dedicated their professional lives to three-dimensional modeling will guide your learning in this Postgraduate Diploma"

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

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
- Degree in Fine Arts from the Complutense University of Madrid
- 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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04

Structure and Content

This Postgraduate Diploma has been developed following the Relearning and Learning by Doing methodology, state-of-the-art learning methods based on the student's knowledge and autonomous learning. Thanks to this method and the perfect distribution of this study plan, in only 6 months you will obtain the necessary knowledge to become an expert in Texturing and rendering of 3D Modeling, training the student in all the complexities of creating textures with the most used software in the sector.

Get, in only 6 months, to be a real professional in Texturing and rendering of three-dimensional models"

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

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, *Thickness*

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. *Acolchado o Sangrado*
- 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. Shade 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 configuration
- 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 Composition and Final Image

With this program in Texturing you will get a more striking curriculum vitae, as well as give a twist to your professional career"

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

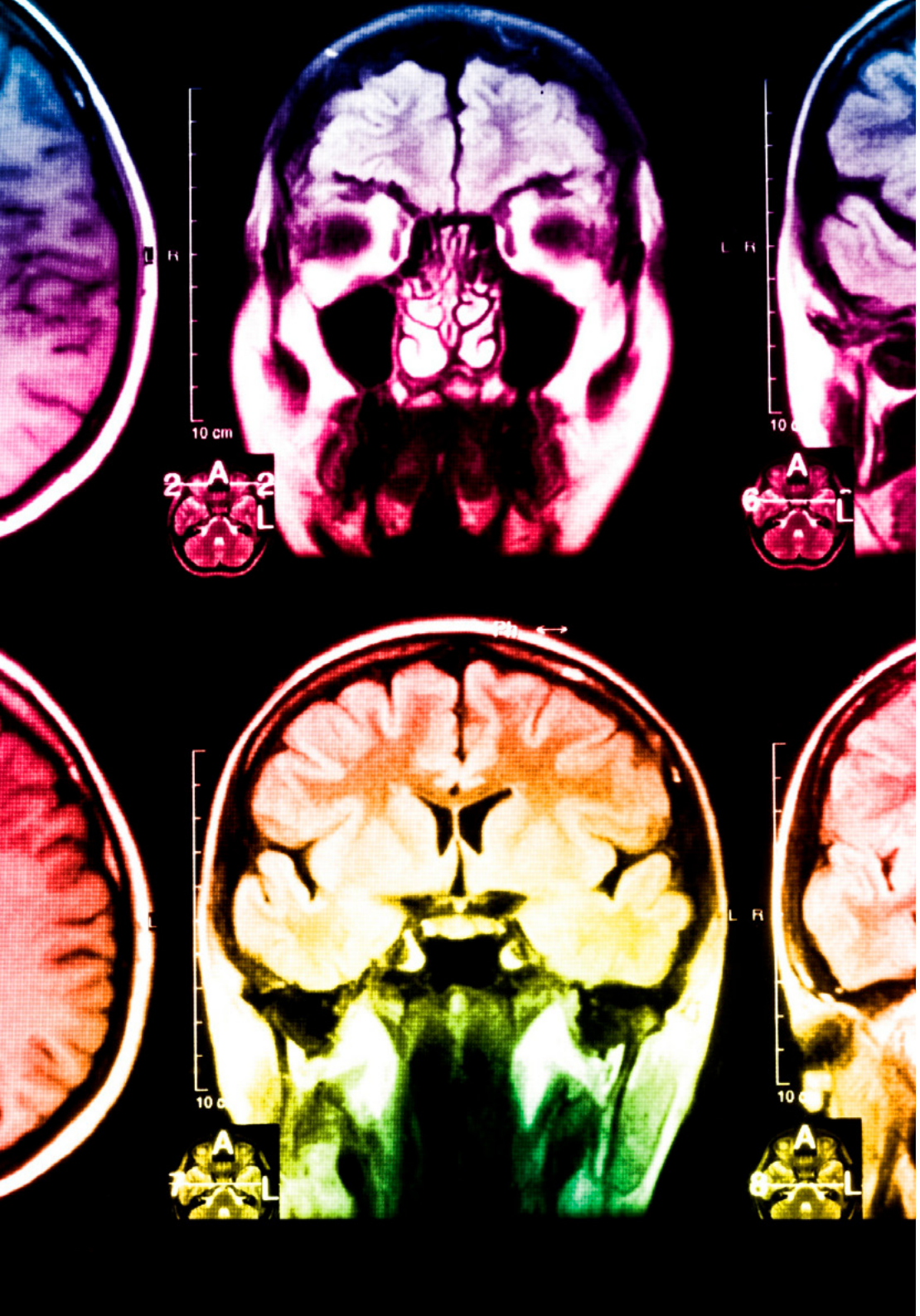
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

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.

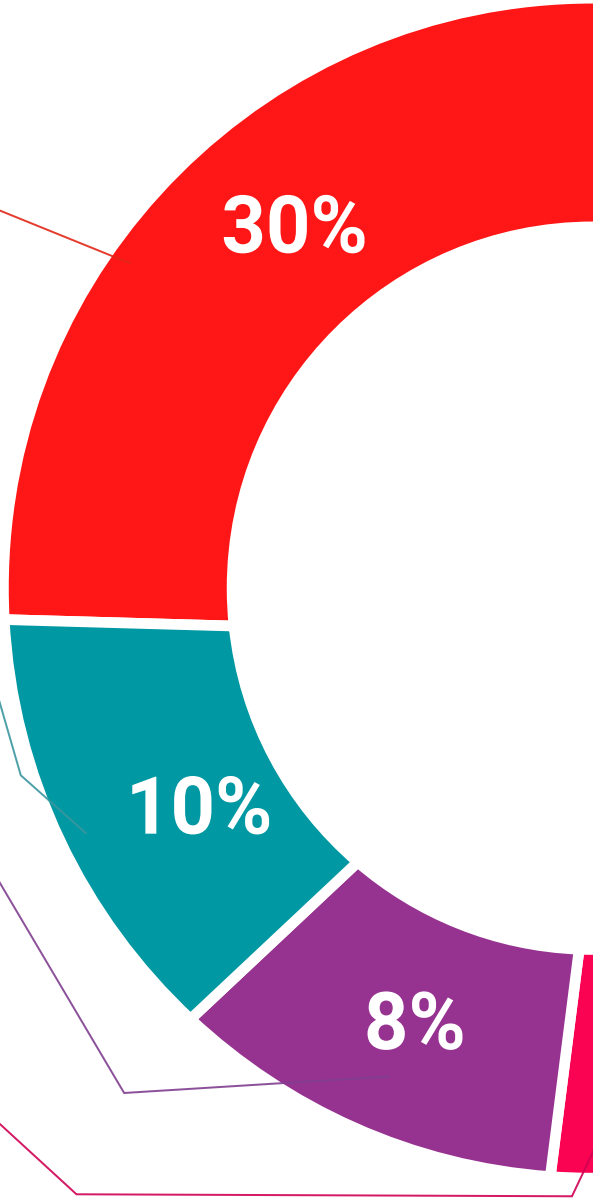
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

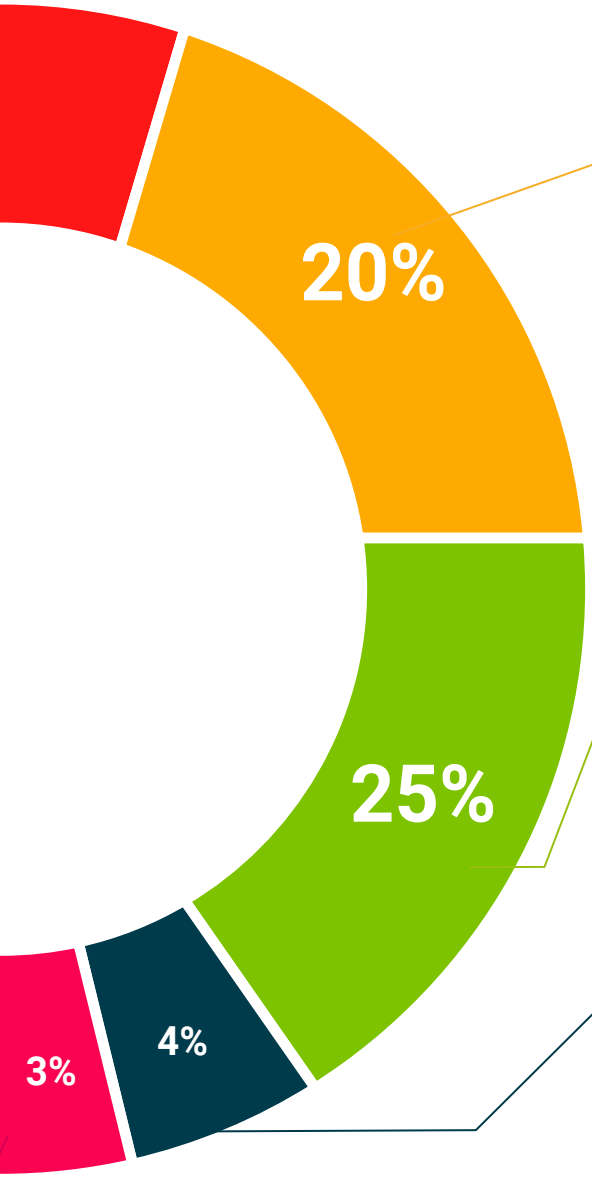
Practising Skills and Abilities

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 Diploma in Texturing guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.

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

This private qualification will allow you to obtain a **Postgraduate Diploma in Texturing** 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 Diploma in Texturing**

Modality: **Online**

Duration: **6 months.**

Accreditation: **18 ECTS**


tech global university

Mr./Ms. _____ , with identification document _____
has successfully passed and obtained the title of :

Postgraduate Diploma in Texturing

This is a private qualification of 540 hour s of duration equivalent to 18 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy .

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 202 4

Dr. Pedro Navarro Illan a
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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