

Postgraduate Certificate

Creation of Organic Landscapes and Environments through Digital Sculpture





Postgraduate Certificate Creation of Organic Landscapes and Environments through Digital Sculpture

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

Website: www.techtute.com/us/design/postgraduate-certificate/creation-organic-landscapes-environments-digital-sculpture

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01

Introduction

3D modeling has opened up infinite possibilities for creation in different types of industry. It has been used in animation, video games and infoarchitecture. Therefore, developing new skills such as the Creation of Landscapes and Organic Environments through Digital Sculpture, expands the possibilities of today's professional in a market with high demand. This educational program will allow you to create spaces where you can put your creativity to work. The course addresses nature in all its forms and landscapes and allows you to integrate virtual reality into your work. All this is possible in just a few weeks of study, online and thanks to the *Relearning* methodology.





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It addresses nature in all its forms. It integrates them into virtual reality spaces or video games using ZBrush for modeling”

To be able to use creativity and produce the most amazing hyper-realism is a task for the brave in today's technological world. There are those who will take the risk to innovate and demonstrate that, with technique and knowledge, it is always possible to obtain the best results. Those who wish to stand out for their skills can count on this Postgraduate Certificate in Creation of Landscapes and Organic Environments through Digital Sculpture. A course where you will find all the theoretical and practical content chosen by experts for your benefit.

A program that will allow the student to master *Low Poly* elements and integrate them in virtual reality spaces or in *video games* and transfer them to *High Poly* systems through modeling in *ZBrush*, all in only 6 weeks. In addition to fractal systems such as *SpeedTree* and powerful organic terrain generation tools. With *Heightmap* lifts in *Realtime* like *Terrains* in Unity or Unreal, and even realistic bodies of water and dynamics like wind.

Students will use fast rigging techniques with *motion capture* and create motion spaces in which their creations will be tested to develop future interactive projects. Finally, during the program, the projects will be shot with film cameras for a possible *Showreel*. This way, they will be creating an executable project to pass on to customers who don't have the development software. They will also be able to adapt models and spaces to fit virtual reality visualization systems.

All this is possible thanks to the most innovative methodology employed by TECH Global University. The best online learning system, based on *Relearning*. Combining various content formats and led by experts. Available on devices with an internet connection, with the option to download content for consultation at any time. This provides professionals with a highly convenient way to continue their training.

This **Postgraduate Certificate in Creation of Organic Landscapes and Environments through Digital Sculpture** includes the most complete and up-to-date educational program on the market. Its most notable features are:

- ◆ Practical cases presented by experts in 3D modeling and digital sculpture
- ◆ The graphic, schematic, and practical contents with which they are created, provide scientific and 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

“With the online learning system, you will still have time to create and implement new knowledge into your current projects”

“ *TECH is the only digital university in the world licensed to use the Relearning methodology. Sign up now and get to know all its benefits”*

Land development is one of the most interesting fields of specialization. Expand your possibilities in the professional field.

Master powerful tools to generate realistic Heightmap dynamics in Realtime. Like Unity terrains or those in Unreal.

The program's teaching staff includes professionals from 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 immersion training programmed to train 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.



02

Objectives

For professionals to explore new career paths and obtain the best results in each of their projects. This is the main objective of this Postgraduate Certificate, which looks in depth at the whole process of creating Organic Landscapes and Environments with Digital Sculpture. Led by a specialized teaching team that will accompany students throughout the learning process, and where they will be able to interact through an online platform that combines maximum educational rigor, the highest academic standards and the latest educational technology.



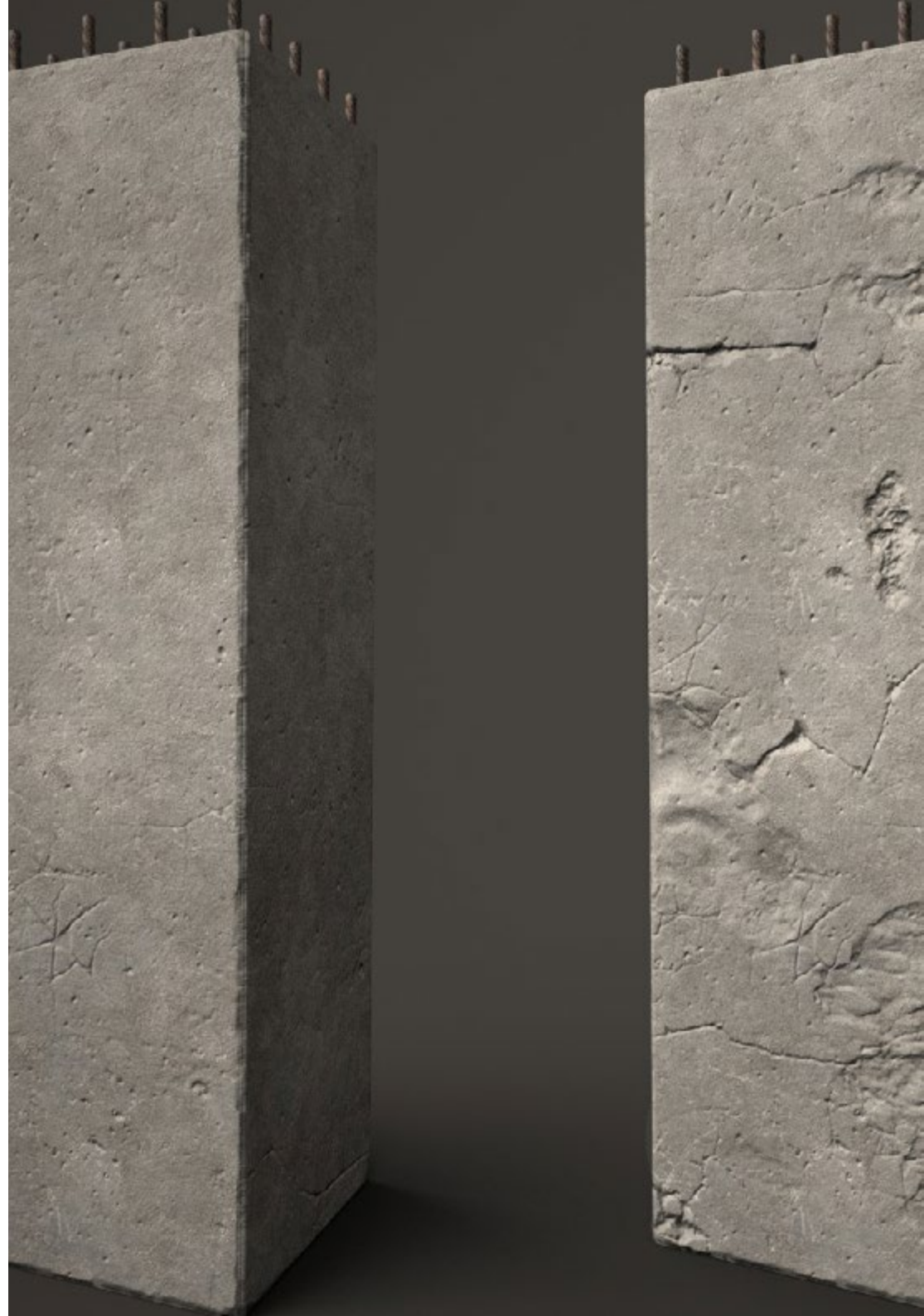
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*Train now and explore all the tools
that will make you more efficient”*



General Objectives

- ◆ Apply accurate modeling, texturing, lighting and rendering processes
- ◆ Develop spaces using the organic model full of creativity and hyperrealism
- ◆ Understand the importance of having an adequate topology at all levels of development and production
- ◆ Understand the current demands of the movie and video game industries in order to offer best results





Specific Objectives

- ◆ Know the different techniques of organic modeling and fractal systems for generating the elements of nature and terrain, as well as the implementation of our own models and 3D scans
- ◆ In-depth study of the vegetation creation system and how to control it professionally in *Unity* and *Unreal Engine*
- ◆ Create scenes with immersive VR experiences

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With this qualification, you will be able to use organic modeling in your digital works as an expert and create spaces full of creativity and hyperrealism"

03

Course Management

TECH Global University has chosen the most specialized teachers in the discipline of 3D modeling and concept art to design and teach this Postgraduate Certificate in Creation of Landscapes and Organic Environments through Digital Sculpture. Its professors have carefully chosen each of the study topics and will accompany the student throughout the learning process in a 100% online environment through a secure and dynamic platform.



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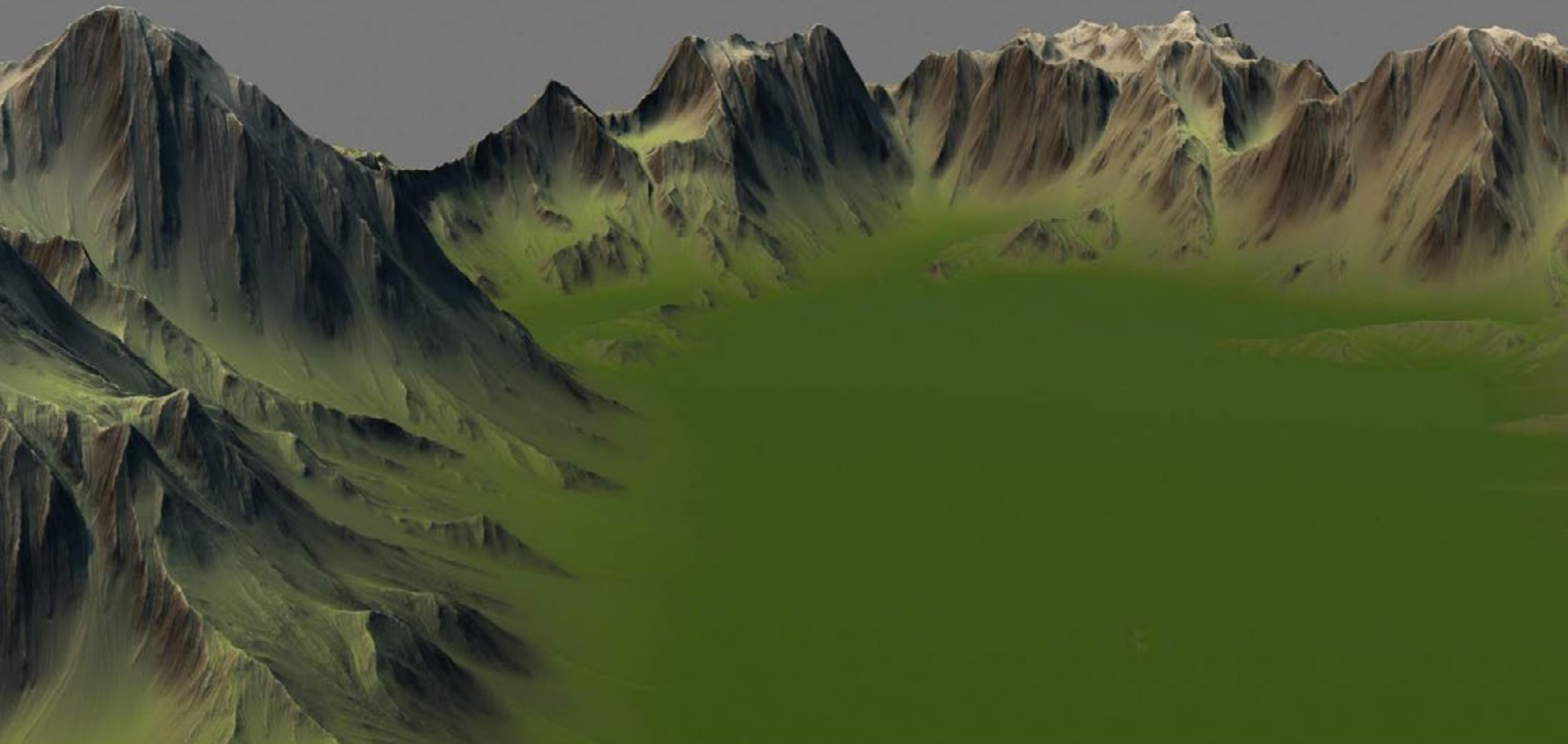
Expert teachers in Digital Sculpture will accompany you throughout the learning process”

Management



Mr. Sequeros Rodríguez, Salvador

- ◆ Freelance 2D/3D modeler and generalist
- ◆ Concept Art and 3D Models for Slicecore. Chicago
- ◆ Videomapping and modeling, Rodrigo Tamariz. Valladolid
- ◆ Professor of Higher-Level Training Cycle in 3D Animation. Higher Education School of Image and Sound ESISV. Valladolid
- ◆ Professor of Higher-Level Training Cycle GFSG in 3D Animation. European Institute of Design IED Madrid
- ◆ 3D modeling for the falleros Vicente Martinez and Loren Fandos. Castellón
- ◆ Master's Degree in Computer Graphics, Games and Virtual Reality. URJC University. Madrid
- ◆ Degree in Fine Arts at the University of Salamanca (specializing in Design and Sculpture)



04

Structure and Content

This Postgraduate Certificate presents a distribution of content that allows the student to further explore the techniques and tools used today for the Creation of Landscapes and Organic Environments through Digital Sculpture. Taught by experts in the subject. This course offers you an agile learning experience, in only 6 weeks, through the TECH Global University platform, which provides a safe and dynamic environment. You will have access to forums, meeting rooms and private chats with your faculty, as well as to downloading the syllabus for consultation without an internet connection.





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At the end of this program, you will be able to create work teams without excessive rendering costs, which will help you to build complex scenes"

Module 1. Creation of Organic Terrains and Environments

- 1.1. Organic Modeling in Nature
 - 1.1.1. Brush Adaptations
 - 1.1.2. Creation of Rocks and Cliffs
 - 1.1.3. Integration with 3D Substance Painter
- 1.2. Terrain
 - 1.2.1. Terrain Displacement Maps
 - 1.2.2. Creation of Rocks and Cliffs
 - 1.2.3. Scanning Software Libraries
- 1.3. Vegetation
 - 1.3.1. SpeedTree
 - 1.3.2. Low Poly Vegetation
 - 1.3.3. Fractals
- 1.4. Unity Terrain
 - 1.4.1. Organic Model of Terrain
 - 1.4.2. Terrain Painting
 - 1.4.3. Creation of Vegetation
- 1.5. Unreal Terrain
 - 1.5.1. Heightmap
 - 1.5.2. Texturing
 - 1.5.3. Unreal's Foliage System
- 1.6. Physics and Realism
 - 1.6.1. Physical
 - 1.6.2. Wind
 - 1.6.3. Fluids
- 1.7. Virtual Walks
 - 1.7.1. Virtual Cameras
 - 1.7.2. Third Person
 - 1.7.3. First Person FPS



- 1.8. Cinematography
 - 1.8.1. Cinemachine
 - 1.8.2. Sequencer
 - 1.8.3. Recording and Executables
- 1.9. Visualization of the Model in Virtual Reality
 - 1.9.1. Modeling and Texturing Tips
 - 1.9.2. Exploitation of the Interaxial Space
 - 1.9.3. Project Preparation
- 1.10. VR Scene Creation
 - 1.10.1. Location of the Cameras
 - 1.10.2. Land and Infoarchitecture
 - 1.10.3. Parameters of Use



*Join the community of
professionals who see online
training as the real key to 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.





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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 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.



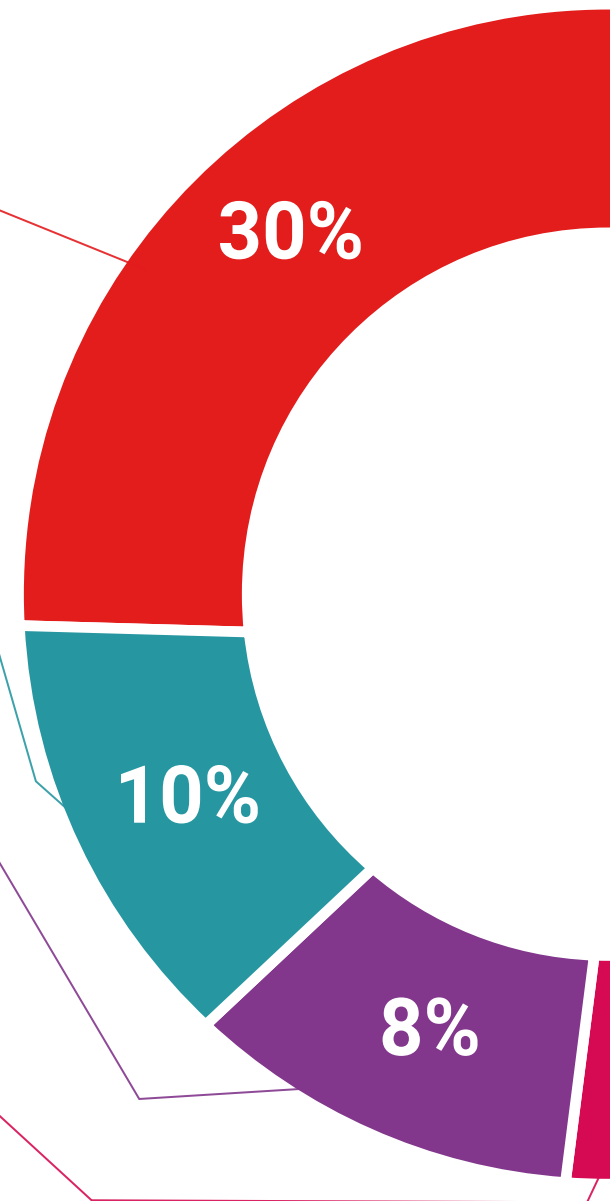
Practising Skills and Abilities

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

The Postgraduate Certificate in Creation of Organic Landscapes and Environments through Digital Sculpture guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 your **Postgraduate Certificate in Creation of Organic Landscapes and Environments through Digital Sculpture** 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 Creation of Organic Landscapes and Environments through Digital Sculpture**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



*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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