Postgraduate Certificate

Rendering, Lighting and Posing of 3D Models

tech technological university

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Postgraduate Certificate
Rendering, Lighting and Posing of 3D Models

- Modality: **online**
- Duration: **6 weeks**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/design/postgraduate-certificate/rendering-lighting-posing-3d-models

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01

Introduction

Lighting, rendering and posing of 3D models is fundamental in the industry not only to improve the quality and realism of the final work, but also to know how to structure a better presentation of all professional work. A 3D designer with adequate skills in this field can develop a much more visual and eye-catching portfolio than other candidates, highlighting their best work more prominently. For this reason, TECH has included in this qualification a multitude of processes and techniques of 3D modeling with which the student can excel in their field and give a noticeable boost in quality to their own career.

You will have a much more exquisite presentation of all the material you have created, with posing and lighting that highlights the best features of your work"

The correct lighting and posing is essential for any design work, as they are two of the most important elements when presenting final results in a professional project. Many designers do not have all the important knowledge in this area, so they are not able to develop a quality portfolio that attracts potential clients or high-level studios.

In response to this market demand, TECH has developed this qualification, which in addition to offering a complete program in lighting and 3D model posing, also delves into the rendering process itself, in order to save the student's work time and therefore improve their daily methodology.

The student will learn to handle these facets with tools such as ZBrush, Maya or Mixamo, so that they can adapt to any work environment as these are the most used and widespread programs in any 3D design department or company.

The qualification, moreover, is taught completely online. This means that the student can download all the teaching material from the first day of the program, being able to access it on any device with an internet connection. This is a great advantage and convenience for students seeking to combine their personal responsibilities with high-level training.

This **Postgraduate Certificate in Rendering, Lighting and Posing of 3D Models** 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
- 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

You will speed up your content production and work thanks to more efficient and modern rendering"

This program will help you to be a versatile 3D modeling professional, with exquisite post-production skills that enhance the quality of the final result"

You will get your Postgraduate Certificate in Rendering, Lighting and Posing of 3D Models without doing a final project, in a straightforward way.

Formalize your enrollment in this program today and start improving your work methodology and professional performance.

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.

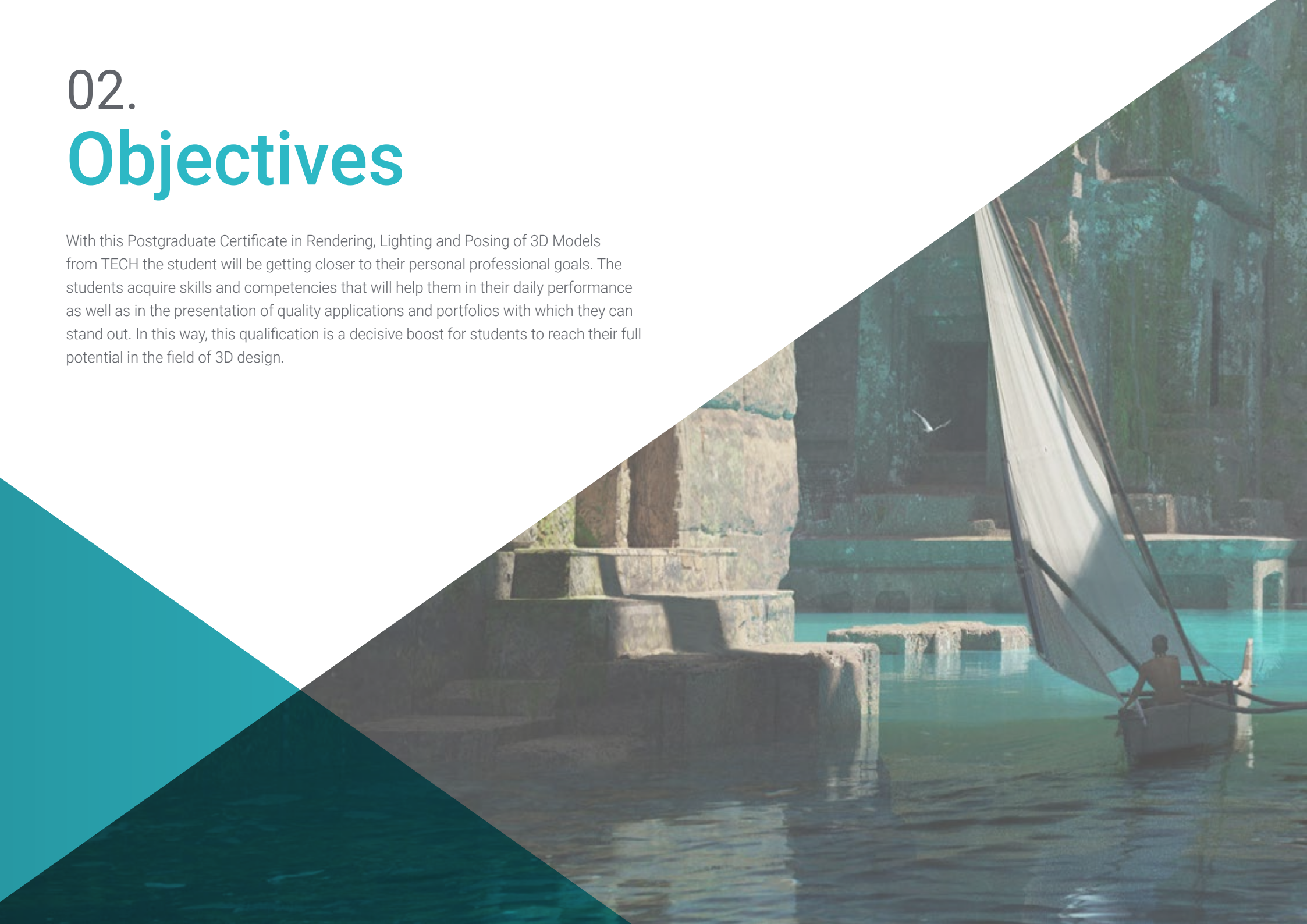
The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training programmed to train in real situations.

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

02.

Objectives

With this Postgraduate Certificate in Rendering, Lighting and Posing of 3D Models from TECH the student will be getting closer to their personal professional goals. The students acquire skills and competencies that will help them in their daily performance as well as in the presentation of quality applications and portfolios with which they can stand out. In this way, this qualification is a decisive boost for students to reach their full potential in the field of 3D design.



You will be prepared to take a professional leap of enormous quality by incorporating into your daily work all the 3D modeling techniques that will lead you to become much more recognized"

General Objectives

- Expand knowledge of human and animal anatomy in order to develop hyper-realistic creatures
- Master retopology, UVs and texturing to perfect the models created
- Create an optimal and dynamic workflow to work more efficiently with 3D modeling
- Have the skills and knowledge most in demand in the 3D industry to be able to apply for the best jobs

Specific Objectives

- Discover advanced lighting and photography concepts to sell models more efficiently
- Develop the learning of model posing by means of different techniques
- Delve into the development of a *Rig* in Maya for the subsequent possible animation of the model
- Observe the control and use of the rendering of the model, bringing out all its details

You will learn the use of Arnold in the rendering process, which will give a more refined and elaborate look to all your creations"

03.

Course Management

Experts in the use of interfaces such as Maya, Arnold, Mixamo or ZBrush have been chosen by TECH for the realization of this qualification, so the student will find the latest techniques and uses of these applications constantly up to date. Thanks to a complete deep dive into the post-processing of the models, the students will improve their professional performance under the guidance of a teaching staff that knows their needs and how to meet them.

At your side will be professionals who are knowledgeable about the problems you may have in developing your artistic potential, so you will receive the best possible advice in 3D modeling"

Management

Ms. Gómez Sanz, Carla

- 3D Generalist at Blue Pixel 3D
- Concept Artist, 3D Modeler, Shading in Timeless Games Inc.
- Collaboration with multinational consulting firm for the design of vignettes and animation for commercial proposals
- Advanced Technician in 3D Animation, video games and interactive environments at CEV School of Communication, Image and Sound
- Master's Degree and Bachelor's Degree in 3D Art, Animation and Visual Effects for video games and cinema at CEV School of Communication, Image and Sound

04.

Structure and Content

The content and structure of this program has been designed following TECH's high-quality standards, providing the student with a multitude of graphic and practical examples of rendering, lighting and posing of 3D models. Thanks to these cases based on the real experience of the teaching staff, the student obtains a contextual understanding of all the theoretical content, greatly facilitating the work of study.

With a complete and rich syllabus on issues such as rendering, lighting or 3D posing, you will expand your professional profile in a professional way"

Module 1. Rendering, Lighting and Posing of Models

1.1. Characters Posing in ZBrush
- 1.1.1. Rig in ZBrush with ZSpheres
- 1.1.2. Transpose Master
- 1.1.3. Professional Finish

1.2. Rigging and Weighting of our Own Skeleton in Maya
- 1.2.1. Rig in Maya
- 1.2.2. Rigging Tools with Advanced Skeleton
- 1.2.3. Rig Weighting

1.3. Blend Shapes to Give Life to Your Character's Face
- 1.3.1. Facial Expressions
- 1.3.2. Blend Shapes of Maya
- 1.3.3. Animation with Maya

1.4. Mixamo, a Quick Way to Present Our Model
- 1.4.1. Mixamo
- 1.4.2. Mixamo Rigs
- 1.4.3. Animations

1.5. Lighting Concepts
- 1.5.1. Lighting Techniques
- 1.5.2. Light and Color
- 1.5.3. Shade

1.6. Arnold Render Lights and Parameters
- 1.6.1. Lights with Arnold and Maya
- 1.6.2. Lighting Control and Parameters
- 1.6.3. Arnold Parameters and Configuration

1.7. Lighting of our Models in Maya with Arnold Render
- 1.7.1. Lighting Set Up
- 1.7.2. Model Lighting
- 1.7.3. Mixing Light and Color

1.8. Going Deeper in Arnold: Denoising and the Different AOV's
- 1.8.1. AOVs
- 1.8.2. Advanced Noise Treatment
- 1.8.3. Denoiser

1.9. Real-Time Rendering in Marmoset Toolbag
- 1.9.1. Real-Time vs. Ray Tracing
- 1.9.2. Advanced Marmoset Toolbag
- 1.9.3. Professional Presentation

1.10. Post-Production Rendering in Photoshop
- 1.10.1. Image Processing
- 1.10.2. Photoshop: Levels and Contrasts
- 1.10.3. Layers: Characteristics and their Effects

Don't think twice and enroll now in this TECH Postgraduate Certificate so that your 3D portfolio can serve as a reference for designers around the world"

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 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

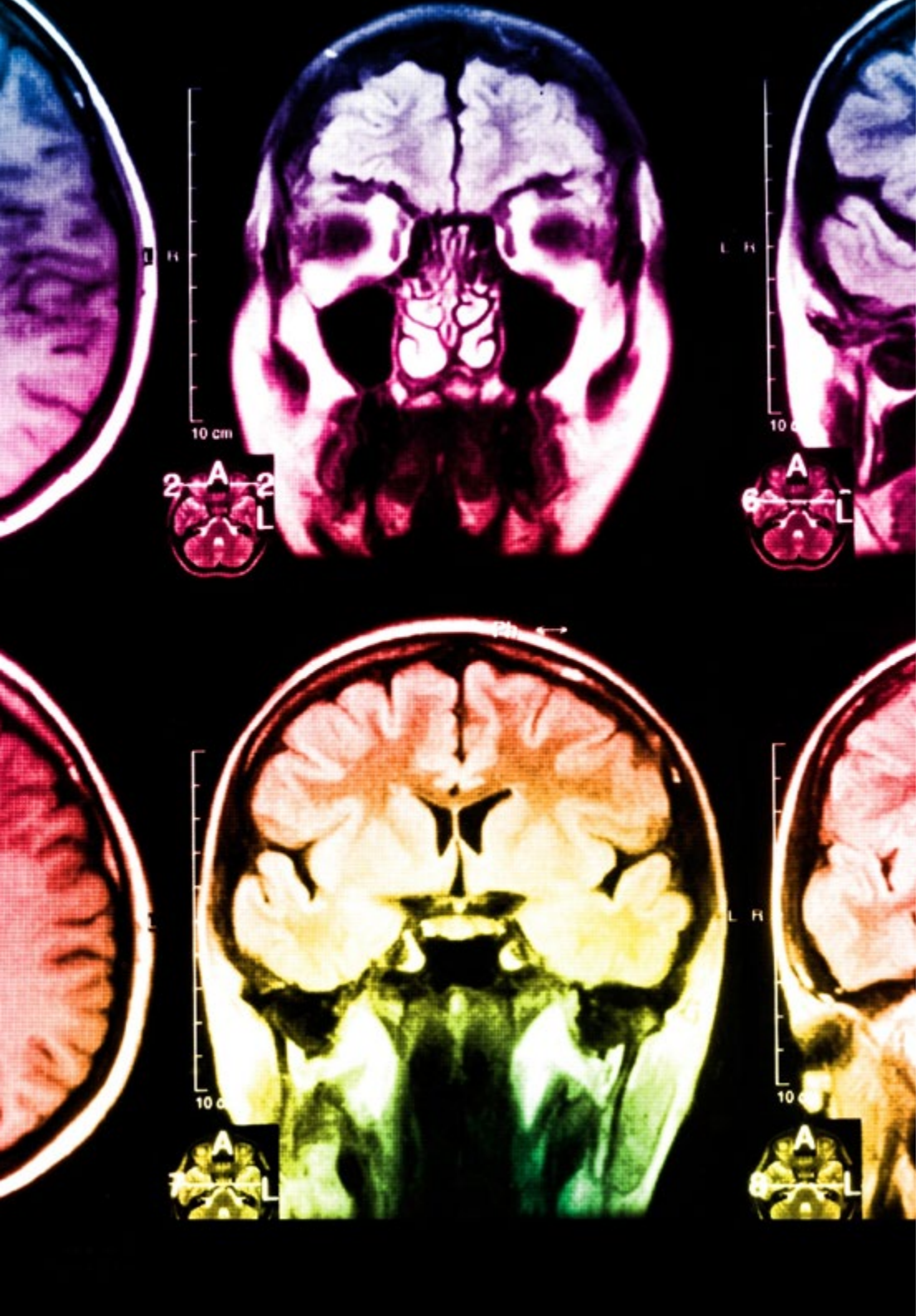
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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.

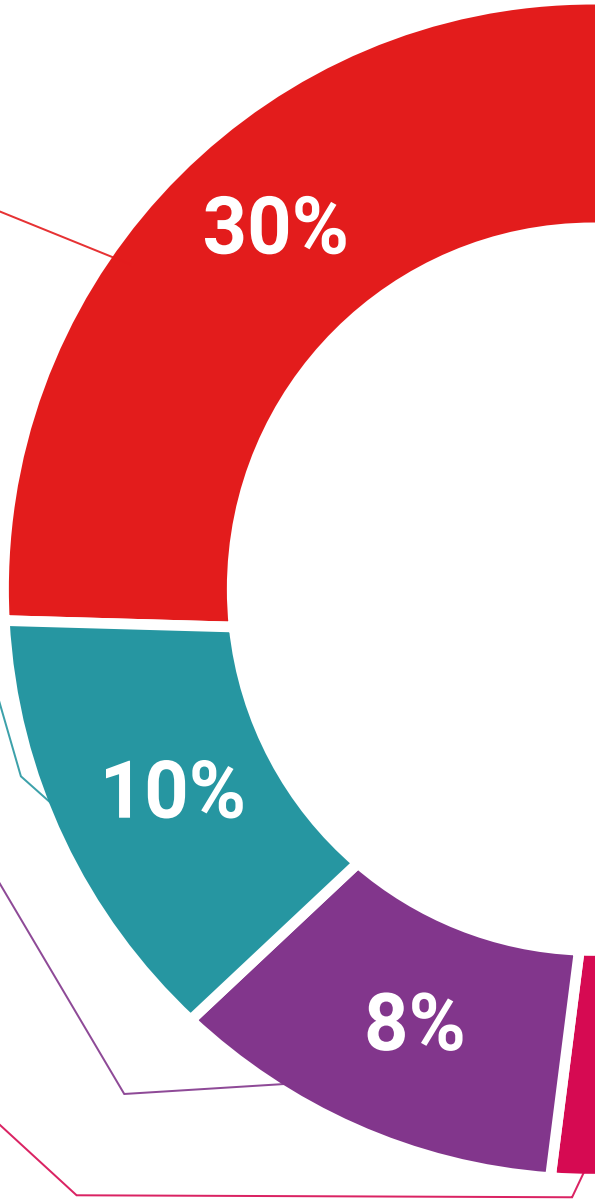
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

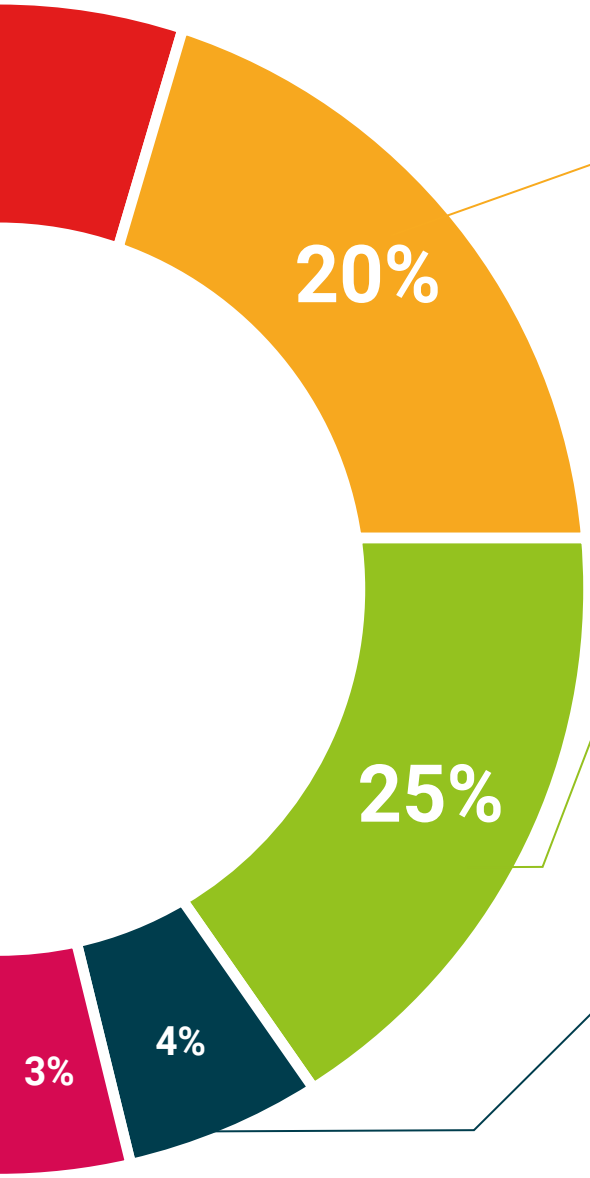
Practising Skills and Abilities

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 Rendering, Lighting and Posing of 3D Models guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

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

This **Postgraduate Certificate in Rendering, Lighting and Posing of 3D Models** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: **Postgraduate Certificate in Rendering, Lighting and Posing of 3D Models**

Official Nº of hours: **150 h.**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Awards the following

DIPLOMA

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Rendering, Lighting and Posing of 3D Models

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. 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 EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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