Postgraduate Diploma
Texture Creation
for Hard Surface

tech *technological university*

Postgraduate Diploma
Texture Creation
for Hard Surface

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

Website: **www.techtitute.com/pk/design/postgraduate-diploma/postgraduate-diploma-texture-creation-hard-surface**

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01
Introduction

The texturing of surfaces is essential to provide realism to any design. That is why it is necessary for the professional to have a solid knowledge of primordial figures, geometric bodies and the key aspects of technical drawing. All this will help the three-dimensional modeling process and its subsequent animation. In this program, the student will have this knowledge thanks to a 100% online syllabus, designed by the best teachers in the industry. In this way, they will be able to learn without abandoning their professional activities and position themselves at the top of the design world.

It's time to take your career to the top, thanks to the content of this program"

This Postgraduate Diploma has been designed to help the student to make realistic surfaces that adapt to the requested parameters. Therefore, it has the most up-to-date syllabus on the subject, developed with the help and guidance of an excellent teaching staff. Similarly, thanks to the methodology used by TECH, Relearning, the student will be able to learn at his own pace, in a natural way and using repetition to consolidate all the knowledge presented in the virtual classroom.

In this way, the students will begin with an in-depth review of the basics of the creation of shapes and primitive figures, which will allow them to develop their criteria for the realization of mechanical components. Then, they will analyze the different applicable modeling techniques and their principles. This will allow the students to develop as a reference. With all this, in the last module, the student will be able to perform 3D texture inking, understanding how mapping works in these cases.

It is worth mentioning that this Postgraduate Diploma has a direct diploma, so the students do not have to submit a final paper to obtain their university title. This, in the short term, represents a great advantage for those professionals who wish to immediately implement everything they have learned. In short, an ideal opportunity to get started in the world of hard texture modeling.

This **Postgraduate Diploma in Texture Creation for Hard Surface** 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 on Hard surface
- 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

This program has an innovative content, based on the Relearning methodology, which allows you to learn at your own pace and with the support of various teaching materials"

Enhance your knowledge in technical drawing and elaborate mechanical parts with great precision and realism.

" *Possessing the skills to perform hard surface texturing is essential today, allowing you to practice independently for various industries"*
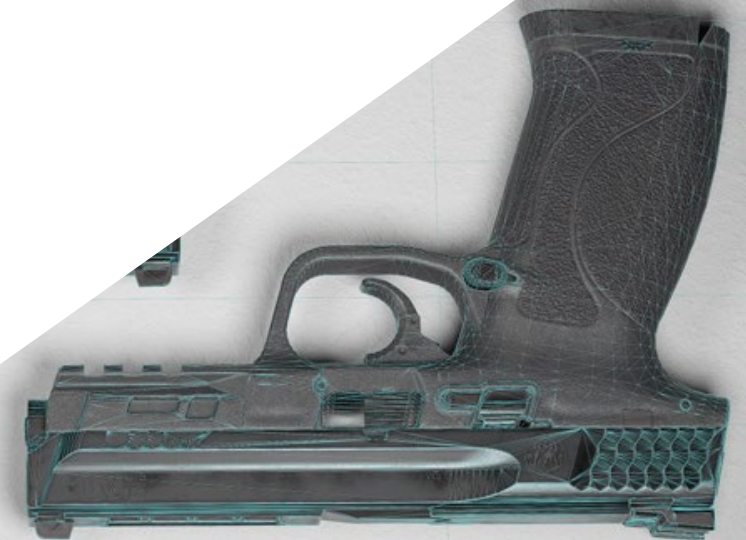
All this content will be available 24 hours a day. Enroll now to get started.

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.

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

The design of this program focuses on Problem-Based Learning, in which the professional will have to try to solve the different professional practice situations that will arise throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

02
Objectives

The main objective of this Postgraduate Diploma is to provide the student with the necessary knowledge to become a true specialist in hard texture modeling. In this way, they will be able to recreate different mechanical components and apply transformations using symmetries. You will also be able to apply different texturing techniques using the Substance Painter plugin.

*With this program you will be able to prepare yourself for any 3D modeling project"*

General Objectives

- Know in depth the different types of Hard surface modeling, the different concepts and characteristics to apply them in the 3D modeling industry
- Delve into the theory of shape creation to develop shape masters
- Learn in detail the basics of 3D modeling in its different 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 involved in the 3D modeling profession
- Acquire skills for the development of textures and FX of 3D models

Become familiar with the various plugins presented in this program to perform any type of Hard surface texturing"
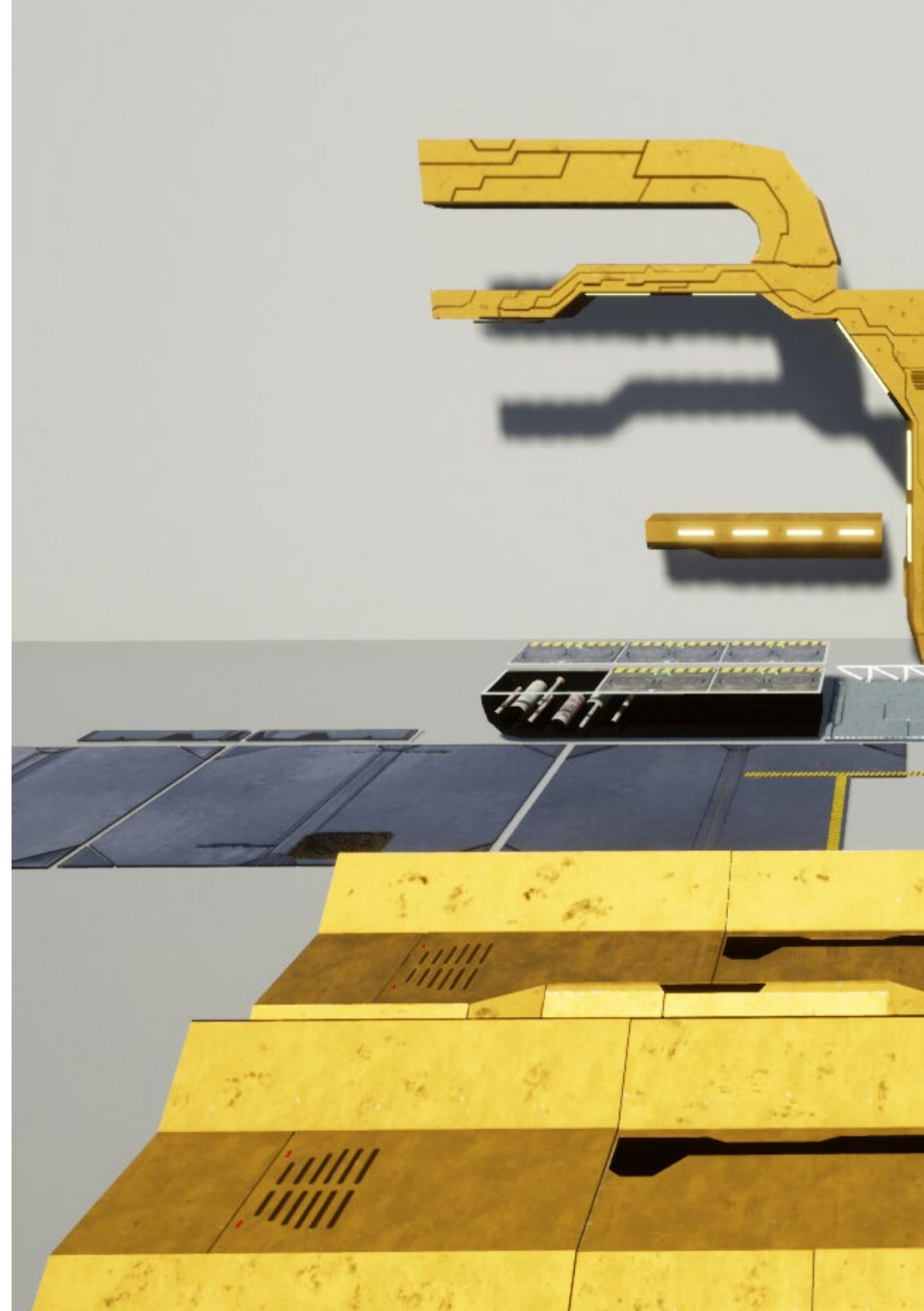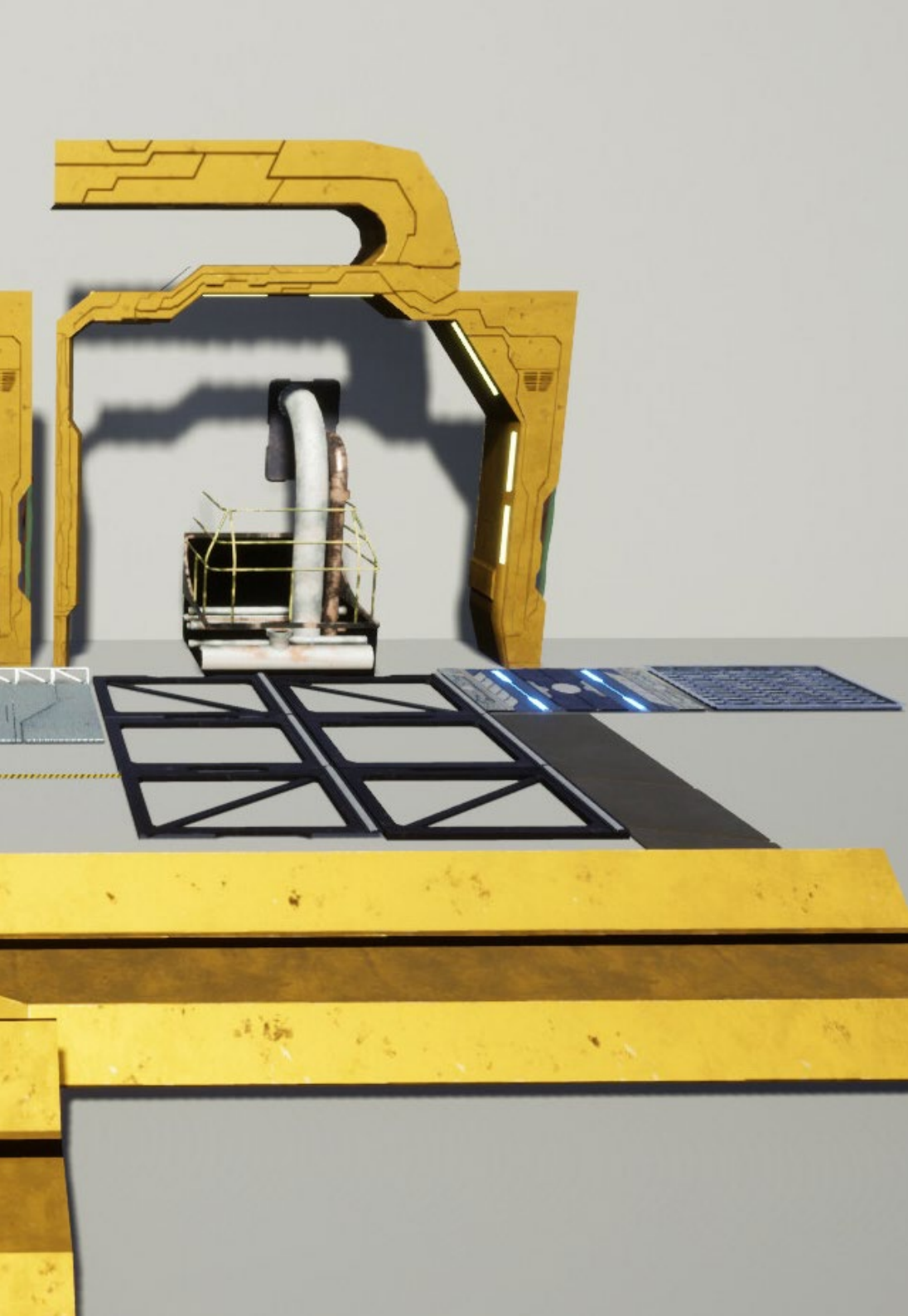
Specific Objectives

Module 1. Study of Figure and Shape

- ◆ Conceive and apply constructions of geometric figures
- ◆ Understand the basics of three-dimensional geometry
- ◆ Knowing in detail how it is represented in technical drawing
- ◆ Identify different mechanical components
- ◆ Apply transformations through symmetries
- ◆ Develop an understanding of how shapes are developed
- ◆ Work through shape analysis

Module 2. Hard Surface Modeling

- ◆ Understand in depth how to control the topology
- ◆ Develop function communication
- ◆ Have knowledge of the emergence of hard surface
- ◆ Have a detailed understanding of the different industries of its application
- ◆ Have a comprehensive understanding of the different types of modeling
- ◆ Possess valid information on the fields that make up modeling

**Module 3. Texture Creation for Hard surface**

- ◆ Apply all texturing techniques for Hard surface models
- ◆ Work on real cases in the application of textured details
- ◆ Identify variations in PBR materials
- ◆ Have extensive knowledge of the differences in metallic materials
- ◆ Resolve technical details using maps
- ◆ Learn how to export materials and maps for different platforms

03
Course Management

This Postgraduate Diploma has a team of specialists of the highest level within the sector. They will be in charge of teaching each class and providing all the educational material to reinforce the knowledge. Their extensive experience in the modeling world enables them to help the student to position himself as a first level designer in this highly competitive sector.

"
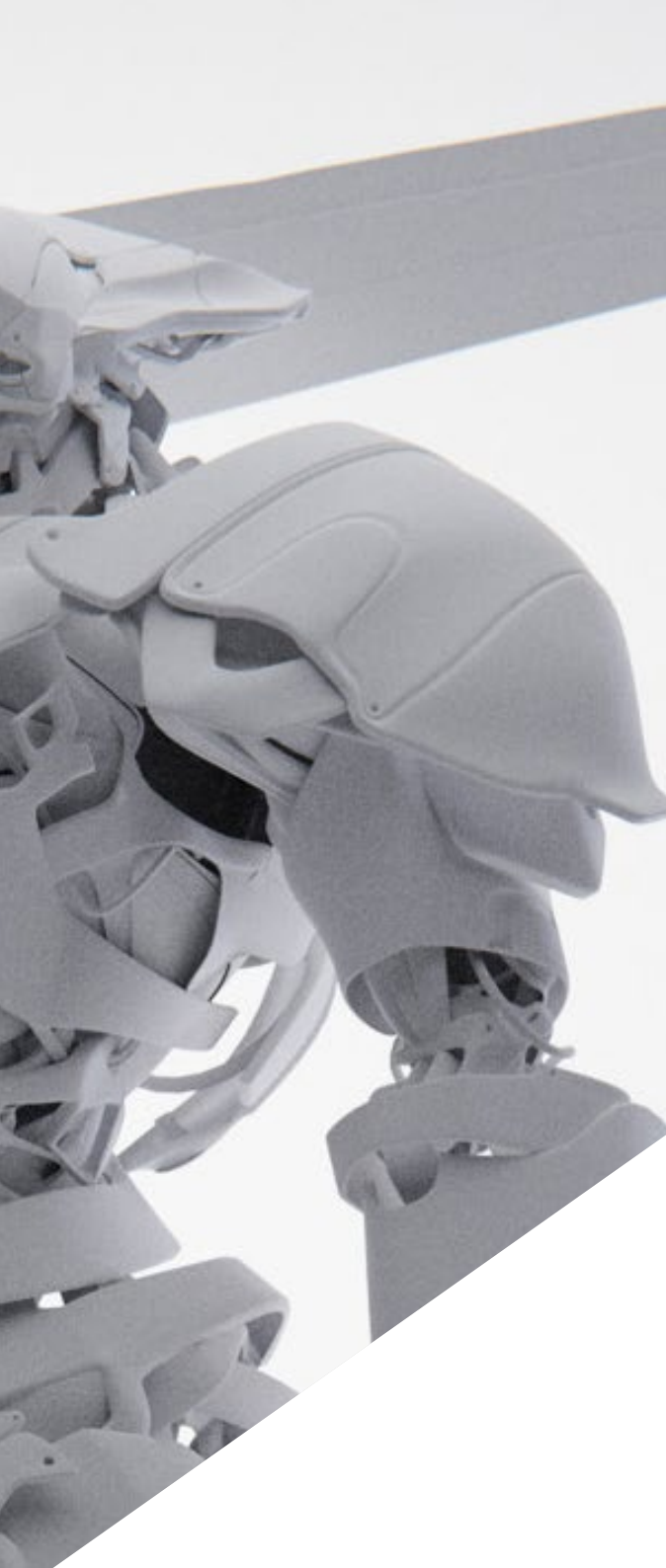
*You will have at your disposal the best teaching staff in the academic field.
A real opportunity to learn from the best"*

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 at Shay Bonder Multimedia TV Production Company
- Audiovisual Producer at Digital Film
- Product Designer for Escencia de los Artesanos by Eliana M
- Industrial Designer Specializing in Products. National University of Cuyo
- Honorable Mention in Mendoza Late Contest
- Exhibitor at the Regional Visual Arts Salon Vendimia
- Digital Composition Seminar. National University of Cuyo
- National Congress of design and production. C.P.R.O.D.I
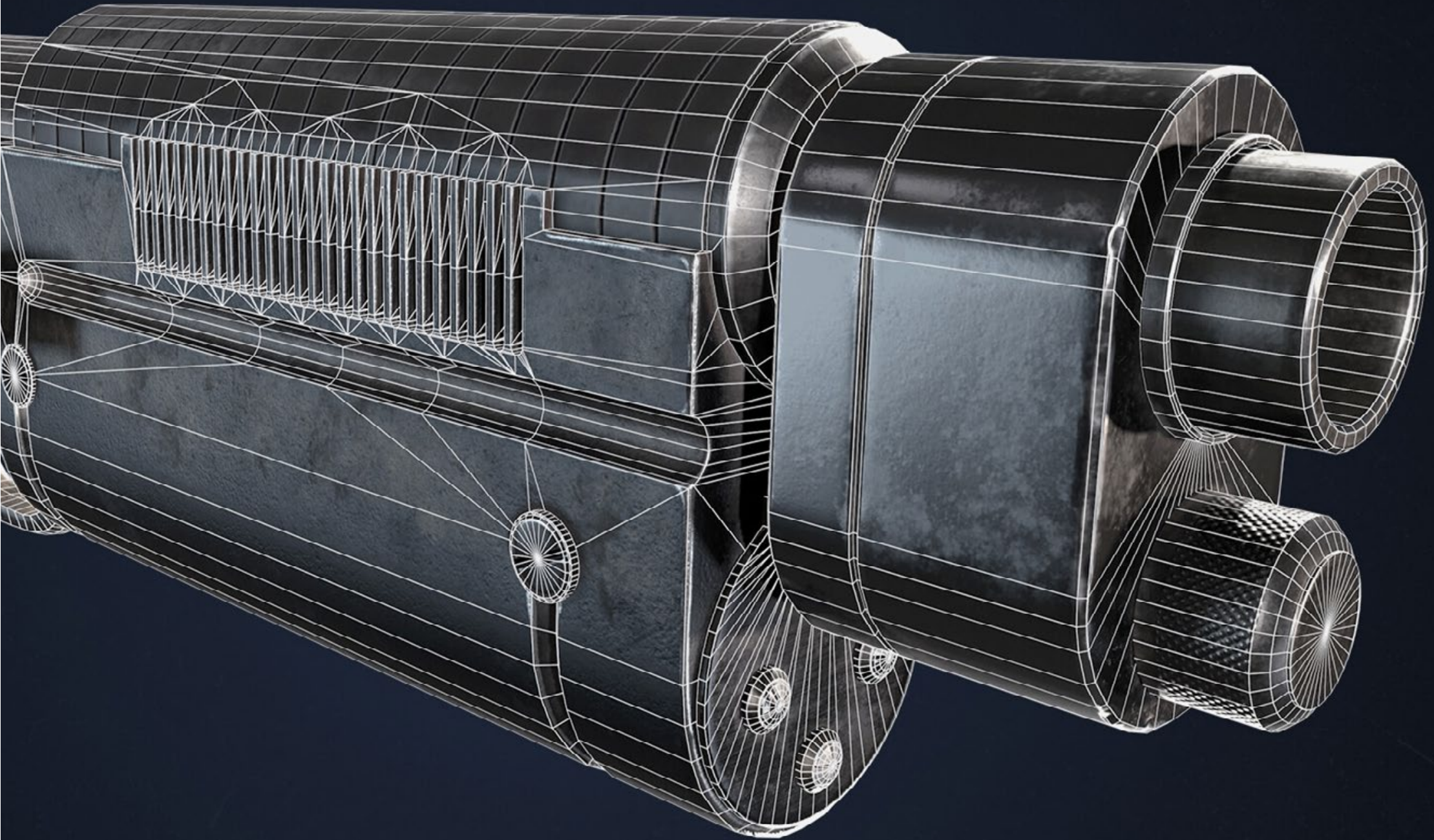
04
Structure and Content

The entire content of this program covers, in a structured way, all the areas of knowledge that the student requires to perform the texturing of any object from scratch. In this way, you will be able to compete with total solvency with those exponents of the sector, practicing independently and enjoying an extensive list of clients. This way, you will be positioned at the top, thanks to this course.
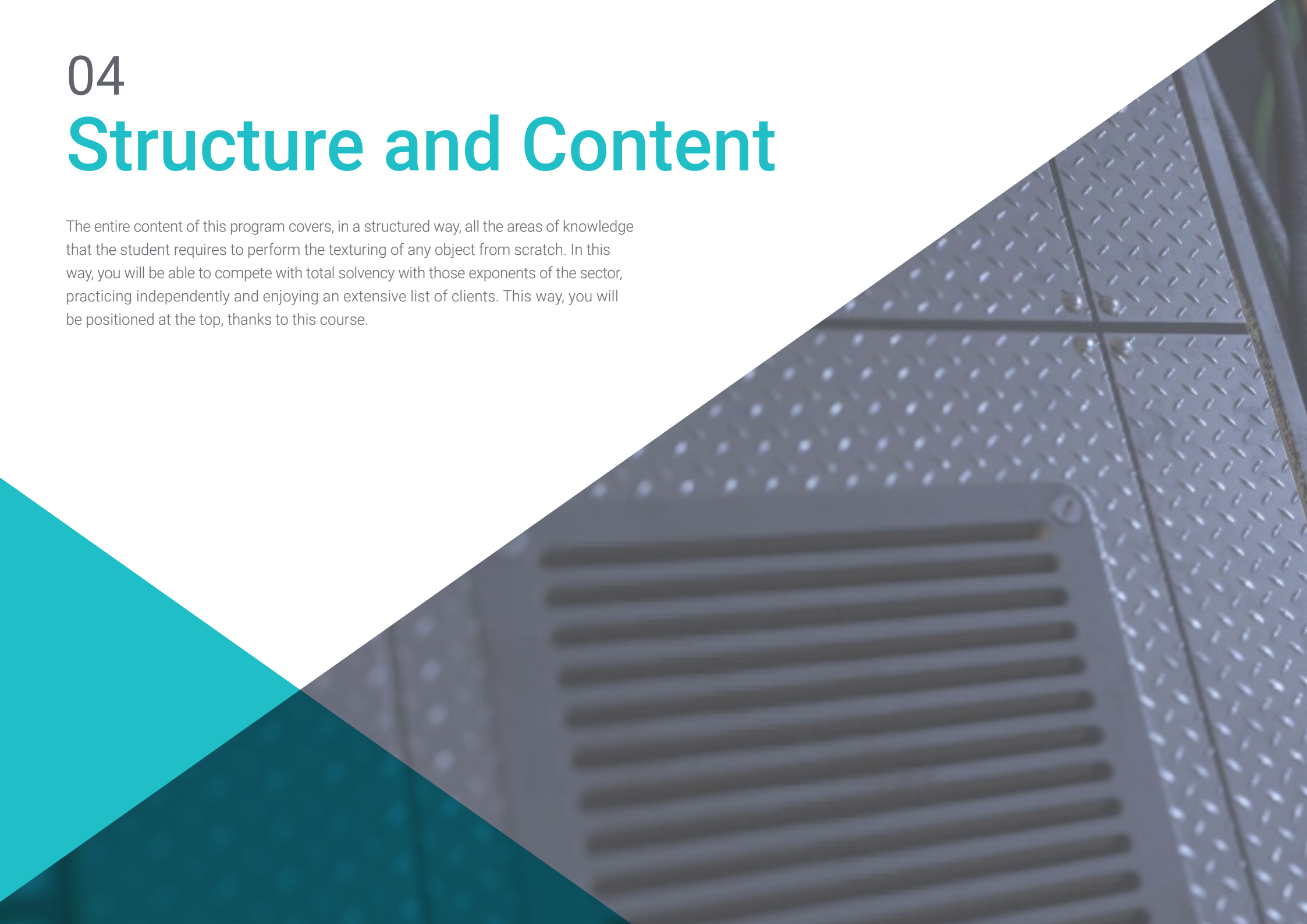
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"*TECH brings you the most innovative content in the 3D design and texturing industry. An excellent opportunity to reach the top of your career*"

Module 1. Study of Figure and Shape

1.1. Geometrical Figures
    1.1.1. Types of Geometrical Figures
    1.1.2. Basic Geometric Constructions
    1.1.3. Geometric Transformations on the Plane
1.2. Polygons
    1.2.1. Triangles
    1.2.2. Quadrilaterals
    1.2.3. Regular Polygons
1.3. Axonometric System
    1.3.1. System Fundamentals
    1.3.2. Types of Orthogonal Axonometry
    1.3.3. Sketches
1.4. Three-Dimensional Drawing
    1.4.1. Perspective and Third Dimension
    1.4.2. Essential Elements of Drawing
    1.4.3. Perspectives
1.5. Technical Drawing
    1.5.1. Basic Notions
    1.5.2. Disposition of Views
    1.5.3. Cuts
1.6. Fundamentals of Mechanical Elements I
    1.6.1. Axis
    1.6.2. Joints and Bolts
    1.6.3. Springs
1.7. Fundamentals of Mechanical Elements II
    1.7.1. Bearings
    1.7.2. Gears
    1.7.3. Flexible Mechanical Elements

1.8. Laws of Symmetry
    1.8.1. Translation, Rotation, Reflection, Extension
    1.8.2. Touch, Overlay, Subtract, Intersect, Join
    1.8.3. Combined Laws
1.9. Form Analysis
    1.9.1. Form and Function
    1.9.2. Mechanical Form
    1.9.3. Types of Shapes
1.10. Topological Analysis
    1.10.1. Morphogenesis
    1.10.2. Composition
    1.10.3. Morphology and Topology

Module 2. Hard Surface Modeling

2.1. Hard Surface Modeling
    2.1.1. Topology Control
    2.1.2. Function Communication
    2.1.3. Speed and Efficiency
2.2. Hard Surface I
    2.2.1. Hard Surface
    2.2.2. Development
    2.2.3. Structure
2.3. Hard Surface II
    2.3.1. Applications
    2.3.2. Physical Industry
    2.3.3. Virtual Industry
2.4. Types of Modeling
    2.4.1. Technical Modeling / NURBS
    2.4.2. Polygonal Modeling
    2.4.3. *Sculpt* Modeling

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 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.

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

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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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:
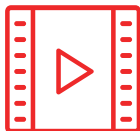
Study Material

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.

30%

10%

8%

20%

25%

4%

3%
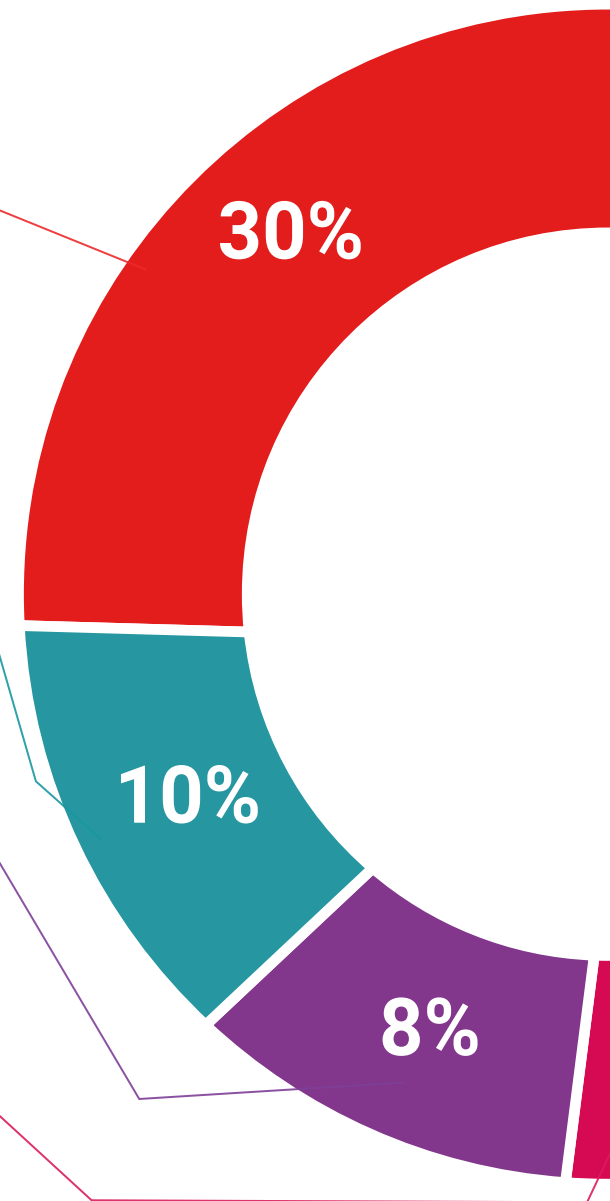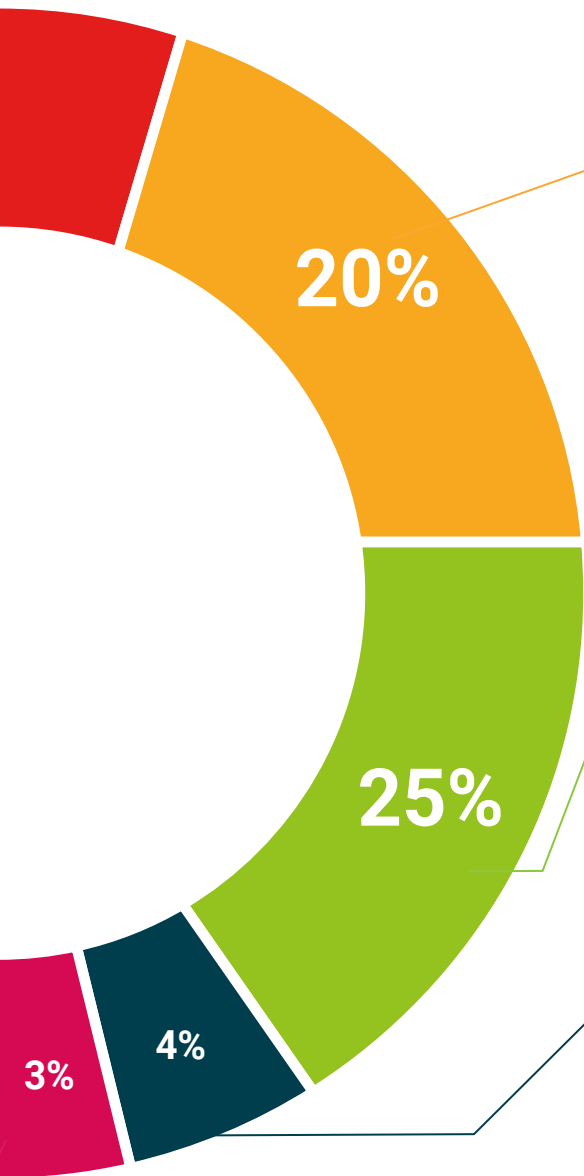
Case Studies

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.

Certificate

The Postgraduate Postgraduate Diploma in Texture Creation for Hard Surface guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Postgraduate Diploma 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 Diploma in Texture Creation for Hard Surface** 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 Diploma** issued by **TECH Technological University** via tracked delivery*.

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

Title: **Postgraduate Diploma in Texture Creation for Hard Surface**

Official Nº of Hours: **450 h.**

tech technological university

Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.
For having passed and accredited the following program

POSTGRADUATE DIPLOMA

in

Texture Creation for Hard Surface

This is a qualification awarded by this University, equivalent to 450 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

Unique TECH Code: AFWORD23S   techtitute.com/certificates

*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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