



# Minimally Invasive Therapies

in Anti-Aging Medicine

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-minimally-invasive-therapies-anti-aging-medicine

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# tech 06 | Introduction

The technological revolution in recent decades has favored an increase in the technical resources available in virtually any field, which also includes anti-aging medicine, providing the medical community with yet another resource to address the problems of our patients. Consequently, this course presents the main equipment-based techniques and lasers as tools used to prevent and combat the signs of aging in the skin and other tissues.

Likewise, other available therapies involving minimally invasive intervention are also discussed. In general, these techniques require advanced technological support, but can nevertheless be carried out in the doctor's office without the need for hospitalization for the benefit of the patient. These treatments are generally not well known by the medical community, as such procedures are not included in traditional practice. It is precisely this absence that sometimes leads to a rejection of the anti-aging therapies included in this course. Accordingly, we aim to offer yet another alternative for health professionals, always based on the necessary scientific support that can affirm the legitimacy of these therapies.

To increase knowledge in this field, at TECH we have designed this Postgraduate Diploma, which specializes the professional to carry out a comprehensive approach to their patients from a multidisciplinary point of view. This way, we understand that only from a source of knowledge in disciplines that at first may seem independent, but which are closely interrelated, can a process as complex and multifactorial as aging be approached with guarantees.

This **Postgraduate Diploma in Minimally Invasive Therapies in Anti-Aging Medicine** contains the most complete and up-to-date education program on the market. The most important features of the program include:

- Developing practical cases presented by experts in anti-aging Medicine
- The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice
- News on minimally invasive therapies in anti-aging medicine
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in Minimally Invasive Therapies in Anti-Aging Medicine
- 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



### Introduction | 07 tech



This Postgraduate Diploma is the best investment you can make in selecting a refresher program for two reasons: in addition to updating your knowledge of Minimally Invasive Therapies in Anti-Aging Medicine, you will obtain a degree from TECH Technological University"

The teaching staff includes professionals from the field of Esthetics Medicine, who bring their 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 physician must try to solve the different professional practice situations that arise during the academic year. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and extensively experienced experts in minimally invasive therapies.

Do not hesitate to take this training with us. You will find the best teaching material with virtual lessons.

This 100% online Postgraduate Diploma will allow you to combine your studies with your professional work while increasing your knowledge in this field.







# tech 10 | Objectives



### **General Objectives**

- Determine the need for the use of equipment as part of an anti-aging protocol
- Generate specialized knowledge on the main types of lasers with applications in anti-aging medicine
- Present technologies other than lasers with beneficial effects on aging
- Examine the main minimally invasive therapies available in anti-aging medicine
- Analyze how minimally invasive therapies act and slow down the aging process
- Establish a connection between the patient's needs and the treatment to be followed
- Analyze facial anatomy and common aging patterns
- Know the most common therapies applied in esthetic medicine practices with antiaging treatments
- Define home care strategies in dermo-cosmetics





### **Specific Objectives**

#### Module 1. Appliances and Lasers Applied to Anti-Aging Medicine

- Address the physical principles of light sources
- Differentiate between the main types of lasers and the technologies that make them unique
- Develop applications in the prevention and treatment of skin aging and other tissues
- Analyze the mechanisms of action of other complementary technologies such as cryolipolysis, plasmalasers and radiofrequency
- Apply available knowledge to the development of treatment protocols
- Combine the different types of apparatus
- Identify the side effects that can occur with each piece of equipment

#### Module 2. Minimally Invasive Therapies

- · Understand the fundamentals and applications of regenerative medicine
- Compile the therapeutic alternatives available in anti-aging medicine consultations
- Examine the mechanisms of action of the different therapies presented in the block
- Analyze the advantages and disadvantages of the therapies presented
- Learn about the indications and contraindications of the proposed treatments
- Establish a therapeutic plan consistent with the patient's needs at all times
- Eliminate taboos regarding therapies related to hematic derivatives

#### Module 3. Alliances Between Esthetic Medicine and Antiaging

- Analyze and learn about facial structures and their temporal evolution
- Diagnose facial aging in relation to the subunits that compose its structure
- Plan strategies for preventive action against facial aging
- Propose treatment plans for signs of aging established on the face and other photoexposed body structures
- Evaluate the degree of skin aging and be able to develop a cosmetic treatment plan accordingly in consultation
- Identify cosmetic home treatment needs based on diagnosis



With this program we want to meet your objective of acquiring superior training in this highly demanded field"





# tech 14 | Course Management

### Management



### Dr. Morante Tolbaños, Cristina

- Hair Surgeon at the Medical Laser Institute
- Professor of the Master in Hair Transplant at the Catholic University of Murcia since 2020
- Professor of the Master in Hair Medicine and Transplant at the Alcalá University of Henares since 2016
- Medical hair treatments and hair surgery Medical Management Hair Transplant 360° Hair Transplant. 2020-2021
- Medical Director Hair Surgery Unit MAN Clinic Madrid. 2019-2020
- Doctorate in Legal and Forensic Medicine from the Complutense University of Madrid
- Master's Degree in Hair Medicine and Transplant at Alcalá de Henares University
- Master' in Esthetics and Anti-Aging Medicine at Complutense University of Madrid
- Master in Accident and Emergency Medicine at the Complutense University of Madrid
- Master's Degree in Health and Social Action Center Management at Universidad Complutense de Madrid.

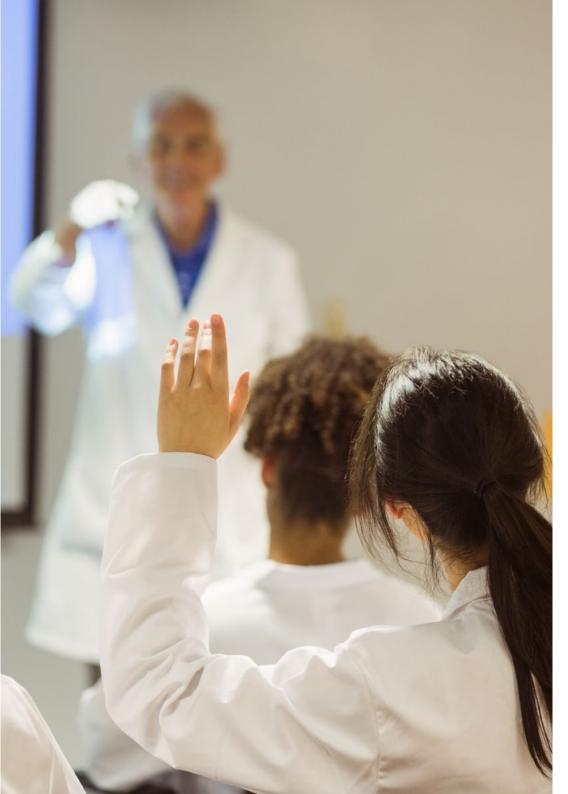
#### **Professors**

#### Dr. Soriano Micó, María

- Assistant physician and head of the Brain Injury Unit of the Military Hospital of Mislata (Valencia).
- Assistant Physician at the Rehabilitation Service at De Manises Hospital Musculoskeletal Rehabilitation and Brain Injury Outpatient Clinic.
- Assistant physician and head of the Brain Injury Unit of the Military Hospital of Mislata (Valencia).

#### Dr. Blanco Ramos, Indira

- Collaborating associate physician in the ALLERCEN drug allergy unit. Barcelona
- Collaborating associate physician at the Dermatological Institute "Dr. Pablo Umbert". Barcelona
- Medical Director at "Institut de Salut PB Clinical SLP". Barcelona



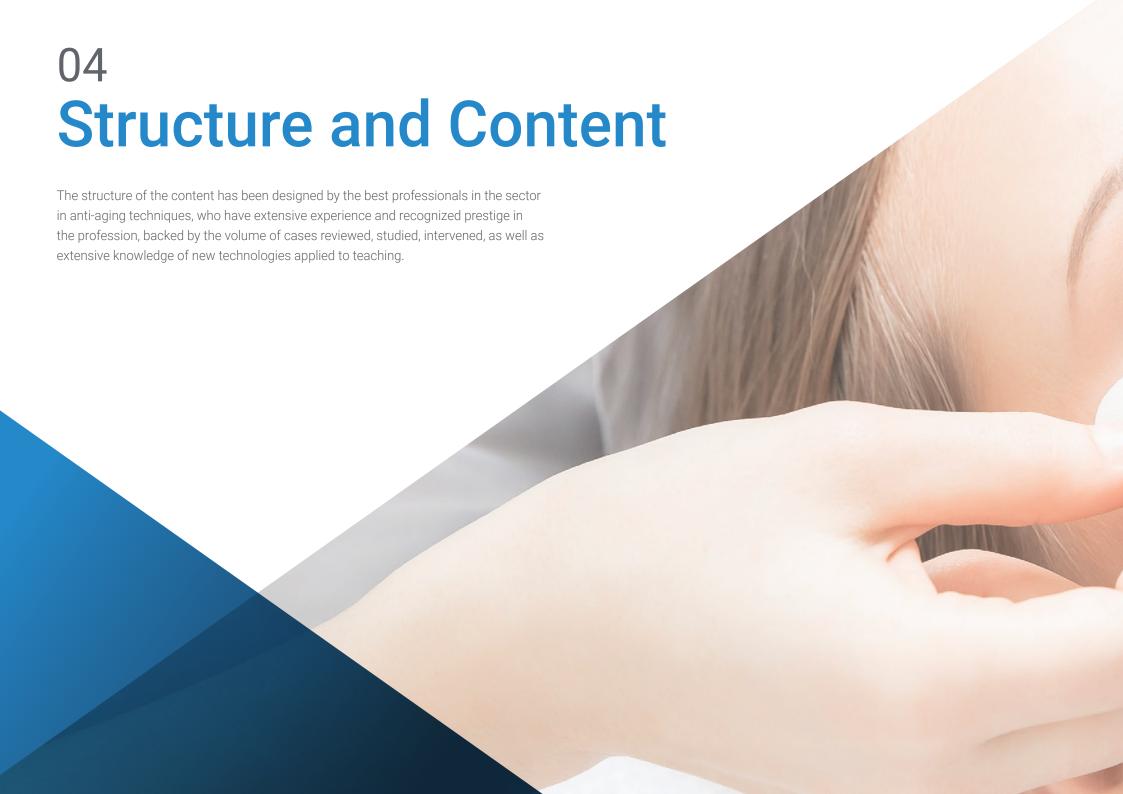
## Course Management | 15 tech

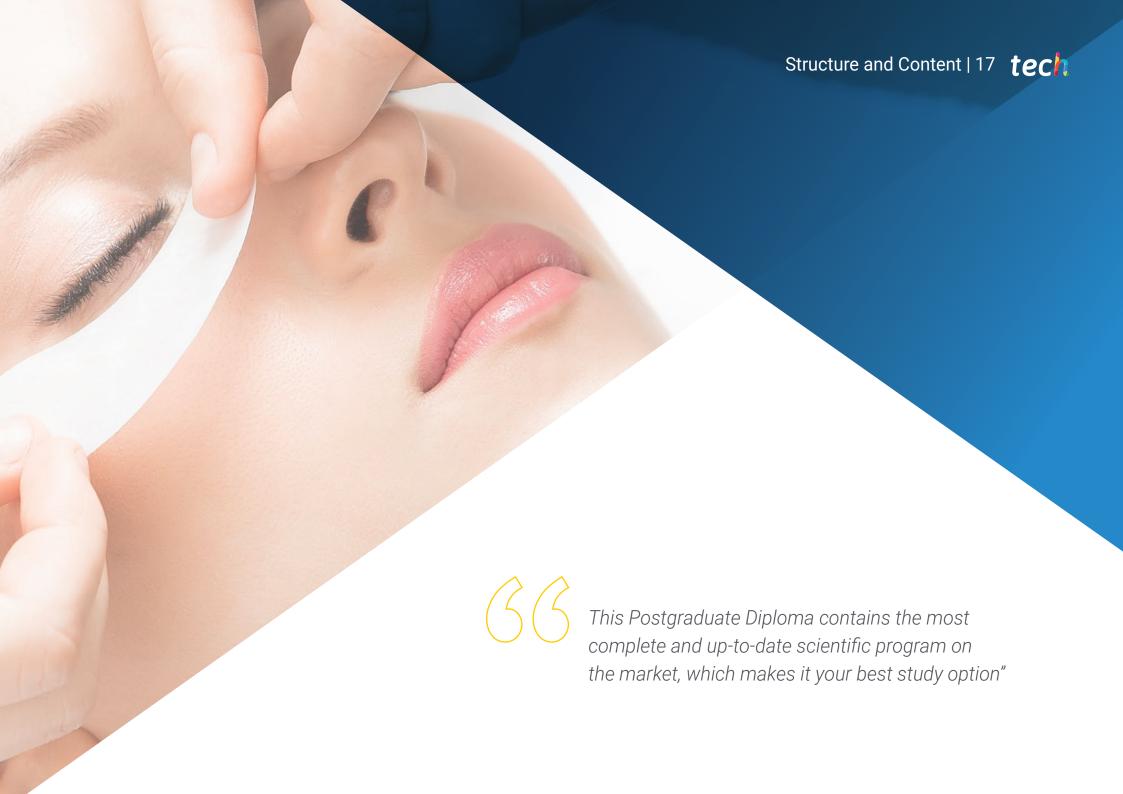
#### Dr. Valle, María Mercedes

- Aesthetic Physician in clinics in Valladolid, Cuenca and Madrid
- Degree in Medical Sciences from the Universidad Francisco Marroquín, Guatemala City
- Master's Degree in Clinical Nutrition from the CEU Cardenal Herrera University
- Master in Aesthetic and Anti-Aging Medicine, Complutense University of Madrid
- Collaboration with internships for students of Master's Degrees in Aesthetic Medicine from several Universities in clinics in Madrid



The best professionals are at the best university. Don't miss the opportunity to learn with them"





# tech 18 | Structure and Content

### Module 1. Appliances and Lasers Applied to Anti-Aging Medicine

- 1.1. Physical Principles of Light Sources
  - 1.1.1. Laser Definition
  - 1.1.2. Properties
  - 1.1.3. Laser Types
- 1.2. Intense Pulsed Light (IPL)
  - 1.2.1. Mechanism of Action
  - 1.2.2. Indications
  - 1.2.3. Protocol
  - 1.2.4. Side Effects and Contraindications
- 1.3. Q Switched Laser
  - 1.3.1. Mechanism of Action
  - 1.3.2. Indications
  - 1.3.3. Protocol
  - 1.3.4. Side Effects and Contraindications
- 1.4. Erbium Laser
  - 1.4.1. Mechanism of Action
  - 1.4.2. Indications
  - 1.4.3. Protocol
  - 1.4.4. Side Effects and Contraindications
- 1.5. NEODIMIO-yAG Laser
  - 1.5.1. Mechanism of Action
  - 1.5.2. Indications
  - 1.5.3. Protocol
  - 1.5.4. Side Effects and Contraindications
- 1.6. Fractional CO2 Laser
  - 1.6.1. Mechanism of Action
  - 1.6.2. Indications
  - 1.6.3. Protocol
  - 1.6.4. Side Effects and Contraindications





### Structure and Content | 19 tech

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- 1.7.1. Mechanism of Action
- 1.7.2. Indications
- 1.7.3. Protocol
- 1.7.4. Side Effects and Contraindications

#### 1.8. Radiofrequency 1

- 1.8.1. Mechanism of Action
- 1.8.2. Indications
- 1.8.3. Protocol
- 1.8.4. Side Effects and Contraindications

#### 1.9. Radiofrequency 2

- 1.9.1. Mechanism of Action
- 1.9.2. Indications
- 1.9.3. Protocol
- 1.9.4. Side Effects and Contraindications

#### 1.10. Cryolipolysis

- 1.10.1. Mechanism of Action
- 1.10.2. Indications
- 1.10.3. Protocol
- 1.10.4. Side Effects and Contraindications

### Module 2. Minimally Invasive Therapies

#### 2.1. Regenerative Medicine 1

- 2.1.1. General Introduction
- 2.1.2. Concept
- 2.1.3. Types of Fabrics 2.1.3.1. Cell Types
- 2.1.4. Advantages and Disadvantages
- 2.1.5. Medical Application

#### 2.2. Regenerative Medicine 2

- 2.2.1. Types of Treatment
- 2.2.2. The Choice of Treatment
- 2.2.3. Results

# tech 20 | Structure and Content

2.3.	Ozone Therapy			
	2.3.1.	Theoretical Basis		
	2.3.2.	Indications and Contraindications in Medicine		
	2.3.3.	Applicability and Treatment		
2.4.	Hyperbaric Medicine			
	2.4.1.	Theoretical Basis		
	2.4.2.	Indications and Contraindications in Medicine		
	2.4.3.	Applicability and Treatment		
2.5.	Carboxytherapy			
	2.5.1.	Theoretical Basis		
	2.5.2.	Indications and Contraindications in Medicine		
	2.5.3.	Applicability and Treatment		
2.6.	Oxidermotherapy			
	2.6.1.	Theoretical Basis		
	2.6.2.	Indications and Contraindications in Medicine		
	2.6.3.	Applicability and Treatment		
2.7.	Stem Cell Therapy			
	2.7.1.	Fundamentals and Theoretical Foundations		
	2.7.2.	Stem Cell Therapy in the Aging Process		
	2.7.3.	Stem Cell Research and Other Applications		
2.8.	Autohemotherapy			
	2.8.1.	Fundamentals and Theoretical Foundations		
	2.8.2.	Autohemotherapy Applicable to Regenerative Medicine		
	2.8.3.	Applications in Classical Medicine		
2.9.	Plasma Which Is Rich in Growth Factors			
	2.9.1.	Theoretical Background, Biochemical Basis and History		
	2.9.2.	Applications in Regenerative Medicine		
		2.9.2.1. Other Applications		
	2.9.3.	Procedure and Tissue Effects		
2.10.	Intraparenteral Supplementation			
	2.10.1.	Theoretical Foundations of Parenteral Nutrition and Supplementation		
	2.10.2.	Types of Nutrients		

2.10.3. Applications in Regenerative Medicine and Complications

### Module 3. Alliances Between Esthetic Medicine and Antiaging

- 3.1. Facial Anatomy
  - 3.1.1. Skeletal Structure
  - 3.1.2. Fat Structure
  - 3.1.3. SMAS
  - 3.1.4. Skin and Skin Appendages
- 3.2. Botulinum Toxin Facial Upper Third
  - 3.2.1. Mechanism of Action
  - 3.2.2. Most Common Muscle Patterns
  - 3.2.3. Application Techniques
  - 3.2.4. Adverse Effects.
- 3.3. Volumetrics Facial Upper Third
  - 3.3.1. Orbit
  - 3.3.2. Temporal Fossa
  - 3.3.3. Fillers and Other Techniques Used
- 3.4. Volumetrics Midface
  - 3.4.1. Cheekbone
  - 3.4.2. Eye
  - 3.4.3. Nose
- 3.5. Volumetrics Lower Third of the Face
  - 3.5.1. Lips and Perioral Region
  - 3.5.2. Chin
  - 3.5.3. Jaw
- 3.6. Biostimulation
  - 3.6.1. Sutures
  - 3.6.2. Liquid Biostimulation
- 3.7. Neck, Neckline, Hands
  - 3.7.1. Common Features
  - 3.7.2. Neck
  - 3.7.3. Neckline
  - 3.7.4. Hands



### Structure and Content | 21 tech

- 3.8. Skin. Infiltrative Treatments
  - 3.8.1. The Mesotherapeutic Technique
  - 3.8.2. Homeopathic Mesotherapy
  - 3.8.3. Allopathic Mesotherapy
  - 3.8.4. Hydrobalance Mesotherapy
- 3.9. Skin. Dermocosmetics 1
  - 3.9.1. Classification of Skin Aging
  - 3.9.2. Superficial Medical Peels
  - 3.9.3. Medium Medical Peels
- 3.10. Skin Dermocosmetics 2 Home Anti-Aging Protocols
  - 3.10.1. Mild Skin Aging
  - 3.10.2. Moderate Skin Aging
  - 3.10.3. Advanced Skin Aging
  - 3.10.4. Severe Skin Aging







# tech 24 | Methodology

#### At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.



Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

#### The effectiveness of the method is justified by four fundamental achievements:

- Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
- 2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
- 3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
- 4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.





### Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



### Methodology | 27 tech

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

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

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.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.

# tech 28 | Methodology

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.



#### **Surgical Techniques and Procedures on Video**

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### **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".





#### **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.

### **Expert-Led Case Studies and Case Analysis**

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



### **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.



#### Classes

There is scientific evidence on the usefulness of learning by observing experts.

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



#### **Quick Action Guides**

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.









# tech 32 | Certificate

This **Postgraduate Diploma in Minimally Invasive Therapies in Anti-Aging Medicine** contains the most complete and updated scientific program on the market.

After the student has passed the evaluations, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** by tracked delivery\*.

The diploma 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 Minimally Invasive Therapies in Anti-Aging Medicine

Official N° of Hours: 450 h.



<sup>\*</sup>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.

health information information guarantee as a second geometric technological university

# Postgraduate Diploma

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