Postgraduate Diploma

Anti-Aging Medicine

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Postgraduate Diploma

Anti-Aging Medicine

Course Modality: **Online**
Duration: **6 months**
Certificate: **TECH Technological University**
Official N° of hours: **450 h.**
Website: **www.techtitute.com/medicine/postgraduate-diploma/postgraduate-diploma-anti-aging-medicine**

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01

Introduction

Anti-aging medicine has advanced significantly in such a way that it is now possible to address specific pathologies already present in patients. However, it seems more interesting to address the prevention of such problems before they appear and cause a real decline in the patient's health and quality of life. That is why prevention should be the way forward with these treatments. In order to specialize physicians in the main anti-aging techniques, we have designed this comprehensive academic program developed by a team of professionals with extensive experience in the field.

Anti-aging medicine has spread remarkably nowadays, thanks to the use of new tools and the high demand from patients who wish to improve their physical appearance"

The purpose of Anti-Aging Medicine is to study therapeutic exercises and beneficial medical treatments to slow down the aging process of our organism and to be able to improve body functions for the purpose of renewing future prospects in people's quality of life.

Aging also has effects on the endocrine glands, which are responsible for hormone secretion, altering the normal development of their functions and, therefore, reducing the body's capabilities. In the specific case of women, menopause is one of the greatest exponents of aging at the hormonal level, especially due to the rapidity of the onset of the process in comparison with others who are also subject to aging, but that nevertheless present a much more gradual evolution.

An essential part of anti-aging medicine is to take an adequate approach to a person's aging process. This approach requires comprehensive care from different professionals to offer a series of diagnostic techniques and specific and individual programs that will help the patient to avoid a wide range of instabilities that cause the onset of diseases and the acceleration of aging in each person, not only with respect to the physical state of the body, but also to the affective and emotional state of people, their specific activity and rest routines, and their diet routine.

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 consists of an intense program designed to learn about the technologies, materials and treatments in this discipline and to include a complete perspective of anti-aging techniques that will allow you to specialize in an ethical and responsible way. In this way, this Postgraduate Diploma provides high level training that seeks excellence. In addition, its 100% online format will allow you to continue your studies from the place of your choice, without the need to travel or schedule obligations.

This **Postgraduate Diploma 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
- Latest developments in anti-aging medicine
- Practical exercises where the self-assessment process can be carried out to improve learning
- Special emphasis on innovative methodologies in anti-aging techniques
- 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

Expand your knowledge through this Postgraduate Diploma until you achieve excellence in this field”

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

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.

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 Surgeon 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 experienced experts in hyperbaric medicine with extensive experience.

02

Objectives

The Postgraduate Diploma in Anti-Aging Medicine is oriented towards facilitating the professional's performance by using the latest advances and most innovative treatments in the sector, achieving a superior training that allows them to act with total confidence in the cases that arise in their practice.

At TECH, our goal is to offer you the most comprehensive anti-aging training on the market so that you can acquire a superior level of training that will elevate you to the professional elite"

General Objectives

- Examine the major developments in anti-aging medicine
- Assimilate the terminology and basic concepts in anti-aging medicine
- Understand the main theories of aging, both at the intracellular, extracellular and environmental levels; and their interrelationship and progression
- Establish the critical relationship between endocrinology and aging
- Analyze the integrated effect of senescence at the hormonal level
- Propose hormonal therapeutic alternatives in relation to hormonal failure
- Analyze the psychological and neurological aspects of aging
- Knowledge of neurovegetative and neuroadaptive therapies
- Identify the management of practices to improve people's quality of life
- Determine the psychological aspects that influence the aging process

Specific Objectives

Module 1. Anti-Aging Medicine

- Present the historical background on which anti-aging medicine is based
- Define and become familiar with the most frequently used concepts in anti-aging medicine
- Examine the most accepted theories of aging and interrelate them with each other
- Understand the aging mechanisms associated with mitochondria
- Define telomere-related aging processes
- Establish the relationship between immunosenescence, aging and disease onset
- Analyze the importance of circadian rhythms in aging and acquire the skills to treat their alterations in an appropriate manner
- Evaluate the importance of the exposome in aging and generate channels to adapt it to the needs and expectations of the individual

Module 2. Hormones and Their Relationship to Aging. Hormone Therapy

- Addressing the complex endocrinological system of human beings
- Describe the role of stress and related hormones as they pertain to aging
- Develop the close interrelationship between neurodegeneration and melatonin deficiency
- Determine the important role played by GH in the different stages of human life
- Analyze the hormonal aspects involved in menopause as an accelerated example of aging in women
- Determine the difference between synthetic and bioidentical hormones and understand their usefulness in anti-aging medicine
- Achieve the capabilities to initiate hormone therapy prescribing

Module 3. Neurological and Psychological Aspects of Anti-Aging Medicine

- Examine the psychological and neurological aspects of aging
- Address both stress and ways to manage, control and combat it
- Complement, from a psychological point of view, the aspects related to chronobiology
- Analyze the applications of mindfulness to anti-aging therapy
- Study the main aspects of Scener therapies
- Develop neural therapy and its applications
- Analyze the relationship between the perception of self and the aging process

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

03

Course Management

The program's teaching staff includes leading experts in anti-aging techniques, who bring the experience of their work to this training Additionally, other recognized experts participate in its design and preparation, completing the program in an interdisciplinary manner.

The leading experts in Esthetic Medicine have joined forces to share with you all their knowledge in this field"

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. García Medina, Noemí

- Medical Esthetic Director at DORSIA CASTELLÓN clinic
- Teaching collaborator in the training program of the Family and Community Medicine specialty in Castellón.
- Master's Degree in Esthetic Medicine from the University of Valencia
- Diploma Toxin Botulinum Type A and Its Use in Esthetic Medicine SEME
- Diploma of Dermal Filler Implants in Esthetic Medicine SEME
- Trichology: Emerging treatments in Alopecia SEME
- Degree in Medicine and General Surgery at the Complutense University of Madrid Spain

Dr. Rodrigo Aldaba, Verónica

- Clinical Psychotherapist of the Central Nervous System - Valencia
- Psychologist/counselor at "Plena Inclusión" - Madrid
- Psychologist Casta Salud - Guadarrama, Madrid
- Educational psychologist Torrent City Council - Torrent, Valencia
- Therapist at "Fundación A. Miguel Roca! -Proyecto Hombre - Valencia

Dr. Burgos Ferrer, María del Mar

- Esthetic Doctor. Medical Center KER
- Esthetic Doctor. Dorsia Clinics
- Degree in Medicine. Cádiz University
- Master's Degree in Esthetic Medicine. UDIMA
- Esthetic Doctor. Noval Clinic
- Esthetic Doctor. Hedonai Medical Centers
- Esthetic Doctor. Vivanta Clinics
- Esthetic Doctor. Unique Centers
- 35th Congress of the Spanish Society of Esthetic Medicine (SEME)

Learn about the new tools that can be applied to achieve the rejuvenation of your patients"

04

Structure and Content

The structure of the content has been designed by the best professionals in the techniques Anti-aging sector, with extensive experience and recognized prestige in the profession, backed by the volume of cases reviewed, studied, intervene, and with extensive knowledge of new technologies applied to teaching.

This Postgraduate Diploma contains the most complete and up-to-date scientific program on the market, which makes it your best study option"

Module 1. Anti-Aging Medicine

1.1. History of Anti-Aging Medicine
- 1.1.1. Introduction
- 1.1.2. Empirical Knowledge
- 1.1.3. Scientific Knowledge
- 1.1.4 Looking to the Future Immortality

1.2. Theories of aging Pathophysiology
- 1.2.1. Evolutionary and Genetic Theories
- 1.2.2. Physiological Theories
- 1.2.3. Theories of Fatigue
- 1.2.4. Conclusions

1.3. Species and Longevity
- 1.3.1. Concept of Longevity
- 1.3.2. Animal, Plant and Organic Longevity
- 1.3.3. Human Longevity

1.4. Mechanisms of Cellular Aging
- 1.4.1. The Weissman and Minot Concept
- 1.4.2. Free Radical Theories
- 1.4.3. Integrative Theory of Aging

1.5. Mitochondrias
- 1.5.1. The Mitochondrion as an Organelle Prokaryotic Origin
- 1.5.2. Mitochondrial Structure
- 1.5.3. Generating Energy
- 1.5.4. Oxidative Processes

1.6. Chronobiology 1 Suprachiasmatic Pineal Nucleus Circadian Rhythm
- 1.6.1. Structure of the Pineal Gland
- 1.6.2. Physiology of the Pineal Gland
- 1.6.3. Circadian Rhythms
- 1.6.4. Other Biological Rhythms

1.7. Chronobiology 2. Sleep and Sleeplessness
- 1.7.1. Sleep Phases
- 1.7.2. Neuroendocrine Activity According to Sleep Phases
- 1.7.3. Jet Lag

1.8. Immunity Immunosenescence
- 1.8.1. Humoral Immunity
- 1.8.2. Cellular Immunity
- 1.8.3. Immunomodulation #AM3

1.9. Telomeres and Telomerase
- 1.9.1. Genome Structure and Tolomers
- 1.9.2. Role of Telomerases
- 1.9.3. Telomeric Diseases

1.10. Expososma and Aging
- 1.10.1. Concept of Exposoma
- 1.10.2. Classification of the Factors Involved
- 1.10.3. Actions to Control the Effect of the Exposome on Aging

Module 2. Hormones and Their Relationship to Aging. Hormone Therapy

2.1. Endocrinology and Anti-Aging
- 2.1.1. Hormone Synthesis
- 2.1.2. Hormone Transport
- 2.1.3. Degradation of Hormones

2.2. Neuroimmunoendocrine Axis
- 2.1.1. Hypothalamus/Pituitary/Thyroid Axis
- 2.1.2. Hypothalamus/Pituitary/Liver Axis
- 2.1.3. Hypothalamus/Pituitary/Pituitary/Adrenal Axis

2.3. Stress and Premature Aging
- 2.3.1. Oxidative stress
- 2.3.2. Inflammation
- 2.3.3. Neurodegeneration

2.4. Thyroid + Adrenal Cortex
- 2.4.1. Thyroid Hormone
- 2.4.2. Alteration of the Thyroid Gland
- 2.4.3. Cortisol, Aldosterone and Steroid Hormones Synthesized in the Adrenal Cortex
  - 2.4.3.1. Synthesis
  - 2.4.3.2. Neuroendocrine Regulation
  - 2.4.3.3. Pathologies Derived from the Alteration of Hormone Secretion
    - 2.4.3.3.1. Pathologies Related to the Secretion of Cortisol
    - 2.4.3.3.2. Pathologies Related to Aldosterone Secretion
    - 2.4.3.3.3. Pathologies Related to Sex Hormone Synthesis

2.5. Melatonin and Neurodegeneration
- 2.5.1. Melatonin, Neuroendocrine Synthesis and Regulation
- 2.5.2. Functions of Melatonin and its Role in Neurodegeneration
- 2.5.3. Clinical Uses of Melatonin

2.6. Growth Hormone
- 2.6.1. Synthesis
- 2.6.2. Neuroendocrine Regulation
- 2.6.3. Functions

2.7. Growth and Anti-Aging Hormone
- 2.7.1. Clinical Applications
- 2.7.2. Side effects
- 2.7.3. Treatment

2.8. Menopause 1
- 2.8.1. Hormonal Changes in Menopause
- 2.8.2. Clinical manifestations
- 2.8.3. Treatment

2.9. Menopause 2 Osteoporosis
- 2.9.1. Types of Osteoporosis
- 2.9.2. Pathogenic Factors
- 2.9.3. Diagnosis
- 2.9.4. Treatment

2.10. Synthetic and Bioidentical Hormones Hormone Therapy
- 2.10.1. Basic Concepts
- 2.10.2. Advantages and Disadvantages of Bioidentical Hormones
- 2.10.3. Hormone Therapy
- 2.10.4. Hormone Therapy

Module 3. Neurological and Psychological Aspects of Anti-Aging Medicine

3.1. Psychological Aspects of Aging
- 3.1.1. Psychological Aspects of Aging. What are they?
- 3.1.2. Psychosocial States of Aging
- 3.1.3. Psychological Changes in Aging (Attention, Memory, Intelligence, Creativity)

3.2. Neurological Aspects of Aging
- 3.2.1. Neurological Aspects of Aging What are they?
- 3.2.2. Neurological Changes Associated with Aging
- 3.2.3. Neurobiological Foundations of Neuronal Aging
- 3.2.4. Proteins

3.3. Neuroimmunoendocrine Axis
- 3.3.1. Neuroimmunoendocrine System
- 3.3.2. Neuroimmunoendocrinology of the Nervous System
- 3.3.3. Neuroendocrine Regulation of the Immune System

3.4. Stress Management
- 3.4.1. Definition of Stress
- 3.4.2. How Does Stress Affect Aging
- 3.4.3. Treatment of Stress in Adulthood

3.5. Mindfulness (Meditation and Neurological Rejuvenation)
- 3.5.1. What is Mindfulness?
- 3.5.2. How to Practice Mindfulness? Exercises
- 3.5.3. Neurological Changes with the Practice of Mindfulness

3.6. Scenar Therapy
- 3.6.1. Introduction to Scenar Therapy
- 3.6.2. Benefits of Scenar therapy
- 3.6.3. Scenar Devices

3.7. Neural Therapy
- 3.7.1. What is Neural therapy and What Is It For?
- 3.7.2. How Does Neural Therapy Work?
- 3.7.3. Main Indications for Neural Therapy
- 3.7.4. Treatments

3.8. Functional Changes and Aging
- 3.8.1. Functional Aging
- 3.8.2. Physiological Changes Associated with Aging
- 3.8.3. Cognitive Changes Associated with Aging
- 3.8.4. Strategies to Slow Aging

3.9. Importance of Circadian Rhythms (Chronobiology)
- 3.9.1. Circadian Rhythms in Humans
- 3.9.2. Circadian Rhythms and Sleep
- 3.9.3. Circadian Rhythms and Jet Lag
- 3.9.4. Chronobiology of Aging

3.10. Self-Concept of the Aging Process
- 3.10.1. Definition of Self-Concept
- 3.10.2. Chronological age
- 3.10.3. Biological age
- 3.10.4. Functional Age

This academic program will be the key to advancing your career”

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

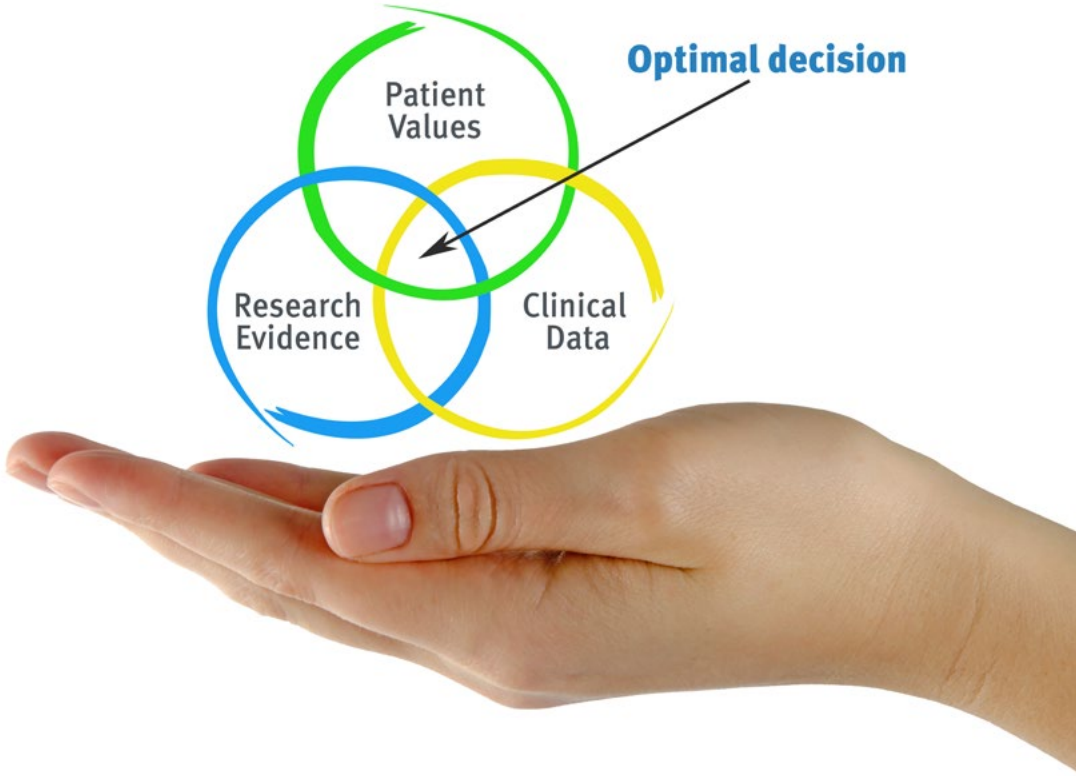
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

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"

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:

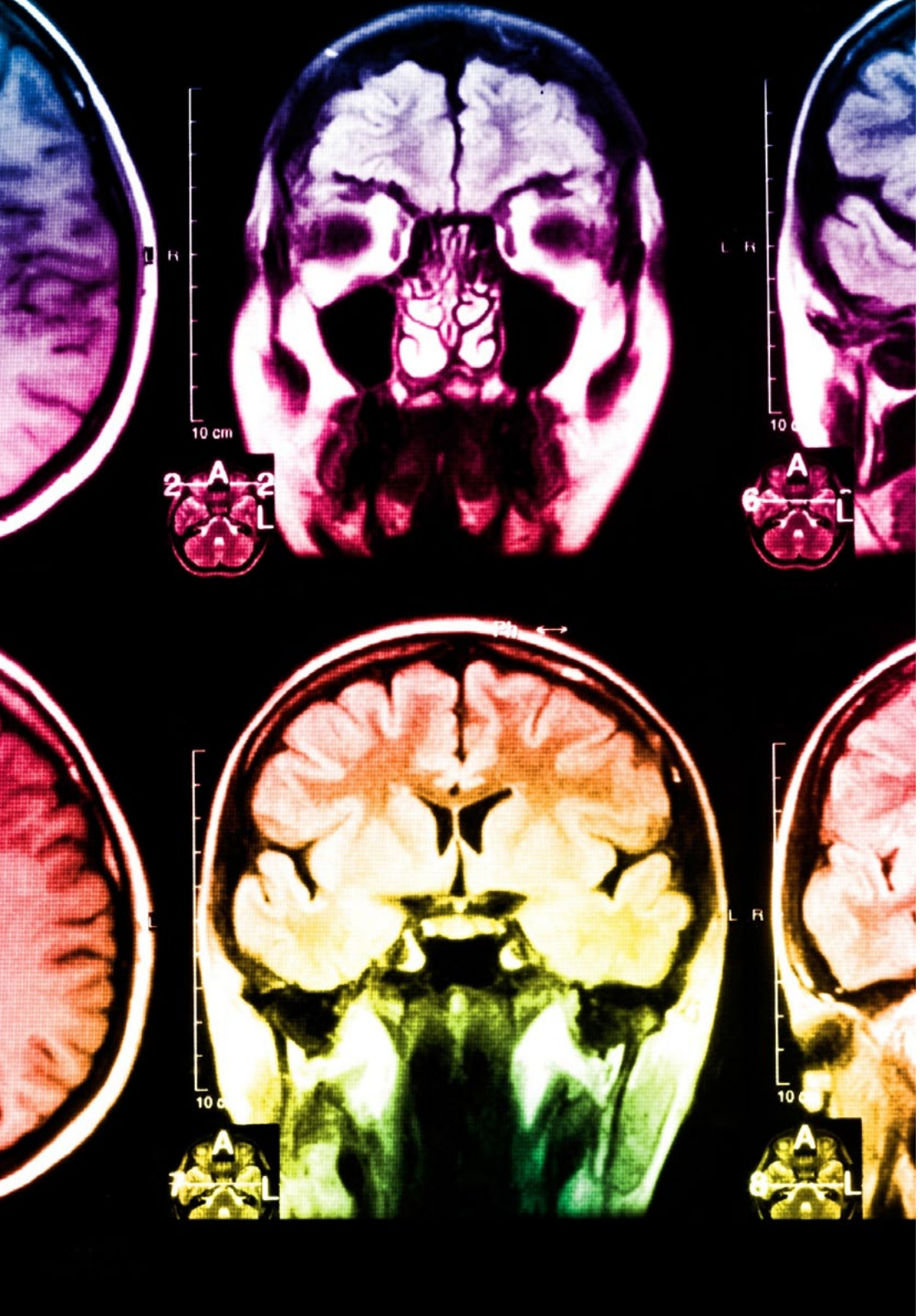
1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better 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.



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.

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.

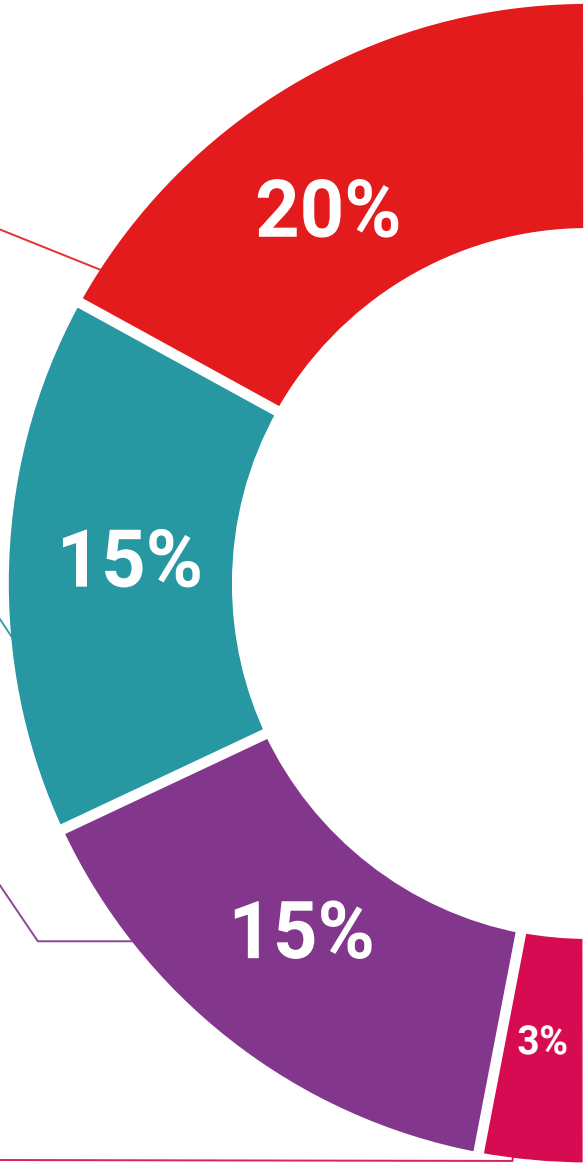
Interactive Summaries

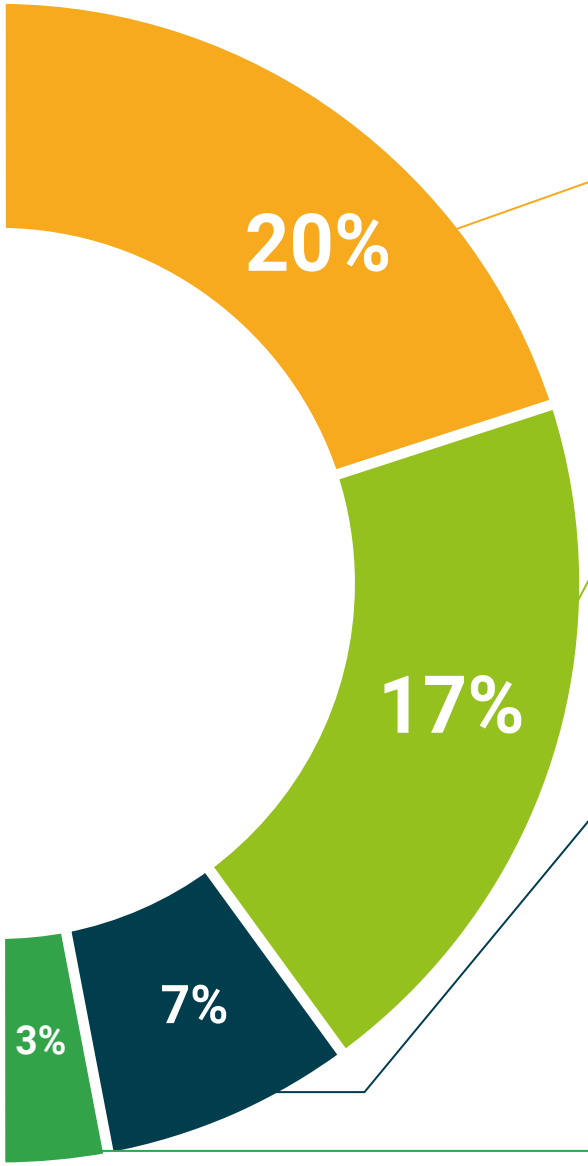
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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.

06

Certificate

The Postgraduate Diploma in Anti-Aging Medicine guarantees you, in addition to the most rigorous and updated training, access to a Postgraduate Diploma issued by TECH Technological University.

Successfully complete this training and receive your university degree without travel or laborious paperwork"

This **Postgraduate Diploma 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: **Postrgraduate Diploma in Anti-Aging Medicine**

Official N° of hours: **450 h.**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Awards the following

DIPLOMA

to

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

For having passed and accredited the following program

POSTGRADUATE DIPLOMA

in

Anti-Aging Medicine

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

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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