

# Postgraduate Certificate

## Nutrition and Physical Activity Applied to Anti-Aging Medicine





## Postgraduate Certificate Nutrition and Physical Activity Applied to Anti-Aging Medicine

- » Modality: online
- » Duration: 12 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/pk/medicine/postgraduate-certificate/nutrition-physical-activity-applied-anti-aging-medicine](http://www.techtute.com/pk/medicine/postgraduate-certificate/nutrition-physical-activity-applied-anti-aging-medicine)

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# 01

# Introduction

Following a healthy lifestyle, with regular exercise and a balanced diet, has great benefits for people's health and can even slow down the aging of our organism. Hence, anti-aging medicine professionals must take these conditions into account in order to offer more personalized attention to their patients in terms of nutrition and physical activity. With this program, we want to specialize you in this field, with the objective of providing you with superior training that will allow you to achieve professional success.





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*Learn about the principal recommendations for nutrition and physical activity applied to anti-aging medicine and offer more personalized care to your patients”*

Knowing the causes of aging has been the subject of scientific study for decades and, far from reaching an answer, more and more questions arise. What is clear is that physical activity brings great health benefits, especially in certain pathologies (coronary heart disease, arterial hypertension, cancer, diabetes, psychological benefits, musculoskeletal mobilization and so forth), to the point of being considered a predictor of mortality in certain pathologies. Moreover, it constitutes a tool for the evaluation of the patient's baseline functional capacity, since it can condition medical attitudes.

Furthermore, regular physical exercise keeps our body active, oxygenated, favoring a continuous metabolic turnover that makes us eliminate many toxins from our body, in addition to acting on free radicals that cause oxidative stress in the body. This oxidative stress can precipitate normal aging of our body and the onset of senescence can lead to poorer quality of life. This precipitation may also be advanced by a sedentary lifestyle and obesity.

These free radicals are highly oxidative substances that are formed, in addition to many other activities, in the metabolism of diets, and can cause damage that affects our tissues. Fortunately, our body has mechanisms to neutralize these oxidative substances and render them harmless. Therefore, it is important to understand the role of different nutrients with an antioxidant effect that help prevent premature aging, as well as know the properties and benefits of different types of foods.

To expand knowledge in this field, at TECH we have designed this Postgraduate Certificate, which specializes professionals 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 Certificate in Nutrition and Physical Activity Applied to Anti-Aging Medicine** contains the most complete and up-to-date scientific program on the market.

The most important features of the course are:

- ♦ 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
- ♦ New developments in the global approach to the patient
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Special emphasis on innovative methodologies 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



*Expand your knowledge through this Postgraduate Certificate until you achieve excellence in this field"*

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*This Postgraduate Certificate is the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge of anti-aging medical practice and the global approach to the patient, you will obtain a degree from TECH Tecnological University”*

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

*This 100% online Postgraduate Certificate 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 Aesthetic 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 the global approach to the patient in anti-aging medical practice.



# 02 Objectives

The Postgraduate Certificate in Nutrition and Physical Activity Applied to 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.





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*At TECH, our goal is to offer you the most comprehensive training in the market so that you can acquire a higher qualification that will elevate you to the professional elite”*



## General Objectives

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- Establish the physiological fundamentals for understanding the functioning of the human organism during physical exercise
- Identify organ adaptations and training programs, as well as physiological assessment and implementation in order to improve physical performance
- Develop a physical activity plan adapted to the patient's particular characteristics
- Establish the specific approach to obesity through the use of medication
- Develop the different types of nutrients found in foods
- Examine different types of foods with particular health benefits
- Present specific types of diets



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





## Specific Objectives

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- ♦ Examine the metabolic response during physical exercise
- ♦ Determine the different techniques for the physiological evaluation of the patient
- ♦ Analyze the basic principles of sports training to develop an adapted physical activity plan
- ♦ Know the importance of physical activity on certain pathologies such as cancer, musculoskeletal, cardiovascular and respiratory pathologies
- ♦ Analyze trends for recovery and readaptation to effort
- ♦ Establish how obesity and sedentary lifestyles contribute to accelerated aging
- ♦ Determine the guidelines and indications for pharmacological treatment of obesity
- ♦ Establish the contribution of micronutrients to normal nutritional status
- ♦ Identify diseases developed by nutritional deficiencies and how to avoid them
- ♦ Present the different types of functional foods, nutraceuticals, as well as the differences between the two
- ♦ Examining the health contribution of prebiotics and probiotics
- ♦ Analyze the theory of aging associated with cellular oxidation and the role of antioxidants present in foods
- ♦ Identify the different food additives and their functions in foods
- ♦ Present specific types of diets and their contribution to improving the body's functions

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.





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*The leading experts in Aesthetic  
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. 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

### Dr. Villacampa Crespo, Beatriz

- ♦ Primary Care Pharmacist General Hospital of Elche (Alicante)
- ♦ Assistant pharmacist in pharmacy office in Vinaroz (Castellón)
- ♦ Pharmacist in the REFAR program (Review of chronic polymedicated patients) in the department of Vinaroz.
- ♦ Trainee in the Department of Pharmaceuticals and Assistance of the Department of Health.
- ♦ Assistant pharmacist in a pharmacy office in Valencia, Spain
- ♦ Assistant pharmacist at the pharmacy office in Zaragoza



**Dr. Vera López, Inés**

- ◆ Development of healthy eating plans and personalized nutritional follow-up.
- ◆ Dietitian-nutritionist at Dorsia clinics
- ◆ Indoor Cycling Instructor
- ◆ Curricular internship at IVRE (Institut Valencià de Rehabilitació Esportiva)
- ◆ Intern at the City Council of Gestalgar

**Dr. Galvache Castillo, Sergio**

- ◆ Teaching and Improvement of Swimming in Children (Servisport)
- ◆ Sociocultural Animator (Cascabel Teatro Association)
- ◆ Technical Team at the Sports Service of the University of Granada
- ◆ International Relations Office At Granada University Medical School
- ◆ Volunteering at the Spanish Association Against Cancer Physical Activity Program
- ◆ Teacher for Massive Cardiopulmonary Resuscitation Workshops (Organized by Emergency Healthcare - Ministry of Health and Social Welfare)
- ◆ Currently Resident Physician of Pneumology 4th Year at Dr Preset Hospital (Valencia)

**Dr. Gennaro della Rossa, María Natalia**

- ◆ Head of the Department of Aesthetic Genital Surgery at Clínica Dorsia for all of Spain
- ◆ CEO and Medical Director at Club AntiAging Forever Young and private clinic Dr. Natalia Gennaro
- ◆ Head of the Gynecological Surgery Department at Ruber Juan Bravo Hospital, Madrid
- ◆ Medical Degree from the University of Cordoba, Argentina
- ◆ Master in Antiaging and Hormones by the American Antiaging Academy

# 04

# Structure and Content

The structure of the content has been designed by the best professionals in the sector in anti-aging techniques, who have extensive experience and recognized prestige in the profession, backed by the volume of cases reviewed, studied, intervened, as well as extensive knowledge of new technologies applied to teaching.







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

## Module 1. Physical Activity. Sedentary Lifestyle. Obesity

- 1.1. Physiology of Physical Activity
  - 1.1.1. Nervous and Muscular Control of Movement
  - 1.1.2. Metabolism in Exercise
  - 1.1.3. Adaptive Responses to Physical Exercise
    - 1.1.3.1. Hematology
    - 1.1.3.2. Cardiovascular
    - 1.1.3.3. Pulmonary
    - 1.1.3.4. Muscular
- 1.2. Physiological Evaluation and Interpretation I
  - 1.2.1. Anthropometry
  - 1.2.2. Aerobic and Anaerobic Functional Capacity
  - 1.2.3. Laboratory Tests
  - 1.2.4. Field Tests
- 1.3. Physiological Evaluation and Interpretation II
  - 1.3.1. Stress Tests
  - 1.3.2. Stress Test Interpretation
  - 1.3.3. Clinical Cases
- 1.4. Personalized Prescription of Physical Activity in Young Adults
  - 1.4.1. Fundamentals of Strength Training
  - 1.4.2. Fundamentals of Endurance Training
  - 1.4.3. Injury Prevention
    - 1.4.3.1. Sensory-motor Training
    - 1.4.3.2. Flexibility Training
- 1.5. Personalized Prescription of Physical Activity for the Elderly
  - 1.5.1. Fundamentals of Cardiovascular Training and its Differences in Young Adults
  - 1.5.2. Fundamentals of Strength and Endurance Training
  - 1.5.3. Prevention from Falls
- 1.6. Physical Activity, Longevity and Quality of Life
  - 1.6.1. Cardiovascular Diseases
  - 1.6.2. Pulmonary Diseases
  - 1.6.3. Neuromuscular Diseases
  - 1.6.4. Musculoskeletal Disorders
  - 1.6.5. Special Problems
    - 1.6.5.1. Pregnancy
    - 1.6.5.2. Advanced Age
- 1.7. Strategies for Rehabilitation and Recovery from Exertion
  - 1.7.1. Recovery Techniques
    - 1.7.1.1. Physical Measurements
    - 1.7.1.2. Nutrition (Hydration, Diet)
  - 1.7.2. Hypoxic Preconditioning
- 1.8. Sedentary Lifestyles and Obesity
  - 1.8.1. Current Situation of Obesity Worldwide and in Spain
  - 1.8.2. Obesity as a Metabolic Disease
  - 1.8.3. Obesity Prevention Strategies and Sedentary Lifestyles
- 1.9. Pharmacological Treatment of Obesity GLP1 - Liraglutide
  - 1.9.1. Pharmacological Mechanism of Action
  - 1.9.2. Indications and Contraindications
  - 1.9.3. Usefulness in Clinical Practice and its Applications
- 1.10. Dietary Supplementation
  - 1.10.1. Vitamins
  - 1.10.2. Antioxidants
  - 1.10.3. Coenzyme Q 10
  - 1.10.4. Calcium
  - 1.10.5. Chondroprotectors
  - 1.10.6. Nutricosmetics

## Module 2. Nutrition

- 2.1. Micronutrition
  - 2.1.1. Micronutrient Concept
  - 2.1.2. Vitamins
  - 2.1.3. Minerals
  - 2.1.4. Trace Elements
  - 2.1.5. Other Micronutrients
- 2.2. Orthomolecular Nutrition
  - 2.2.1. Orthomolecular Nutrition Concept
  - 2.2.2. Nutraceuticals
  - 2.2.3. Orthomolecular Nutrition Benefits
- 2.3. Supplementation
  - 2.3.1. Concept of Nutritional Supplements
  - 2.3.2. Types of Nutritional Supplements
  - 2.3.3. Usefulness of Nutritional Supplements in Anti-Aging Medicine
- 2.4. Nutrigenetics, Nutrigenomics
  - 2.4.1. Nutrigenetics Concept
  - 2.4.2. Nutrigenomics Concept
  - 2.4.3. Applications of Nutrigenetics and Nutrigenomics
- 2.5. Vitamins and Disease Prevention
  - 2.5.1. Types of Vitamins
  - 2.5.2. Hypovitaminosis and Hypervitaminosis
  - 2.5.3. Hypovitaminosis Treatment and Prevention
- 2.6. Food Additives
  - 2.6.1. Food Additive Concept
  - 2.6.2. Functions of Food Additives
  - 2.6.3. Classification and Identification of Foodstuffs
- 2.7. Integrated Nutrition and Feeding
  - 2.7.1. Concept and foundations of Integrative Nutrition
  - 2.7.2. Anti-inflammatory Foods
  - 2.7.3. Integrative Nutrition and the Future
- 2.8. Nutraceuticals
  - 2.8.1. Nutraceuticals
  - 2.8.2. Differences Between Nutraceuticals and Food Supplements
  - 2.8.3. Most Representative Nutraceuticals
- 2.9. Prebiotics and Probiotics
  - 2.9.1. Concept of Prebiotic, Benefits of Prebiotics
  - 2.9.2. Probiotic Concept, Benefit of Probiotics
  - 2.9.3. Symbiotic Concept, Benefits of Symbiotic
- 2.10. Free Radicals and Antioxidants
  - 2.10.1. Concept of Free Radicals and their Role in Cellular Aging
  - 2.10.2. Function and Types of Antioxidants
  - 2.10.3. Role of Antioxidants in the Prevention of Aging



*A unique, key, and decisive training experience to boost your professional development”*

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"*

## 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.

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*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

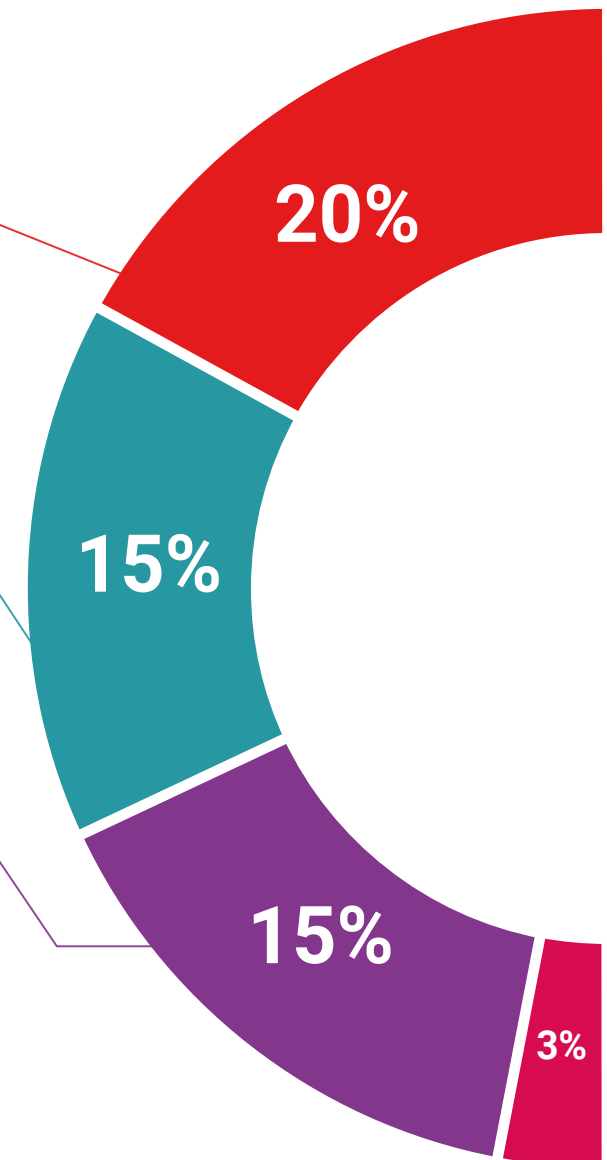
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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 Certificate in Equipment and Lasers Applied to Anti-Aging Medicine guarantees, in addition to the most rigorous and updated training, access to a Postgraduate Certificate issued by TECH Technological University.



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

This **Postgraduate Certificate in Nutrition and Physical Activity Applied to 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 Certificate** issued by **TECH Technological University** by tracked delivery\*.

The certificate 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 Nutrition and Physical Activity Applied to Anti-Aging Medicine**

Official N° of hours: **300 h.**



\*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.

health future  
confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development language  
virtual classroom



**Postgraduate Certificate**  
Nutrition and Physical  
Activity Applied to  
Anti-Aging Medicine

- » Modality: **online**
- » Duration: **12 weeks**
- » Certificate: **TECH Technological University**
- » Dedication: **16h/week**
- » Schedule: **at your own pace**
- » Exams: **online**

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