

# Postgraduate Certificate

## Musculoskeletal Manifestations of Systemic Pathologies in the Elderly





## Postgraduate Certificate Musculoskeletal Manifestations of Systemic Pathologies in the Elderly

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

Website: [www.techtitute.com/us/medicine/postgraduate-certificate/musculoskeletal-manifestations-systemic-pathologies-elderly](http://www.techtitute.com/us/medicine/postgraduate-certificate/musculoskeletal-manifestations-systemic-pathologies-elderly)

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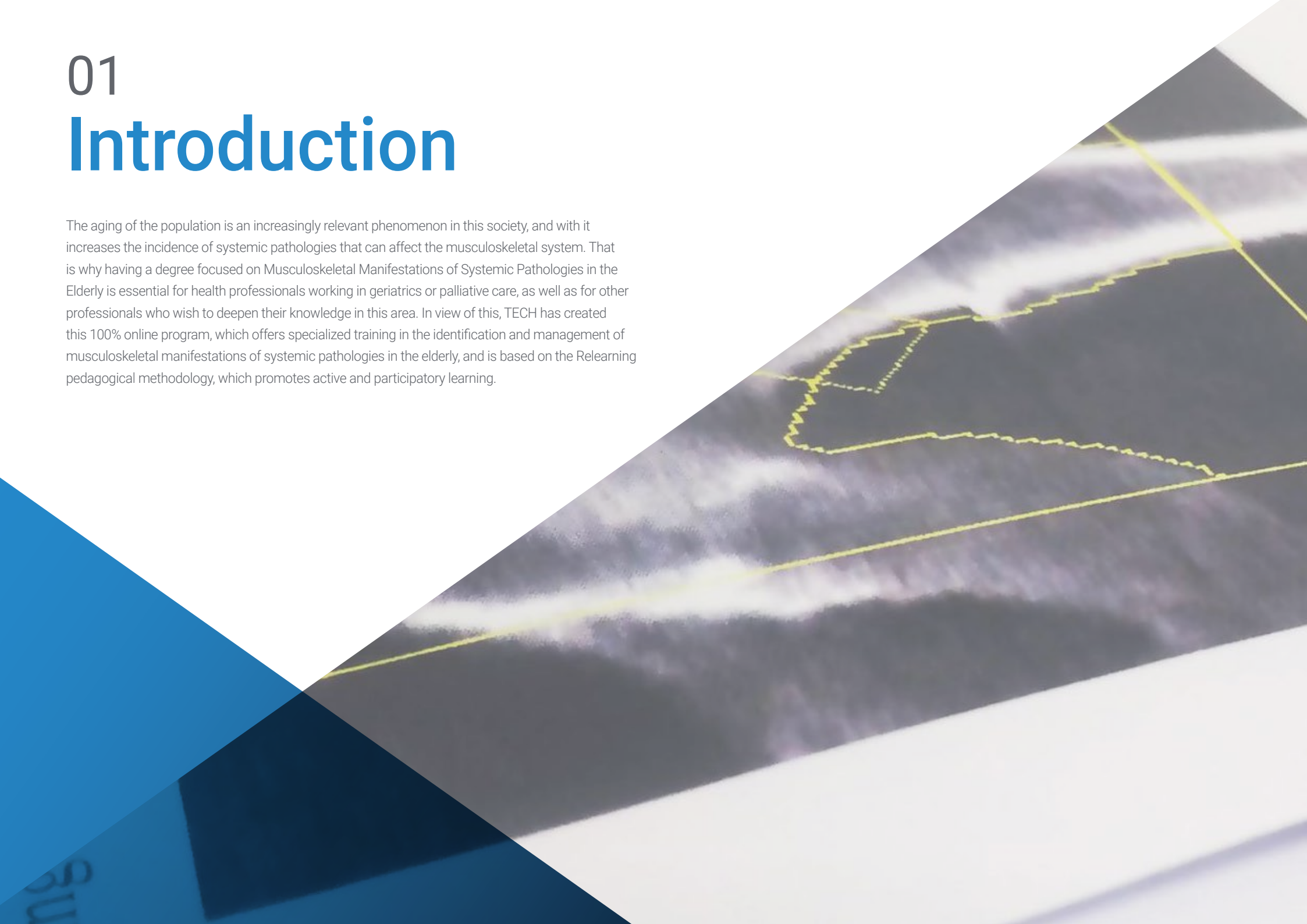
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# 01

# Introduction

The aging of the population is an increasingly relevant phenomenon in this society, and with it increases the incidence of systemic pathologies that can affect the musculoskeletal system. That is why having a degree focused on Musculoskeletal Manifestations of Systemic Pathologies in the Elderly is essential for health professionals working in geriatrics or palliative care, as well as for other professionals who wish to deepen their knowledge in this area. In view of this, TECH has created this 100% online program, which offers specialized training in the identification and management of musculoskeletal manifestations of systemic pathologies in the elderly, and is based on the Relearning pedagogical methodology, which promotes active and participatory learning.



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91 x 97

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*Discover the epidemiology, pathogenesis and types of microcrystalline arthropathies in this Diploma, and become a health expert in Musculoskeletal Systemic Pathologies of the Elderly”*

Over the years, the world's population is undergoing an aging process that is reflected in a higher prevalence of systemic pathologies. These pathologies can directly affect the musculoskeletal system of the elderly, generating manifestations and symptoms that require specialized attention. That is why it is essential to have trained professionals specialized in dealing with these pathologies, in order to guarantee quality care and improve the quality of life of patients.

In view of this, TECH offers a Diploma, which specifically addresses the musculoskeletal manifestations of systemic pathologies in the elderly, with a complete agenda that includes the epidemiology, pathogenesis, diagnosis and treatment of various pathologies, such as microcrystalline arthropathies, renal, hepatic, hematological and endocrinological diseases, among others.

The program's approach is multidisciplinary, addressing the pathology from a medical perspective, but also from the perspective of social work and psychological intervention. In addition, the Relearning pedagogical methodology, focused on active learning, is implemented in its 100% online modality, which allows flexibility in the organization of academic resources and access to high quality training from anywhere in the world.

This **Postgraduate Certificate in Musculoskeletal Manifestations of Systemic Pathologies in the Elderly** contains the most complete and up-to-date scientific program on the market.

The most important features include:

- ♦ The development of case studies presented by health experts focused on Musculoskeletal Manifestations of Systemic Pathologies in the Elderly
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where self-assessment can be used 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



*Learn about the diagnosis and differential diagnosis of microcrystalline arthropathies thanks to this 100% online qualification offered by TECH”*



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*Are you interested in learning about kidney and liver diseases and their musculoskeletal manifestations? Join the Postgraduate Certificate in Musculoskeletal Manifestations of Systemic Pathologies in the Elderly!”*

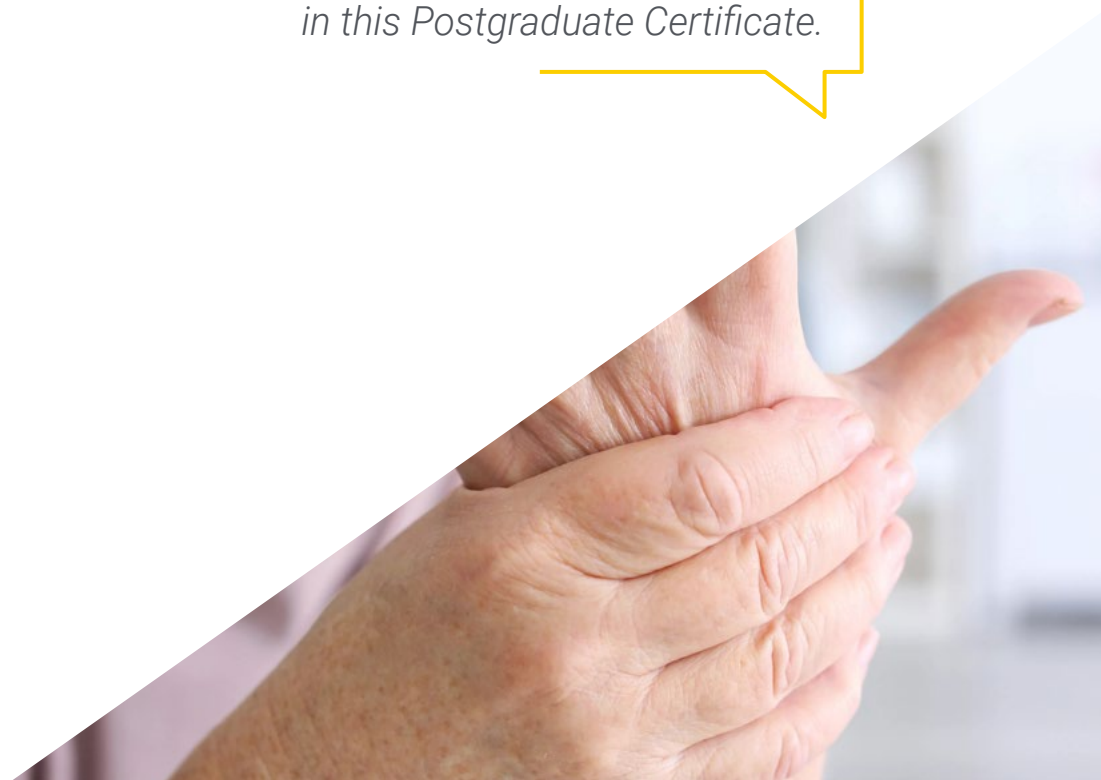
The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

Its 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 an immersive education programmed to learn in real situations.

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

*Improve your professional training with this Postgraduate Certificate in Musculoskeletal Manifestations of Systemic Pathologies in the Elderly. Learn in an effective way and without leaving home!*

*Discover everything you need to know about hematological, endocrinological and rheumatic diseases with skin involvement in this Postgraduate Certificate.*



# 02

# Objectives

The geriatric population is increasingly numerous and requires specialized care for each of the pathologies that may affect them. In this sense, it is essential to have professionals duly trained and updated in the detection, diagnosis and treatment of musculoskeletal manifestations of systemic pathologies in the elderly. Therefore, the purpose of this Postgraduate Certificate in this subject is to provide participants with a complete and multidisciplinary training that will enable them to successfully address these pathologies. In the course of the program, the specific characteristics of each of the pathologies will be analyzed, the approach to systemic diseases mediated by the immune system will be discussed in depth and the limitations of the current classification criteria will be identified.





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*Within the objective of TECH you will address the most current and effective therapeutic measures, both pharmacological and non-pharmacological, in each of the situations that may arise in these diseases”*



## General Objectives

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- Deepen in the processes of aging, its clinical, diagnostic and prognostic implications
- Investigate the specific biological and physiological determinants of geriatric patients
- Learn more about the reasons why pathologies manifest themselves differently in geriatric patients, as well as the pharmacological characteristics that condition their treatments
- Update knowledge of the biopsychosocial determinants related to the aging process
- Promote comprehensive and holistic care in geriatric patients with rheumatic pathologies, whether measured by the immune system, bone metabolism, paraneoplastic or degenerative manifestations







## Specific objectives

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- ♦ Delve into the specific characteristics of each of the pathologies included with their repercussions in the geriatric age
- ♦ Analyze the approach to immune-mediated systemic diseases (vasculitis, myopathies and others) in the geriatric population
- ♦ Identify the problems and limitations presented by the different current classification criteria for immune-mediated systemic diseases (vasculitis, myopathies, and others) in geriatric patients
- ♦ Address current pharmacological and non-pharmacological therapeutic measures in each of the situations that may arise in systemic immune-mediated diseases



*You will achieve your professional goals in Musculoskeletal Manifestations of Systemic Pathologies in the Elderly, thanks to all the innovative tools in this Professional Online Course”*

# 03

## Course Management

The direction of the Postgraduate Certificate in Musculoskeletal Manifestations of Systemic Pathologies in the Elderly is focused on offering quality education, which is why a rigorous selection process is carried out for all teachers who teach the program. In this way, students will have access to information elaborated by experts in the area of geriatrics, rheumatology and systemic pathologies, who will provide them with a complete and multidisciplinary update on Musculoskeletal Manifestations in the elderly and their therapeutic approach. TECH ensures that teachers are highly trained and updated in their respective areas, so that students get a complete and quality training.





A close-up photograph of an elderly person's arm being held by another person's hands. The skin is wrinkled and aged. The background is a solid teal color.

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*This program is designed by experts with the intention that it will provide a complete and detailed overview of the various pathologies that can affect the musculoskeletal system of the elderly”*



## Management



### Dr. Garcia Martir, Alvaro

- ◆ Rheumatology Specialist at the Tajo University Hospital
- ◆ Physician specializing in Rheumatology at the University Hospital 12 de Octubre
- ◆ Associate Professor of Rheumatology at the University Alfonso X, El Sabio
- ◆ Research Sufficiency by the Complutense University of Madrid
- ◆ Degree in Medicine from the Cantabria University
- ◆ Master's Degree in Rheumatic Diseases mediated by the Immune System, Rey Juan Carlos University and the Spanish Society of Rheumatology
- ◆ EFSUMB Certification: Musculoskeletal Ultrasound level 1
- ◆ Levels A and B of musculoskeletal ultrasound of the Spanish Society of Sports Medicine

## Professors

### Dr. Lavilla Villar, Patricia

- ◆ Assistant Physician in the Rheumatology Department at the General University Hospital of Villalba
- ◆ Assistant Physician in Rheumatology at the Zarzuela University Hospital
- ◆ Assistant Physician, Rheumatology, 12 de Octubre University Hospital of Madrid
- ◆ Researcher at the Foundation for Biomedical Research 12 de Octubre of Madrid
- ◆ Collaborating lecturer Alfonso X El Sabio University
- ◆ Degree in Medicine from the Oviedo University



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# 04

## Structure and Content

This Postgraduate Certificate in Musculoskeletal Manifestations of Systemic Pathologies in the Elderly is composed of a module with 10 items, each focused on a specific type of disease and its musculoskeletal manifestations. Topics such as microcrystalline arthropathies, renal and liver diseases, non-neoplastic hematological diseases, endocrinological diseases, and rare diseases such as Wilson's disease, hemochromatosis and mucopolysaccharidosis are addressed. In addition, enteropathic arthritis and rheumatic diseases with cutaneous involvement such as Panniculitis are specifically addressed.



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*Learn about the most common musculoskeletal pathologies in the elderly thanks to this 100% online Postgraduate Certificate. Study at your own pace and from anywhere in the world”*

**Module 1.** Musculoskeletal Manifestations of Systemic Pathologies in the Elderly (IR, Hepatic I, Anemias, Parathyroid Pathology) and Other Metabolic Atrovarias

- 1.1. Microcrystalline Arthropathies: Characteristics
  - 1.1.1. Epidemiology
  - 1.1.2. Pathogenesis
  - 1.1.3. Types
- 1.2. Microcrystalline Arthropathies: Diagnosis
  - 1.2.1. Pathophysiology
  - 1.2.2. Differential Diagnosis
- 1.3. Microcrystalline Arthropathies: Treatment
  - 1.3.1. Treatment
  - 1.3.2. Prevention of New Episodes
- 1.4. Renal Diseases and their Musculoskeletal Manifestations
  - 1.4.1. Epidemiology
  - 1.4.2. Physiopathogenesis
  - 1.4.3. Treatment
- 1.5. Liver Diseases and their Musculoskeletal Manifestations
  - 1.5.1. Musculoskeletal Manifestations of HCV
  - 1.5.2. Cryoglobulinemia
- 1.6. Non-Neoplastic Hematologic Diseases and Their Musculoskeletal Manifestations
  - 1.6.1. Multiple Myeloma Multiple Myeloma Monoclonal Gammopathy of Uncertain Significance (MGUS)
  - 1.6.2. Hemophilia
- 1.7. Endocrinology Diseases and Musculoskeletal Manifestations
  - 1.7.1. Diabetes Mellitus
  - 1.7.2. Thyroid Disease







- 1.8. Wilson's Disease, Hemochromatosis, Mucopolysaccharide, Hemochromatosis, Mucopolysaccharide
  - 1.8.1. Wilson's Disease: Etiopathogenesis, Clinical Features, Diagnosis and Treatment
  - 1.8.2. Hereditary Hemochromatosis: Etiopathogenesis, Clinical Features, Diagnosis and Treatment
  - 1.8.3. Mucopolysaccharidosis: Etiopathogenesis, Clinical Features, Diagnosis and Treatment
- 1.9. Rheumatic Diseases with Skin Involvement: Panniculitis
  - 1.9.1. Epidemiology
  - 1.9.2. Pathophysiology
  - 1.9.3. Treatment
- 1.10. Enteropathic Arthritis
  - 1.10.1. Coeliac Disease
  - 1.10.2. Collagenous Colitis
  - 1.10.3. Whipple's Disease



*Specialize in systemic pathologies of the elderly with this 100% online Postgraduate Certificate and its innovative Relearning methodology. Upgrade your skills and improve your clinical practice!"*

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 Musculoskeletal Manifestations of Systemic Pathologies in the Elderly guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.





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

This **Postgraduate Certificate in Musculoskeletal Manifestations of Systemic Pathologies in the Elderly** contains the most complete and up-to-date scientific program on the market.

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

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

Title: **Postgraduate Certificate in Musculoskeletal Manifestations of Systemic Pathologies in the Elderly**

Official N° of hours: **150 h.**



\*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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