

# Postgraduate Certificate

## Osteoarticular Pathology in the Complex Chronic Patient





## Postgraduate Certificate Osteoarticular Pathology in the Complex Chronic Patient

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-certificate/osteoarticular-pathology-complex-chronic-patient](http://www.techtute.com/us/medicine/postgraduate-certificate/osteoarticular-pathology-complex-chronic-patient)

# Index

01

Introduction

---

*pag. 4*

02

Objectives

---

*pag. 8*

03

Course Management

---

*pag. 12*

04

Structure and Content

---

*pag. 18*

05

Methodology

---

*pag. 22*

06

Certificate

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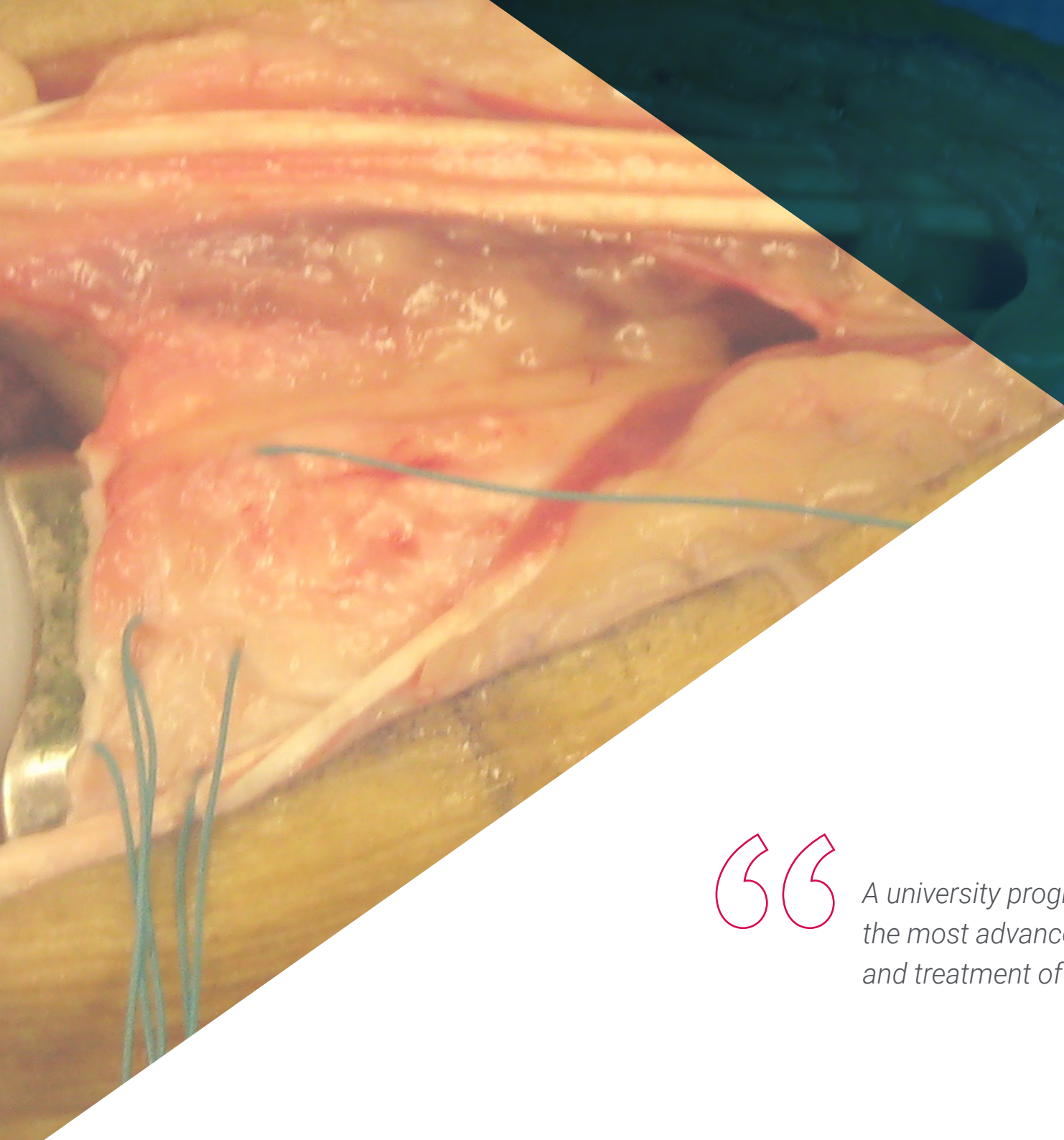
*pag. 30*

# 01

# Introduction

The approach to spine fractures in complex chronic patients involves additional challenges in the face of underlying medical conditions. For example, those suffering from bone fragility tend to have severe back pain over a long period of time. In turn, these conditions often limit their ability to move, making it difficult for them to perform daily activities independently. For this reason, practitioners have to take special care of these patients and make an appropriate combination of conservative and surgical treatments. In this context, TECH launches an advanced 100% online program that provides a comprehensive view of Vertebral Fractures and, in turn, ensures the maximum clinical excellence to the graduated doctors.





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*A university program that will provide you with the most advanced techniques in the evaluation and treatment of Osteoporosis 100% online"*

Osteoarticular and locomotor system pathologies are particularly difficult to treat in chronic patients due to their multiple ailments. However, specialists can carry out multidisciplinary treatments to improve the quality of life of these people and reduce their pain. To this end, physicians need to constantly update their skills to enable them to incorporate new therapeutic strategies into their clinical practice to provide advanced care. This is becoming increasingly necessary in the face of technological advances in the healthcare field, such as three-dimensional imaging and Artificial Intelligence.

In order to facilitate this update, TECH is promoting a very complete program that will deal with how to manage osteoarticular diseases effectively. For this purpose, the syllabus has been developed by a specialized teaching staff, with a broad professional background in this area. In this way, the syllabus covers the latest treatments for elbow, wrist and hand fractures, combining the most conservative and surgical therapy. Likewise, the didactic materials emphasize hip conditions such as coxarthrosis, pelvic fractures or Sacroiliac joint disorders. Also, the program includes several real clinical cases, in order to bring the students closer to the reality of medical care.

Moreover, it is notable that the approach of this program reinforces its innovative character. Along these lines, TECH offers a 100% online educational environment, tailored to the needs of busy professionals seeking to advance their careers. In addition, through the *Relearning*, methodology, based on the repetition of key concepts to fix knowledge and facilitate learning, flexibility is combined with a robust pedagogical approach. On the other hand, access to an extensive library of multimedia resources is guaranteed.

This **Postgraduate Certificate in Osteoarticular Pathology in the Complex Chronic Patient** 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 experts in Complex Chronic Patients
- ♦ 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 the self-assessment process can be carried out to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*You will develop new skills for the diagnosis and treatment of Rheumatoid Arthritis that will make you stand out in the professional medical environment"*

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*You will delve into the use of state-of-the-art technologies for remote rehabilitation for patients with Knee Arthroplasty"*

The program's teaching staff includes professionals from the industry who contribute their work experience to this 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 education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*You will update your skills on the non-pharmacological approach to the management of chronic pain of osteoarticular etiology in complex patients.*

*The Relearning system will allow you to acquire skills with less effort and more performance, involving you more in your specialization.*



# 02

# Objectives

The present university program will enable the physician to effectively recognize and diagnose the essential pathologies that affect the Osteomyoarticular System. In this way, graduates will acquire a holistic view of Complex Chronic Patients, in order to provide them with comprehensive care. Also, they will understand the difficulties of these conditions in order to address them effectively. On the other hand, they will contribute to research in this health field and this will help to improve the discernment about these diseases.







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*TECH provides you with interactive summaries and clinical cases so that you can easily keep up to date with the advances in the field of Osteoarticular Pathologies”*



## General Objectives

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- ♦ Examine the medical problems common to most chronic and complex patients
- ♦ Present complementary therapies to the pharmacological approach
- ♦ Delve into the legal basis and bioethical aspects of the care of patients with chronic illnesses
- ♦ Provide a rationale for the Comprehensive Geriatric Assessment (CGA) as a set of tools that allow a diagnostic approach to the complex chronic patient
- ♦ Analyze the main Geriatric Syndromes and their clinical and social importance
- ♦ Assess the incidence and prevalence of nephro-urological diseases in chronic patients
- ♦ Analyze gastrointestinal diseases in patients with chronic medical conditions
- ♦ Investigate, analyze and propose comprehensive strategies for understanding and improving the management of infectious diseases in patients with complex chronic pathology
- ♦ Adequately define endocrinological pathology in chronic and complex patients
- ♦ Seek strategies that improve the patient's quality of life, minimizing the limitations imposed by the disease and its treatments
- ♦ Develop comprehensive care strategies that respond to patients' needs and improve their quality of life
- ♦ Delve into different models of health care for complex chronic patients





## Specific Objectives

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- Link these conditions with the patient's systemic pathologies
- Establish a holistic point of view of the patient, so that you can provide them with holistic care
- Transfer what you have learned to your daily clinical practice and improve your skills

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*You can comfortably take this program 100% online, since it adapts to your needs and your schedule”*

# 03

# Course Management

Each faculty member at the head of this university program has been carefully selected for their extensive experience and multidisciplinary skills. These specialists stand out for their in-depth mastery of the most advanced techniques in the care of complex chronic patients. In addition, they are firmly committed to offering an educational experience of excellence, through a holistic approach. In this way, they not only prepare graduates with advanced knowledge, but also with practical skills and a critical mindset necessary in the world of Modern Medicine.





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*The faculty of this program has a long history of research and professional application in Osteoarticular Pathologies”*

## International Guest Director

Awarded by the American Society of Addiction Medicine for his research in this field, Robert W. Kirchoff is considered a prestigious physician specialized in the approach to Substance Use Disorders. In this sense, he has developed most of his career in health institutions of international reference, such as the Mayo Clinic Hospital in Minnesota or the Saint Joseph Mercy Health System in Michigan.

Among his main achievements, his great contribution to the foundation of the Laboratory of Informatics and Machine Learning stands out. In this way, he has contributed significantly to the improvement of hospital resources through Predictive Analytics. He has also used this technological tool belonging to Artificial Intelligence to identify patients at risk of drug dependence and relapse. As a result, it has enabled numerous users to acquire advanced coping strategies in order to avoid drug use.

It should be noted that he balances this work with his facet as a clinical researcher. In this regard, he has an extensive production on subjects such as the applications of Big Data to the field of medicine, the most innovative pharmacological treatments to combat alcohol addiction, translational informatics applied to individuals with psychological disorders, techniques to prevent drug abuse or cutting-edge methodologies for the treatment of drug addiction.

On the other hand, in his firm commitment to the advancement of medical technology, he regularly participates as a speaker at scientific congresses and symposiums on an international scale. Thanks to this, he has facilitated the health community to have a greater knowledge of drug-assisted therapies for chemical dependency. In turn, he has enabled specialists to acquire the skills to get the most out of Clinical Bioinformatics and to optimize both their diagnostics and disease management considerably.



## Dr. Kirchoff, Robert W.

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- ♦ President for Research at Mayo Clinic Hospital in Minnesota, United States
- ♦ Medical Director at Foundations Detroit
- ♦ President of the American Society for Addiction Medicine
- ♦ Founder of the Laboratory of Informatics and Machine Learning at Mayo Clinic Hospital
- ♦ Attending Physician at Saint Joseph Mercy Health System in Michigan
- ♦ Master of Science in Medical Informatics from The Johns Hopkins University School of Medicine
- ♦ Bachelor of Arts, Biology and Chemistry from Albion College
- ♦ Internal Medicine Resident Physician at Wayne State University School of Medicine
- ♦ General Surgery Residency at Mayo Clinic Hospital
- ♦ Board Certified by the American Board of Internal Medicine
- ♦ Fellow of the American Board of Preventive Medicine

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*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## Management



### Dr. Romero Pareja, Rodolfo

- Specialist in Family and Community Medicine
- Medical Director at the Emergency Hospital Nurse Isabel Zendal
- Area Physician, Emergency Department, at the University Hospital of Getafe
- Collaborator of working groups in programs of Medicine; Health Management and Planning for Health Managers; and Emergency and Critical Care
- Doctor of Medicine, University of Oviedo
- Master's Degree in Emergency Medicine from the Complutense La University of Madrid
- Master in Medical Management and Clinical Management by the National School of Health, Instituto Salud Carlos III and Universidad Nacional Educación a Distancia.
- Degree in Medicine and Surgery from the Complutense University of Madrid





### **Dr. Tejedor López, Luis**

- ♦ Specialist in Geriatrics
- ♦ Specialist Physician in Geriatrics, Emergency Hospital Nurse Isabel Zandal
- ♦ Medical Case Manager. HealthMotiv S.L
- ♦ President of the MIR Association Spain
- ♦ Master's Degree in Support Treatment and Palliative Care in Oncology Patients, Isabel I University
- ♦ MBA in Health Management and Administration from the European School of Health Education
- ♦ Medical Specialist in Geriatrics via MIR
- ♦ Degree in Medicine from the University of Navarra

# 04

## Structure and Content

This Postgraduate Certificate will analyze the most prevalent osteoarticular diseases in Complex Chronic Patients. As such, the program will focus on conditions such as rheumatoid arthritis on conditions such as Rheumatoid Arthritis, Coxarthrosis or degenerative pathologies of the spine. The syllabus will delve into both interventional procedures and the most appropriate pharmacological treatment for each condition, with a totally multidisciplinary approach. At the same time, the program will delve into the therapeutic approach to lower limb amputations and prosthetic procedures. On the other hand, the didactic materials will offer the future perspectives in osteoarticular pathology, emphasizing technological advances that allow the development of regenerative therapies.





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*You will be highly qualified to adequately manage chronic pathologies affecting bones, muscles and joints after this Postgraduate Certificate”*

## Module 1. Osteoarticular and Locomotor System Pathology in the Complex Chronic Patient

- 1.1. Approach to Chronic Pain of Osteoarticular Etiology in Complex Patients
  - 1.1.1. Pathophysiology of Osteoarticular Pain in the Complex Chronic Patient Assessment and Diagnosis
  - 1.1.2. Medical Treatment
  - 1.1.3. Interventional Procedures. Non-Pharmacological Approach
- 1.2. Spinal Pathology in the Complex Chronic Patient
  - 1.2.1. Management of Degenerative Pathologies of the Spine in the Complex Chronic Patient
  - 1.2.2. Management of Inflammatory and Autoimmune Pathologies of the Spine
  - 1.2.3. Multidisciplinary Approach in Non-Traumatic Spine Pathology Prevention and Rehabilitation in the Complex Chronic Patient
- 1.3. Rachis Fractures in the Complex Chronic Patient
  - 1.3.1. Management of Rachis Fractures in the Complex Chronic Patient Frequent Locations and Diagnosis
  - 1.3.2. Conservative Treatment
  - 1.3.3. Surgical Management
- 1.4. Upper Limb Pathology in the Complex Chronic Patient
  - 1.4.1. Management of Non-Traumatic Osteoarticular Pathology of the Shoulder in Complex Chronic Patients
  - 1.4.2. Management of Shoulder Fractures in the Complex Chronic Patient Conservative Treatment Surgical Management
  - 1.4.3. Management of Elbow, Wrist and Hand Pathology in the Complex Chronic Patient
- 1.5. Hip Pathology in the Complex Chronic Patient
  - 1.5.1. Management of Coxarthrosis in Complex Chronic Patients. Hip Soft Tissue Pathology
  - 1.5.2. Management of Hip Fractures in the Complex Chronic Patient
  - 1.5.3. Management of the Sacroiliac Joint Pathologies in the Complex Chronic Patient. Pelvis Fractures
- 1.6. Knee, Ankle and Foot Pathology in the Complex Chronic Patient
  - 1.6.1. Management of Knees Osteoarthritis in the Complex Chronic Patient. Hip Soft Tissue Pathology
  - 1.6.2. Management of Knees Arthroplasty in the Complex Chronic Patient. Knee Telerehabilitation
  - 1.6.3. Management of Ankle and Foot Pathology in the Complex Chronic Patient





- 1.7. Lower Limb Amputations
  - 1.7.1. Management of Lower Limb Amputation in the Complex Chronic Patient. Levels of Amputation
  - 1.7.2. Rehabilitative Treatment
  - 1.7.3. Prosthetization in the Complex Chronic Patient Patient Follow-Up
- 1.8. Rheumatic Diseases in the Complex Chronic Patient
  - 1.8.1. Management of Rheumatoid Arthritis in Complex Chronic Patients
  - 1.8.2. Management of Osteoarthritis in Complex Chronic Patients
  - 1.8.3. Management of Other Rheumatic Diseases in the Complex Chronic Patient
- 1.9. Assessment and Treatment of Osteoporosis
  - 1.9.1. Assessment and Treatment of Osteoporosis in Complex Chronic Patients
  - 1.9.2. Medical Treatment
  - 1.9.3. Comprehensive Management of the Complex Chronic Patient
- 1.10. Osteoarticular Pathology in the Complex Chronic Patient
  - 1.10.1. Management of Systemic Diseases and Their Impact on Osteoarticular Pathology and Vice-versa in the Complex Chronic Patient
  - 1.10.2. Therapeutic Approach in the Complex Chronic Patient. Comprehensive Management Multidisciplinary Approach Education and Self-Care. Prevention strategies
  - 1.10.3. Future Perspectives in Osteoarticular Pathology. Treatment and Technological Advances. Regenerative Therapies. Research

“ Acquire knowledge without geographic limitations or preset timing through TECH. Don't miss the opportunity and enroll now”

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

This Postgraduate Certificate in Osteoarticular Pathology in the Complex Chronic Patient guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



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

This program will allow you to obtain your **Postgraduate Certificate in Osteoarticular Pathology in the Complex Chronic Patient** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

**Title: Postgraduate Certificate in Osteoarticular Pathology in the Complex Chronic Patient**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



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



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community commitment  
personalized service innovation  
knowledge present  
development languages  
virtual classroom



**Postgraduate Certificate**  
Osteoarticular Pathology in  
the Complex Chronic Patient

- » Modality: online
- » Duration: 6 weeks
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- » Credits: 6 ECTS
- » Schedule: at your own pace
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