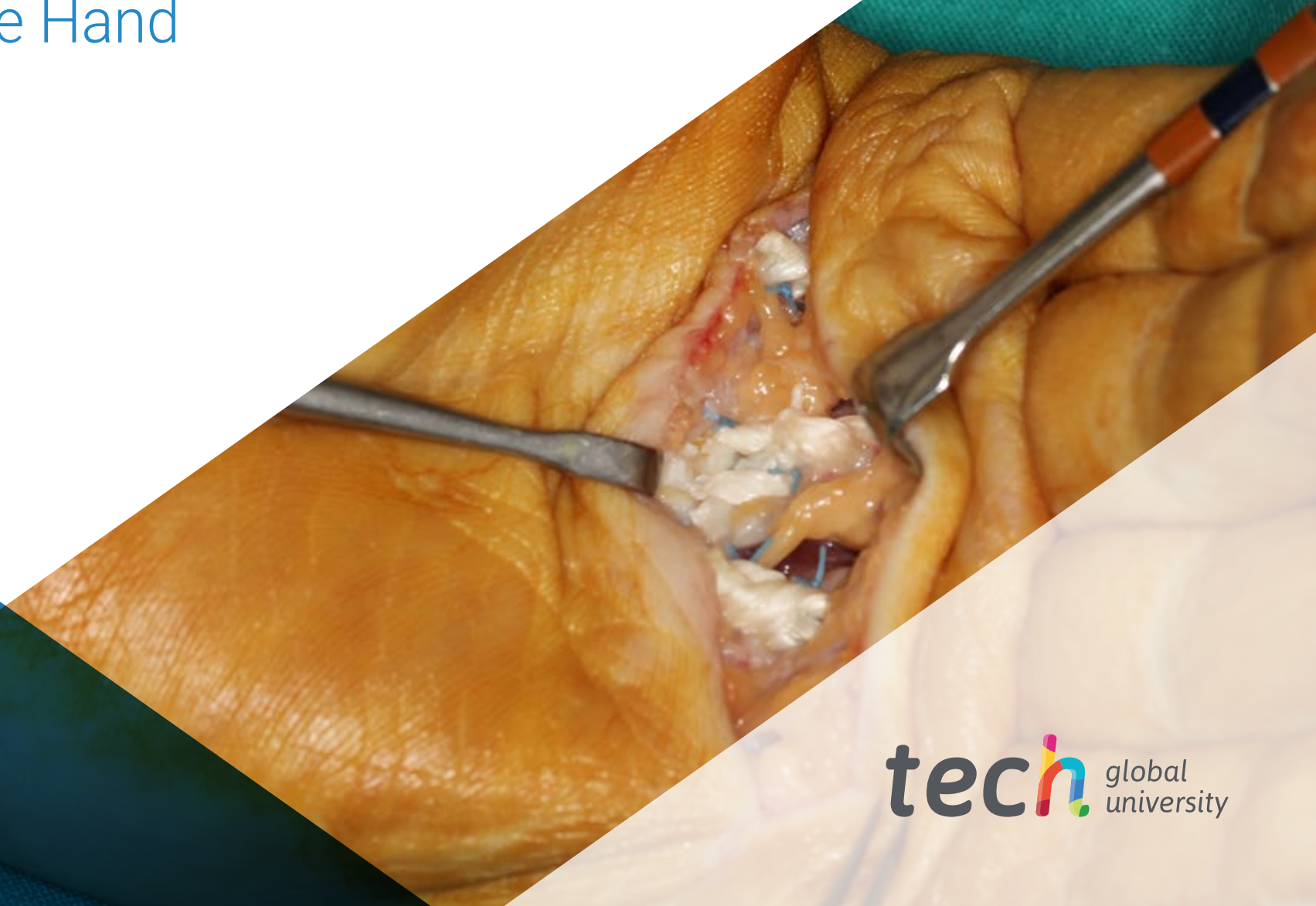


# Postgraduate Diploma

## Arthropathies and Tendon Injuries of the Hand





## Postgraduate Diploma Arthropathies and Tendon Injuries of the Hand

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-arthropathies-tendon-injuries-hand](http://www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-arthropathies-tendon-injuries-hand)

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# 01

# Introduction

Although rheumatologic diseases are increasingly controlled and fewer patients reach the stage of sequelae and major deformities, tendon ruptures are a challenge for any hand surgeon. Challenges that today require continuous updating by specialists of diagnostic techniques, surgical treatments and rehabilitation protocols used. A wide field of action that focuses the advanced agenda of this program 100% online and leads the specialist to perform a complete update on inflammatory arthritis and degenerative osteoarthritis or the main tendinopathies. All this, in addition, with an innovative multimedia content, accessible at any time of the day, from a digital device with internet connection.





“

*Get up-to-date in Arthropathies and Tendon Injuries of the Hand in only 6 months"*

Authors such as Kessler, Kleiner or Brunelli already treated tendon ruptures about 50 years ago and recommended various techniques and different rehabilitation protocols. A path that has continued to develop thanks to studies that have gone into the improvement of these treatments, thus improving a very common pathology. At the same time, scientific research has favored the recovery of patients with rheumatologic diseases, but there are still several challenges for hand surgeons.

In this scenario, it is essential that specialists maintain a continuous updating of their diagnostic and therapeutic skills to offer patients the most advanced and appropriate solutions for each of them. For this reason, TECH has designed this 100% online program that offers the most rigorous and current content on Arthropathies and Tendon Injuries of the Hand.

A Postgraduate Diploma, whose syllabus has been developed by leading experts in this field. Their accumulated surgical and teaching experience will lead the graduate to perform an effective update on the evidence on the approach to Inflammatory Arthritis and Degenerative Arthrosis of the Wrist and Hand or Tendinopathies. It will also delve dynamically into the study and diagnosis of hand pathology, the different anesthetic techniques used during surgery and the rehabilitation treatments available for the management of the different conditions.

All this, through didactic material based on video summaries of each topic, videos in detail, complementary readings and case studies to which you will have access, comfortably, whenever and wherever you want. Students taking this program only need an electronic device with an Internet connection to view, at any time of the day, the content hosted on the virtual platform. Undoubtedly, this is an ideal academic option for those who are looking for a top-level update through a quality program that facilitates self-management of study time.

This **Postgraduate Diploma in Arthropathies and Tendon Injuries of the Hand** contains the most complete and up-to-date scientific program on the market.

The most important features include

- ♦ The development of practical cases presented by experts in Upper Limb Surgery, Orthopedic Surgery and Traumatology
- ♦ 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



*Thanks to this program you will be up-to-date with the most recent clinical research in Hand Surgery"*

“

*You will study an academic option designed for professionals with high demands, who require flexibility in accessing the content”*

*This program is distinguished by the quality of its multimedia content and clinical case study simulations.*

*Delve into the most notorious advances in the treatment of Kienböck's disease thanks to this high-level university program.*

The program's teaching staff includes professionals from the field who contribute their work experience to this educational 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.



# 02

# Objectives

This university program has been designed with the objective of providing the professional surgeon with an authentic update in Arthropathy and Tendon Injuries of the Hand. In order to achieve this, the teaching team provides numerous didactic material, including simulations of clinical case studies and an exceptional syllabus. In this way, TECH provides the maximum scientific rigor and the theoretical-practical approach essential for this updating process.





A close-up photograph of a hand, likely a thumb, showing a surgical incision. The incision is closed with several blue sutures. There is some redness and bruising around the wound site. The background is a blurred blue color.

“

*With this program you will be aware of the most precise procedures for the evaluation of the most complex cases of Tendinopathies"*

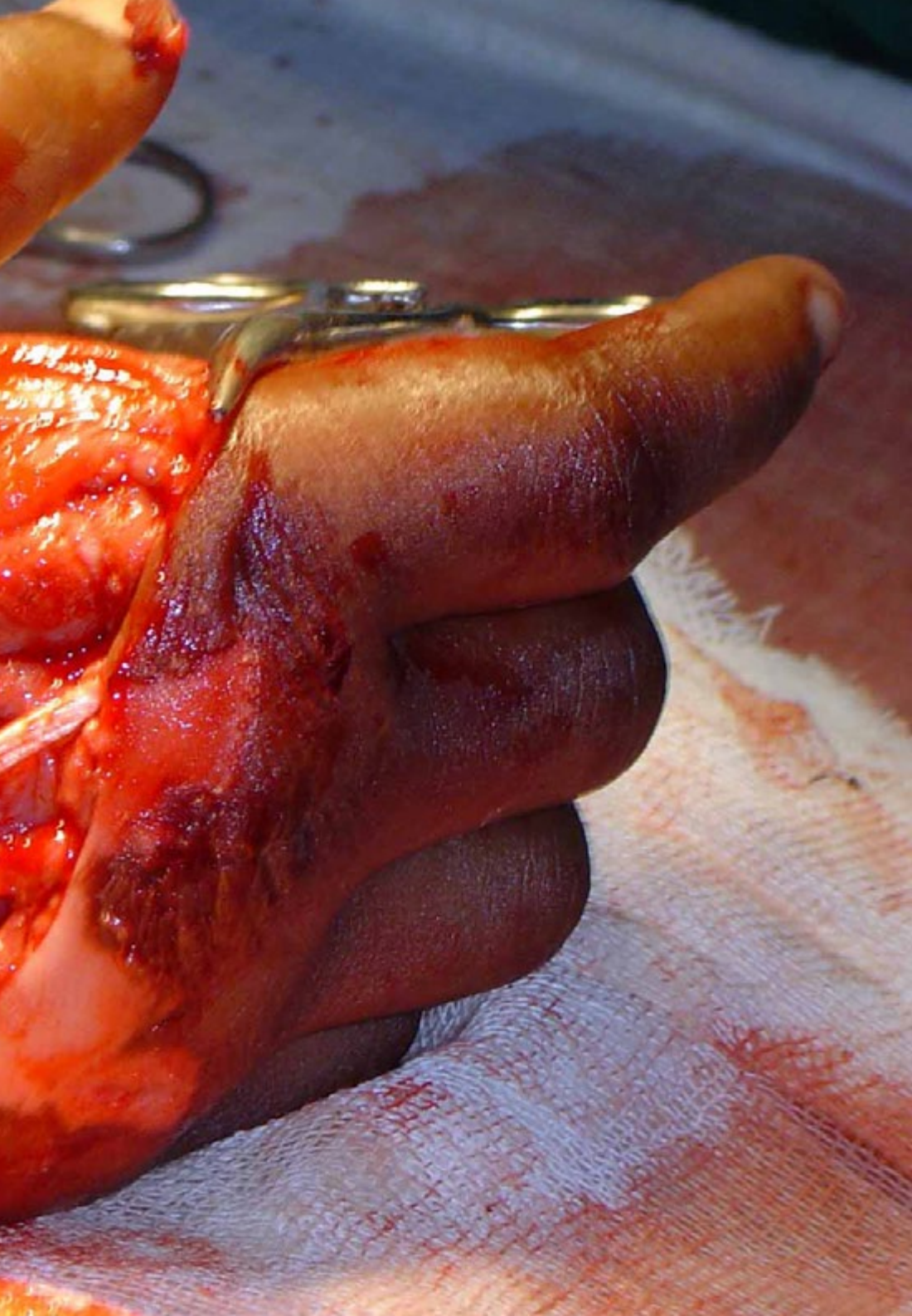


## General Objectives

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- ♦ Update knowledge in the different medical and basic specialties surrounding hand pathology
- ♦ Determine the types of wound healing, sutures and skin grafts to specify the treatment of less complex wounds; escalating to the management of complex wounds
- ♦ Analyze the basic anatomy of the wrist and hand to provide a starting point from which to recognize injuries that may occur after trauma or injury of any kind
- ♦ Structure the bony and ligamentous anatomy of metacarpals and phalanges of the hand
- ♦ Analyze different surgical approaches to the hand
- ♦ Compile current arthroscopic treatment methods
- ♦ Establish general criteria for the anatomy and pathophysiology of osteoarthritis in the various joints of the wrist and hand
- ♦ Analyze in detail the anatomy of the flexor and extensor tendons of the hand, as well as the detailed development of their vascularization and the biology of tendon healing.
- ♦ Homogenize knowledge and skills in the pathology of the peripheral nerve of the upper limb and brachial plexus
- ♦ Update diagnostic and therapeutic knowledge based on the fundamental principles of nerve and brachial plexus injuries
- ♦ Guide the different therapeutic options (conservative and surgical) as well as the appropriate time to perform them
- ♦ Examine the different surgical techniques used in the treatment of the different pathologies of the pediatric upper limb





- ♦ Delve into the anatomical and pathophysiological knowledge of Dupuytren's disease through physical examination and accurate use of the classification of the disease, to determine the appropriate timing of surgical treatment
- ♦ Analyze the surgical techniques available in primary and relapsed Dupuytren's disease and the sequelae of previous treatments
- ♦ Show the advantages of ultrasound for daily practice in Traumatology
- ♦ Explore occupational hand-wrist injuries
- ♦ Develop the latest technological advances in Hand Surgery

“

*You will be up-to-date on the most advanced techniques to address tendon sutures, rehabilitation times and modes”*



## Specific Objectives

### Module 1. Basic sciences applied to hand and upper extremity surgery. Methodology. Rehabilitation

- ♦ Place chronologically the current state of hand surgery after a historical review
- ♦ Analyze the physiological bases necessary for the study of hand pathology
- ♦ Define the imaging techniques available for the study of hand pathology, develop each of them and specify their indications
- ♦ Review the anesthetic techniques used during hand surgery
- ♦ Delve into the advantages, disadvantages and risks of each of them and understand the indication of one or the other
- ♦ Delve into orthopedic and rehabilitative treatment in hand pathology processes, as well as non-surgical treatments, and their importance in the postoperative period
- ♦ Develop the concepts of hand surgery research, analyzing the different types of clinical studies and levels of scientific evidence

### Module 2. Inflammatory Arthritis and Degenerative Arthrosis of the Wrist and Hand. Conservative and Surgical Treatment. Evidence

- ♦ Define the basic differential diagnosis of wrist and hand arthropathies
- ♦ Obtain a global vision of the Inflammatory Arthropathies to see the differences between them and also to discern the best treatment for each one of them
- ♦ Analyze rhizarthrosis, its diagnosis and severity classification and develop the different therapeutic strategies, conservative or surgical
- ♦ Identify osteoarthritis of proximal and distal interphalangeal joints, carpometacarpal joints (excluding the thumb, mentioned in another topic) and scapho-trapezio-trapezoid joints





- ◆ Develop the known surgical techniques and master their indications and technical details
- ◆ Present the degenerative pathology of the triangular fibrocartilage as an important triggering factor of wrist discomfort
- ◆ Clarify the pathophysiology of Kienböck's disease, the Gold standard for its diagnosis and be able to classify it in severity, thus being able to choose the best treatment

### **Module 3. Tendon Injuries of the Hand**

- ◆ Examine in detail the anatomy and vascularization of the flexor and extensor tendons and analyze their biomechanics
- ◆ Delve into the diagnosis and prognosis of flexor tenosynovitis of the fingers, as well as its complications
- ◆ Evaluate extensor tenosynovitis from its initial diagnosis to its conservative and surgical treatment
- ◆ Examine the different tendon suturing techniques in different flexor tendon areas, as well as types of post-surgical immobilization and initiation of rehabilitative therapy
- ◆ Identify extensor tendon rupture zones and their optimal treatment, as well as their rehabilitation protocol
- ◆ Delve into the complications of extensor tendon sutures and their treatment
- ◆ Analyze flexor suture failures and their treatment

# 03

## Course Management

TECH has gathered in this Postgraduate Diploma an excellent management and teaching team in the field of Hand Surgery. In this way, the graduate will have the guarantee of access to a university program, whose syllabus has been prepared by consolidated experts in this subspecialty. Also, thanks to its proximity, the medical professional will be able to resolve any questions they may have about the content of this unique program in the academic panorama.





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*Teachers with extensive surgical experience in the Upper Limb are responsible for the advanced syllabus to which you will have access 24 hours a day”*

## Management



### Dr. Ríos García, Beatriz

- ♦ Medical Specialist in Orthopedic Surgery and Traumatology in the Hand and Microsurgery Unit at the Monographic Hospital of Orthopedic Surgery and Traumatology ASEPEYO
- ♦ Medical Specialist in Orthopedic Surgery and Traumatology (Dr. Rayo and Amaya Team) at the Hospital San Francisco de Asís
- ♦ Resident Tutor at the Hospital ASEPEYO
- ♦ Medical Specialist in Hand Surgery (Dr. de Haro Team) at the San Rafael Hospital
- ♦ Teacher of Knee, Shoulder, Osteosynthesis, Locomotor System and Ultrasound Pathology Courses
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Member of: Teacher of Knee, Shoulder, Osteosynthesis, Locomotor System and Ultrasound Pathology Courses



### Dr. Valdazo Rojo, María

- ♦ Traumatology and Orthopedic Surgery Service at the Hospital Universitario San Francisco de Asís
- ♦ Traumatology and Orthopedic Surgery Area Specialist at the Hospital Fundación Jiménez Díaz
- ♦ Specialist in Traumatology and Orthopedic Surgery at the Albacete University Hospital Complex
- ♦ Professor of Medicine at the Universidad Alfonso X el Sabio, Madrid
- ♦ Professor of Medicine at the Autonomous University of Madrid
- ♦ Professor of Medicine at the University of Albacete
- ♦ PhD in Medicine and Surgery from the Complutense University of Madrid
- ♦ Graduated from the Universidad Autónoma de Madrid



## Professors

### Dr. García Prieto, Alfonso Luis

- ♦ Specialist in the area of Orthopedic Surgery and Traumatology at the Regional Hospital San Juan de la Cruz de Úbeda
- ♦ Specialist in Orthopedic and Trauma Surgery
- ♦ Author and coordinator of the book "Traumatology for Emergency Doctors"
- ♦ Utility Model / Patent Inventor (55%) of the Utility Model "Osteotomy guide for surgery of the first metatarsal", approved by the Spanish Patent and Trademark Office
- ♦ Degree in Medicine from the University of Cadiz
- ♦ Postgraduate Diploma in Biostatistics applied to Health Sciences by the UNED
- ♦ Member of the teaching and research committee of the Hospital San Juan de la Cruz

### Dr. Sánchez López, Amalia

- ♦ Coordinator of the Rehabilitation Service of the Hospital San Francisco de Asís
- ♦ Madrid Rehabilitation Physician at Hospital Quirón de Talavera de la Reina
- ♦ Specialist in Physical Medicine and Rehabilitation at the Jiménez Díaz Foundation Hospital
- ♦ Degree in Medicine from the University of Salamanca Academic Formation

### Dr. Losa Palacios, Sergio

- ♦ Medical Specialist of the Hand Surgery Unit of the Albacete University Hospital Complex
- ♦ Orthopedic Surgery and Traumatology Physician at the General Hospital of Villarrobledo
- ♦ Honorary teaching collaborator of the University of Albacete
- ♦ Master in Hand Pathology by the International University of Andalusia
- ♦ Master's Degree in Patient Safety and Health Care Quality, Universidad Miguel Hernández
- ♦ Master's Degree in Health Law, Universidad de Castilla-La Mancha
- ♦ Postgraduate Certificate in Hand Surgery from the Spanish Society of Hand Surgery
- ♦ Member of the Spanish Society of Hand Surgery

### Dr. Ortega Carnero, Álvaro

- ♦ Doctor
- ♦ Master's degree in integration of medical knowledge and its application to clinical problem solving
- ♦ Degree in Medicine

### Dr. Rayo Navarro, María Jesús

- ♦ Assistant Physician of Orthopedic Surgery and Traumatology at the Hospital Francisco de Asís
- ♦ Assistant Doctor of Orthopedic Surgery and Traumatology at Hospital Universitario Príncipe de Asturias
- ♦ Doctor in the University Hospital of Getafe
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid

### Dr. Alfaro Micó, Joaquín

- ♦ Area Specialist Physician at the General Hospital of Albacete in the Hand Surgery Section
- ♦ Area Specialist Physician at Hospital Quirón Salud Albacete
- ♦ Member of the teaching committee of Hospital General Albacete
- ♦ Master's Degree in Clinical and Medical Professionalism, Universidad de Alcalá, Spain
- ♦ Master's Degree in Update on Orthopedic Surgery and Traumatology. CEU Cardenal Herrera University
- ♦ Master's Degree in Clinical Management, Medical and Health Care Management. CEU Cardenal Herrera University
- ♦ Master in Traumatologic Emergencies by CEU Cardenal Herrera University
- ♦ Master's Degree in Hand Surgery from the International University of Andalusia
- ♦ Member of: Spanish Society of Orthopedic Surgery and Traumatology (SECOT) and-La Mancha Society of Orthopedic Surgery and Traumatology (SCMCOT) and Spanish Society of Hand Surgery (SECMA)

**Dr. Gimeno García-Andrade, María Dolores**

- ♦ Specialist in Traumatology and Orthopedic Surgery at the Hospital Clínico San Carlos de Madrid
- ♦ Medical Director of Procion-Hathayama Medical Center
- ♦ Traumatology and Orthopedic Surgery Consultation Meditrafic
- ♦ Traumatology and Orthopedic Surgery Consultation at Vaguada Medical Center
- ♦ Traumatology and Orthopedic Surgery Consultation at Proci3n-Hathayama Medical Center
- ♦ Teacher and internship to MIR and students of the Complutense University of Madrid
- ♦ Teacher at the Hospital Cl3nico San Carlos
- ♦ Collaborator with the NGO Vicente Ferrer Foundation in Anantapur (India) with the RDT Project for the treatment of disability
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid

**Dr. Aragon3s Maza, Paloma**

- ♦ Specialist in Orthopedic and Trauma Surgery
- ♦ Specialist in Orthopedic Surgery and Traumatology at the University Hospital Santa Cristina
- ♦ Specialist in Orthopedic Surgery and Traumatology at the Santa Clotilde Hospital
- ♦ Specialist in Orthopedic Surgery and Traumatology at Hospital Universitario Getafe
- ♦ PhD in Medicine and Surgery from the Complutense University of Madrid
- ♦ Associate Professor Complutense University of Madrid
- ♦ Professor at Alfonso X El Sabio private university
- ♦ Teacher in multiple courses and postgraduate training for doctors, technicians and other health professions
- ♦ Member of: Spanish Anatomical Society and of the European Association of Clinical Anatomy and Spanish Society of Orthopedic Surgery and Reviewer and Associate editor of the European Journal of Anatomy

**Dr. Jim3nez Fern3ndez, Mar3a**

- ♦ Specialist in the Traumatology Area at Hospital Costa del Sol
- ♦ Clinical tutor at Hospital Costa del Sol, teaching practice and clinical activity to students of the Faculty of Medicine in Malaga
- ♦ Teacher of Traumatology courses
- ♦ PhD in Orthopedic Surgery and Traumatology from the University of Malaga
- ♦ Graduate in Medicine and Surgery from the University of Malaga
- ♦ University Master's Degree in Hip and Pelvis Pathology by UNIA

**Dr. Felices Farias, Jos3 Manuel**

- ♦ Assistant Specialist in Radiodiagnosis at Hospital Universitario Virgen de la Arrixaca, Murcia, Spain
- ♦ Head of Residents at the Virgen de la Arrixaca University Hospital
- ♦ Associate Professor of Radiodiagnosis in the Degrees in Medicine and Dentistry at the Catholic University San Antonio of Murcia
- ♦ Honorary Collaborating Professor of the Department of Dermatology, Stomatology,
- ♦ Degree in Medicine and Surgery from the Faculty of Medicine of the University Murcia
- ♦ Doctor of Medicine, University of Murcia
- ♦ Master in Applied Clinical Anatomy, University of Murcia
- ♦ Degree in Medicine from the University of Murcia

**Dr. Fern3ndez Rodr3guez, Tom3s**

- ♦ Ultrasound Specialist at the Hospital San Francisco de Asis
- ♦ Outpatient Emergency Physician at the SAR de Mejorada del Campo
- ♦ Teacher collaborator at the University Camilo Jos3 Cela in programs of the faculties of Nursing and Physiotherapy
- ♦ Member of the Working Group on Ultrasound SEMERGEN

**Dr. Sánchez González, José**

- ♦ Assistant Physician of Orthopedic Surgery and Traumatology at the Hospital de Mataró
- ♦ Clinical Chief of the Upper Extremity Unit at Mataró Hospital
- ♦ Member of the Teaching Commission at Hospital de Mataró
- ♦ Specialist in the Traumatology and Sports Medicine Unit at the GEMA Clinic in Mataró
- ♦ Specialist in the Trauma Pathology and Shoulder Arthroplasty Unit
- ♦ Sports Traumatology Team at the Clínica Creu Blanca
- ♦ Specialist in Orthopedic and Trauma Surgery
- ♦ Teaching Collaborator at the Mataró Hospital Teaching Unit
- ♦ Member of: Catalan Society of COiT (SCCOT), Spanish Society of COT (SECOT) and Commission of tutors of residents of the Catalan Society of Orthopedic Surgery and Traumatology

**Dr. Font Bilbeny, Mercé**

- ♦ Assistant Doctor of Orthopedic Surgery and Traumatology in the Upper Extremity Unit at the Hospital de Mataró
- ♦ Primary Care Continuity of Care Assessment Coordinator - Orthopedic Surgery and Traumatology Specialist
- ♦ Medical specialist of the Orthopedic Surgery and Traumatology of the Gabinet de Especialidades Mèdicas (GEMA)
- ♦ Teacher collaborator at the Teaching Unit of the Hospital de Mataró
- ♦ Action Guide and Protocols for referral from Primary Care to the Orthopedic Surgery and Traumatology Service of the Consorci Sanitari del Maresme
- ♦ Degree in Medicine and Surgery from the Universitat Autònoma de Barcelona
- ♦ Member of the Upper Extremity Unit of the Orthopedic Surgery and Traumatology Service of the Hospital de Mataró

**Dr. Gallach Sanchís, David**

- ♦ Specialist in Orthopedic Surgery and Traumatology in the specialized care area of Albacete
- ♦ Specialist in Hand Surgery Unit
- ♦ Degree in Medicine and Surgery from the Faculty of Medicine and Dentistry of Valencia



*Take the step to get up-to-date on the latest developments in Hand Arthropathies and Tendon Injuries”*

# 04

## Structure and Content

The syllabus of this Postgraduate Diploma provides the professional with the latest scientific evidence on conservative and surgical treatments for treating inflammatory arthritis and degenerative osteoarthritis, as well as the most effective techniques for treating tendon injuries. All this, in addition, with innovative teaching resources that make up the extensive virtual library of this program. Also, thanks to the Relearning method, the graduate will be able to consolidate the key concepts shown throughout the 6 months of this program.





“

*Delve into the anatomical, embryological and physiological fundamentals of the hand from the comfort of your own home"*

**Module 1.** Basic sciences applied to hand and upper extremity surgery. Methodology. Rehabilitation

- 1.1. History of Hand Surgery. Progress in the XXI century
  - 1.1.1 From Ancient Times to the Modern Age
  - 1.1.2 Contemporary Age. Discovery and changes
  - 1.1.3 From 1950 to the present day. Progress in the XXI Century
- 1.2. Biology and physiology in relation to hand surgery. Tissue healing
  - 1.2.1 Classification and clinical classification of hand wounds
  - 1.2.2 Physiology: healing and epithelialization
  - 1.2.3 Scar pathology
- 1.3. Embryology and genetics in hand surgery. Malformations
  - 1.3.1 Early stages of development of the upper extremity. Genes involved
  - 1.3.2 Growth and rotation of the outlines. Fragmentation process
  - 1.3.3 Formation of the skeleton, musculature and appendicular joints
  - 1.3.4 Vascularization and innervation of the developing limbs
  - 1.3.5 Classification of congenital malformations of the upper extremity
- 1.4. Anatomy I in Hand Surgery. Functions and Biomechanics
  - 1.4.1 Topography
  - 1.4.2 Skin and fibrous skeleton
  - 1.4.3 Bone and ligamentous skeleton
  - 1.4.4 Functions and biomechanics
- 1.5. Anatomy II in Hand Surgery. Approaches
  - 1.5.1 Musculature
  - 1.5.2 Vascularization
  - 1.5.3 Sensory innervation
  - 1.5.4 Main approaches in hand surgery
- 1.6. Ultrasound applied to hand surgery
  - 1.6.1 Objectives
  - 1.6.2 Basic principles of ultrasound
  - 1.6.3 Ultrasound diagnostic pathology in wrist and hand
    - 1.6.3.1. Dorsal side
    - 1.6.3.2. volar side
  - 1.6.4 Bone and Joint Pathology

- 1.7. Magnetic Resonance Imaging applied to hand surgery. Nuclear Medicine
  - 1.7.1 Wrist and hand radiography
  - 1.7.2 CT in Hand Surgery. Diagnostic Applications
  - 1.7.3 MRI in Hand Surgery
- 1.8. Anesthesiology applied to Hand Surgery. Walant Technique
  - 1.8.1 Walant. Preparation
  - 1.8.2 Use of the Walant in Hand Surgery
  - 1.8.3 The Yes and No to the Walant
- 1.9. Rehabilitation: orthoses and basic principles in hand rehabilitation
  - 1.9.1 Principles of Rehabilitation in Hand Surgery. Evaluation and therapeutic approach
  - 1.9.2 Treatments with physiotherapy, electrotherapy and occupational therapy
  - 1.9.3 Orthoses
- 1.10. Clinical Research in Hand Surgery: Study Population, Clinical Designs, Instruments and Measurements, and Data Analysis
  - 1.10.1 Types of Clinical Studies
  - 1.10.2 Design errors in clinical studies
  - 1.10.3 Level of evidence
  - 1.10.4 Diagnostic test statistics

**Module 2.** Inflammatory Arthritis and Degenerative Arthrosis of the Wrist and Hand. Conservative and Surgical Treatment. Evidence

- 2.1. Clinical examination and basic differential diagnosis in arthropathies of the wrist and hand
  - 2.1.1 Etiology of degenerative pathology of the wrist and hand
  - 2.1.2 Clinical examination and complementary diagnostic tests
  - 2.1.3 Overview and differential diagnosis of Wrist and hand joint pain. Specific Characteristics
- 2.2. Arthrosis of the fingers and carpometacarpal joints, except the thumb. Therapy Options
  - 2.2.1 Metacarpophalangeal arthrosis (excluding the thumb). Etiology, Diagnosis and Treatment
  - 2.2.2 Proximal interphalangeal arthrosis. Etiology, Diagnosis and Treatment
  - 2.2.3 Distal interphalangeal osteoarthritis. Etiology, Diagnosis and Treatment



- 2.3. Rizarthrosis. Assessment, classification and conservative treatment
  - 2.3.1 Anatomy and Physiopathology
  - 2.3.2 Diagnosis. Symptoms and clinical examination. Complementary Tests. Classification
  - 2.3.3 Conservative Treatment
- 2.4. Rizarthrosis. Surgical Management
  - 2.4.1 Suspension arthroplasty. Advantages and Disadvantages. Surgeon's preferences
  - 2.4.2 Replacement arthroplasty
  - 2.4.3 Arthrodesis of the trapeziometacarpal joint
- 2.5. Scapho-trapeziometacarpal (STT) arthrosis. Assessment and therapeutic options
  - 2.5.1 Degenerative causes of STT. Primary or secondary involvement
  - 2.5.2 Clinic and diagnosis of osteoarthritis STT
  - 2.5.3 Surgical techniques indicated for STT joint involvement
- 2.6. Treatment of carpal osteoarthritis. Arthrodesis, arthroplasty and other options
  - 2.6.1 Degenerative changes of the carpus. Etiology, classification and diagnosis
  - 2.6.2 Four corner arthrodesis. Proximal Carpectomy. Total wrist arthrodesis
  - 2.6.3 Wrist replacement arthroplasty. Capsular Denervation
- 2.7. Degenerative pathology of the triangular fibrocartilage
  - 2.7.1 Anatomy and Physiopathology
  - 2.7.2 Etiology of triangular fibrocartilage lesions. Diagnosis
  - 2.7.3 Treatment and prognosis of triangular fibrocartilage lesions
- 2.8. Kienböck's disease. Pathophysiology, diagnosis, classification and treatment
  - 2.8.1 Anatomy and pathophysiology of Kienböck's disease
  - 2.8.2 Clinical examination and diagnostic tests. Classification
  - 2.8.3 Conservative treatment vs. surgical treatment
- 2.9. Surgical treatment of rheumatoid arthritis in the hand: synovectomies, plastias, arthroplasties and arthrodesis
  - 2.9.1 Synovectomies and plasties in the rheumatoid hand. Indications and Results
  - 2.9.2 Hand and wrist replacement arthroplasty in rheumatoid arthritis
  - 2.9.3 Arthrodesis in the rheumatoid hand. Indications and Results

- 2.10. Similarities and differences in surgical treatment of rheumatoid arthritis and other inflammatory arthropathies: lupus erythematosus, microcrystal deposition diseases
  - 2.10.1 Hand and wrist deformities in systemic lupus erythematosus. Therapeutic Techniques
  - 2.10.2 Microcrystal deposition diseases. Differential diagnosis and treatment of choice
  - 2.10.3 Differences and similarities in the treatment of inflammatory diseases

### Module 3. Tendon Injuries of the Hand

- 3.1. Anatomy and Biomechanics of the Extensor Tendons and Flexor Tendons
  - 3.1.1 Anatomy of the extensor tendons
  - 3.1.2 Anatomy of the flexor tendons
  - 3.1.3 Biomechanics of the extensor tendons
  - 3.1.4 Biomechanics of the flexor tendons
- 3.2. Intra and Extrasynovial Vascularization. Pathophysiology of Tendon Repair
  - 3.2.1 Vascularization of flexor tendons
  - 3.2.2 Vascularization of extensor tendons
  - 3.2.3 Pathophysiology of tendon repair
- 3.3. Stenosing tenosynovitis of flexor tendons
  - 3.3.1 Stenosing tenosynovitis of flexors. Diagnosis and Prognosis
  - 3.3.2 Stenosing tenosynovitis of flexors. Conservative treatment. Rehabilitation
  - 3.3.3 Stenosing tenosynovitis of flexors. Surgical Management
- 3.4. Extensor Tendinopathies. Clinical and ultrasound diagnosis. Surgical Management
  - 3.4.1 Clinical diagnosis of extensor tendinopathies
  - 3.4.2 Ultrasound in the best diagnosis and therapeutic orientation
  - 3.4.3 Surgical Management
  - 3.4.4 Conservative treatment of extensor tendinopathies. Ultrasound assistance
  - 3.4.5 Surgical treatment of extensor tendinopathies. Ultrasound assistance
- 3.5. Flexor tendon ruptures. Treatment in acute and chronic phase
  - 3.5.1 Flexor tendon rupture and prognosis according to zone
  - 3.5.2 Flexor tendon rupture diagnosis. Treatment in acute phase
  - 3.5.3 Flexor tendon rupture diagnosis. Treatment in chronic phase







- 3.6. Extensor tendon ruptures. Treatment in acute and chronic phase
  - 3.6.1 Flexor tendon rupture and prognosis according to zone
  - 3.6.2 Flexor tendon rupture diagnosis. Treatment in acute phase
  - 3.6.3 Flexor tendon rupture diagnosis. Treatment in chronic phase
- 3.7. Sutures. Types and Forms. Tension. Scientific Evidence
  - 3.7.1 Sutures, types and materials
  - 3.7.2 Tension according to type of sutures. Available evidence
  - 3.7.3 Applications according to cases of the different sutures
- 3.8. Rehabilitation Protocols
  - 3.8.1 Rehabilitation of flexor tendon ruptures treated in acute phase
  - 3.8.2 Rehabilitation of extensor tendon ruptures treated in the acute phase
  - 3.8.3 Rehabilitation of extensor tendon ruptures treated in the acute phase
- 3.9. Complications in extensor ruptures. Diagnosis and Treatment Repair Techniques
  - 3.9.1 Complications of extensor tendon ruptures. Diagnosis. How to predict them
  - 3.9.2 Surgical treatment of these complications
  - 3.9.3 Postoperative rehabilitation after surgical resolution of the complication
- 3.10. Complications in flexor ruptures. Diagnosis and Treatment Repair Techniques
  - 3.10.1 Complications of flexor tendon ruptures. Diagnosis. How to predict them
  - 3.10.2 Surgical treatment of these complications
  - 3.10.3 Postoperative rehabilitation after surgical resolution of the complication

“ *Investigates the existing conservative and surgical therapeutic strategies to address rhizarthrosis in elderly patients* ”

# 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.

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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.



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# Certificate

The Postgraduate Diploma in Arthropathies and Tendon Injuries of the Hand guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma 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 Diploma in Arthropathies and Tendon Injuries of the Hand** 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.

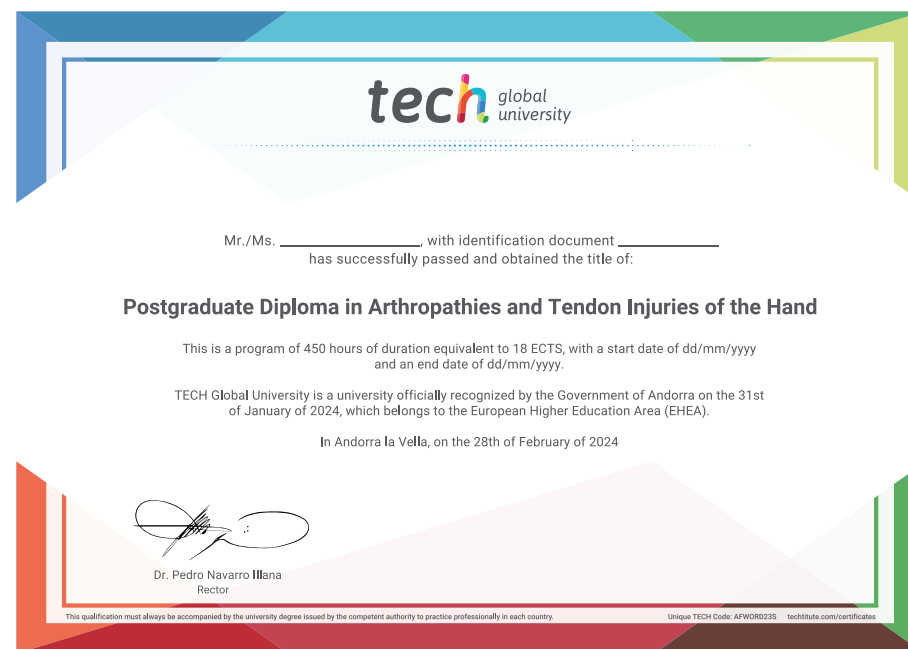
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Arthropathies and Tendon Injuries of the Hand**

Modality: **online**

Duration: **6 months**

Accreditation: **18 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.

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

**tech** global  
university

**Postgraduate Diploma**  
Arthropathies and Tendon  
Injuries of the Hand

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Diploma

## Arthropathies and Tendon Injuries of the Hand

