



## Postgraduate Certificate

Osteoarticular Infections in Pediatric Orthopedics

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Global University

» Credits: 6 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/physiotherapy/postgraduate-certificate/osteoarticular-infections-pediatric-orthopedics

## Index

 $\begin{array}{c|c} 01 & 02 \\ \hline & \\ \hline \\ 03 & 04 \\ \hline \\ \hline \\ \hline \\ course Management \\ \hline \\ \hline \\ \\ \hline \\ p. 12 \\ \hline \end{array} \begin{array}{c} Objectives \\ \hline \\ \hline \\ 04 \\ \hline \\ \hline \\ p. 26 \\ \hline \end{array} \begin{array}{c} O5 \\ \hline \\ Methodology \\ \hline \\ \hline \\ p. 30 \\ \hline \end{array}$ 

06 Certificate

p. 38





## tech 06 | Introduction

Scientific evidence has proven that pediatric patients are the segment of the population with the highest incidence of osteoarticular infections. Several studies state that 25% of them occur before the child is two years old, a figure that rises to 50% in children under 5 years old. Likewise, males are more prone to contract them than females, with a route of infection that varies depending on the case. Although the most common route is hematogenous, infections by extension from a nearby source or inoculation by trauma have also been reported.

These diseases leave challenging scenarios that require professionals up to date in the scientific findings that are thrown on them, something that closely concerns the physical therapist. For this reason, with TECH you will be able to obtain a high level of preparation that will improve your work methodology and decision making regarding the therapeutic regimen applicable to each case.

Thus, students will deepen in the most frequent germs that cause infectious pathology, also analyzing the most appropriate strategies for the differential diagnosis of diseases that occur with lameness. Likewise, they will develop in the long-term management of the evolution of their musculoskeletal system, investigating the repercussions of their condition. In addition, they will develop in the use of those diagnostic tools that improve the detection of Recurrent Multifocal Osteomyelitis.

With this program, students will be able to face any challenge in this area while combining it without problems with their professional activity. To this we must add the facilities offered by the Virtual Campus, accessible 24 hours a day and through which they can contact the teaching team for any questions.

This Postgraduate Certificate in Osteoarticular Infections in Pediatric Orthopedics 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 Osteoarticular Infections in Pediatric Orthopedics
- 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



With this Postgraduate Certificate you will develop the most advanced strategies in diseases that cause lameness in the pediatric patient"



Say goodbye, with TECH, to cramped schedules and unnecessary travel with a pioneering online program in Osteoarticular Infections in Pediatric Orthopedics"

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 immersion 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.

Do you need to improve your diagnostic skills? Enroll to increase suspicion and deepen the management of Recurrent Multifocal Osteomyelitis.

Enjoy high-level preparation with TECH to manage and identify various non-infectious arthropathies, adapting your techniques to the pediatric patient.



# 02 Objectives

The search for professional excellence is what drives TECH in the design of its wide range of courses. In this one it was not going to be less, and the objective of the program is none other than the acquisition of competences that will make physiotherapists stand out in the intervention of osteoarticular infections. They will do so by deepening in techniques that will increase their diagnostic capacity and that will adapt the approach according to the infectious pathology that occurs, which will give even more value to their physiotherapeutic activity.



## tech 10 | Objectives



#### **General Objectives**

- Knowing how to carry out a good assessment of the child, starting with the anamnesis, a tool that is often underused but essential, a structured and complete examination that, depending on the age, will have different perspectives
- Become familiar with the management of the different congenital and/or acquired alterations affecting the upper limb of growing patients
- Delve into the complementary studies that help diagnose and make decisions, as well as the appropriate moment to perform them
- Manage therapeutic options, as well as the treatment schedule
- Apply the different surgical techniques used to treat the various pathologies
- Become familiar with the pathology, clinical presentation and management of the most common benign and malignant tumors of the upper extremity affecting children
- Recognize and manage the major diseases of the hip that affect children
- Manage the examination and diagnosis of hip pathology in children according to their age and the prevalence associated with it
- Review the most important pathologies that occur in pediatric orthopedics, as knowledge of them is the fundamental pillar of this speciality
- To learn about the latest advances in the treatment of these classic pediatric orthopedics diseases
- Specialize in the diagnosis, treatment and prognosis of orthopedic and traumatologic knee pathologies in children and their particular characteristics compared to adults







## **Specific Objectives**

- Learn the microbiologic characteristics of the different infectious musculoskeletal pathologies in pediatric patients
- Delve into the most prevalent germs that cause infectious pathology
- Develop a correct strategy for the differential diagnosis of diseases that cause lameness in pediatric patients
- Learn the emergency management of pediatric patients with infectious musculoskeletal pathologies
- Gain in-depth knowledge on the hospital management of patients admitted for musculoskeletal infections
- Apply the long-term management of patients diagnosed with musculoskeletal infections during infancy
- Manage and identify other non-infectious arthropathies, as well as their management in the pediatric patient
- Suspect and learn the management of Recurrent Multifocal Osteomyelitis



You will be able to add value to your professional practice with the latest knowledge on hospital management of the patient admitted for these pathologies. You will achieve your most ambitious goals!"







#### **International Guest Director**

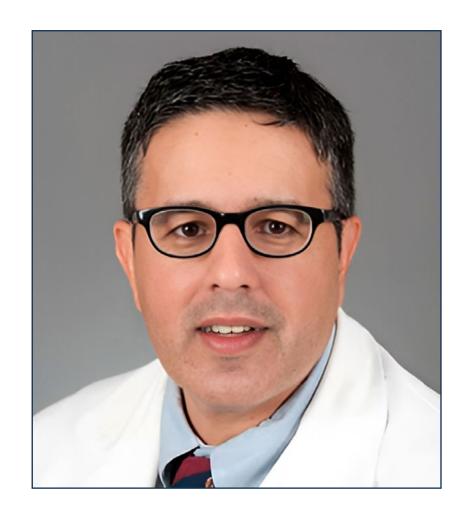
Mininder Kocher is an internationally prominent pediatric orthopedic surgeon. His professional merits and results have been recognized with numerous awards, including the **Kappa Delta** Award, considered the "Nobel Prize" in the field of orthopedic surgery. In addition, he practices as a specialist at Harvard University Medical School.

Harvard Medical School.

The scientist also holds the title of Chief of the Division of Sports Medicine at Boston Children's Hospital. From that institution, he deals with different complex pathologies such as joint injuries, osteomyelitis, hip labral tears, osteochondritis dissecans, osteochondritis dissecans or Pigmented Villonodular Synovitis, among others. His innovations in these areas of Orthopedic Medicine are reflected in more than 180 academic articles published in first impact indexed journals. He is also the author of more than 100 chapters in books and is the sole author of 4 books. His texts have become an indispensable reference for the medical community, highlighting his undeniable contributions to the field.

Dr. Mininder Kocher's impact extends beyond the borders of the United States, as he serves as a consultant and advisor to hospitals and universities in more than 20 countries. Moreover, he has been listed as one of the top surgeons in the world on platforms such as US News & World Report, Castle Connelly, Top Doctors and Boston Magazine. Likewise, his skills and experiences have been the subject of attention in reference media such as the New York Times, Wall Street Journal, USA Today, Boston Globe, Chicago Tribune, Scientific American, among others.

He is especially committed to the rehabilitation of children and adolescent athletes, his exhaustive work in this area has been honored with such prominent recognitions as the Von Meyer, Richard Kilfoyle, Angela Kuo and Arthur Heune awards.



## Dr. Kocher, Mininder

- Director of the Division of Sports Medicine, Boston Children's Hospital
- Fellow in Orthopaedic Surgery, Harvard Medical School
- M.D. Harvard University
- Board Certified in General Medicine by the American Board of Orthopaedic Surgery
- Board Certified in Sports Medicine by the American Board of Orthopedic Surgery
- Member of: Board of Directors of the American Academy of Orthopaedic Surgeons, American Orthopaedic Society for Sports Medicine, Pediatric Orthopaedic Society of North America, Herodicus Society and International Pediatric Orthopaedic Think Tank



#### Management



#### Dr. Palazón Quevedo, Ángel

- Head of the Orthopedic Surgery and Traumatology Department at the Hospital Niño Jesús University Hospital
- · Specialist Physician at the Santa Elena Clinic Madrid
- · Specialist Consultant at Hospital San Rafael. Madric
- Collaborating the Board of Directors of SECOT
- Doctorate course in Pediatrics with doctoral thesis project Long-term follow-up of surgically intervened hip dysplasias in childhood
- Degree in Medicine and Surgery from the Complutense University of Madrid
- Medical Specialist COT via MIR at the University Hospital of San Juan de Alicante
- Member of: SECOT, SEOP

#### **Professors**

#### Dr. Martínez Álvarez, Sergio

- Medical Specialist in Orthopedics and Traumatology
- Attending Physician of the Orthopedics and Traumatology Department of the Niño Jesús Pediatric University Hospital
- Head of the Upper Limb and Pediatric Hand Unit at the Niño Jesús University Children's Hospital
- Specialist in Orthopedic Surgery and Traumatology at the Hospital Universitario de the La Princesa

#### Dr. Abad Lara, José Antonio

- Specialist in Pediatric Orthopedic Surgery and Traumatology in the Pediatric Orthopedics Unit of the Hospital Universitario Reina Sofia
- Degree in Medicine and Surgery from the University of Córdoba
- Specialist in Pediatric Orthopedic Surgery and Traumatology, with exclusive dedication to the management of pediatric orthopedic conditions in the Pediatric Orthopedics Unit of the Hospital Universitario Reina Sofia
- Coordinator of the Children's Orthopedics Unit of the Hospital Universitario Reina Sofia until 2018

#### Dr. Egea Gámez, Rosa María

- Specialist Physician of the Orthopedics and Traumatology Department of the Niño Jesús Pediatric University Hospital
- Specialist in Orthopaedic Surgery and Traumatology at VU Medisch Centrum Amsterdam
- Specialist in Orthopaedic Surgery and Traumatology at Medisch Centrum Breda
- Spine Research Unit at the Nuffield Orthopaedic Centre in Oxford
- Specialist in Orthopaedic Surgery and Traumatology at General University Hospital of Móstoles, Madrid
- Specialist in Orthopedic Surgery and Traumatology at the University Hospital Foundation of Alcorcón
- Specialist in Orthopedic Surgery and Traumatology at Mutua Gallega in Vigo
- Lecturer in Nursing and Physiotherapy at the Rey Juan Carlos University
- Teaching abroad. Free University of the Netherlands
- Professor at the University Francisco de Vitoria
- Degree in Medicine and Surgery from the Complutense University of Madrid
- Doctor of Medicine, Rey Juan Carlos University
- Master in Public Health and Epidemiology, Rey Juan Carlos I University, Madrid

#### Dr. Ramírez Barragán, Ana

- Assistant Physician of Traumatology and Orthopedic Surgery at the Niño Jesús University Children's Hospital
- Specialist in Family and Community Medicine
- Specialist in Traumatology and Orthopedic Surgery
- PhD in Medicine from the University of Salamanca
- Degree in Medicine and Surgery from the Complutense University of Madrid

#### Dr. Abril Martín, Juan Carlos

- Chief of Children's Orthopedics Service at Ruber Internacional Hospital
- Medical Director of Traumatology and Orthopedics at Betanzos Clinical Center
- Chief of Children's Orthopedics Service at Niño Jesús Hospital
- Medical Director of the Madrid Institute of Ozone Therapy
- Degree in Medicine and Surgery
- Specialty in Orthopedic and Traumatologic Surgery by the Jimenez Diaz Foundation

#### Dr. Alonso Hernández, Javier

- Medical specialist in Traumatology and Orthopedic Surgery
- Head of the Pediatric Traumatology and Orthopedics Unit at the CEMTRO Clinic in Madrid
- Assistant to the Pediatric Orthopedics Service of the Niño Jesús Hospital in Madrid
- Specialized in Pediatric Traumatology and Orthopedics and in Pediatric Sports Traumatology
- Degree in Medicine and Surgery from the UAM
- Specialist Physician in Family and Community Medicine via MIR
- Medical Specialist in Traumatology and Orthopedic Surgery via MIR
- Clinical stay at Bradford Royal Infirmary Bradford, England-UK
- · Clinical stay at Johnston-Willis Hospital Richmond, Virginia-USA
- Clinical stay at Dudley Road Hospital, Birmingham, England-U.K
- Award for the best clinical case (SOMACOT interhospital clinical session)

#### Dr. Cabello Blanco, Juan

- Pediatrician and Orthopedist at the Hospital Ruber International
- Specialist in Orthopedic Surgery and Traumatology at the La Paz University Hospital
- Degree in Medicine from the Complutense University of Madrid
- Specialist in Pediatric Orthopedics and Traumatology

## tech 18 | Course Management

#### Dr. Budke Neukamp, Marcelo

- Specialist in Neurosurgery at the Ruber International Hospital
- Responsible for Epilepsy Surgery at the Niño Jesús Children's University Hospital
- Neurosurgeon at La Luz Hospital
- PhD in Surgery, Autonomous University of Madrid
- Degree in Medicine and Surgery from the Faculty of Medicine of the Federal University of Pelotas. State of Rio Grande do Sul. Brazil
- Trained in Neurosurgery at the Cleveland Clinic. United States
- Neurosurgeon at the Institut Mutualiste Montsouris. Paris, France
- Member of: Spanish Society of Neurosurgery and Spanish Society of Pediatric Neurosurgery

#### Dr. González Díaz, Rafael

- Head of the Spine Surgery Unit, Niño Jesús University Children's Hospital
- Head of Spine Surgery Unit, Orthopedic Surgery, Traumatology and Rehabilitation Area.
   Alcorcón Foundation University Hospital
- Specialist Spine Physician. MD Anderson International Hospital Spain and Sanitas La Moraleja Hospital
- Former President of the Spanish Spine Society, Spine Diseases Study Group
- Member of the Scientific Committee of the Ibero-Latin American Spine Society
- Doctor in Orthopedic Surgery and Traumatology, Extraordinary Doctorate Award. University
  of Salamanca
- Master's Degree in Medical and Clinical Management by the School of Health/UNED
- Specialist in Orthopedic Surgery and Traumatology La Paz University Hospital
- Degree in Medicine and Surgery University of Salamanca

#### Dr. Castañeda, Pablo G

- Chief of the Division of Pediatric Orthopaedic Surgery at Hassenfeld Children's Hospital, New York University
- Professor of Orthopedic Surgery, New York University
- Medical Surgeon graduated from the Universidad Nacional Autonoma de Mexico through the Universidad Anahuac
- Specialized in Orthopedics and Traumatology from the National Autonomous University of Mexico
- Sub-specialty in Reconstructive Surgery of the Hip and Knee by the University of Oxford at the Nuffield Orthopaedic Centre. Oxford, England
- Sub-specialty in Pediatric Orthopedics from Baylor University. Houston, Texas, USA

#### Dr. Alves, Cristina

- Physician in the Surgical Unit of Pediatric Orthopedics at the Pediatric Hospital of Coimbra
- Attending physician at the Neurosurgery Unit of the Hospital Infantil Universitario Niño Jesús
- Orthopedic Physician at the Pediatric Orthopedics Service at the Pediatric Hospital of CHUC, EPE

#### Dr. García Fontecha, César Galo

- Member of the Pediatric Traumatology Unit of the Lenox Corachan Surgery and Traumatology Service
- Head of the Psychiatric and Psychology Unit at Sant Joan de Déu Hospital
- Specialist in Pediatric Traumatology and Orthopedic Surgery at the Vall d'Hebron University Hospital
- Degree in Medicine and Surgery from the Central University of Barcelona
- Doctorate in Medicine and Surgery from the Autonomous University of Barcelona
- Member of the Scientific Committee of the Spanish Society of Pediatric Orthopedics

#### Dr. Chorbadjian Alonso, Gonzalo Andrés

- Deputy Chief of the Pediatric Orthopedics and Traumatology Service at San Borja Arriarán Clinical Hospital. Santiago de Chile
- Children's Traumatologist at the Orthopedics and Traumatology Service at San Borja Arriarán Clinical Hospital
- Child Traumatologist at Alemana Clinic. Chile
- Medical Surgeon by the University of Santiago de Chile
- Specialist in Orthopedics and Traumatology, University of Chile
- Fellow of Subspecialty in Neuroorthopedics at Niño Jesús University Children's Hospital. Madrid
- Visiting Fellow in the Orthopedics and Traumatology Service of the Children's Hospital Sant Joan de Deu
- Visiting Fellow in the Ankle and Foot Team, Neuroorthopedics and Pediatric Orthopedics of the Orthopedic Institute of the University Hospital of Heidelberg. Germany
- Fellow AO Trauma with Dr. Theddy Slongo at the Inselspital. Bern, Switzerland
- Member of: AO Trauma, SCHOT and SLAOTI

#### Dr. Galán Olleros, María

- Medical Specialist in Orthopedic Surgery and Traumatology
- Medical Specialist in Orthopedic Surgery and Traumatology at the Niño Jesús University Children's Hospital
- Physician Specialist in Orthopedic Surgery and Traumatology at the San Carlos Clinical Hospital
- Consultant in Traumatology and Orthopedics for Children at the CEMTRO Clinic
- Health Volunteer at the Institute for Indian Mother and Child. India
- Author of several national and international specialized publications
- Degree in Medicine from the Complutense University of Madrid

#### Dr. Álvaro Alonso, Alberto

- Coordinator of the Neuroorthopedics Consultation at the Gregorio Marañón General University Hospital
- Specialist in Traumatology and Orthopedic Surgery at the Gregorio Marañón General University Hospital
- Degree in Medicine from the Complutense University of Madrid

#### Dr. Espinazo Arce, Olga

- Chief of Children's Orthopedics Section at the Basurto Hospital
- Doctor in the Children's Orthopedics Section of the Orthopedic Surgery and Traumatology Service of the Basurto Hospital
- Doctor in the Orthopedic Surgery and Traumatology Service of the Alto Deba Hospital
- Collaborator in Congresses organized by the Spanish Society of Pediatric Orthopedics
- Member of the Spanish Society of Pediatric Orthopedics

#### Dr. De Pablos Fernández, Julio

- Medical Specialist in Orthopedic Surgery and Traumatology at the Navarra Hospital
- Associate Professor of Orthopedic Surgery and Traumatology at the University of Navarra
- Visiting Professor at different American universities
- Associate Professor of Orthopedic Surgery and Traumatology at the University of Navarra
- Editor of Children's Orthopedics in EFORT Orthopedic Reviews
- Member of the Editorial Board of the Journal of Pediatric Orthopedic (JPO)
- Organizer of the International Seminar on Pediatric Orthopedics (Annual) for 23 editions
- Doctor in Medicine and Surgery by the University of Navarra. Outstanding Award
- Fellow in Pediatric Orthopedic Surgery Alfred I DuPont Institute, Wilmington, Delaware USA
- Member of: SEOP, EPOS and POSNA

## tech 20 | Course Management

#### Dr. Downey Carmona, Francisco Javier

- Pediatric Orthopediatric Traumatologist in Orthopediatrics
- F.E.A. in Pediatric Traumatology at the Virgen del Rocio University Hospital, Seville
- Member of the Children's Orthopedics team at the Virgen del Rocio Children's Hospital for Mauritania
- President of the Association Ponseti Spain
- Graduate in Medicine and Surgery from the University of Seville
- Specialist in Orthopedic Surgery and Traumatology
- Member of the Spanish Society of Pediatric Orthopedics
- Member of the Spanish Society of Orthopedic Surgery and Traumatology
- Member of the team of the Andalusian Association of Health Cooperation of the Zambo Foot Project

#### Dr. Duart Clemente, Julio

- Medical Specialist in Orthopedic Surgery and Traumatology at the University Hospital of Navarra
- · Secretary of the Illustrious College of Physicians of Navarra
- Secretary of the Spanish Society of Pediatric Orthopedics
- Resident Intern at the University of Navarra Clinic
- Associate Professor of Orthopedic Surgery and Traumatology at the Universidad de Navarra
- Doctor of Medicine and Surgery at the Navarra University
- Graduate in Medicine and Surgery from the Universidad de Navarra
- Training stays in Pediatric Orthopedics at Cleveland Clinic Foundation (Cleveland, Ohio),
   Hospital Sant Joan de Deu, University Children's Hospital Basel (Basel, Switzerland), Mayo
   Clinic (Rochester, Minnesota) and traveling Fellowship EPOS POSNA
- Member of: SEOP, EPOS and POSNA

#### Dr. Clemente Garulo, Daniel

- Specialist in Rheumatology at the Pediatric Rheumatology Unit of the Niño Jesús University Children's Hospital
- Secretary of the working group: Rheumatic Diseases in Children and Adolescents of the Spanish Society of Rheumatology (ERNA-SER)
- Specialist Physician in Rheumatology at the San Carlos Clinical Hospital
- PhD in Health Sciences from the Universidad Camilo José Cela
- Degree in Medicine and Surgery from the Faculty of Medicine of the Universidad de Alcalá
- Member of the Spanish Society of Rheumatology
- Member of the Spanish Society of Pediatric Rheumatology

#### Dr. Fernández Pineda, Israel

- Faculty member of the Department of Surgery at St. Jude Children's Research Hospital
- Fellowship in Pediatric Oncologic Surgery at St. Jude Children's Research Hospital
- St. Jude Children's Research Hospital. Memphis, USA
- Faculty area specialist in Pediatric Surgery at the Department of Pediatric Surgery of the Virgen del Rocío Pediatric University Hospital
- Degree in Medicine from the Complutense University of Madrid
- Assistant Professor of Pediatrics and Surgery at the University of Tennessee, USA
- Director of the Pediatric Oncologic Surgery training program at St. Jude Children's Research Hospital
- Award of the Spanish Society of Pediatric Surgery to the best communication in Pediatric Urology at the National Congress of the SECP (A Coruña), with the communication "Biofeedback and electrostimulation in complicated enuresis"

#### Dr. Del Cura Varas, Marisol

- Assistant Physician of the Orthopedic Surgery and Traumatology Service of the Ramon and Cajal Hospital
- Medical Specialist of the Orthopedic Surgery and Traumatology Service of the Rey Juan Carlos Hospital
- Medical Specialist of the Orthopedic Surgery and Traumatology Department of the Madrid Norte Sanchinarro Hospital
- Medical Specialist of the Orthopedic Surgery and Traumatology Service of the Jiménez Díaz Foundation of Madrid
- Medical Specialist of the Orthopedic Surgery and Traumatology Service of the Niño de Jesús Hospital
- Degree in Medicine from the UAM
- Member of: ICOMEM y SECOT

#### Dr. Ron Marqués, Alejandra

- Physician and Surgeon Specialist in the Children's Traumatology Team at the University Hospital Complex Insular Maternal and Child. Las Palmas de Gran Canaria, Spain
- Physician and Surgeon in the Children's Traumatology and Orthopedics Team at Cemtro Clinic
- FEA in the Children's Orthopedics and Traumatology Unit at the University Hospital of Getafe
- SECOT Fellowship in the Traumatology Unit at the Hospital for Special Surgery. New York
- Graduated in Medicine and Surgery at the Complutense University of Madrid
- Degree in Medicine and Surgery from the Complutense University of Madrid
- Master's Degree in Clinical Management, Medical and Health Care Management
- Master's Degree in Pediatric Orthopedics
- Member of: SECOT, SEOP and Ponseti Association Spain

#### Dr. Farrington Rueda, David M

- Specialist in Orthopedic Surgery
- Chief of the Orthopedic Surgery and Traumatology Service at San Juan de Dios del Aljarafe Hospital
- Area Specialist in Orthopedic Surgery and Traumatology for Children at the Virgen de Valme University Hospital
- Head of Section of Orthopedic Surgery and Traumatology for Children at the Virgen del Rocío University Hospital
- Graduate in Medicine and Surgery from the University of Seville
- · Member of: SEOP, IPOTT and GSSG

#### Dr. Fraga Collarte, Manuel

- Medical Specialist in Orthopedic Surgery and Traumatology
- Assistant Physician of the Orthopedic Surgery and Traumatology Service at the Niño Jesús University Children's Hospital. Madrid
- Assistant Physician of the Orthopedic Surgery and Traumatology Service at the University Hospital Complex of Ourense
- Degree in Medicine from the University of Santiago de Compostela
- Course of External Circular Fixation MBA
- AO Advanced Course on Fracture Treatment in Pediatric Orthopedics
- Advanced Ponseti Method Course

#### Dr. García Carrión, Alicia

- Specialist in Traumatology and Orthopedic Surgery for Children at the CEMTRO Clinic
- Specialist in Orthopedic Surgery and Traumatology at the San Carlos Clinical Hospital
- Collaborator in educational programs in her specialty
- Degree in Medicine and Surgery from the University of Castilla-La Mancha

## tech 22 | Course Management

#### Dr. Fernándes de Carvalho, Marcos António

- Medical Specialist in Orthopedics and Traumatology
- Degree in Medicine from the University of Coimbra
- Specific training in Orthopedics and Traumatology at the Hospital University Center of Coimbra
- Specialized in Pediatric Orthopedics at the Pediatric Hospital CHUC

#### Dr. González Herranz, Pedro

- Doctor specializing in Pediatric Orthopedics and Traumatology
- Head of the Children's Orthopedic Surgery and Traumatology Unit of the University Hospital Complex of La Coruña
- Consultant of the Children's Orthopedic Surgery and Traumatology Service of the Ramón and Cajal University Hospital
- Degree in Medicine and Surgery from the University of Navarra
- Former President and member of the Spanish Society of Pediatric Orthopedics

#### Dr. González Morán, Gaspar

- Head of the Pediatric Orthopedics Unit of the Traumatology and Orthopedic Surgery Service at the La Paz University Hospital
- Specialist in Traumatology and Orthopedic Surgery. La Princesa Hospital
- Degree in Medicine and Surgery. Navarra University

#### Dr. Granado Llamas, Alberto

- Specialist in COT
- Specialist in Traumatology at MDH Medical Centers
- Co-author of several posters for the Congress of the Spanish Society of Orthopedic Surgery and Traumatology

#### Dr. Mediavilla Santos, Lydia

- Medical Specialist in Traumatology and Orthopedic Surgery at the Gregorio Marañon University General Hospita
- Specialist Physician at the San Rafael University Hospital
- Specialist Physician in the Section of Musculoskeletal Oncology and Children's Musculoskeletal Oncology at the Gregorio Marañón University General Hospital
- Degree in Medicine and Surgery from the Complutense University of Madrid

#### Dr. Manzarbeitia Arroba, Paloma

- Medical Specialist at Niño Jesús University Children's Hospital. Madrid
- Medical Specialist at the University Hospital Complex of Toledo
- Medical Specialist in Orthopedic Surgery and Traumatology at the Toledo University Hospital
- MIR in Orthopedic Surgery and Traumatology, University Hospital Complex of Toledo
- External Rotation in the Hand and Upper Limb Surgery Unit in the Traumatology and Orthopedic Surgery Service at the HM Montepríncipe Hospital

#### Dr. Martí Ciruelos, Rafael

- Head of the Orthopedics and Children's Traumatology Unit at the Hospital Sanitas La Moraleja
- Head of the Children's Orthopedics Section at the 12 Octubre University Hospital
- Teaching residents via MIR in Traumatology at the 12 Octubre University Hospital
- Degree in Medicine and Surgery from the Complutense University of Madrid

#### Dr. Garríguez Pérez, Daniel

- Medical Specialist in Orthopedics and Traumatology
- Orthopedic Surgeon and Traumatologist at the San Carlos Clinical Hospital
- Master in Medicine, Autonomous University of Madrid

#### Dr. Martínez Caballero, Ignacio

- Medical Specialist in Orthopedic Surgery and Child Traumatology
- Chief of Section of the Neuroorthopedics Unit in the Orthopedics and Traumatology Service of the Niño Jesús University Children's Hospital
- Medical Coordinator of the Movement Analysis Laboratory at the Niño Jesús University Children's Hospital
- Member of the group of national and international experts who elaborated the Consensus on the Use of Botulinum Toxin in Cerebral Palsy
- PhD in Medicine and Surgery from the Autonomous University of Madrid
- Member of: SOMACOT Professional Scientific Society

#### Dr. Martínez González, Carmen

- Specialist Physician at the Niño Jesús University Children's Hospital
- Physician in the Spine Unit, Pediatric Spine Deformity Unit
- Degree in Medicine and Surgery from the Autonomous University of Madrid

#### Dr. Ortega García, Francisco Javier

- Specialist in Orthopedic Surgery and Traumatology at the 12 de Octubre University Hospital
- Collaborating doctor of practical teaching at the Complutense University of Madrid
- PhD in Medicine from the University of Salamanca
- Degree in Medicine and Surgery from the Autonomous University of Madrid
- Specialty of Orthopedic Surgery and Traumatology at the Traumatology Service II at the 12 de Octubre University Hospital
- Award for the Best Poster Communication at the GEER Congress
- Member of: GFFR and SFCOT

#### Dr. Miranda Gorozarri, Carlos

- Traumatologist in the CEMTRO Clinic
- Specialist in Traumatology and Orthopedic Surgery at the Monographic Hospital of Traumatology and Orthopedic Surgery Asepeyo. Madrid
- Specialist Physician in the Traumatology and Children's Orthopedics Service at the Niño Jesús University Hospital for Children
- Degree in Medicine and Surgery from the University of Alcalá de Henares

#### Dr. Rodríguez del Real, Mª Teresa

- Degree in Medicine from the Autonomous University of Madrid
- Resident of Orthopedic Surgery and Traumatology at Severo Ochoa University Hospital (Leganés)

#### Dr. Salcedo Montejo, María

- Medical Specialist in Orthopedic Surgery and Traumatology
- Specialist in the Orthopedic Surgery and Traumatology Service, Orthopedics Unit, Children's
- · Children's Orthopedics Unit at La Paz University Hospital
- Member of: Multidisciplinary Unit of Skeletal Dysplasias at La Paz University Hospital
- Degree in Medicine

#### Dr. Penelas Abelleira, Natalia

- Resident Intern Physician in Orthopedic Surgery and Traumatology at the University Hospital Complex in A Coruña
- Degree in Medicine from the University of Santiago de Compostela

## tech 24 | Course Management

#### Dr. Pérez-López, Laura M

- Medical Specialist of the Orthopedic Surgery and Pediatric Traumatology Service at the Hospital Maternoinfantil Sant Joan de Déu. Barcelona
- Medical Specialist in Orthopedic Surgery and Pediatric Traumatology at Clínica Diagonal MediFIATC
- Stay as Orthopedic Surgeon and Traumatologist at the Hôpital des Enfants.
   Toulouse. France
- Stay as Orthopedic Surgeon and Traumatologist at the Great Ormond Street Children's Hospital. London
- Stay as Orthopedic Surgeon and Traumatologist at the Children's Hospital. Los Angeles
- Doctorate Cum Laude from the University of Barcelona
- Degree in Medicine from the University of Barcelona
- SEOP Advanced Training Scholarship
- Member of: SEOP, GEMAP of SECMA and COT-SCCOT

#### Dr. Muñoz Niharra, Borja

- Orthopedic and Traumatologic Surgeon at the Specialty Medical Center Getafe
- Orthopedic and Traumatologic Surgeon at the Infanta Elena University Hospital
- Physician at the Children's Orthopedic and Traumatology Unit of the CEMTRO Clinic
- Degree in Medicine from the Autonomous University Madrid

#### Dr. Nieves Riveiro, David

- FEA Orthopedic Surgery and Traumatology Surgery from at the Rey Juan Carlos University Hospital
- Specialist in Orthopedic Surgery and Traumatology at the Henares University Hospital
- Collaborator for the National Congress of the Spanish Society of Orthopedic Surgery and Traumatology

#### Dr. Pérez-Somarriba Moreno, Álvaro

- Physiotherapist of the Therapies Unit and the Movement Analysis Laboratory at the Niño Jesús University Children's Hospital
- Head of the Physiotherapy Service at the Sanyres Aravaca Residence
- Collaborating researcher in the project *Use of myoelectric prostheses in children with* congenital unilateral agenesis of the upper limbs
- Professor of practices of the Degree in Physiotherapy at CEU La Salle University
- Collaborating professor of the Master in Biomechanics and Sports Physiotherapy at the San Juan de Dios School of Nursing and Physiotherapy of the University of Comillas
- Degree in Physiotherapy from the University CEU San Pablo
- Osteopath by the University of Alcalá
- Expert in Myofascial Therapy from the European University of Madrid
- Expert in Craniomandibular Dysfunction, CEU San Pablo University
- Official Master's Degree, MSc in Biomechanics and Sports Physiotherapy from Comillas University

#### Dr. Prato de Lima, Carlos Humberto

- Medical Specialist in Orthopedics and Traumatology
- Specialist Physician at La Luz Hospital
- Traumatologist at the Hospital HM University Sanchinarro
- Research stay in Neuroorthopedics at Wake Forest University. United States
- Research stay at Gillette Children's Specialty Healthcare. Minnesota, United States
- Research stay at Alfred DuPont Hospital for Children. Delaware, United States
- Orthopedic Surgeon at Dr. Miguel Perez Carreño Hospital. Venezuela
- Degree in Medicine and Surgery, Los Andes University. Venezuela

#### Dr. Patiño Contreras, José Luis

- Specialist in Traumatology and Orthopedic Surgery at the Marqués de Valdecilla University Hospital
- Cooperating Physician at the Notre Dame de la Santé Hospital. Dschang, Cameroon
- Honorary Professor at Rey Juan Carlos La University
- World Health Organization (WHO) Award for participation in the working group of the National Hip Fracture Registry (RNFC)
- Degree in Medicine from the Complutense University of Madrid

#### Dr. Quesada García, Belén

- Residence Orthopedic Surgery and Traumatology at General University Hospital and Nuestra Señora del Prado, Madrid. Talavera de la Reina, Spain
- Degree in Medicine from the Autonomous University Madrid
- Basic Course on Traumatic Hand and Elbow Pathologies for Residents
- OST Speciality Initiation Course (SECOT)
- Third Clinical Management Day on Orthogeriatrics in the Community of Madrid at the Infanta Sofia University Hospital

#### Dr. Yáguez Hernández, Marta

- Medical Specialist in Orthopedic Surgery and Traumatology at the Hierro Majadahonda University Hospital
- Degree in Medicine and Surgery from the Autonomous University of Madrid
- MIR in Orthopedic Surgery and Traumatology at the Puerta de Hierro Majadahonda University Hospital
- Course of Initiation to the Specialty of Orthopedic Surgery and Traumatology in SECOT
- Basic Course of Cementation in Stryker
- Basic Course of External Fixation in Stryker

#### Dr. Villa García, Ángel José

- Chief of Section of Traumatology and Orthopedics for Children at the Gregorio Marañón General University Hospital
- Coordinator of the Children's Hip and Children's Musculoskeletal Oncology Clinic at the Gregorio Marañón General University Hospital
- Medical Specialist in Traumatology and Orthopedic Surgery at the Gregorio Marañon University General Hospita
- Degree in Medicine and Surgery from the University of Salamanca

#### Dr. Rojas Díaz, Libardo Enrique

- Specialist in Orthopedic and Trauma Surgery
- Research Physician at the Latin America Clinical Research Alliance
- Medical Intern at the University Hospital of Santander
- · Medical Intern at the Regional Hospital of Velez. Santander
- Medical Observer of Orthopedic Oncology, Spine and Arthroplasty at Massachusetts General Hospital. Boston, United States
- Degree in Medicine and Surgery from the Industrial University of Santander

#### Dr. Salom Taverner, Marta

- Specialist in Orthopedic and Trauma Surgery
- Attending Physician at the University and Polytechnic La Fe Hospital
- Specialist in Orthopedic Surgery and Traumatology at the Hospital Universitario y Politécnico La Fe
- Degree in Medicine and Surgery from the University of Valencia
- Member of: Spanish Society of Orthopedic Surgery and Traumatology

## tech 26 | Course Management

#### Dr. Sanpera Trigueros, Ignacio

- Chief of Service of Traumatology and Orthopedics for Children at the Son Espases University Hospital
- Assistant Physician in the Orthopedic Surgery and Traumatology Service at the Joan XXIII University Hospital
- Specialist at Great Ormond Street Hospital. London
- Head of Orthopedics and Traumatology Service at Hospital Universitari Son Dureta
- Doctor of Medicine
- Degree in Medicine from the Autonomous University of Barcelona
- Awards: Great Ormond Street, Son Dureta Research, Lloyd Roberts for the best publication in Orthopedics and MBA for the best presentation in Pediatric Orthopedics
- President of EPOS
- Member: POSNA, SECOT, SEOP, EPOS

#### Dr. Vara Patudo, Isabel

- Specialist in Traumatology and Orthopedics for Children at the Creciendo Madrid Center
- Assistant Physician of the Orthopedic Surgery and Traumatology Service of the Niño Jesús University Children's Hospital
- Assistant Physician of Pediatric Orthopedic Surgery and Traumatology at the Hospital HM Nens
- Assistant Physician of the Orthopedics and Traumatology Service of the Hospital Sant Joan de Déu
- Medical Specialist in Orthopedic Surgery and Traumatology at the Príncipe de Asturias University Hospital
- Degree in Medicine from the University of Alcalá, Spain
- Master's Degree in Orthopedics for Children by TECH Global University

 Advanced Training Program in Pediatric Orthopedic Surgery and Traumatology of the Spanish Society of Pediatric Orthopedics (SEOP)

#### Dr. Sosa González, Guillermo

- Medical specialist in Traumatology and Orthopedic Surgery
- Specialist Physician in the Section of Traumatology and Pediatric Orthopedics at the Hospital Gregorio Marañon University General Hospital
- Specialist Physician of the Children's Musculoskeletal Oncology Clinic at the Gregorio Marañón General University Hospital
- Specialist Physician in the Dysmetry and Deaxation Clinic at the Gregorio Marañón General University Hospital
- Degree in Medicine from the Autonomous University Madrid

#### Dr. Vilalta Vidal, Imma

- Assistant Physician of the Orthopedic Surgery and Traumatology Service at Hospital Sant Joan de Déu, Barcelona
- Emergency Physician in the Emergency Department of the CSM
- Private activity as collaborator at the Institut Pediàtric del Hospital Sant Joan de Déu
- Degree in Medicine and Surgery, Autonomous University of Barcelona
- $\bullet\,$  MIR specialization in Orthopedic Surgery and Traumatology at the Mataró Hospital
- Specialty in Spine Surgery at the Hospital of Marseille
- Specialty in Spine Surgery at the Hôpital Pellegrin in Bordeaux
- Research Sufficiency in the Treatment of Distal Radius Fractures using the Epibloc System at the Hospital de Sant Pau
- Member of: SCCOT, SECOT, SEOP, GEER, SEFEX and APE

#### Dr. Rojo Santamaría, Rita

- Specialist in Orthopedic and Trauma Surgery
- Degree in Medicine and Surgery from the Complutense University of Madrid
- Member of: Spanish Society of Orthopedic Surgery and Traumatology

#### Dr. Soldado Carrera, Francisco

- Specialist in Upper Extremity Surgery and Pediatric Microsurgery
- Director of the Upper Extremity Surgery and Pediatric Microsurgery Unit at the Valle de Hebron University Hospital
- Head of the Traumatology and Orthopedic Surgery Service at HM Nens Hospital
- Specialist in Traumatology and Orthopedic Surgery at Teknon Medical Center
- Head of Upper Extremity Surgery in the International Multidisciplinary Unit of Bone Dysplasias at UMAD
- Collaboration in the development of Orthopedic Surgery in Portugal with the Portuguese Society of Pediatric Orthopedics
- Director of the Upper Extremity and Pediatric Microsurgery Unit at the Hospital Sant Joan de Déu
- Pediatric Orthopedic Surgery at Enfants de Noma in Benin. Africa:

- Pediatric Upper Extremity Surgery at Guatemala Healing Hands Foundation
- Assistant Physician Specialist in Upper Extremity and Pediatric Microsurgery in the Pediatric Orthopedic Unit at the Hôpital des Enfants CHU. Toulouse, France
- Assistant Medical Specialist at the Pediatric Orthopedics Unit for Upper Extremity and Pediatric Microsurgery at ESSaude Lisbon, Hospital da Luz and Beatriz Angelo
- Senior Researcher in Bioengineering, Cellular Therapy and Surgery in Congenital Malformations at Vall d'Hebron Research Institute
- Pediatric Orthopedic Surgery Physician at the Children's Hospital and Women's Hospital
   Vall d'Hebron Hospital
- Specialty in Upper Extremity and Pediatric Microsurgery in Philadelphia, U.S. A
- Lecturer in the Unit of Human Anatomy of the Locomotor System in the Faculty of Medicine at the Autonomous University of Barcelona
- Member of: Bioengineering, Cell Therapy and Surgery in Congenital Malformations research group (VHIR)





## tech 30 | Structure and Content

## Module 1. Osteoarticular Infections

- 1.1. Septic Arthritis
- 1.2. Osteomyelitis
- 1.3. Discitis and Vertebral Osteomyelitis
- 1.4. Orthopedic Pathology in Rheumatoid Arthritis
- 1.5. Other Arthropathies: Psoriatic arthritis, Reiter's syndrome
- 1.6. Chronic Recurrent Multifocal Osteomyelitis. CRMO





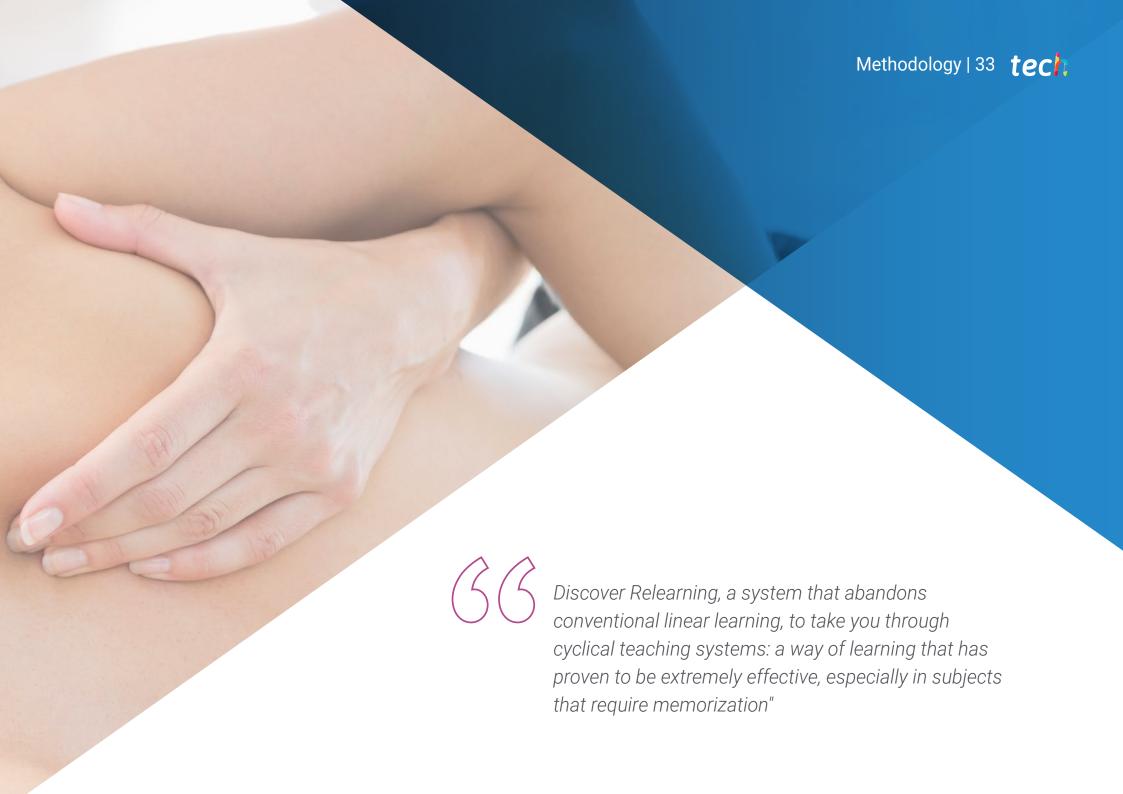


A program that will provide you with a broad and comprehensive perspective of osteoarticular infections during 180 hours of innovative content"



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.

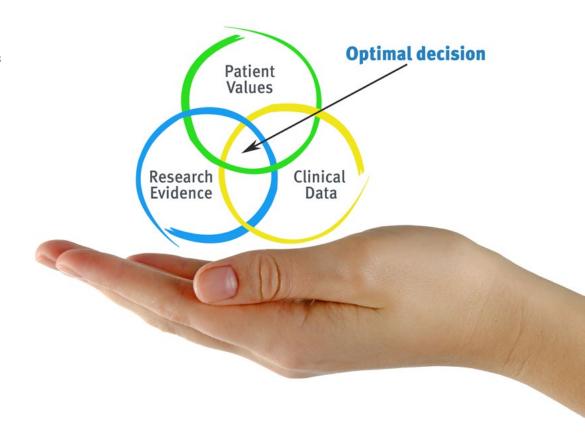


## tech 34 | Methodology

#### 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. Physiotherapists/kinesiologists 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 of professional physiotherapy practice.



Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

#### The effectiveness of the method is justified by four fundamental achievements:

- 1. Physiotherapists/kinesiologists who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
- 2. The learning process has a clear focus on practical skills that allow the physiotherapist/kinesiologist 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.

The physiotherapist/kinesiologist will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



## Methodology | 37 tech

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 we trained more than 65,000 physiotherapists/kinesiologists with unprecedented success in all clinical specialties, regardless of the workload. 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 training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for 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 our 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 really 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.



#### **Physiotherapy Techniques and Procedures on Video**

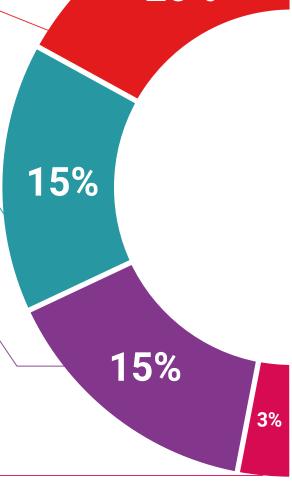
TECH brings students closer to the latest techniques, the latest educational advances and to the forefront of current Physiotherapy techniques and procedures. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.



#### **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 unique multimedia content presentation training system 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.

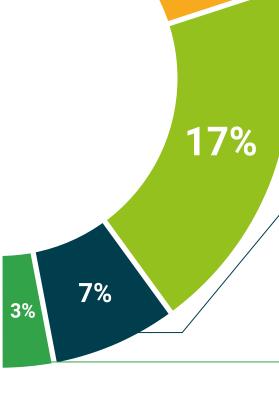
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **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.





20%





## tech 42 | Certificate

This program will allow you to obtain your **Postgraduate Certificate in Osteoarticular Infections in Pediatric Orthopedics** 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 Infections in Pediatric Orthopedics

Modality: online

Duration: 6 weeks

Accreditation: 6 ECTS



Mr./Ms. \_\_\_\_\_\_ with identification document \_\_\_\_\_ has successfully passed and obtained the title of:

## Postgraduate Certificate in Osteoarticular Infections in Pediatric Orthopedics

This is a program of 180 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024



health confidence people information tutors guarantee as sections feaching technology learning



# Postgraduate Certificate Osteoarticular Infections in Pediatric Orthopedics

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

