

Professional Master's Degree

Pediatric Orthopedics





Professional Master's Degree Pediatric Orthopedics

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/in/physiotherapy/professional-master-degree/master-pediatric-orthopedics

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01

Introduction

Advances in surgery have a direct impact on patients' recovery processes, even more so in the case of pediatric patients. These advances have changed the approach to pediatric rehabilitation from a physiotherapeutic perspective, which in turn leads to a need for updating in the field of pediatric orthopedics. Therefore, this program explores the main childhood ailments, focusing on areas such as hips, skeletal dysplasias and even tumors. Therefore, through innovative multimedia content, the professional will be able to learn more about the latest developments in radiodiagnosis, biomechanics or orthopedic disorders in neuromuscular diseases. All this in a 100% online format that can be accessed at any time from an electronic device with an Internet connection.





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Thanks to this Professional Master's Degree you will be able to update your knowledge in Pediatric Orthopedics and the main pathologies affecting children and adolescents"

Pediatric orthopedics has experienced a great boost in recent years due to the application of new technologies that have allowed interventions to take place through surgeries navigated with mixed reality, improved implants and osteosynthesis materials. All this favors the recovery of the patient, who continues a rehabilitation process, where the role of the physiotherapist is key.

At the same time, the diagnostic and assessment skills of the physiotherapist continue to be of great importance, and they must also be aware of the latest advances in this field in order to treat dysplasias, syndromic diseases or fractures in infancy. For this reason, TECH has assembled a specialized teaching team with extensive experience in the field of Pediatric Orthopedics, to offer the most up-to-date knowledge to physiotherapists.

Therefore, over a 12-month period, students will be able to acquire in-depth knowledge, through innovative multimedia material, of the main pathologies of the foot, upper limb, spine and knee. In addition, the professional will delve into highly complex situations such as musculoskeletal tumors or osteoarticular infections. This refresher program, which also includes case study simulations, will bring professionals closer to situations that can be integrated into their daily clinical practice.

The physiotherapist is presented with an excellent opportunity to be up to date in Pediatric Orthopedics through a quality university program that they can access comfortably, whenever and wherever they wish. All students need is a computer, tablet or cell phone with an Internet connection to be able to view the syllabus. In addition, the syllabus can be distributed according to their needs. As such, professionals are offered online education that is flexible and compatible with their professional and/or personal responsibilities.

This **Professional Master's Degree in Pediatric Orthopedics** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- Developing practical cases presented by experts 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



A 100% online academic program that brings you closer to the latest scientific information in the treatment of patients with fractures and ligament injuries"

“*The Relearning system will help you become aware of the most effective treatments for children with cervical spine pathologies in a much more agile way*”

The program includes in its teaching staff, professionals from the sector who contribute their work experience to this program, in addition to recognized specialists from leading companies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training programmed to train in real situations.

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

Thanks to this Professional Master's Degree you will have access to clinical case studies of great use in your clinical practice with patients with foot pathologies.

A flexible program that you can access whenever you want to update your knowledge in muscular dystrophies.



02 Objectives

The main objective of this Professional Master's Degree is to provide the physiotherapy professional with the latest knowledge on Pediatric Orthopedics. For this purpose, TECH provides you with the most innovative educational tools that will help you keep abreast of advances in the diagnosis and treatment of pathologies affecting the locomotor system. In addition, the specialized teaching team of this online program will facilitate the achievement of these goals.





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This academic option will allow you to enhance your skills in the treatment of fractures in the pediatric patient"



General Objectives

- ◆ Knowing how to carry out a good assessment of the child, starting with the medical history, 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 disorders affecting the upper limbs of growing patients
- ◆ Delve into the complementary studies that help us diagnose and make decisions, as well as the appropriate moment to perform them
- ◆ Manage therapeutic options, as well as the treatment schedule
- ◆ Apply different surgical techniques used to treat 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
- ◆ To 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
- ◆ To specialize in the diagnosis, treatment and prognosis of orthopedic and traumatologic knee pathologies in children and their particular characteristics compared to adults





Specific Objectives

Module 1. Pediatric Orthopedics

- ♦ Take a detailed medical history and a complete, orderly and systematic examination of pediatric patients
- ♦ Distinguish physiological from pathological development, as well as their radiological characteristics
- ♦ Learn the complementary tests and radiological characteristics of bone growth
- ♦ Learn the intricacies of the etiopathogenesis of deformities in the lower limb axis
- ♦ Anticipating and correcting possible deformities
- ♦ Differentiate and know how to treat musculoskeletal pathologies associated with normal child development
- ♦ Apply the basics of fracture treatment in pediatric patients

Module 2. Upper Limb

- ♦ Delve into the knowledge of the origin and embryology of the different congenital malformations
- ♦ Become familiar with the different congenital malformations, studying the etiopathogenesis, clinical study, complementary studies, classifications and treatments of each pathology

Module 3. Hip

- ♦ Manage the diagnosis, examination and treatment of hip dysplasia, taking into account the different ages of children
- ♦ Delve into hip exploration, which is essential in neonatal screening
- ♦ Understand Perthes disease with clear management ideas, differentiating between outdated treatments and new perspectives on the disease
- ♦ Make an early diagnosis of adolescent hip pathology, which is crucial for the survival of the hip in adulthood, and learning how to manage it properly, including complex hip reduction surgeries
- ♦ Learn to recognize coxa vara and spring hip and assess their clinical implications for receiving proper treatment

Module 4. knee

- ♦ Learn to distinguish the clinical-radiological characteristics of patients with discoid meniscus
- ♦ Differentiate the types of discoid meniscus
- ♦ Perform a differential diagnosis of popliteal cysts
- ♦ Recognize the clinical, radiological and epidemiological features of Osgood-Schlatter disease
- ♦ Identify possible warning signs of Osgood-Schlatter disease
- ♦ Perform an adequate diagnosis of patellofemoral instabilities
- ♦ Learn the osteochondral lesions of children
- ♦ Delve into the implications of cruciate ligament rupture in children
- ♦ Manage fractures around the knee
- ♦ Differentiate between stable and unstable fractures for correct treatment

Module 5. Pathology of the Foot

- ♦ Gain in-depth knowledge of the etiopathogenesis of foot malformations and deformities
- ♦ Diagnose through anamnesis and physical examination.
- ♦ Apply the complementary tests required for diagnosis, and primarily be able to assess and describe the radiographic images in the different pathologies
- ♦ Interpret when different diagnostic tests are appropriate
- ♦ Gain in-depth knowledge on treating each pathology. Learn the common techniques of manipulation and casting in the pediatric age, as well as the different surgical techniques required to treat each pathology
- ♦ Learn the natural history and evolution of each process

Module 6. Spine

- ♦ Learn the characteristics of the different pathologies around the spine in pediatric patients
- ♦ Learn the most frequent causes of spine deformity.
- ♦ Manage the urgency of pediatric patients with spinal pathology, torticollis, atlantoaxial instability
- ♦ Long-term management of patients diagnosed with spinal deformity during infancy
- ♦ Long-term management of patients diagnosed with tumors / fractures during infancy
- ♦ Suspect and learn the management of tumors such as osteoid osteoma, aneurysmal bone cyst, etc.
- ♦ Perform the necessary tests to diagnose the different entities

Module 7. Orthopedic Alterations Linked to Neuromuscular Diseases

- ♦ Learn available knowledge on the prevention and management of hip dislocation
- ♦ Learn the management algorithms for each pathological gait pattern
- ♦ Make decisions using three-dimensional motion analysis
- ♦ Delve into surgical techniques by anatomical segments
- ♦ Learn the application of orthoses and rehabilitation after multilevel surgery

Module 8. Skeletal Dysplasias and Syndromic Diseases

- ♦ Specialize in the etiology and pathogenic theories of bone dysplasias and congenital malformations of the lower limbs
- ♦ Perform an accurate assessment of the different diagnostic tests.
- ♦ Delve into the natural history and evolution expectancy of each process.
- ♦ Gain in-depth knowledge of the different treatment methods and the best moment to carry them out, depending on the pathology

Module 9. Osteoarticular Infections

- ♦ 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 pediatric patients
- ♦ Suspect and learn how to manage recurrent multifocal osteomyelitis

Module 10. Tumours

- ♦ Appropriately guide the diagnostic study of this lesion, and if a musculoskeletal biopsy is necessary, learn how to perform it
- ♦ Learn the latest treatments for the main musculoskeletal injuries in children



This 100% online program will bring you up to date in the management of recurrent multifocal osteomyelitis"

03 Skills

The syllabus of this university program has been developed by specialists who aim to promote, among other things, the development of skills and abilities of physiotherapy professionals. Therefore, at the end of this program, students will have broadened their diagnostic and recovery skills for patients in the infantile and juvenile stage. The clinical cases provided by the expert teaching staff of this Professional Master's Degree are very useful in this regard.





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A 100% online program designed for professionals who wish to reconcile their work responsibilities while updating their knowledge of treatments in Pediatric Orthopedics"



General Skills

- Review the most important pathologies that occur in pediatric orthopedics
- Advise patients and family members on the use and benefits of orthopedic products
- Apply learning to explore and diagnose knee pathologies in children, losing the usual fear generated in many specialists due to lack of knowledge of the pathology
- Recognize the different pathologies of children's feet and be able to make an accurate diagnosis together with a suitable therapeutic approach
- Describe the main aspects of spinal pathology in pediatric patients
- Review advances and update knowledge on the management of spinal pathologies in pediatric patients
- Develop the necessary skills to appropriately diagnose and treat pediatric patients with spinal diseases
- Learn the treatment by applying physiopathological principles
- Delve into physical examination integrated with three-dimensional movement analysis
- Manage functional and quality of life classifications and scales
- Develop the necessary skills to appropriately diagnose and treat pediatric patients with infectious musculoskeletal diseases and other arthropathies
- Learn how to make a comprehensive and early diagnosis, and guide the treatment of the main musculoskeletal injuries that appear in children





Specific Skills

- ♦ To make a full differential diagnosis of a pathology as frequent as lameness in children
- ♦ Evaluate the possibilities of treating tumors affecting children's hands, including surgical treatment, resections, amputations and reconstructions
- ♦ Differentiate fractures and know how and when to treat them, as well as the surgical indications versus conservative treatment of fractures
- ♦ Delve into the diagnosis and early treatment of congenital knee dislocation
- ♦ Learn to interpret when different diagnostic tests are suitable
- ♦ Develop a correct strategy in the differential diagnosis of pathologies that cause spinal pain in pediatric patients
- ♦ Manage spasticity, locally and globally, as well as other movement disorders
- ♦ Perform a correct anamnesis, physical examination and interpretation of imaging and laboratory tests required for diagnosis
- ♦ Be able to perform the necessary tests to diagnose the different infectious entities
- ♦ Learn how to differentiate a lesion with aggressive clinical and radiological characteristics from a non-aggressive one



With this degree, you will gain access to the most recent scientific advances in the field of musculoskeletal tumor detection"

04

Course Management

In its commitment to offer all its students a quality education in keeping with the current times, TECH brings together leading teachers with extensive experience in their field in all its programs. Accordingly, physiotherapists who take this university program will have access to a teaching staff with extensive professional background, all of whom have contributed their extensive knowledge in pediatric orthopedics to this Professional Master's Degree. In addition, thanks to their proximity, students will be able to resolve any doubts that may arise regarding the content of this program.





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A specialized teaching team from leading hospitals will be in charge of providing you with the latest information on pediatric orthopedics"

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 this surgical field. In addition, he practices as a specialist at Harvard Medical School.

The scientist also holds the program of Chief of the Division of Sports Medicine at Boston Children's Hospital. From that entity, he deals with different complex pathologies such as **joint injuries, Osteomyelitis, Hip Labral Rupture, Osteochondritis Dissecans or Pigmented Villonodular Synovitis**, among others. His innovations in these areas of Orthopedic Medicine are reflected in more than 150 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.

Especially committed to the rehabilitation of children and adolescent athletes, his exhaustive work in this area has been decorated with awards as prominent as the **Von Meyer, Richard Kilfoyle, Angela Kuo or Arthur Heune awards**.



Dr. Kocher, Mininder

- Orthopaedic Surgery Specialist at Harvard Medical School
- M.D. from Harvard University
- Board Certified in General Practice 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
- International Pediatric Orthopaedic Think Tank

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

Management



Dr. Palazón Quevedo, Ángel

- ◆ Head of the Pediatric Orthopedics Service at the Niño Jesús University Hospital
- ◆ Medical specialist in Orthopedic Surgery and Traumatology with wide and recognized professional experience in the field of O.S.T. for children and adults
- ◆ Doctoral course in Pediatrics with the following Doctoral Thesis project: "Long-term follow-up of surgically repaired hip dysplasias in infancy"
- ◆ Degree in Medicine and Surgery from the Complutense University of Madrid and Medical Specialist in O.S.T. via MIR at the San Juan Clinical University Hospital (Alicante-Valencian Community)
- ◆ Member of SECOT
- ◆ Member of SEOP

Professors

Dr. Abad Lara, José Antonio

- ♦ Pediatrics at the Reina Sofia University Hospital
- ♦ Specialist in Pediatric Orthopedic Surgery and Traumatology, with exclusive dedication to the management of pediatric orthopedic conditions in the Orthopedic Unit.
- ♦ Coordinator of the Pediatric Orthopedics Unit of the Reina Sofia University Hospital.
- ♦ Degree in Medicine and Surgery from the University of Córdoba

Dr. Abril Martín, Juan Carlos

- ♦ Specialist in Traumatology and Orthopedic Surgery. Jiménez Díaz Foundation, Madrid
- ♦ Faculty Area Specialist of O.S.T. at Insalud hospitals
- ♦ Graduate in Medicine and Surgery from the University of Valladolid

Dr. Alonso Hernández, Javier

- ♦ Medical specialist in Traumatology and Orthopedic Surgery
- ♦ Specialized in Pediatric Traumatology and Orthopedics and in Pediatric Sports Traumatology
- ♦ Assistant to the Pediatric Orthopedics Service of the Niño Jesús Hospital in Madrid
- ♦ Head of the Pediatric Traumatology and Orthopedics Unit at the CEMTRO Clinic in Madrid

Dr. Álvaro Alonso, Alberto

- ♦ Neurosurgery coordinator at the Gregorio Marañón General University Hospital. Madrid
- ♦ Medical specialist in Traumatology and Orthopedic Surgery. Gregorio Marañón General University Hospital. Madrid
- ♦ Degree in Medicine from the Complutense University of Madrid.

Dr. Alves, Cristina

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

Dr. Budke Neukamp, Marcelo

- ♦ Specialist in Surgery from the Autonomous University of Madrid
- ♦ Degree in Medicine and Surgery from the Faculty of Medicine of the Federal De Pelotas University in Rio Grande do Sul (Brazil)

Dr. Cabello Blanco, Juan

- ♦ Specialist in Orthopedic Surgery and Traumatology. Residency at the La Paz University Hospital of Madrid
- ♦ Pediatric Traumatology and Orthopedics at Ruber International Clinic
- ♦ Degree in Medicine from the Complutense University of Madrid.

Dr. Castañeda, Pablo G

- ♦ Specialist in Orthopedics and Traumatology, National Autonomous University of Mexico.
- ♦ Sub-speciality in hip and knee reconstructive surgery by the University of Oxford, Nuffield Orthopaedic Centre, Oxford, England
- ♦ Sub-speciality in Pediatric Orthopedics by the Baylor University, Houston, Texas, USA.
- ♦ Medical Surgeon graduated from the National Autonomous University of Mexico through the Anahuac University
- ♦ Professor of Orthopedic Surgery - New York University
- ♦ Head of the Division of Pediatric Orthopedic Surgery at New York University Hassenfeld

Children's Hospital

Dr. Chorbadjian Alonso, Gonzalo Andrés

- ♦ Surgeon from the University of Santiago de Chile
- ♦ Specialist in Orthopedics and Traumatology at the University of Santiago de Chile

Dr. Clemente Garulo, Daniel

- ♦ Attending physician at the Pediatric Rheumatology Unit of the Niño Jesús University Children's Hospital
- ♦ PhD in Health Sciences from the Camilo José Cela University
- ♦ Degree in Medicine and Surgery from the Faculty of Medicine of the University of Alcalá.

Dr. De Pablos Fernández, Julio

- ♦ Specialist in Orthopedic and Trauma Surgery
- ♦ Associate Professor of Orthopedic Surgery and Traumatology at the University of Navarra
- ♦ PhD in Medicine and Surgery from the University of Navarra

Dr. Del Cura Varas, Marisol

- ♦ Attending Physician of the Orthopedic Surgery and Traumatology Department of the Ramón y Cajal Hospital (Madrid)
- ♦ Degree in Medicine at the U.A.M. (Autonomous University of Madrid)

Dr. Downey Carmona, Francisco Javier

- ♦ Specialist in Orthopedic Surgery and Traumatology at Valme University Hospital
- ♦ Graduate in Medicine and Surgery from the University of Seville

Dr. Duart Clemente, Julio

- ♦ Orthopedic Surgery and Traumatology assistant at the Navarra Hospital Complex

- ♦ Resident Intern at the University of Navarra clinic
- ♦ PhD in Medicine and Surgery from the University of Navarra
- ♦ Associate Professor of Orthopedic Surgery and Traumatology. University of Navarra
- ♦ Graduate in Medicine and Surgery from the University of Navarra.

Dr. Egea Gámez, Rosa María

- ♦ Attending Physician of the Orthopedics and Traumatology Department of the Niño Jesús Pediatric University Hospital
- ♦ Specialist in Orthopedic and Trauma Surgery
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid

Dr. Espinazo Arce, Olga

- ♦ Head of the Pediatric Orthopedics unit of the O.S.T. Service of Basurto Hospital
- ♦ Degree from the Faculty of Medicine at the Basque Country University

Dr. Farrington Rueda, David M

- ♦ Specialist in Orthopedic Surgery and Traumatology for Children at the University Hospital of Valme.
- ♦ Head of the Department of Orthopedic Surgery and Traumatology. Hospital San Juan de Dios del Aljarafe
- ♦ Head of the Pediatric Orthopedic Surgery and Traumatology Department. Virgen del Rocío University Hospital
- ♦ Graduate in Medicine and Surgery from the Sevilla University

Dr. Fernandes de Carvalho, Marcos António

- ♦ Specialist in Pediatric Orthopedics
- ♦ Specific training in Orthopedics and Traumatology at the Hospital and University Center of Coimbra
- ♦ Specialized in Pediatric Orthopedics at the Pediatric Hospital CHUC, EP
- ♦ Degree in Medicine from the Faculty of Medicine at the University of Cantabria.

Dr. Fernández Pineda, Israel

- ♦ 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

Dr. Fraga Collarte, Manuel

- ♦ Attending Physician at the Department of Orthopedic Surgery and Traumatology
- ♦ Degree in Medicine from the University of Santiago de Compostela

Dr. Galán Olleros, María

- ♦ Resident in Orthopedics and Traumatology. San Carlos Clinical Hospital, Madrid, Spain

Dr. García Carrión, Alicia

- ♦ Specialist in Orthopedic Surgery and Traumatology. San Carlos Clinical Hospital
- ♦ Medical specialist in Traumatology and Pediatric Orthopedic Surgery at the CEMTRO Clinic
- ♦ Degree in Medicine and Surgery. University of Castilla-La Mancha

Dr. García Fontecha, César Galo

- ♦ Specialist in Pediatric Orthopedics at Sant Joan de Déu Hospital. Orthopedics/COTOrthopedics

Dr. Garríguez Pérez, Daniel

- ♦ Resident Physician in Orthopedic Surgery and Traumatology at the San Carlos Clinical Hospital in Madrid
- ♦ Degree and Master's Degree in Medicine from the Autonomous University of Madrid

Dr. González Díaz, Rafael

- ♦ PhD in Medicine and Surgery from the University of Salamanca
- ♦ Specialist in Orthopedic Surgery and Traumatology at the Department of Traumatology and Orthopedic Surgery of the La Paz Hospital in Madrid
- ♦ Coordinator at the Rachis Unit of the Niño Jesús Pediatric University Hospital

Dr. González Morán, Gaspar

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

Dr. González-Herranz, Pedro

- ♦ Specialist in Orthopedic and Trauma Surgery
- ♦ Head of the Pediatric Orthopedics Unit - CSUR of the CHUAC
- ♦ Degree in Medicine and Surgery from the University of Navarra
- ♦ Professor of Trauma and Orthopedics at the ONCE University School of Physiotherapy.

Dr. Martínez Álvarez, Sergio

- ♦ Positions: Attending Physician of the Orthopedics and Traumatology Department of the Niño Jesús Pediatric University Hospital
- ♦ Head of the Upper Limb and Pediatric Hand Unit
- ♦ Specialist in Pediatric Orthopedic Surgery and Traumatology. La Princesa University Hospital

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- ♦ Specialist Physician at the Niño Jesús Hospital in Madrid
- ♦ Resident physician in Orthopedic Surgery and Traumatology in the University Hospital Complex of Toledo
- ♦ External Rotation Hand and Upper Extremity Surgery Unit - Traumatology and Orthopedic Surgery Department, Montepíncipe Hospital

Dr. Martí Ciruelos, Rafael

- ♦ Head of the Pediatric Orthopedics Department at the 12 de Octubre University Hospital in Madrid.
- ♦ Head of the Orthopedics and Pediatric Traumatology Department at the Sanitas la Moraleja Hospital
- ♦ Teaching residents via MIR Traumatology at the 12 de Octubre University Hospital in Madrid
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid

Dr. Martínez Caballero, Ignacio

- ♦ Head of a department within the Neuro-orthopedics Unit, Orthopedics and Traumatology Service, Niño Jesús Pediatric University Hospital
- ♦ PhD in Medicine and Surgery from the Autonomous University of Madrid.
- ♦ Medical Coordinator of the Movement Analysis Laboratory of the Niño Jesús University Children's Hospital in Madrid.

Dr. Martínez González, Carmen

- ♦ Specialist in the Spine Unit. Pediatric Spine Deformation
- ♦ Degree in Medicine and Surgery. Autonomous University of Madrid

Dr. Mediavilla Santos, Lydia

- ♦ Specialist in Traumatology and Orthopedic Surgery at the Gregorio Marañón General University Hospital. Madrid
- ♦ Musculoskeletal Oncology Faculty Specialist at the Gregorio Marañón General University Hospital.
- ♦ Madrid
- ♦ Pediatric Oncologic Musculoskeletal Faculty specialist at the Gregorio Marañón General University Hospital. Madrid
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid

Dr. Miranda Gorozarri, Carlos

- ♦ Specialist in Traumatology and Orthopedic Surgery. Asepeyo Monographic Hospital of Traumatology and Orthopedic Surgery (Madrid)
- ♦ Faculty Specialist for the pediatric traumatology and orthopedics service of the Niño Jesús Pediatric University Hospital
- ♦ Degree in Medicine and Surgery from the University of Alcalá, Madrid

Dr. Muñoz Niharra, Borja

- ♦ Specialist at the Infanta Elena Hospital. Pediatric Orthopedics and Hip-Knee Unit
- ♦ Specialist at the CEMTRO Clinic. Pediatric Orthopedics Unit
- ♦ Degree in Medicine from the Autonomous University Madrid.

Dr. Nieves Riveiro, David

- ♦ Resident Physician at the A Coruña University Hospital Complex Resident Physician in General and Digestive System and General Surgery.

- ♦ Degree in Medicine from the University of Cantabria

Dr. Ortega García, Francisco Javier

- ♦ Specialty of Orthopedic Surgery and Traumatology at the 12 de Octubre Hospital in Madrid. Traumatology Department II
- ♦ Attending Orthopedic Surgery and Traumatology physician at the 12 de Octubre Hospital
- ♦ Degree in Medicine and Surgery. Autonomous University of Madrid

Dr. Patiño Contreras, José Luis

- ♦ Master's Degree in clinical Reasoning and clinical skills, Alcalá University, Madrid
- ♦ Residency in orthopedic surgery and traumatology at University Hospital
- ♦ Degree and Master's Degree in Medicine from the Complutense University of Madrid

Dr. Penelas Abelleira, Natalia

- ♦ Attending physician at the Pediatric Traumatology Department of the Teresa Herrera Maternity Hospital, A Coruña.
- ♦ 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

Dr. Pérez-López, Laura M

- ♦ Department of Pediatric Orthopedic Surgery and Traumatology, Sant Joan de Déu Materno-Infantil Hospital, Barcelona, University of Barcelona
- ♦ Referent in Pediatric Orthopedic Surgery and Traumatology at Clínica Diagonal, MediFIATC

Dr. Pérez-Somarriba Moreno, Álvaro

- ♦ Physiotherapist at the Therapy Unit and Movement Analysis Laboratory of the Niño Jesús Pediatric University Hospital
- ♦ Degree in Physiotherapy from San Pablo CEU University
- ♦ Expert in Myofascial Therapy from the European University of Madrid.
- ♦ Expert in Craniomandibular Dysfunction from San Pablo CEU University.

Dr. Prato de Lima, Carlos Humberto

- ♦ Surgeon at the University of the Andes
- ♦ Traumatology and Orthopedics. Miguel Pérez Carreño Hospital in Caracas, Venezuela
- ♦ Children's Orthopedics at the Children's Orthopedic Hospital, Caracas, Venezuela

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- ♦ Resident in Orthopedics Surgery and Traumatology at the Nuestra Señora del Prado Hospital in Talavera de la Reina
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Dr. Rodríguez del Real, Maria Teresa

- ♦ Degree in Medicine from the Autonomous University Madrid
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- ♦ Attending physician at the Traumatology and Orthopedic Surgery Service of the Niño Jesús Hospital
- ♦ PhD in Medicine from the University of Salamanca
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Member of the Spanish Society of Pediatric Orthopedics (SEOP)
- ♦ Member of the Spanish Society of Orthopedic Surgery and Traumatology (SECOT)

Dr. Rojas Díaz, Libardo Enrique

- ♦ Physician and Surgeon at the University of Santander
- ♦ Intern at the University Hospital of Santander.

Dr. Rojo Santamaría, Rita

- ♦ Specialist in Orthopedic Surgery and Traumatology
- ♦ Degree in Medicine and Surgery. Complutense University of Madrid

Dr. Ron Marqués, Alejandra

- ♦ Graduate in Medicine and Surgery. Complutense University of Madrid
- ♦ Faculty area specialist of the Pediatric Orthopedics and Traumatology Unit at the University Hospital of Getafe
- ♦ Degree in Medicine and Surgery. Complutense University of Madrid

Dr. Salcedo Montejo, María

- ♦ Medical Specialist in Orthopedic Surgery and Traumatology
- ♦ Member of the Multidisciplinary Unit of skeletal dysplasias at the La Paz Hospital
- ♦ Orthopedic Surgery and Traumatology Service, Children's Orthopedics Unit, La Paz University Hospital (Madrid).



Dr. Salom Taverner, Marta

- ♦ Specialist in Orthopedic Surgery and Traumatology. La Fe University Hospital of Valencia
- ♦ Degree in Medicine and Surgery from the University of Valencia

Dr. Sanpera Trigueros, Ignacio

- ♦ Head of the Orthopedic Surgery and Pediatric Traumatology Department at the Son Espases University Hospital
- ♦ Professor and Head of the Department of Medical-Surgical Pathology-Locomotor System. Associate Professor of Human Anatomy. Faculty of Medicine. University of the Balearic Islands
- ♦ Vice-President of the European Society of Pediatric Orthopedics (EPOS)
- ♦ Doctor of Medicine
- ♦ Degree in Medicine from the Autonomous University of Barcelona

Dr. Soldado Carrera, Francisco

- ♦ Head of the Department of Orthopedic Surgery and Pediatric Traumatology. Barcelona Childrens University Hospital HM nens
- ♦ Director of Hand, Plexus and Pediatric Microsurgery Unit at Vall Hebron Barcelona Hospital Campus
- ♦ Pediatric Orthopedic Surgery and Traumatology Department at Vall Hebron Barcelona Hospital Campus

Dr. Sosa González, Guillermo

- ♦ Medical specialist in Traumatology and Orthopedic Surgery. Gregorio Marañón General University Hospital. Madrid
- ♦ Faculty Specialist at the Department of Traumatology and Pediatric Orthopedics at the Gregorio Marañón General University Hospital. Madrid
- ♦ Pediatric Oncologic Musculoskeletal Faculty specialist at the Gregorio Marañón General University Hospital. Madrid
- ♦ Degree in Medicine from the Autonomous University Madrid.

Dr. Vara Patudo, Isabel

- ♦ Specialist in Orthopedic Surgery and Traumatology at the Príncipe de Asturias University Hospital, Alcalá de Henares, Madrid
- ♦ Attending Physician of the Orthopedic Surgery and Traumatology Department of the Niño Jesús Pediatric Hospital
- ♦ Degree in Medicine from the University of Alcalá

Dr. Vilalta Vidal, Imma

- ♦ Positions: Specialist in Orthopedic Surgery and Traumatology
- ♦ Assistant at the Orthopedic Surgery and Traumatology Department of the Sant Joan de Déu hospital. Esplugues de Llobregat. Barcelona
- ♦ Attending Physician at the Orthopedic Surgery and Traumatology Department of the Sant Joan de Déu Hospital in Barcelona
- ♦ Degree in Medicine and Surgery from the Autonomous University of Barcelona (UAB)

Dr. Villa García, Ángel José

- ♦ Head of the Department of Traumatology and Pediatric Orthopedics at the Gregorio Marañón General University Hospital. Madrid
- ♦ Medical specialist in Traumatology and Orthopedic Surgery. Gregorio Marañón General University Hospital. Madrid
- ♦ Degree in Medicine and Surgery from the University of Salamanca.
- ♦ Coordinator of the Pediatric Hip and Pediatric Musculoskeletal Oncology Department of the Gregorio Marañón General University Hospital. Madrid

Dr. Yáñez Hernández, Marta

- ♦ MIR in Orthopedic Surgery and Traumatology in Majadahonda (Madrid)
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid





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A path to achieve training and professional growth that will propel you towards a greater level of competitiveness in the employment market”

05

Structure and Content

Thanks to the effectiveness of the Relearning system, which is used in all TECH's programs, students who enter this program will be able to advance through the syllabus in a much more streamlined way. In addition, students will be able to reduce the long hours of study that are so common in other teaching methods. With this dynamism, the professional will be able to deepen in the advances in osteomuscular pain around the hip of the child, in imaging tests for the diagnosis of tumors or skeletal dysplasias. In addition, multimedia resources such as video summaries, videos in detail or complementary readings are used.





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The multimedia content of this program will allow you to delve into skeletal dysplasias and syndromic diseases in a more dynamic way"

Module 1. Pediatric Orthopedics

- 1.1. Clinical History of Children and their Examination
 - 1.1.1. The Examination of Infants
 - 1.1.2. The Examination of Teenagers
- 1.2. Radiodiagnostics
- 1.3. Characteristics of Children's Bones and Bone Growth
- 1.4. Angular Deformities
 - 1.4.1. Genu Varum
 - 1.4.2. Genu Valgum
 - 1.4.3. Recurvatum
 - 1.4.4. Antecurvatum
- 1.5. Torsional Deformities
 - 1.5.1. Femoral Anteversion
 - 1.5.2. Tibial Torsion
- 1.6. Length Discrepancy
- 1.7. Pediatric Lameness
- 1.8. Apophysitis and Enthesitis
- 1.9. Pediatric Fractures
- 1.10. Pediatric Immobilizations and Orthoses
 - 1.10.1. Types of Immobilizations
 - 1.10.2. Duration of the Immobilizations

Module 2. Upper Limb

- 2.1. Agenesis and Transverse Defects
- 2.2. Radial Longitudinal Deficiency. Hypoplasias and Agenesis of the Thumb
- 2.3. Ulnar Longitudinal Deficiency. Proximal Radioulnar Synostosis
- 2.4. Preaxial and Postaxial Polydactyly
- 2.5. Syndactyly. Macrodactyly. Clinodactyly. Camptodactyly. Kirner's Deformity
- 2.6. Amniotic Band Syndrome
- 2.7. Madelung's Deformity
- 2.8. Arthrogryposis
- 2.9. Obstetric Brachial Palsy
- 2.10. Tumors Affecting the Hand in Pediatric Patients: Osteochondromatosis, Enchondromatosis and Soft Tissue Tumors

Module 3. Hip

- 3.1. Embryology, Anatomy and Biomechanics of the Hip
- 3.2. Transient Synovitis of the Hip
 - 3.2.1. Etiopathogenesis.
 - 3.2.2. Differential Diagnosis
 - 3.2.3. Orthopedic Management
- 3.3. Developmental Dysplasia of the Hip in Children under 18 Months of Age
 - 3.3.1. Concept. Historical Recollection
 - 3.3.2. Dysplasia in Children Under 6 Months of Age
 - 3.3.2.1. Diagnostic Examination
 - 3.3.2.2. Hip Ultrasound. Methods and Interpretation
 - 3.3.2.3. Therapeutic Orientation
 - 3.3.3. Dysplasia in Children aged 6-12 Months
 - 3.3.3.1 Clinical and Radiological Diagnosis
 - 3.3.3.2. Treatment
 - 3.3.4. Dysplasia in the Ambulatory Child (Older than 12 months)
 - 3.3.4.1. Late Diagnosis Errors
 - 3.3.4.2. Treatment Management
- 3.4. Developmental Dysplasia of the Hip in Children over 18 Months Old
 - 3.4.1. Definition and Natural History
 - 3.4.2. Etiology and Clinical Manifestations
 - 3.4.3. Clinical and Radiological Classification. Hip Risk Factors
 - 3.4.4. Differential Diagnosis
 - 3.4.5. Treatment
- 3.5. Hip Dysplasia in Older Children and Teenagers
 - 3.5.1. Causes and Types
 - 3.5.2. Diagnostic Guidance
 - 3.5.2.1. Teenage Hip Dysplasia Radiology
 - 3.5.2.2. Complementary Studies of Dysplasia: MRI, Arthrogram, CT, etc.
 - 3.5.3 Treatment
 - 3.5.3.1 Arthroscopic Treatment
 - 3.5.3.2. Open Surgery
 - 3.5.3.2.1. Pelvic Osteotomies. Techniques and Guidelines
 - 3.5.3.2.2. Femoral Osteotomies. Techniques and Guidelines



- 3.6. Legg-Calvé-Perthes Disease
 - 3.6.1. Perthes After-Effects
 - 3.6.2. Syndromic Hip
 - 3.6.3. Chondrolysis
 - 3.6.4. Sequelae of Arthritis (Septic, Rheumatic Diseases, etc.)
- 3.7. Femoral Head Epiphysiolysis
 - 3.7.1. Diagnosis. The way they are formed
 - 3.7.2. Aetiopathogenesis.
 - 3.7.3. Types of Epiphysiolysis. Pathophysiological Mechanism
 - 3.7.4. Surgical Management
 - 3.7.4.1. In Situ Reduction
 - 3.7.4.2. Modified Dunn Procedure
 - 3.7.4.3. Late Treatment
- 3.8. Coxa vara
 - 3.8.1. Aetiopathogenesis.
 - 3.8.2. Differential Diagnosis
 - 3.8.3. Treatment
- 3.9. Musculoskeletal Pain Around the Hips in Children
 - 3.9.1. Snapping Hip Syndrome
 - 3.9.1.1. Types of Snapping (Internal, External)
 - 3.9.1.2. Treatment
 - 3.9.2. Enthesitis Around the Hips in Children
 - 3.9.2.1. Enthesitis of the Spines (EIAS): Differential Diagnosis and Treatment
 - 3.9.2.2. Ischial and Iliac Crest Enthesitis. Diagnosis and Treatment
- 3.10. Hip Fractures in Children
 - 3.10.1. Biomechanical Implications of the Hip Fractures in Children
 - 3.10.2. Types of Fractures. Classification
 - 3.10.3. Diagnosis and Treatment. Treatment Management
 - 3.10.3.1. Children With Open Physes
 - 3.10.3.2. Children With Skeletal Maturity

Module 4. knee

- 4.1. Congenital Dislocation of the Knee
 - 4.1.1. Diagnosis and Classification
 - 4.1.2. Etiology
 - 4.1.3. Clinical - Radiological Findings
 - 4.1.4. Differential Diagnosis
 - 4.1.5. Clinical Findings and Associated Lesions
 - 4.1.6. Treatment
- 4.2. Patellofemoral Instability
 - 4.2.1. Prevalence and Etiology
 - 4.2.2. Types: Recurrent Dislocation, Recurrent Subluxation, Habitual Dislocation and Chronic Dislocation
 - 4.2.3. Associated Conditions
 - 4.2.4. Clinical Findings
 - 4.2.5. Radiological Findings
 - 4.2.6. Treatment
- 4.3. Osteochondritis Dissecans
 - 4.3.1. Definition and Aetiology
 - 4.3.2. Pathology
 - 4.3.3. Clinical - Radiological Findings
 - 4.3.4. Treatment
- 4.4. Discoid Meniscus
 - 4.4.1. Pathogenesis
 - 4.4.2. Clinical - Radiological Findings
 - 4.4.3. Treatment
- 4.5. Popliteal Cyst
 - 4.5.1. Definition and Clinical Findings
 - 4.5.2. Differential Diagnosis
 - 4.5.3. Pathology
 - 4.5.4. Diagnostic Tests
 - 4.5.5. Treatment
- 4.6. Apophysitis: Osgood Schlatter and Sinding Larsen Johansson's disease
 - 4.6.1. Definition and Epidemiology
 - 4.6.2. Clinical and Radiological Findings
 - 4.6.3. Treatment
 - 4.6.4. Complications
- 4.7. Ligament Lesions of the Knee: Anterior Cruciate Ligament
 - 4.7.1. Prevalence and Etiology
 - 4.7.2. Diagnosis
 - 4.7.3. Treatment in Patients with Growth Cartilage
- 4.8. Epiphysiolysis of the Distal Femur and Fractures of the Proximal Tibia
 - 4.8.1. Anatomic Considerations. Pathophysiology
 - 4.8.2. Diagnosis
 - 4.8.3. Treatment
- 4.9. Fractures of the Tibial Spines
 - 4.9.1. Pathophysiology
 - 4.9.2. Anatomic Considerations
 - 4.9.3. Diagnosis
 - 4.9.4. Treatment
- 4.10. Anterior Avulsion Fracture
 - 4.10.1. Pathophysiology
 - 4.10.2. Anatomic Considerations
 - 4.10.3. Diagnosis
 - 4.10.4. Treatment
- 4.11. Periosteal Tear of the Patella
 - 4.11.1. Pathophysiology
 - 4.11.2. Anatomic Considerations
 - 4.11.3. Diagnosis
 - 4.11.4. Treatment

Module 5. Pathology of the Foot

- 5.1. Embryology, Malformations and Deformities of the Foot in Newborns
 - 5.1.1. Polydactyly
 - 5.1.2. Syndactyly
 - 5.1.3. Ectrodactyly
 - 5.1.4. Macrodactyly
 - 5.1.5. Calcaneal Valgus or Talus Foot
- 5.2. Congenital Vertical Astragalus
- 5.3. Flexible Valgus Flatfoot
- 5.4. Serpentine Foot
- 5.5. Tarsal Coalition
- 5.6. Metatarsus Adductus and Metatarsus Varus
- 5.7. Congenital Clubfoot
- 5.8. Pes Cavus
- 5.9. Hallux Valgus
- 5.10. Toe Pathology
 - 5.10.1. Hallux Varus
 - 5.10.2. Quintus Varus
 - 5.10.3. Quintus Supraductus
 - 5.10.4. Deformities of Small Toes: Mallet Toe, Hammer Toe, Claw Toe, Clinodactyly
 - 5.10.5. Brachymetatarsia
 - 5.10.6. Constriction Band Syndrome
 - 5.10.7. Agenesis and Hypoplasia of the Toes
- 5.11. Miscellaneous
 - 5.11.1. Osteochondrosis: Konig's Disease, Freiberg's Disease
 - 5.11.2. Apophysitis: Sever's Disease, Iselin's Disease
 - 5.11.3. Os Trigonum Syndrome
 - 5.11.4. Accessory Scaphoid
 - 5.11.5. Osteochondritis Dissecans of the Talus

Module 6. Spine

- 6.1. Surgical Anatomy and Approaches to the Spine
- 6.2. Cervical Spine Pathology
 - 6.2.1. Congenital Torticollis
 - 6.2.1.1. Muscular Congenital Torticollis
 - 6.2.1.2. Klippel-Feil Syndrome
 - 6.2.2. Acquired Torticollis
 - 6.2.2.1. Atlantoaxial Dislocation
 - 6.2.2.2. Other Causes: Inflammatory, Infectious, Sandifer's Syndrome
 - 6.2.3. Cervical Instability: Os Odontoideum
- 6.3. Spine Pathology
 - 6.3.1. Spondylolisthesis
 - 6.3.2. Juvenile Disc Herniation
 - 6.3.3. Scoliosis
 - 6.3.4. Early Onset
 - 6.3.5. Teenage Idiopathic Scoliosis
 - 6.3.6. Congenital Scoliosis
 - 6.3.7. Neuromuscular Scoliosis
 - 6.3.8. Early Onset Scoliosis
 - 6.3.9. Congenital Scoliosis
 - 6.3.10. Neuromuscular Scoliosis
 - 6.3.11. Spine Deformity in Other Syndromes
- 6.4. Spondylolisthesis
- 6.5. Sagittal Plane Disorders: Hyperkyphosis, Hyperlordosis
- 6.6. Back Pain in the Pediatric Age
- 6.7. Spinal Tumors
- 6.8. The Main Spine Fractures in Children

Module 7. Orthopedic Disorders Linked to Neuromuscular Diseases

- 7.1. Cerebral Palsy in Children
- 7.2. Normal and Pathological Gait. Usefulness of LAN In Gait Disorders
- 7.3. Orthopedic Management of CP: Botulinum Toxin, Casts, Orthoses
- 7.4. Hip Pathology in CP
- 7.5. Crouch Gait in CP
- 7.6. Myelomeningocele
- 7.7. Spinal Muscular Atrophy
- 7.8. Muscular Dystrophies: Duchenne's Disease, Other Myopathies
- 7.9. Neurological Upper Limb: Spasticity
- 7.10. Foot Associated to Neurological Pathologies (PP, Clubfoot)

Module 8. Skeletal Dysplasias and Syndromic Diseases

- 8.1. Achondroplasia. Hypochondroplasia and Pseudoachondroplasia
- 8.2. Congenital Malformations of the Lower Limb
- 8.3. Other Dysplasias: Spondyloepiphyseal Dysplasia, Multiple Epiphyseal Dysplasia, Diastrophic Dysplasia, Kniest Dysplasia, Osteopetrosis, Infantile Cortical Hyperostosis, Cleidocranial Dysostosis
- 8.4. Mucopolysaccharidosis
- 8.5. Osteogenesis Imperfecta
- 8.6. Hyperlaxity Syndromes
 - 8.6.1. General Hyperlaxity Syndrome
 - 8.6.2. Marfan and Ehlers - Danlos Syndromes
- 8.7. Neurofibromatosis. Congenital Pseudoarthrosis of the Tibia
- 8.8. Arthrogryposis
- 8.9. Down Syndrome
- 8.10. Children's Bone Alterations
 - 8.10.1. Rickets
 - 8.10.2. Transient Osteoporosis



Module 9. Osteoarticular Infections

- 9.1. Septic Arthritis
- 9.2. Osteomyelitis
- 9.3. Discitis and Vertebral Osteomyelitis
- 9.4. Orthopedic Pathology in Rheumatoid Arthritis
- 9.5. Other Arthropathies: Psoriatic Arthritis Reiter's Syndrome, Psoriatic Arthritis
- 9.6. Chronic Recurrent Multifocal Osteomyelitis. CRMO

Module 10. Tumours

- 10.1. Overview and Staging of Musculoskeletal Tumors
 - 10.1.1. Epidemiology
 - 10.1.2. Clinical Presentation
 - 10.1.3. Imaging Tests
 - 10.1.4. Staging
 - 10.1.4.1. Benign Tumors
 - 10.1.4.2. Malignant tumours
- 10.2. Biopsy and Treatment Principles
 - 10.2.1. Types of Biopsy
 - 10.2.2. How to Perform a Musculoskeletal Biopsy?
 - 10.2.3. Types and Principles of Oncologic Resection
- 10.3. Cystic Lesions
 - 10.3.1. Simple Bone Cyst
 - 10.3.2. Aneurysmal Bone Cyst
- 10.4. Benign Tumors from Cartilage in Children
 - 10.4.1. Osteochondroma. Osteochondromatosis
 - 10.4.2. Enchondroma. Endochromatosis
 - 10.4.3. Chondroblastoma
 - 10.4.4. Chondromyxoid Fibroma
- 10.5. Benign Tumors from Bones in Children
 - 10.5.1. Osteoma Osteoid
 - 10.5.2. Osteoblastoma

- 10.6. Benign Tumors from Fibrous Tissue in Children
 - 10.6.1. Non-Ossifying Fibroma
 - 10.6.2. Fibrous Dysplasia
 - 10.6.3. Osteofibrous Dysplasia
 - 10.6.4. Langerhans cell histiocytosis
- 10.7. Other Tumours. Miscellaneous
 - 10.7.1. Langerhans Cell Histiocytosis. Eosinophilic Granuloma
 - 10.7.2. Giant Cell Tumor
- 10.8. Benign Tumors From Soft Tissue in Children
 - 10.8.1. Ganglion. Popliteal Cysts
 - 10.8.2. Giant Cell Tumor of the Tendon Sheath Villonodular Synovitis
 - 10.8.3. Hemangioma
- 10.9. Malignant Bone Tumors of the Pediatric Skeleton
 - 10.9.1. Ewing Sarcoma
 - 10.9.2. Osteosarcomas
 - 10.9.3. Surgical Treatment Options for Unformed Skeletons
- 10.10. Malignant Tumors in Soft Tissue in Children
 - 10.10.1. Rhabdomyosarcoma
 - 10.10.2. Synovial Sarcoma
 - 10.10.3. Congenital Fibrosarcoma



A 100% online program that will allow you to keep up to date with advances in skeletal dysplasias and syndromic diseases"

06

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. 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.

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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. 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.

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 relearn). 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.

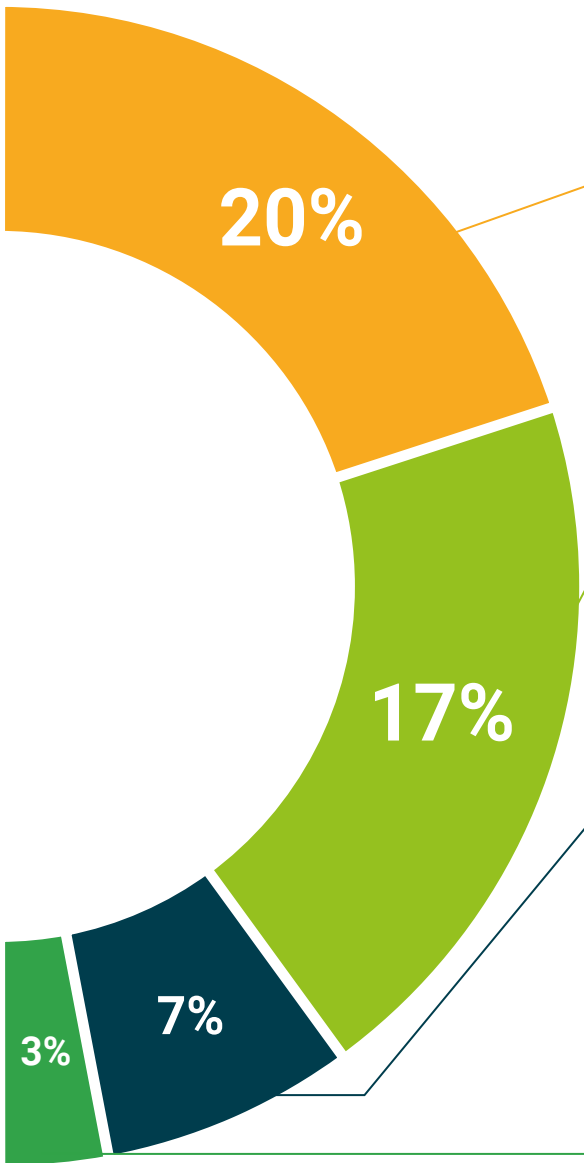
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



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.



07 Certificate

The Master's Degree in Pediatric Orthopedics guarantees you, in addition to the most rigorous and updated training, access to a Professional Master's Degree issued by TECH Global University.





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*Successfully complete this program
and receive your university degree
without travel or laborious paperwork”*

This private qualification will allow you to obtain a **Professional Master's Degree certificate 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.

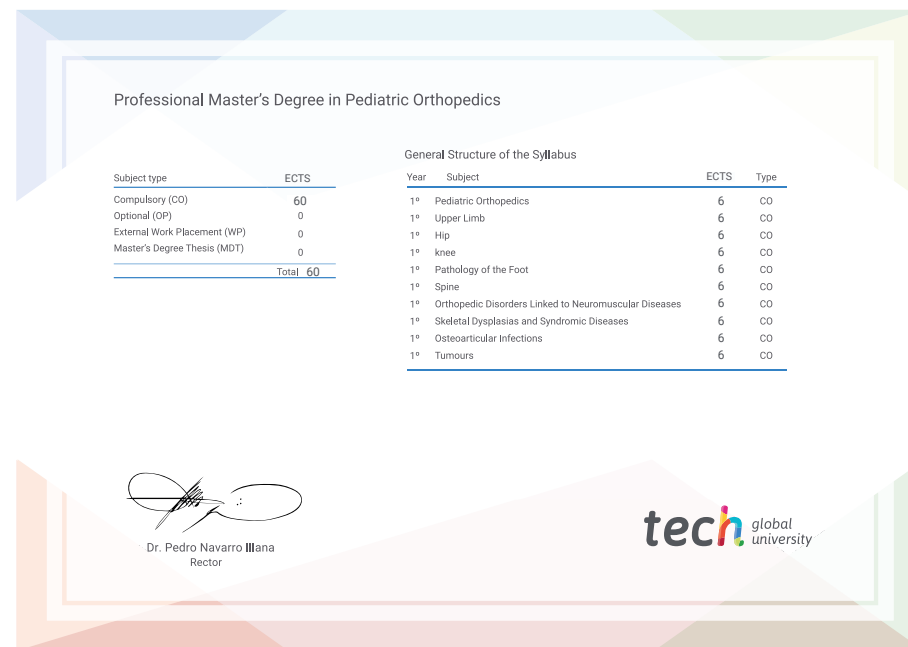
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Professional Master's Degree in Pediatric Orthopedics**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**



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



Professional Master's Degree

Pediatric Orthopedics

- » Modality: **online**
- » Duration: **12 months**
- » Certificate: **TECH Global University**
- » Credits: **60 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

Professional Master's Degree

Pediatric Orthopedics