



Postgraduate Diploma

Management of Pediatric Non-Inflammatory Musculoskeletal Diseases

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/in/medicine/postgraduate-diploma/postgraduate-diploma-management-pediatric-non-inflammatory-muscoloskeletal-diseases

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tech 06 | Introduction

Childhood is not a territory safe from rheumatologic disease (RD). Although it is difficult to know their exact prevalence, given the absence of specific and global studies, they are potentially serious diseases that lead to a significant decrease in the quality of life of the affected child. Comprehensive care for patients and their families as a fundamental part of the process, is an essential condition in the approach to this group of diseases.

This Postgraduate Diploma offers a different look at the global care that the child affected by RD needs. A comprehensive approach that covers all aspects of this care: from pre- and post-diagnostic care to families, pharmacological criteria and psychological and emotional care for the affected person and their environment. A holistic approach that you will acquire throughout the most specific and comprehensive online program in the teaching market.

During this comprehensive program, professionals will have the opportunity to acquire the basic knowledge necessary to deal with the situations that arise around a child or adolescent suspected of having RMD. From the moment of diagnosis, with the development of the guidelines that the specialist must follow to the information on procedures or attitudes to be avoided in this medical practice.

This Postgraduate Diploma will also offer them a different view of what RD means thanks to the participation of expert patients; an unparalleled opportunity to complete the medical knowledge with the view from the other side. This approach seeks to respond to the need for general practitioners, orthopedic surgeons, pediatricians, rheumatologists, social workers, nurses, psychologists and many other professionals to be able to handle situations with a high impact on the lives of children and young people and their families.

This **Postgraduate Diploma in Management of Pediatric Non-Inflammatory Musculoskeletal Diseases** contains the most complete and up-to-date scientific program on the market. The most important features include:

- The latest technology in online teaching software
- A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- Practical cases presented by practising experts
- State-of-the-art interactive video systems
- Teaching supported by telepractice
- Continuous updating and recycling systems
- · Autonomous learning: full compatibility with other occupations
- Practical exercises for self-evaluation and learning verification
- Support groups and educational synergies: questions to the expert, debate and knowledge forums
- · Communication with the teacher and individual reflection work
- Content that is accessible from any fixed or portable device with an Internet connection
- Supplementary documentation databases are permanently available, even after the program



All aspects of the practice of Pediatric Rheumatology, with a global vision of the care of the affected patient, in the most complete Postgraduate Diploma on the online teaching market"

Introduction | 07 tech



The teachers of this Postgraduate
Diploma have been selected on the basis
of two fundamental criteria: their proven
experience and knowledge of RD in
pediatrics and their proven teaching skills"

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

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

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

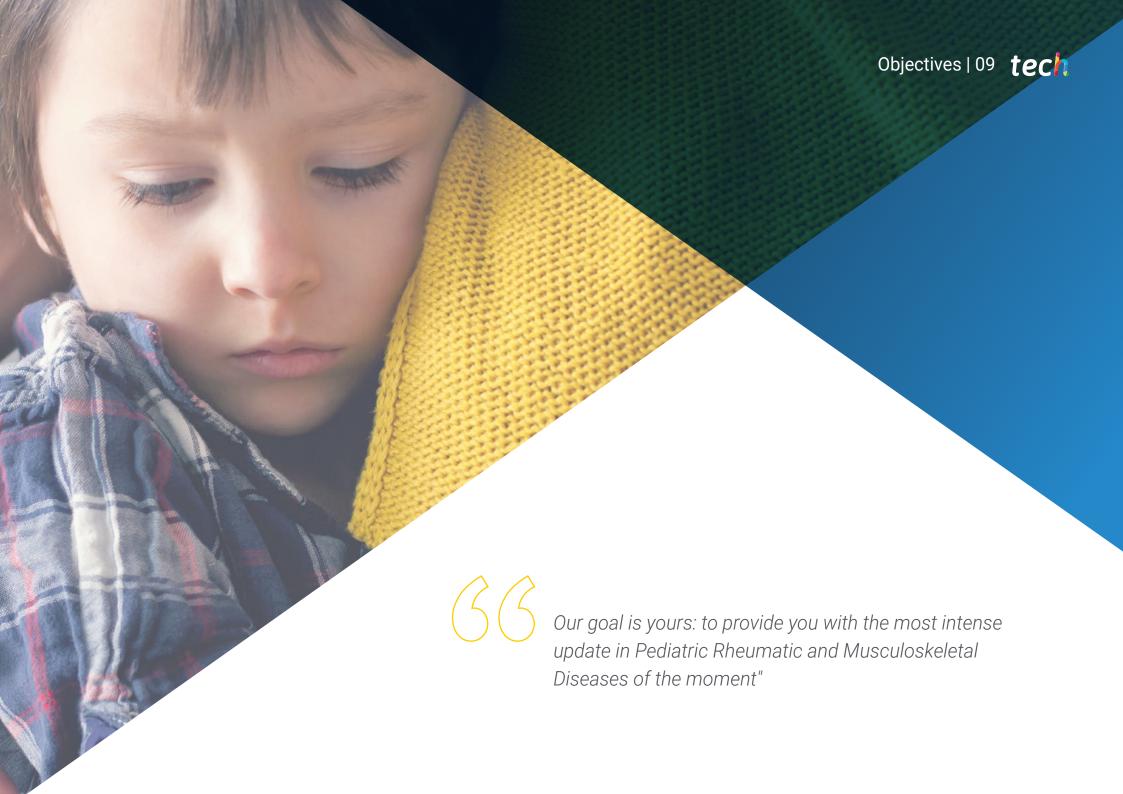
With a methodological design based on proven teaching techniques, this Postgraduate Diploma will take you through different teaching approaches to allow you to learn in a dynamic and effective way.

Our innovative telepractice concept will give you the opportunity to learn through an immersive experience, which means a faster assimilation and a much more realistic view of the contents: "learning from an expert"





TECH's objective is to prepare highly competent professionals who possess the most up-to-date knowledge and techniques in the medical field focused on the specialty covered by this program. A goal that, in only six months, the student will be able to achieve, thanks to this highly intensive and precise Postgraduate Diploma and the best teaching methodology.



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General Objectives

- Distinguish between different types of musculoskeletal problems in children, approach them and refer them if necessary
- Treat musculoskeletal problems from different points of view, medical psychological or physical, or at least to interpret the suitability of applied treatments
- Discuss whether a treatment was sufficiently effective
- Know which attitudes, treatments and strategies are inappropriate and should be avoided
- Prevent illness and complications
- Recognize basic needs and refer to specialized resources
- Identify social and environmental factors and reflect on the impact they have on the quality of life of patients and their families







Specific Objectives

Module 1. Attitude Towards Children with Suspected RMD

- Acquire the basic knowledge for the diagnosis of RMDs
- Discern the initial attitudes and actions to initiate in the diagnosis of RMD
- Learn how to rule out specific diseases
- Learn the usefulness of the different tests
- Know which procedures or attitudes to discard and why

Module 2. Musculoskeletal Pain in Children and Adolescents

- Recognize pain in children or adolescents with RMD as the most frequent problem
- Identify the manifestations of pain in the patient
- Recognize the consequences of the patient's pain in the family environment
- Distinguish the most common and the rarest causes of pain in the different body regions of the musculoskeletal system
- Identify inappropriate initial management

Module 3. Musculoskeletal Alterations

- Diagnose arthritis in childhood
- Determine arthritis versus ruling out other pathologies
- Apply the differential diagnosis in the suspicion of arthritis in its different forms of onset
- Outline the etiological treatment

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Module 4. Other Musculoskeletal Symptoms

- Recognize other musculoskeletal symptoms
- Possess basic knowledge of normal and pathological musculoskeletal signs

Module 5. Pharmacological Treatment in Pediatric Rheumatology

- Review pharmacological treatments
- Observe treatments common to different conditions
- Review practical aspects of medication
- Define the adverse effects of medications
- Follow the evolution of a pharmacological treatment in children and adolescents

Module 6. Non-Pharmacological Treatment and Psychosocial Support

- Provide a psychological approach to patients and their families in the treatment of RMDs
- Know the indication of physical exercise as a rehabilitation technique
- Recognize the opportunity of orthopedic surgery
- Describe the appropriate nutritional guidelines
- Distinguish the different existing social supports
- Identify appropriate and inappropriate myths and attitudes





Objectives | 13 tech

Module 7. Preventive Activities

- Review vaccination schedules
- Choose the specific preventive attitudes according to the diseases and treatments
- Recognize osteoporosis in children and its necessary consideration

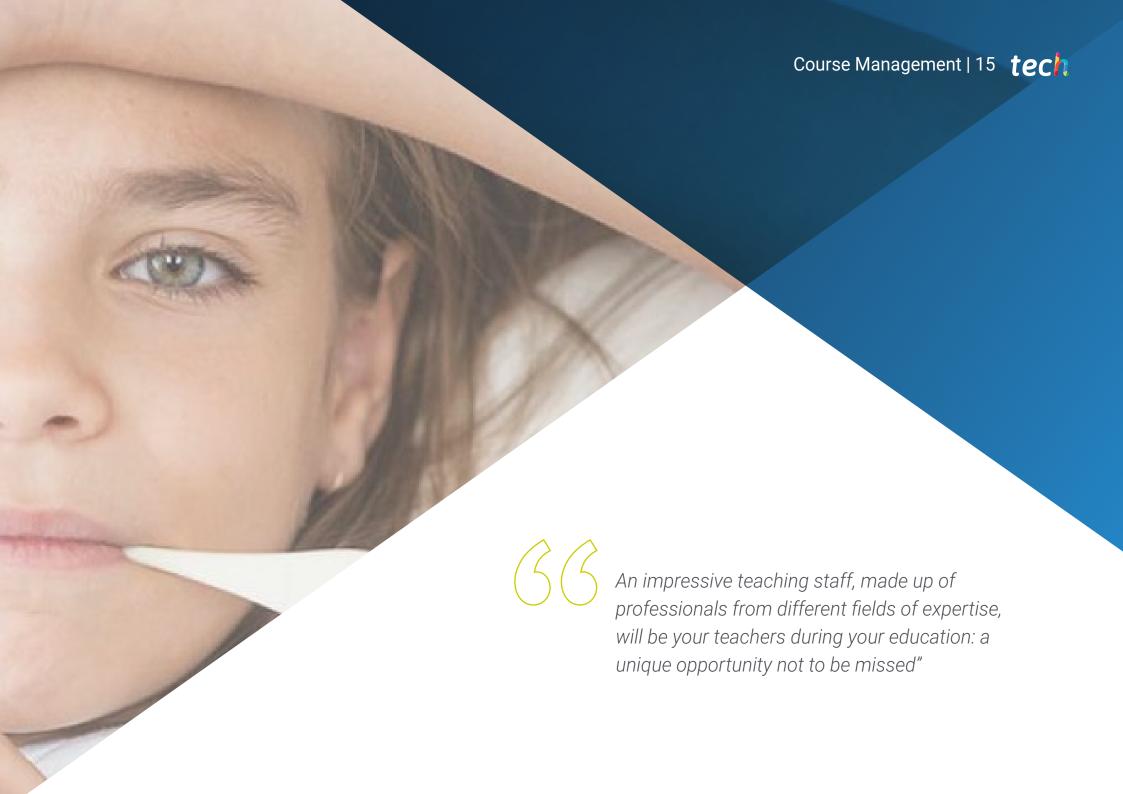
Module 8. Disease "Wiki" (Resources to Which All Modules Address)

- Know the existing resources on the Internet to help professionals
- Identify the main technological tools to identify new diseases



The fundamentals of holistic care in rheumatologic conditions in young patients, with a practical approach that will allow you to apply it immediately"





Management



Dr. Carmona, Loreto

- Rheumatologist and epidemiologist (LIRE). Medical Director InMusc
- PhD in Epidemiology and Preventive Medicine from the Autonomous University of Madrid
- University Research Professor at Camilo José Cela University



Dr. De La Torre Hervera, Elisenda

- Member of the Spanish Rheumatologic League
- Postgraduate in Patient Advocacy, UIC (International University of Catalonia), Barcelona, Spain
- Technical Engineering in Computer Management, (Polytechnic University of Mataró (UPC), Barcelona)
- Patients' Consultative Council of Catalonia (CCPC)
- CCPC Technical Communication Council
- Member of the executive board of administration of the healthcare quality agency (AQuAS)
- Member of the Pharmacotherapeutic Commission (CFT-SISCAT)



Dr. Clemente Garulo, Daniel

- Assistant Pediatric Physician at the Niño Jesús University Hospital, performing his healthcare activity in the Pediatric Rheumatology Unit
- Active member of the Spanish Society of Rheumatology (SER) and the Spanish Society of Pediatric Rheumatology (SERPE), participating in numerous studies and multicenter collaborative research projects promoted by different working groups of both societies
- Secretary of the ERNA-SER working group ("Rheumatologic diseases of childhood and adolescence")
- Professor at the Faculty of Health Sciences of the Lasalle Center for Higher University Studies
- Degree in Medicine and Surgery from the Faculty of Medicine of the Universidad de Alcalá
- Specialist in Rheumatology, after completing his MIR training at San Carlos Clinical University in Madrid (2002-2006) and in Pediatrics and specific areas, after completing his MIR training at the Infant University Hospital Niño Jesús
- PhD in Health Sciences from the Universidad Camilo José Cela

Professors

Dr. Graña, Jenaro

• Pediatric Rheumatologist

Dr. Bartolomé, Jon

- Patient Representative (LIRE-young)
- Member of the Board of Directors Responsible for LIRE-Joven

Dr. Nieto, Juan Carlos

• Pediatric Rheumatologist

Dr. Emperiale, Valentina

- Rheumatology Service at the Príncipe de Asturias University Hospital
- Physician-Surgeon, Pontificia Catholic University in Chile

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Dr. Lerma, Sergio

- Professor and Researcher at La Salle University Center
- Dean of the Faculty of Health Sciences. La Salle Higher Center for University Studies. UAM
- Researcher in the Biomedical Research Foundation of the Niño Jesús Children's University Hospital
- Certificate in Physiotherapy
- PhD in Physiotherapy

Dr. Diago Ortega, Rocío

• Dietitian-nutritionist and Health Sciences Director

Dr. Prada Ojeda, Alejandro

• Rheumatologist Torrejón de Ardoz University Hospital (Madrid)

Dr. Gómez, Alejandro

• Attending Rheumatology Physician. Infanta Sofía University Hospital

Ms. Boteanu, Alina

• Pediatric Rheumatologist Ramón y Cajal Hospital, Madrid

Ms. Ramírez, Ana

• Pediatric Traumatologist Orthopedic surgery and traumatology unit

Ms. Vázquez, Ana

• Occupational and Speech Therapist (LIRE)

Dr. Magallares López, Berta

• Specialist in Rheumatology. Hospital Santa Creu i Sant Pau Associate Professor

Ms. Galindo, Rocío

• Coordinator of the Pediatric Osteoporosis and Osteogenesis Imperfecta group

Dr. Enríquez Merayo, Eugenia

• Pediatric rheumatologist Infanta Leonor University Hospital, Madrid

Dr. Benavent, Diego

Rheumatology Unit at Hospital La Paz

Dr. Calvo Aranda, Enrique

• Rheumatology Unit Infanta Leonor University Hospital

Ms. Núñez, Esmeralda

 Pediatric rheumatologist. Coordinator of the group of Prevention and Treatment of Infections in Pediatric Rheumatology of SERPE and member of the Spanish Society of Pediatric Infectious Diseases (SEIP)

Ms. Sánchez Manubens, Judith

• Head of Pediatric Rheumatology Unit- Parc TaulíSabadell University Hospital

Dr. Martín Pedraz, Laura

 Pediatric rheumatologist. UGC Pediatrics, Regional University Hospital of Malaga, Malaga, Spain

Dr. León, Leticia

• Doctor of Psychology. IdISSC Rheumatology. San Carlos Clinical Hospital, Madrid

Ms. Fernández Caamaño, Lucía

Occupational Therapist



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Dr. Salar Ibáñez, Luis

- Physician specializing in Rheumatology at the Torrejón Hospital
- Coordinator of the Pediatric Rheumatology Unit at Hospital San Rafael

Dr. Redondo, Marta

• Psychologist. Camilo José Cela University

Dr. Greco, Martín

Rheumatologist

Dr. Fernández Berrizbeitia, Olaia

• Rheumatologist Associate Professor

Dr. Diaz Valle, David

• Head of the Ophthalmology Department. San Carlos Clinical Hospital

Dr. Rodríguez Palero, Serafín

- Rehabilitation Physician at the Niño Jesús University Hospital
- Specialty at the 12 de Octubre University Hospital of Madrid
- University Specialist Course in Childhood Disability at the UCM
- Specialist in neurological rehabilitation, musculoskeletal pain and pathologies related to language and balance disorders. Speciality 12 de Octubre University Hospital, Madrid





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Module 1. Attitude Towards Children with Suspected RMD

- 1.1. Medical History
 - 1.1.1. Frequent Reasons for Consultation in Pediatric RMD
 - 1.1.2. Family Background
 - 1.1.3. Personal background
 - 1.1.4. Key Questions in RMD
 - 1.1.5. Relevant Organs and Apparatus
 - 1.1.6. Growth and Development
- 1.2. Effective Communication with the Child and Family
 - 1.2.1. Effective Interview
 - 1.2.2. Fear and Phobias
- 1.3. Exploration of the Locomotor System in Pediatric Rheumatology
 - 1.3.1. Exploration of Upper Limbs
 - 1.3.2. Exploration of Lower Limbs
 - 1.3.3. Exploration of the Spine
 - 1.3.4. Exploration of Gait
 - 1.3.5. General Examination Adapted to Rheumatology
- 1.4. Complementary Tests
 - 1.4.1. Image
 - 1.4.1.1. Radiography
 - 1.4.1.2. Ultrasound
 - 1.4.1.3. Resonance
 - 1.4.1.4. Others
 - 1.4.2. Laboratory Tests
 - 1.4.2.1. Blood Count:
 - 1.4.2.2. Biochemistry
 - 1.4.2.3. Reactants of the Acute Phase
 - 1.4.2.4. Autoantibodies
 - 1.4.2.5. Serology and Supplementation
 - 1.4.2.6. Microbiology
 - 1.4.2.7. Genetic Studies
 - 1.4.2.8. Biomarkers
 - 1.4.3. Study of Synovial Fluid
 - 1.4.4. Clinical neurophysiology

Module 2. Musculoskeletal Pain in Children and Adolescents

- 2.1. What Is Pain?
 - 2.1.1. Theories about Pain
 - 2.1.2. The Pain Experience
 - 2.1.3. Pain Pathways
- 2.2. Pain Assessment
 - 2.2.1. Characteristics of Pain
 - 2.2.2. Measuring Pain
 - 2.2.3. Pain Localization
 - 2.2.3.1. Knee Pain
 - 2.2.3.2. Hip Pain
 - 2.2.3.3. Ankle and Foot Pain
 - 2.2.3.4. Cervical Pain
 - 2.2.3.5. Back Pain
 - 2.2.3.6. Shoulder, Elbow and Wrist Pain
 - 2.2.3.7. Generalized Pain
- 2.3. Musculoskeletal Pain in Children
 - 2.3.1. Expression of Pain
 - 232 Conduct
 - 2.3.3. The Impact of Pain
 - 2.3.3.1. Social Impact
 - 2.3.3.2. Family
- 2.4. Pain Management
 - 2.4.1. Pharmacological Treatment- General Guidelines
 - 2.4.2. Non-Pharmacological Treatment- General Guidelines





- 3.1. Muscular Pathology
 - 3.1.1. Inflammatory Myopathies
 - 3.1.2. Non-Inflammatory Myopathies
- 3.2. Non-Inflammatory Joint Pathology
- 3.3. Bone Pathology
 - 3.3.1. Osteomyelitis
 - 3.3.2. Osteoporosis
 - 3.3.3. Tumours

Module 4. Other Musculoskeletal Symptoms

- 4.1. Gait Disorders
 - 4.1.1. Movement Analysis
 - 4.1.2. Limping
 - 4.1.3. Convergent and Divergent Gait
- 4.2. Hyperlaxity
 - 4.2.1. Frequency (F)
 - 4.2.2. Assessment
 - 4.2.3. Management
- 4.3. Angular and Torsional Deformities in Children
 - 4.3.1. Scoliosis
 - 4.3.2. Contractures and Joint Retraction
 - 4.3.2.1. Infantile Valgus Flatfoot and Forefoot Deformities
 - 4.3.2.2. Clubfoot
 - 4.3.3. Hip Pathology in Growth
 - 4.3.3.1. Hip Dysplasia
 - 4.3.3.2. Perthes' Disease, Epiphysiolysis capitisfemoris
- 4.4. Limb Length Discrepancy
 - 4.4.1. Frequency (F)
 - 4.4.2. Assessment
 - 4.4.3. Management
- 4.5. Sports Injuries
 - 4.5.1. Frequency (F)
 - 4.5.2. Assessment
 - 4.5.3. Management



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Module 5. Pharmacological Treatment in Pediatric Rheumatology

- 5.1. Symptomatic Treatment
 - 5.1.1. Analgesics
 - 5.1.2. Anti-Inflammatory Drugs
 - 5.1.3. Opioids
 - 5.1.4. Antiepileptics
 - 5.1.5. Antidepressants

Module 6. Non-Pharmacological Treatment and Psychosocial Support

- 6.1. Exercise and Physical Activity in Children
 - 6.1.1. Exercise, Physical Activity and Sport
 - 6.1.2. Specifics of Exercise in Children with RMD
- 6.2. Rehabilitation
 - 6.2.1. Splints and Orthoses
 - 6.2.2. Physical Therapies in Children
- 6.3. Orthopedic Surgery
 - 6.3.1. Special Features of Immature Bone and the Growing Skeleton
 - 6.3.2. Infantile Fractures
 - 6.3.2.1. Most Common Traumatic Fractures and Traumatic Epiphysiolysis 6.3.2.2. Common Techniques of Osteosynthesis in Children
 - 6.3.3. Infection Management in the Locomotor System in Children
 - 6.3.4. Surgery of Growing Spine Deformities
 - 6.3.5. Osteotomies of the Pelvis and the Upper Extremity of the Femur

- 6.4. Nutritional Advice
 - 6.4.1. Obesity
 - 6.4.2. Malnutrition
 - 6.4.3. Supplements
- 5.5. Psychological Approach to Pediatric RMDs
 - 6.5.1. Fears, Phobias and Anxieties
 - 6.5.2. Generalized Anxiety Disorder and Panic Disorder
 - 6.5.3. Depression in Childhood and Adolescence
 - 6.5.4. Sleep Disorders
 - 6.5.5. Eating Disorders
 - 6.5.6. Dissocial Disorder
 - 6.5.7. Learning Disorders
 - 6.5.8. Training of Parents of Children with RMD
 - 6.5.9. Family Behavioral Intervention
- 5.6. Occupational Intervention
 - 6.6.1. Occupational Schedules
 - 6.6.2. Play as Therapy
 - 6.6.3. Technical Aids
- 5.7. What Not to Do?

Module 7. Preventive Activities

- 7.1. Osteoporosis Screening in Children
 - 7.1.1. To Whom?
 - 7.1.2. Existing Tests
 - 7.1.3. What to Do in Case of a Positive Test



Structure and Content | 25 tech

Module 8. Disease "Wiki" (Resources to Which All Modules Address)

- 8.1. Pain Amplification Syndromes
 - 8.1.1. Juvenile Fibromyalgia
 - 8.1.2. Complex Regional Pain Syndrome
- Chronic Musculoskeletal Pain
 - 8.2.1. Growing Pains
 - 8.2.2. Osteochondrosis
 - 8.2.3. Benign Generalized Joint Hyperlaxity
- Lysosomal Metabolic Diseases
- Primary Bone and Connective Tissue Diseases
- Rheumatic Fever and Post-Streptococcal Arthritis
- How Are the Diseases Classified



A unique, key, and decisive educational experience to k educational experience to boost your professional development"





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At TECH we use the Case Method

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

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.



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:

- Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
- 2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
- 3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
- 4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

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



Methodology | 31 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, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.

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This program offers the best educational material, prepared with professionals in mind:



Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



Surgical Techniques and Procedures on Video

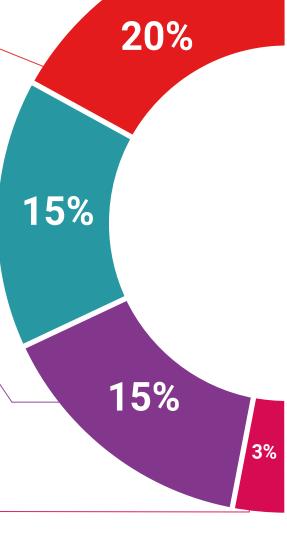
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".





Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.

Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



Classes

There is scientific evidence on the usefulness of learning by observing experts.

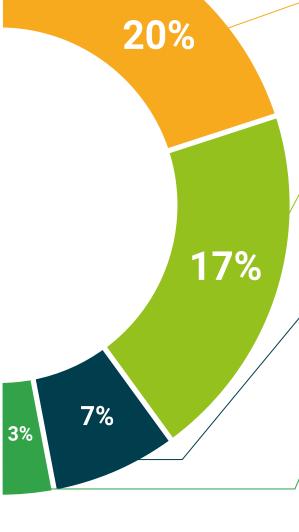
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.









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This Postgraduate Diploma in Management of Pediatric Non-Inflammatory Musculoskeletal Diseases contains the most complete and up-to-date scientific program on the market.

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

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

Title: Postgraduate Certificate in Management of Pediatric Non-Inflammatory Musculoskeletal Diseases

Official N° of Hours: 450 h.



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

health confidence people
leducation information tutors
guarantee accreditation teaching
institutions technology learning



Postgraduate Diploma

Management of Pediatric Non-Inflammatory Musculoskeletal Diseases

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

