

Children with Rheumatic Pain





## Postgraduate Certificate

## Children with Rheumatic Pain

» Modality: online

» Duration: 12 weeks

» Certificate: TECH Technological University

» Dedication: 8h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/in/medicine/postgraduate-certificate/children-rheumatic-pain

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Rheumatic diseases can produce pain, sometimes with an intensity that interferes with the daily life of young patients. This situation is an intense source of anxiety in the family environment and requires from the professional a very specific intervention that takes into account and knows how to manage all these aspects. This program offers specific and intensive education that will provide you with the most advanced diagnostic and intervention tools in the current scientific panorama.



## tech 06 | Introduction

Childhood is not 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 Certificate offers a different look at the global care that Children with Rheumatic Disease need. 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 on 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.



All aspects of the praxis of Children with Rheumatic Pain, with a global vision of the care of the affected patient, in the most complete Postgraduate Certificate on the online teaching market" This **Postgraduate Certificate in Children with Rheumatic Pain** 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-assessment 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



The teachers of this Postgraduate Certificate 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.

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 immersive education programmed to learn in real situations.

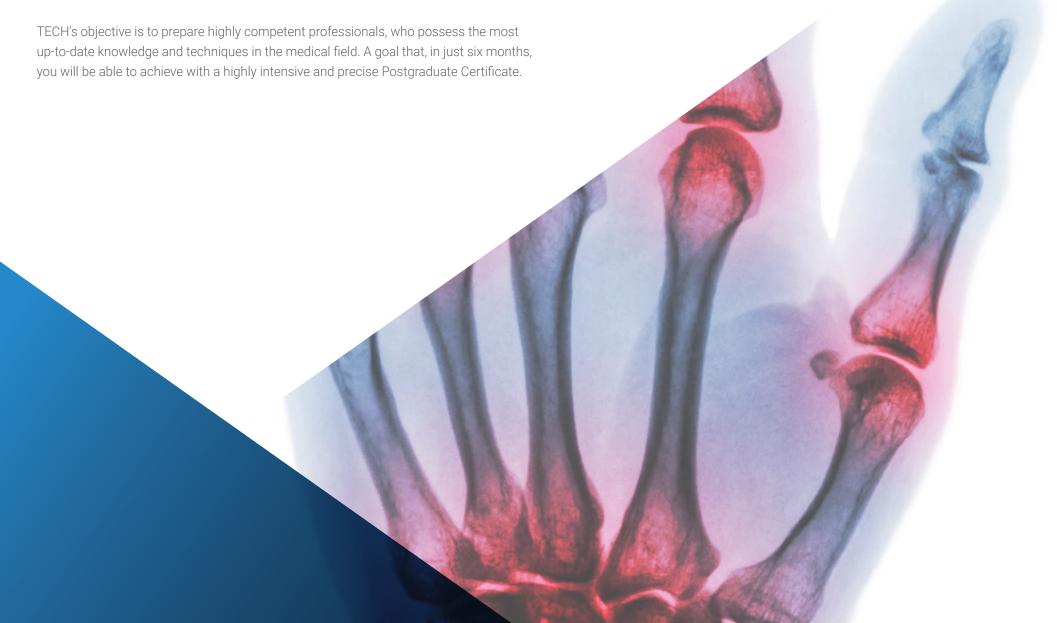
This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced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

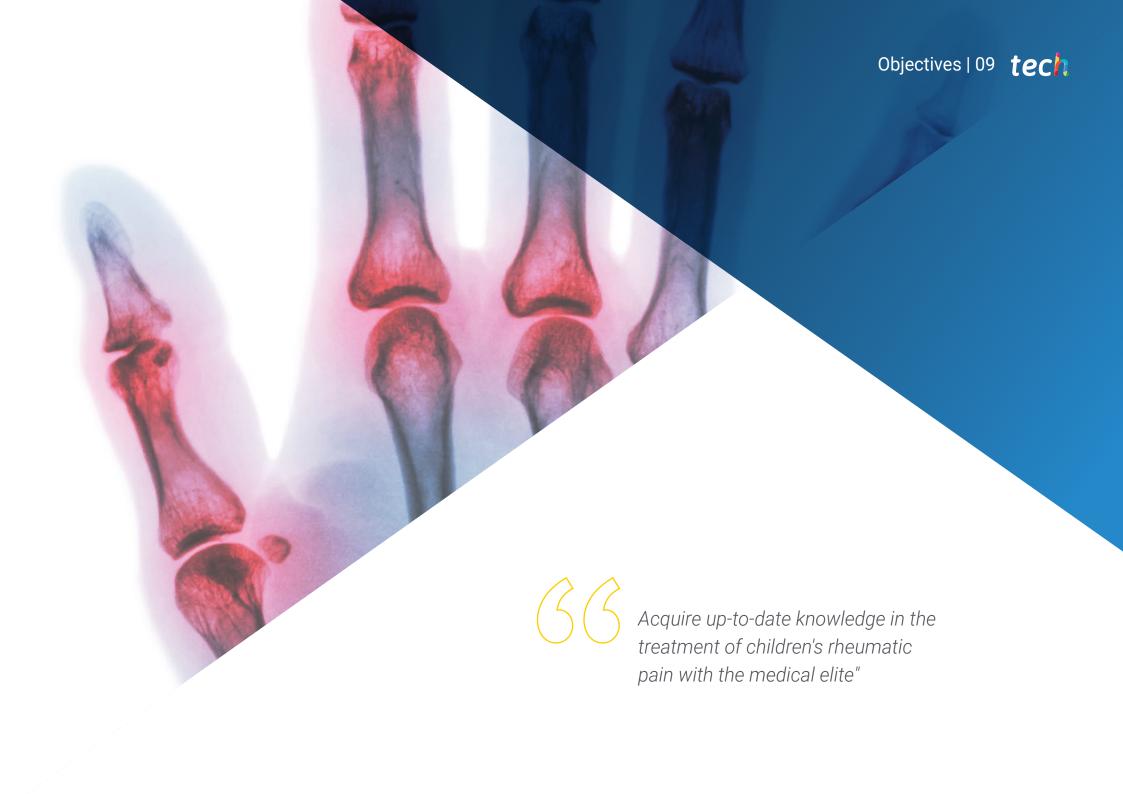
Our innovative telepractice concept gives you the opportunity to learn through an immersive experience, which will allow you to assimilate the concepts faster and from a real professional perspective: "learning from an expert".

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



02 **Objectives** 





## tech 10 | Objectives



## **General Objectives**

- Distinguish between different types of musculoskeletal problems in children, approach them and refer them if necessary
- Treat them 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



You will be able to prevent diseases and complications by diagnosing the focus of childhood rheumatic pain thanks to this TECH Postgraduate Certificate"





## Objectives | 11 tech



## **Specific Objectives**

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





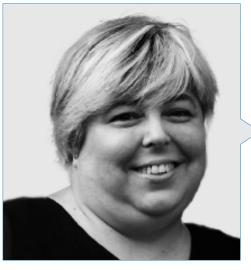
## tech 14 | Course Management

#### Management



#### Dr. Carmona Ortells, Loreto

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



#### Ms. 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. Lerma Lara, 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
- Diploma in Physiotherapy
- PhD in Physiotherapy

#### 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

## tech 16 | Course Management

#### Dr. Bartolomé Puebla. Jon

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

#### Dr. Graña Gil, Jenaro

Pediatric Rheumatologist

#### Dr. Nieto, Juan Carlos

Pediatric Rheumatologist

#### Ms. Emperiale, Valentina

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

#### Ms. 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

#### Dr. Boteanu, Alina

• Pediatric Rheumatologist Ramón y Cajal Hospital, Madrid

#### Dr. Ramírez Barragán, 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

#### Dr. Galindo Zavala, 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

#### Dr. Núñez Cuadros, 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)

#### Dr. Sánchez Manubens, Judith

• Head of Pediatric Rheumatology Unit-Hospital Universitari Parc TaulíSabadell

#### Dr. Martín Pedraz, Laura

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



## Course Management | 17 tech

#### Ms. León Mateos, Leticia

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

#### Ms. Fernández Caamaño, Lucía

Occupational Therapist

#### Dr. Sala Icardo, Luis

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

#### Ms. Redondo Delgado, Marta

Psychologist. Camilo José Cela University

#### Dr. Greco, Martín

Rheumatologist

#### Dr. Fernández Berrizbeitia, Olaia Begoña

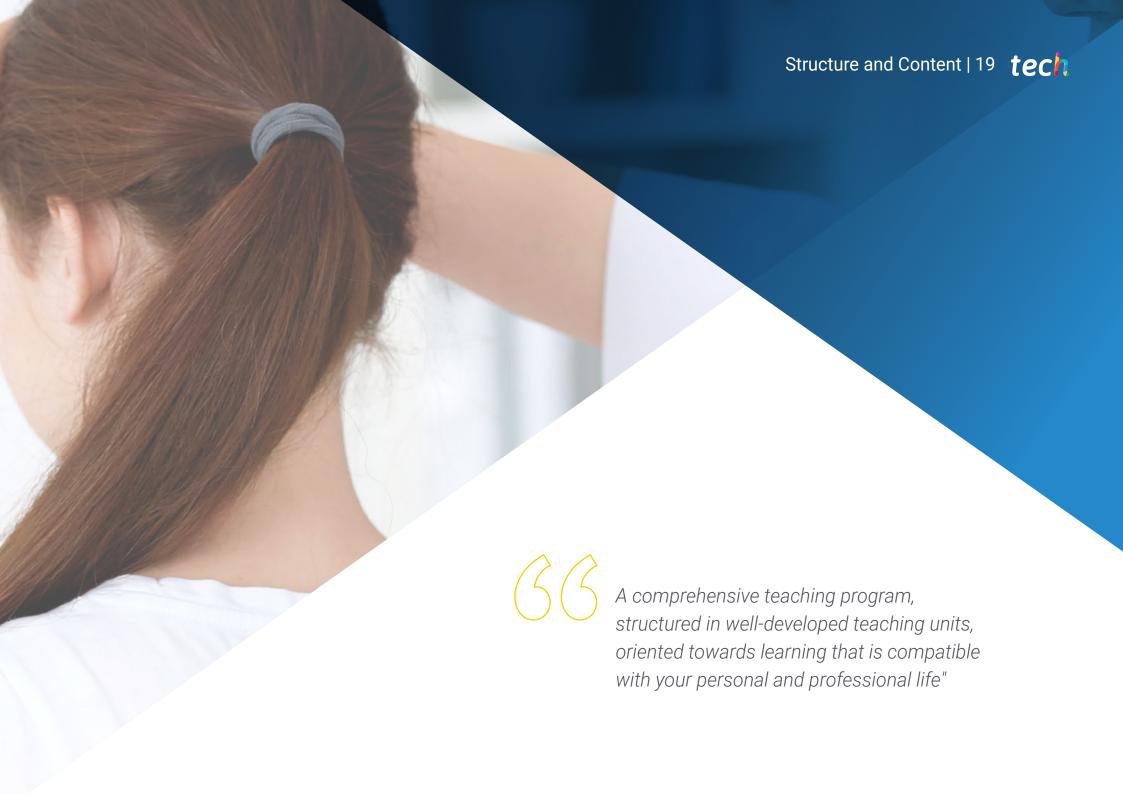
• Rheumatologist Associate Professor

#### Dr. Díaz Valle, David

• Head of the Ophthalmology Department. San Carlos Clinical Hospital

# **Structure and Content**

The contents of this program have been developed by the different experts of this Postgraduate Certificate, with a clear purpose: to ensure that students acquire each and every one of the skills necessary to become true experts in this field. Structured into one module, the student will address everything related to musculoskeletal pain in children and adolescents to treat it effectively, distinguishing himself in a specialty in continuous research.



## tech 20 | Structure and Content

#### Module 1. Musculoskeletal Pain in Children and Adolescents

- 1.1. What is Pain?
  - 1.1.1. Theories about Pain
  - 1.1.2. The Pain Experience
  - 1.1.3. Pain Pathways
- 1.2. Pain Assessment
  - 1.2.1. Characteristics of Pain
  - 1.2.2. Measuring Pain
  - 1.2.3. Pain Localization
    - 1.2.3.1. Knee Pain
    - 1.2.3.2. Hip Pain
    - 1.2.3.3. Ankle and Foot Pain
    - 1.2.3.4. Cervical Pain
    - 1.2.3.5. Back Pain
    - 1.2.3.6. Shoulder, Elbow and Wrist Pain
    - 1.2.3.7. Generalized Pain
- 1.3. Musculoskeletal Pain in Children
  - 1.3.1. Expression of Pain
  - 1.3.2. Conduct
  - 1.3.3. The Impact of Pain
    - 1.3.3.1. Social Impact
    - 1.3.3.2. Family
- 1.4. Pain Management
  - 1.4.1. Pharmacological Treatment. General Aspects
  - 1.4.2. Non-Pharmacological Treatment. General Aspects



#### Module 2. Pharmacological Treatment in Pediatric Rheumatology

- 2.1. Symptomatic Treatment
  - 2.1.1. Analgesics
  - 2.1.2. Anti-Inflammatory Drugs
  - 2.1.3. Opioids
  - 2.1.4. Antiepileptics
  - 2.1.5. Antidepressants

#### Module 3. Non-Pharmacological Treatment and Psychosocial Support

- 3.1. Exercise and Physical Activity in Children
  - 3.1.1. Exercise, Physical Activity and Sport
  - 3.1.2. Specifics of Exercise in Children with RMD
- 3.2. Rehabilitation
  - 3.2.1. Splints and Orthoses
  - 3.2.2. Physical Therapies in Children
- 3.3. Orthopedic Surgery
  - 3.3.1. Special Features of Immature Bone and the Growing Skeleton
  - 3.3.2. Infantile Fractures
    - 3.3.2.1. Most Common Traumatic Fractures and Traumatic Epiphysiolysis 3.3.2.2. Common Techniques of Osteosynthesis in Children
  - 3.3.3. Infection Management in the Locomotor System in Children
  - 3.3.4. Surgery of Growing Spine Deformities
  - 3.3.5. Osteotomies of the Pelvis and the Upper Extremity of the Femur
- 3.4. Nutritional Advice
  - 3.4.1. Obesity
  - 3.4.2. Malnutrition
  - 3.4.3. Supplements

- 8.5. Psychological Approach to Pediatric RMDs
  - 3.5.1. Fears, Phobias and Anxieties
  - 3.5.2. Generalized Anxiety Disorder and Panic Disorder
  - 3.5.3. Depression in Childhood and Adolescence
  - 3.5.4. Sleep Disorders
  - 3.5.5. Eating Disorders
  - 3.5.6. Dissocial Disorder
  - 3.5.7. Learning Disorders
  - 3.5.8. Training of Parents of Children with RMD
  - 3.5.9. Family Behavioral Intervention
- 3.6. Occupational Intervention
  - 3.6.1. Occupational Schedules
  - 3.6.2. Play as Therapy
  - 3.6.3. Technical Aids
- 3.7. What Not to Do?

#### Module 4. Preventive Activities

- 4.1. Adaptation to the School Environment and Activities of Daily Life
  - 4.1.1. Adaptation to the School Environment
  - 4.1.2. Daily Living Activities
  - 4.1.3. Sibling Syndro



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





## tech 24 | 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. 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 | 27 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.

## tech 28 | Methodology

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**

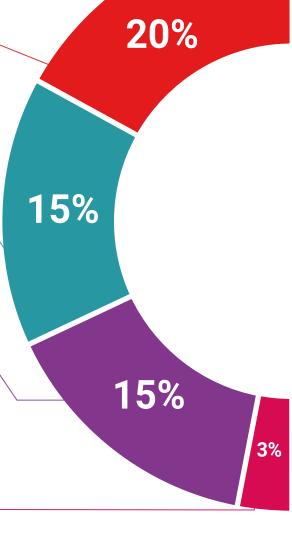
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many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

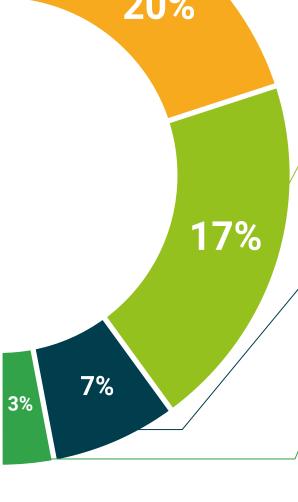
The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### **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.









## tech 32 | Certificate

This **Postgraduate Certificate in Children with Rheumatic Pain** 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 Certificate** issued by **TECH Technological University** via tracked delivery\*.

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

Title: Postgraduate Certificate in Children with Rheumatic Pain
Official N° of Hours: **300 h**.



This is a qualification awarded by this University, equivalent to 300 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.

Unique TECH Code AFWORD238 techtifulac conscentificates

<sup>\*</sup>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.

technological university

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