

Postgraduate Certificate

Nephrological Pathology in Hospital Pediatrics





Postgraduate Certificate Nephrological Pathology in Hospital Pediatrics

Course Modality: Online

Duration: 6 weeks

Certificate: TECH Technological University

Official N° of hours: 150 h.

Website: www.techtitute.com/medicine/postgraduate-certificate/nephrological-pathology-hospital-pediatrics



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01

Introduction

The use of state-of-the-art technologies, especially in early and prenatal diagnosis, has provided an unbeatable framework to manage nephrological pathologies in hospital pediatrics. Thanks to sophisticated treatments and the various scientific advances made in recent decades, more and more pediatric patients are showing a favorable diagnosis of acute or chronic renal diseases. For this reason, TECH has created this program, comprised of a compendium of the main advances in different pathologies in this area, including topics devoted to Urinary Tract Infection, Congenital Anomalies, Hematuria-proteinuria, Nephrotic Syndrome and more conditions of special interest for any specialist.



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You will be able to access the latest scientific evidence for the diagnosis and treatment of post-streptococcal glomerulonephritis, arterial hypertension and renal lithiasis, among others"

Given the particularities of nephrological pathologies in pediatric patients, they require specific services and approaches, adapted to each ailment or condition. This makes it even more important for specialists to be fully up to date, in order to be able to offer the best possible approach and treatment for each situation.

TECH has brought together a team of highly-qualified academic and clinical professionals to develop all the contents included in this program, created specifically to meet specialists' needs. Thanks to the professors' distinctive approach, combining the most rigorous scientific theory and useful practical knowledge, the course offers the highest quality and efficiency on the academic scene.

Specialists will find the latest advances in the treatment of various nephrological conditions, including acute kidney damage and water and electrolyte disorders. The topics are supported by an extensive study on the pathophysiology, etiology or epidemiology of the various pathologies analyzed.

Also noteworthy is the 100% online nature of the program, as it has eliminated fixed schedules and the need to attend classes either online or in person. This gives specialists total flexibility, allowing them to perfectly balance academic, professional and personal commitments without being overwhelmed by the course load.

This **Postgraduate Certificate in Nephrological Pathology in Hospital Pediatrics** contains the most complete and up-to-date academic program on the market. Its most notable features are:

- ◆ Practical case studies presented by experts in hospital pediatrics
- ◆ The graphic, schematic, and eminently 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
- ◆ Special emphasis on innovative methodologies in the approach to pneumological affections
- ◆ 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



You will be able to study the program contents at your own pace, and you can even choose the order in which you want to study each topic"

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You can rely on the largest online academic institution, with more than 8,000 degrees and 4,000 teachers who are experts in a multitude of subjects and knowledge”

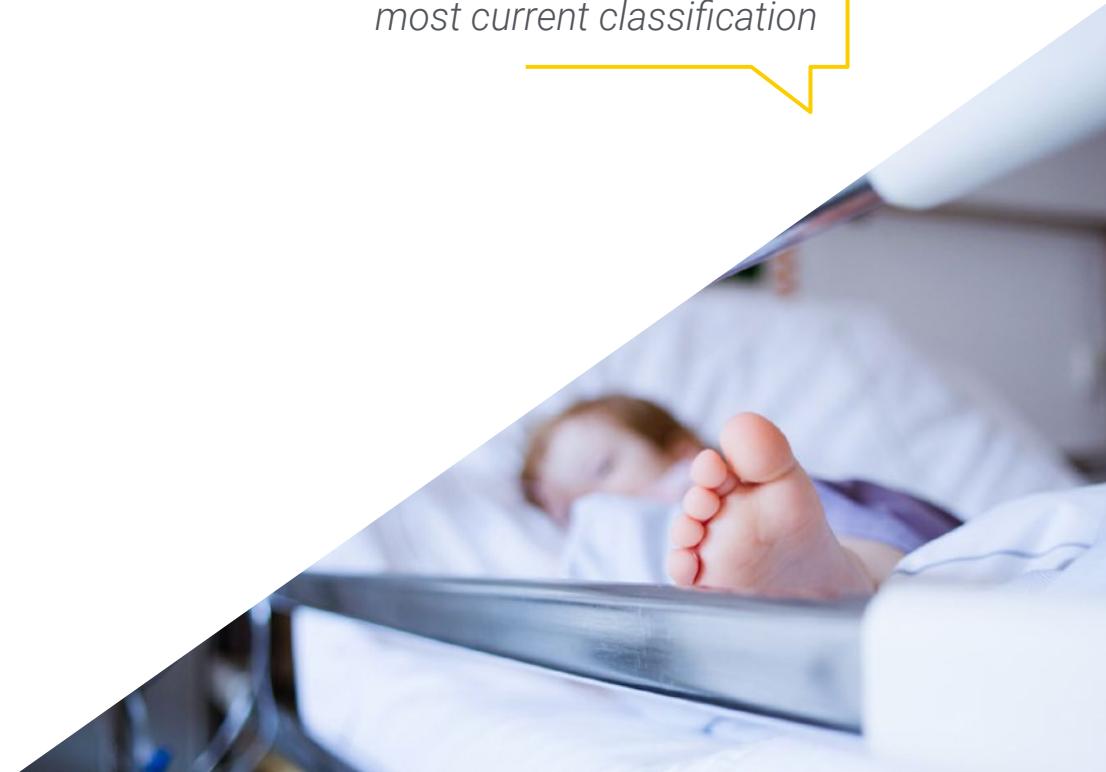
The program's teaching staff includes professionals from the sector who contribute their work experience to this program, as well as renowned specialists from leading societies and prestigious universities.

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 an immersive program to learn in real situations.

The design of this program focuses on Problem-Based Learning, which means the student must try to solve the different real-life situations that arise throughout the academic program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

Upgrade your skills in monitoring urinary tract infections with a complete review of their diagnosis, etiology and treatment

Get up to date on congenital anomalies in the urinary tract with the most advanced pre- and post-natal diagnosis as well as the most current classification



02

Objectives

Thanks to the advanced methodology employed by TECH, specialists will not have to invest large amounts of time to achieve all the course objectives. This means that, throughout the program, all the advances learnt will be incorporated into daily practice, allowing students to perfect their methods even before the end of the program. The objectives developed by TECH ensure a complete and reliable update of knowledge on the most common nephrological pathologies in hospital pediatrics.



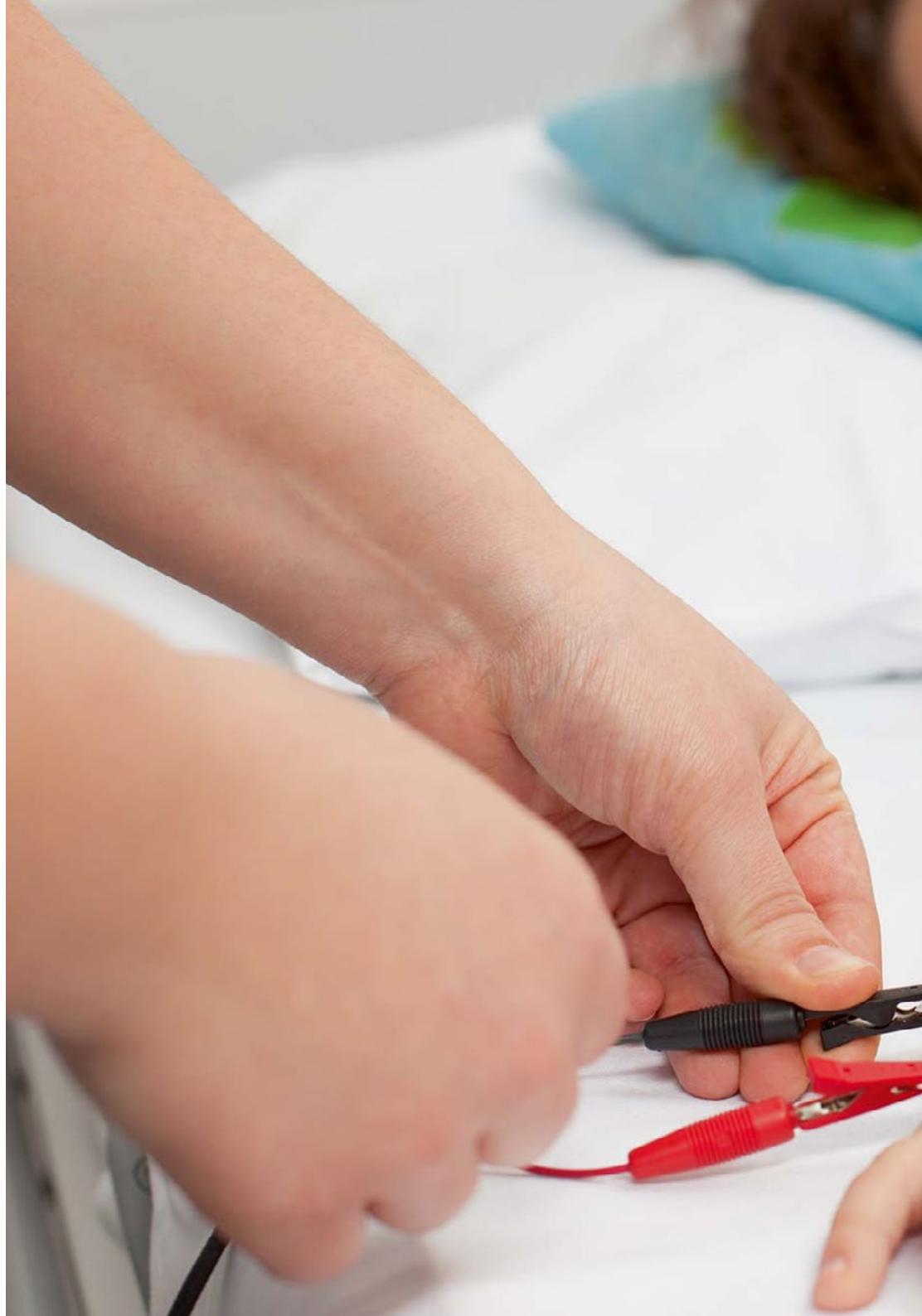
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*You will have the opportunity to perfect
your methods while continuing your most
demanding professional work"*



General Objectives

- ◆ Master the latest techniques and knowledge in modern hospital pediatrics
- ◆ Become highly competent in pediatric patient management, ensuring maximum quality and safety during the process
- ◆ Develop exemplary skills to provide high quality care, guaranteeing patient safety based on the latest update of scientific evidence
- ◆ Gain up-to-date knowledge of hospital pediatrics





Specific Objectives

- ♦ Offer a global vision of the most frequent pathologies found in hospital admissions through clinical cases, deepening understanding of hematuria-proteinuria, nephrotic syndrome and acute renal damage, arterial hypertension and renal lithiasis, which are all becoming more and more common
- ♦ Bring new diagnostic and therapeutic algorithms to the nephrological area

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You will meet all the proposed professional objectives in a direct and effective way, with a large amount of complementary readings that will later serve as reference material”

03

Course Management

The creation of this Postgraduate Certificate has been entrusted to leading professionals and specialists in the field of pediatrics, especially in the field of nephrological pathologies. For this reason, the program benefits from a first-level scientific vision and a practical analysis of the most effective diagnoses and treatments at present. This enhances the quality of the program, guaranteeing specialists a complete and focused update for their most challenging daily practice.



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The teaching staff's extraordinary professionalism and technical quality will provide added value and confidence when studying all the academic contents”

Management



Dr. García Cuartero, Beatriz

- Chief of the Pediatrics Service and coordinator of the Pediatric Endocrinology and Diabetes Unit Ramón y Cajal University Hospital, Madrid, Spain
- Specialist Physician in Pediatrics at Severo Ochoa, Leganés University Hospital, Madrid
- Primary Care Pediatrician, Area 4, Madrid
- Degree in Medicine and Surgery from the Complutense University of Madrid
- Specialist Degree in Pediatrics, MIR accreditation at the Infantil Niño Jesús University Hospital, Madrid Specific Training Area: Pediatric Endocrinology
- PhD from the Autonomous University of Madrid (UAM) Expression of manganese superoxide dismutase, heme oxygenase and nitric oxide synthase enzymes in cultured pancreatic islets with interleukin 1 by in situ hybridization Unanimous Cum Laude Award
- Associate Professor of Pediatrics, Faculty of Medicine Alcalá de Henares University
- Social Security Research Fund (FISS) Grant, Steno Diabetes Center, Copenhagen/Hagedorn Research Laboratory Project: Pancreatic beta cell destruction mechanism and free radicals in type 1 diabetes mellitus



Professors

Dr. Vázquez Ordóñez, Carmen

- ◆ Faculty Specialist in Pediatric Nephrology and Pediatric Emergencies Ramón y Cajal University Hospital
- ◆ Rotation in the Pediatric Nephrology Service 12 de Octubre University Hospital
- ◆ Pediatric Resident Ramón y Cajal University Hospital
- ◆ Degree in Medicine and Surgery Navarra University
- ◆ Teaching Collaborator for 4th and 6th year in Medicine at the University of Alcalá de Henares
- ◆ Seminars in Medicine at the University of Alcalá de Henares

04

Structure and Content

Thanks to the use of Relearning, a methodology in which TECH is a pioneer, specialists do not have to invest long hours into studying in order to pass the course, since its most advanced concepts will be naturally and progressively understood throughout the program. This means that the course load is significantly reduced and students will also be supported by a considerable amount of audiovisual and complementary material.



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Access to real clinical cases and practical exercises proposed by the teaching staff will give you a much more contextualized view of nephrology and water and electrolyte disorders in pediatrics”

Module 1. Nephrology and Water and Electrolyte Disorders in Pediatrics

- 1.1. Urinary Tract Infections
 - 1.1.1. Urinary Tract Infections
 - 1.1.2. Other Meanings
 - 1.1.3. Etiology
 - 1.1.4. Clinical Symptoms
 - 1.1.5. Diagnosis
 - 1.1.6. Treatment
 - 1.1.7. Monitoring
- 1.2. Urinary Tract Congenital Abnormalities
 - 1.2.1. Urinary Tract Congenital Abnormalities
 - 1.2.2. Etiology
 - 1.2.3. Classification (Hypodysplasia and Single Kidney, Obstructive Uropathies, Ureteral Vesico-Ureteral Reflux)
 - 1.2.4. Pre- and Post-Natal Diagnosis
 - 1.2.5. Treatment
 - 1.2.6. Scarring Nephropathy
- 1.3. Hematuria-Proteinuria
 - 1.3.1. Hematuria-Proteinuria
 - 1.3.2. Diagnosis
 - 1.3.3. Clinical Symptoms
 - 1.3.4. Differential Diagnosis
 - 1.3.5. Treatment
- 1.4. Post-Streptococcal Glomerulonephritis
 - 1.4.1. Post-Streptococcal Glomerulonephritis
 - 1.4.2. Etiology
 - 1.4.3. Clinical Symptoms
 - 1.4.4. Diagnosis: Practical Approach
 - 1.4.5. Treatment
 - 1.4.6. Prognosis
- 1.5. Nephrotic Syndrome
 - 1.5.1. Nephrotic Syndrome
 - 1.5.2. Pathophysiology
 - 1.5.3. Etiology
 - 1.5.4. Clinical Symptoms
 - 1.5.5. Diagnosis: Practical Approach
 - 1.5.6. Treatment: Onset and Relapses Maintenance
 - 1.5.7. Prognosis
- 1.6. Hydroelectrolytic Alterations and Acid-Base Balance
 - 1.6.1. Hydroelectrolytic Alterations and Acid-Base Balance
 - 1.6.2. Water and Sodium Alterations
 - 1.6.3. Potassium Alterations
 - 1.6.4. Phosphocalcium Metabolism and Alterations
 - 1.6.5. Acid-Base Equilibrium
- 1.7. Acute Renal Damage
 - 1.7.1. Acute Renal Damage
 - 1.7.2. Epidemiology
 - 1.7.3. Classification
 - 1.7.4. Diagnosis
 - 1.7.5. Treatment: Practical Approach
 - 1.7.6. Prognosis
- 1.8. High Blood Pressure
 - 1.8.1. High Blood Pressure
 - 1.8.2. Classification
 - 1.8.3. Clinical Symptoms
 - 1.8.4. Diagnosis
 - 1.8.5. Treatment
 - 1.8.6. Hypertensive Crisis and Emergency
 - 1.8.7. Monitoring



- 1.9. Nephrolithiasis
 - 1.9.1. Introduction
 - 1.9.2. Etiology and Pathophysiology
 - 1.9.3. Clinical Symptoms
 - 1.9.4. Diagnosis
 - 1.9.5. Renal Colic Treatment
 - 1.9.6. Long-Term Monitoring and Treatment Consultation

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The support provided by video summaries, recorded lectures and additional work guides will be of great help to you in taking on the full course load”

05

Methodology

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

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



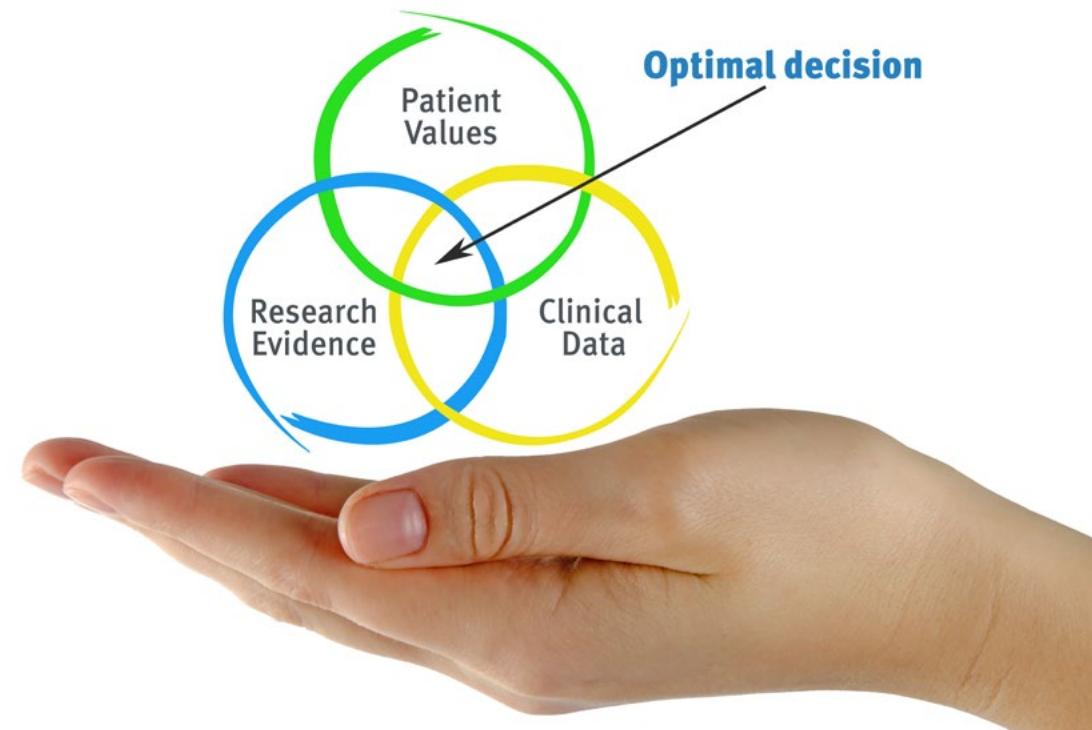
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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

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

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

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

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



Relearning Methodology

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

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

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





At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

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

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

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

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

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



Study Material

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

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



Surgical Techniques and Procedures on Video

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



Interactive Summaries

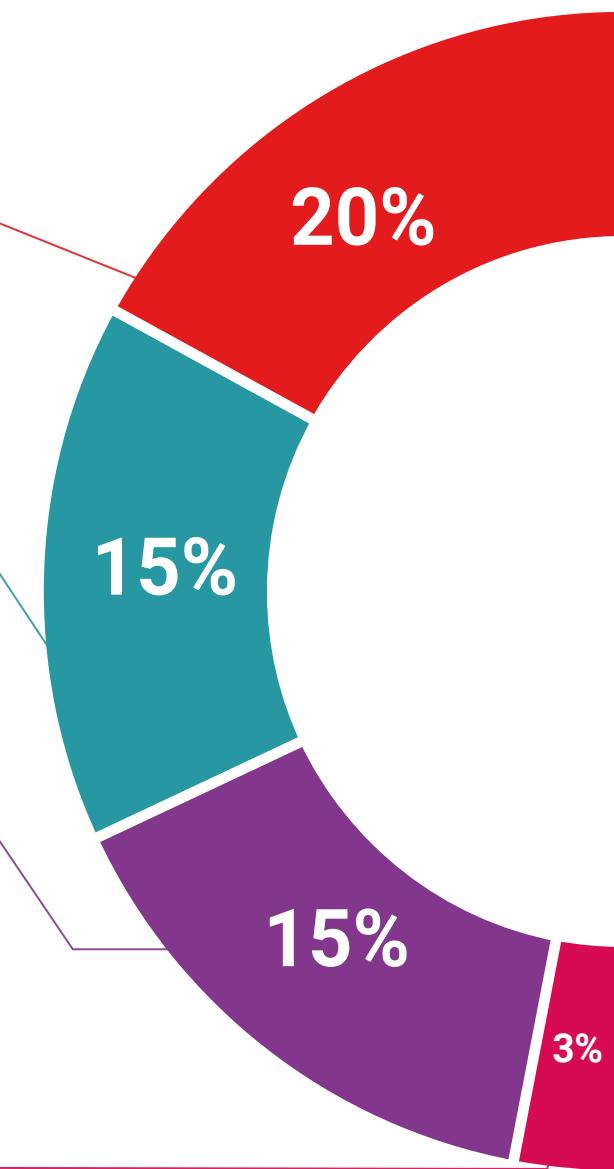
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

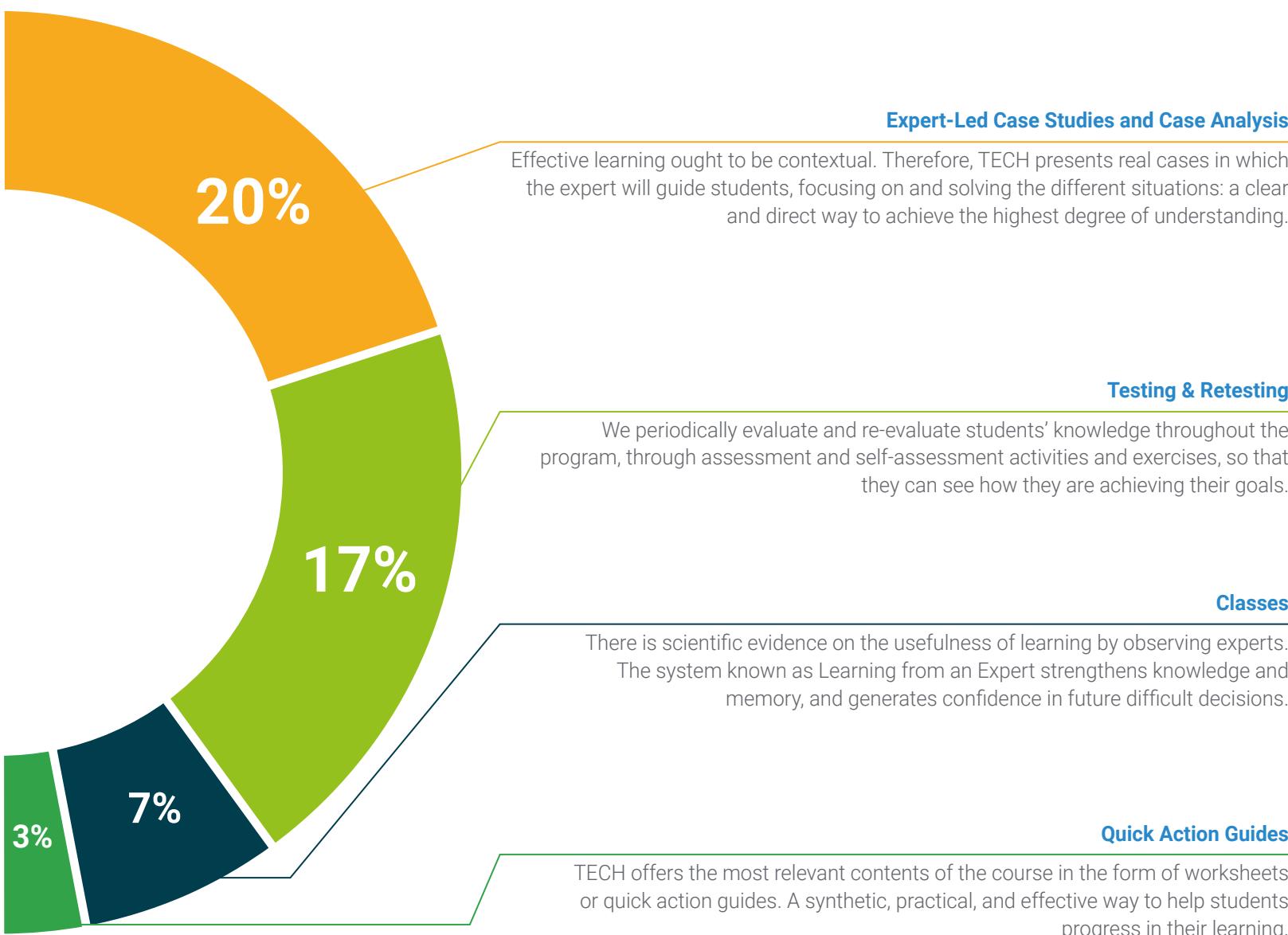
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

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





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Certificate

The Postgraduate Certificate in Nephrological Pathology in Hospital Pediatrics guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



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

This **Postgraduate Certificate in Nephrological Pathology in Hospital Pediatrics** contains the most complete and up-to-date 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 diploma 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 Nephrological Pathology in Hospital Pediatrics**

Official Number of Hours: **150 h.**



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



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