

# Postgraduate Certificate Respiratory Pathology in Hospital Pediatrics





## Postgraduate Certificate Respiratory Pathology in Hospital Pediatrics

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

Website: [www.techtute.com/pk/medicine/postgraduate-certificate/respiratory-pathology-hospital-pediatrics](http://www.techtute.com/pk/medicine/postgraduate-certificate/respiratory-pathology-hospital-pediatrics)

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# 01

# Introduction

Respiratory pathologies can be quite serious in pediatric patients, so research in this area leads to continuous developments in the approach to bronchopulmonary dysplasia, interstitial lung disease, cystic fibrosis and other conditions. This TECH program aims to combine the latest theoretical knowledge with the most rigorous practical scientific evidence in this field of specialization. For this reason, specialists will find it to be an excellent opportunity to catch up on issues related to the epidemiology and pathophysiology of asthmatic attacks, acute bronchiolitis and obstructive floor apnea, among other conditions of special interest.



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*Expand your knowledge and update your approach to pathologies such as hemoptysis or chronic cough thanks to the high-level scientific evidence provided by TECH”*

The new therapies discovered in clinical treatments, prevention and modern inhalation systems open up an unbeatable opportunity for dealing with respiratory pathologies in pediatric patients.

Taking into account the latest developments in science, TECH has developed a complete program that brings together experts in the pediatric area, in order to offer a modern and in-depth update on all the most urgent issues in this area of specialization.

Specialists will find abundant material on respiratory pathologies in cystic fibrosis, respiratory management in neuromuscular patients, interstitial lung diseases and all kinds of advances related to these and other numerous conditions.

All this under the TECH quality seal, which guarantees our programs thoroughly adapt to the most demanding professional interests of specialists in this field. The course's 100% online format also makes it easier for students to balance it with other professional or personal activities. This makes the program the best possible academic option to get up to date in pediatric respiratory pathologies without having to sacrifice any aspect of one's life.

This **Postgraduate Certificate in Respiratory Pathology in Hospital Pediatrics** contains the most complete and up-to-date scientific 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 choose when, where and how to take on the full course load of the program, with no fixed schedules or face-to-face classes to limit you"*

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*You will have access to a large amount of audiovisual support material, including lectures, interactive summaries and clinical cases provided by the teaching staff”*

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 designed 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 student will be assisted by an innovative interactive video system created by renowned and experienced experts.

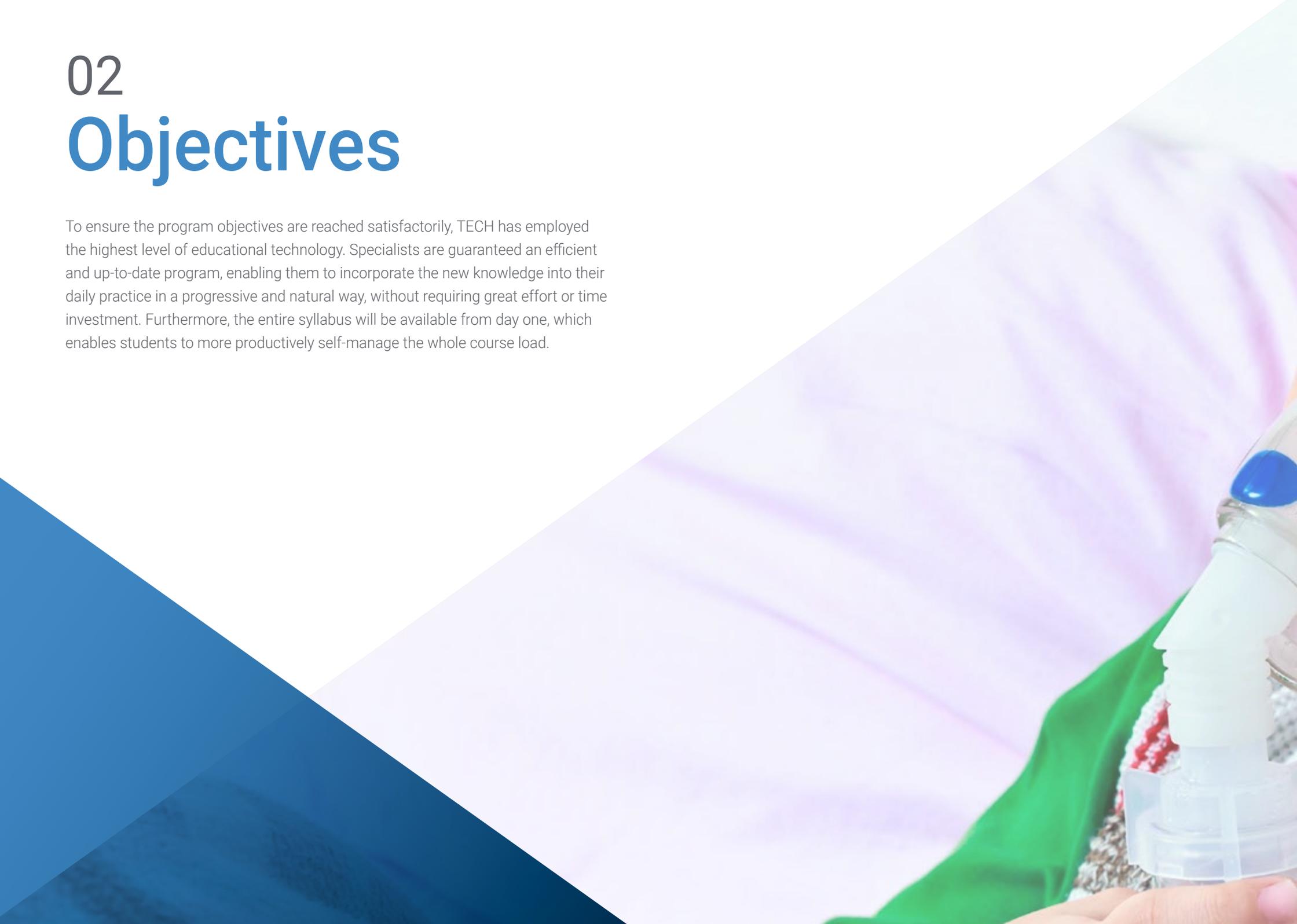
*You will be supported by the largest online academic institution, with a team of professionals and technicians devoted to your educational experience*

*Get up to date on the latest inhalation systems, including advances in Metered Dose Inhalers (MDI), dry powder and nebulizers*



# 02 Objectives

To ensure the program objectives are reached satisfactorily, TECH has employed the highest level of educational technology. Specialists are guaranteed an efficient and up-to-date program, enabling them to incorporate the new knowledge into their daily practice in a progressive and natural way, without requiring great effort or time investment. Furthermore, the entire syllabus will be available from day one, which enables students to more productively self-manage the whole course load.





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*You will have access to the virtual classroom 24 hours a day, being able to study the topics according to your own order of preference or personal criteria”*



## General Objectives

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- ◆ Master the latest techniques and knowledge in modern hospital pediatrics
- ◆ Become highly fluent 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

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- ◆ Delve deeper into chronic respiratory pathologies of frequent hospitalization such as bronchopulmonary dysplasia, interstitial lung disease, cystic fibrosis, patients with neuromuscular pathology
- ◆ Master the latest diagnosis and monitoring procedures and new therapies

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*This program is the definitive boost you were looking for to achieve your professional goals and update your knowledge on pediatric respiratory pathologies”*

03

# Course Management

The professors of this program are committed to the quality and usefulness of its contents. TECH has relied on the best professionals to develop this program and the prestigious teaching staff has experience in the management and administration of pediatric areas. This provides all the educational material with a unique vision, as it combines the most recent scientific theory with the most successful clinical practice.





HAMILTON  
MEDICAL

“

*The teaching material has been meticulously prepared, polishing every detail to offer you the best possible up-to-date knowledge”*

## 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. Blitz Castro, Enrique

- ◆ Specialist Physician in Pediatrics and Specialized Areas in the Pediatrics Service and Cystic Fibrosis Unit, providing the main care as a Pediatric Pneumologist at the Ramón y Cajal University Hospital
- ◆ Supervisor in charge of the Cystic Fibrosis Neonatal Screening Program at Ramón y Cajal University Hospital
- ◆ Resident Intern in Pediatrics and Specialized Areas at Ramón y Cajal University Hospital (Madrid, Spain) and in the Neonatology Department at La Paz University Hospital (Madrid, Spain), devoting the last year of residency completely to the subspecialty of Pediatric Pneumology
- ◆ Degree in Medicine from the Complutense University of Madrid. Clinical training at Gregorio Marañón University Hospital in Madrid
- ◆ PhD student on the Doctoral Program in Health Sciences at the University of Alcalá de Henares and Doctoral Thesis Results on the Neonatal Screening Program for Cystic Fibrosis in the Community of Madrid since its implementation in 2009 to 2022
- ◆ Researcher at the Biomedical Research Foundation, Ramón y Cajal University Hospital, contributing to ongoing research projects in the Cystic Fibrosis Unit at Ramón y Cajal University Hospital

### Dr. Morales Tirado, Ana

- ◆ Specialist in Pediatrics at Ramón y Cajal University Hospital
- ◆ Specialist in Pediatrics at 12 de Octubre University Hospital, Móstoles Hospital and San Rafael Hospital
- ◆ Degree in Medicine from the Complutense University of Madrid

# 04

## Structure and Content

The program contents have been adapted to the most avant-garde educational technology on the academic scene. The large amount of audiovisual support this course offers, and the use of the relearning methodology, make it an educational experience where the greatest profitability is obtained from all the efforts put into it. Specialist will find a well-differentiated syllabus, that can be consulted throughout the program.



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*TECH is a pioneer in the use of relearning as an educational methodology, so you are guaranteed to be choosing the best possible up-to-date and academic program”*

## Module 1. Respiratory Diseases in Pediatrics

- 1.1. Acute Bronchiolitis
  - 1.1.1. Acute Bronchiolitis
  - 1.1.2. Etiology
  - 1.1.3. Epidemiology
  - 1.1.4. Clinical Symptoms
  - 1.1.5. Diagnosis
  - 1.1.6. Treatment
  - 1.1.7. Prevention
- 1.2. Asthma Attacks
  - 1.2.1. Asthma Attacks
  - 1.2.2. Epidemiology
  - 1.2.3. Pathophysiology
  - 1.2.4. Clinical Symptoms
  - 1.2.5. Diagnosis
  - 1.2.6. Treatment
  - 1.2.7. Educational
- 1.3. Chronic Cough
  - 1.3.1. Persistent Bacterial Bronchitis
  - 1.3.2. Postinfectious Cough
  - 1.3.3. Psychogenic Cough
  - 1.3.4. Atelectasis: Middle Lobe
  - 1.3.5. Non-Cystic Fibrosis (CF) Bronchiectasis
- 1.4. Bronchopulmonary Dysplasia
  - 1.4.1. Bronchopulmonary Dysplasia
  - 1.4.2. Epidemiology
  - 1.4.3. Prevention
  - 1.4.4. Pathophysiology
  - 1.4.5. Clinical Symptoms
  - 1.4.6. Treatment
- 1.5. Interstitial Pulmonary Diseases
  - 1.5.1. Classification
  - 1.5.2. Neuroendocrine Cell Hyperplasia
  - 1.5.3. Surfactant Protein Deficiency
  - 1.5.4. Pulmonary Interstitial Glycogenosis
  - 1.5.5. Hypersensitivity Pneumonitis
- 1.6. Respiratory Management in Neuromuscular Patients
  - 1.6.1. Pathophysiology
  - 1.6.2. Complementary Respiratory Tests
  - 1.6.3. Treatment
- 1.7. Cystic Fibrosis Respiratory Pathology
  - 1.7.1. Respiratory Pathology
  - 1.7.2. Pathophysiology
  - 1.7.3. Respiratory Exacerbation
  - 1.7.4. Pneumothorax
  - 1.7.5. Hemoptysis
  - 1.7.6. Allergic Bronchopulmonary Aspergillosis
  - 1.7.7. Atelectasis



- 1.8. Obstructive Sleep Apnea
  - 1.8.1. Obstructive Sleep Apnea
  - 1.8.2. Epidemiology
  - 1.8.3. Pathophysiology
  - 1.8.4. Clinical Symptoms
  - 1.8.5. Diagnosis
  - 1.8.6. Treatment
- 1.9. Inhalation Systems
  - 1.9.1. Inhalation Systems
  - 1.9.2. Metered Dose Inhaler (MDI), Dry Powder, Nebulizers
- 1.10. Pneumology Procedures
  - 1.10.1. Forced Spirometry
  - 1.10.2. Bronchoscopy.

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*The complementary readings and real clinical cases provided by the teaching staff will help you to contextualize all the up-to-date knowledge in the program”*

# 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.





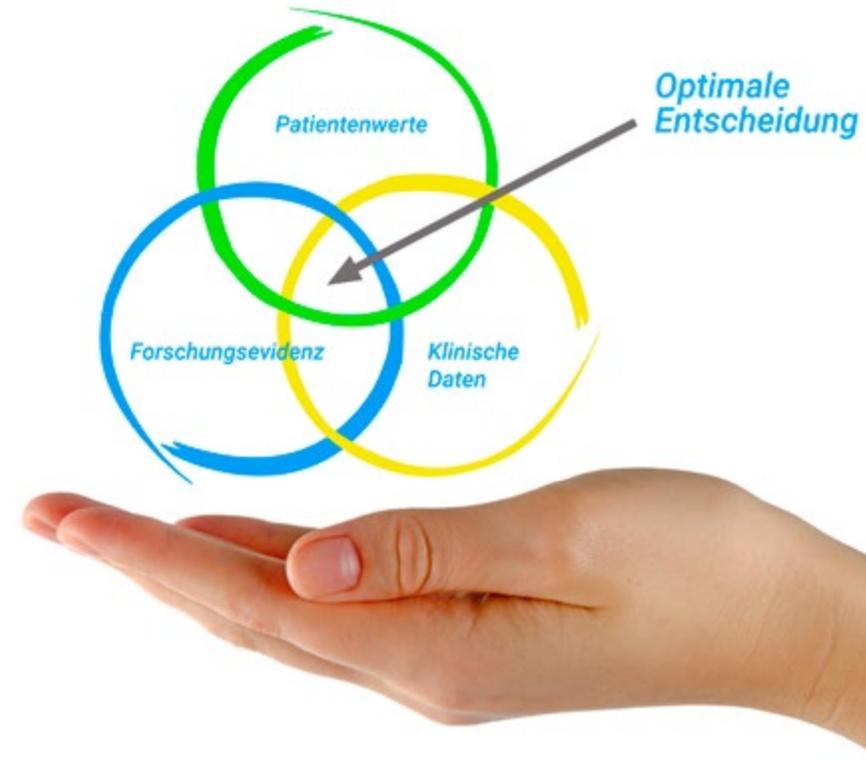
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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. 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.

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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 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.



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

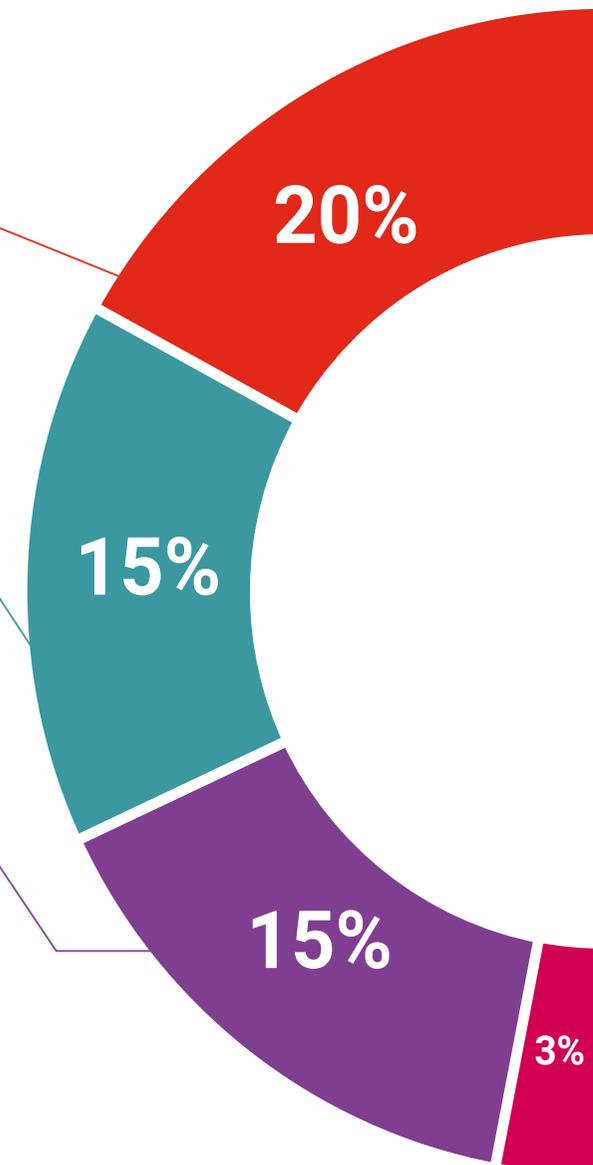
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

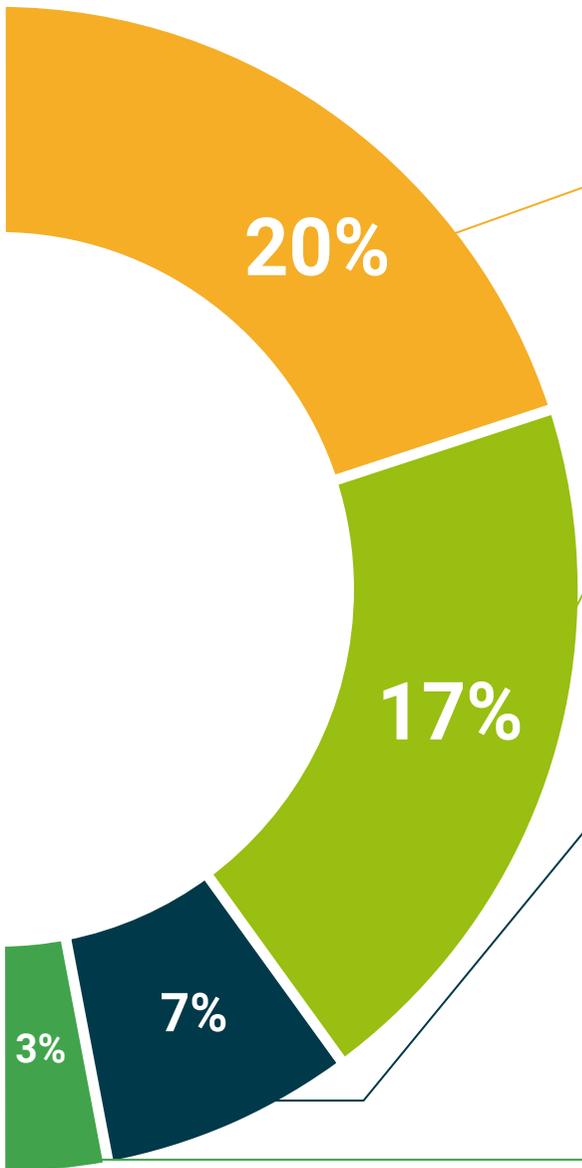
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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.



# 06 Certificate

The Postgraduate Certificate in Respiratory 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.





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

This **Postgraduate Certificate in Respiratory 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 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 Respiratory Pathology in Hospital Pediatrics**  
Official N° of hours: **150 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 future  
confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development languages  
virtual classroom



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