

# Postgraduate Certificate

## Digestive Pathology in Hospital Pediatrics





## Postgraduate Certificate Digestive 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.techtitute.com/pk/medicine/postgraduate-certificate/digestive-pathology-hospital-pediatrics](http://www.techtitute.com/pk/medicine/postgraduate-certificate/digestive-pathology-hospital-pediatrics)

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# 01

# Introduction

According to data from the Spanish Society of Outpatient Pediatrics and Primary Care, a quarter of children under 16 years of age suffer from a digestive pathology at some point, without taking into account acute gastroenteritis. This includes common conditions such as gastroesophageal reflux, constipation or chronic abdominal pain. Being relevant pathologies at such a young age, it is essential for specialists to maintain an updated level of knowledge and to have access to the latest scientific postulates and relevant research. To facilitate this task, TECH has compiled a compendium of etiology and pathophysiology analyses as well as innovative treatments for the main digestive pathologies in hospital pediatrics.





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*Get up to date on the most recent advances  
chronic diarrhea, constipation or biliary lithiasis  
treatments by experts in digestive pathologies”*

Since advances in digestive pathologies are frequent, the level of updating must be constant in order to maintain a high professional praxis and continue offering the best possible care. It is essential to this task to follow the most recent advances and research covering abdominal pain, gastroesophageal reflux, chronic diarrhea or inflammatory bowel disease, among other pathologies of great relevance in hospital pediatrics.

In order to provide a quality update, TECH has resorted to leading professionals in the care of pediatric digestive pathologies to ensure specialists refresh and update on topics of greatest interest and importance in the field.

The syllabus is therefore enriched by an eminently scientific vision, adapted to the most urgent clinical realities. Specialists will find a multitude of complementary readings and real clinical cases that will support them during the completion of the program, as well as great reference material at the end of it.

A Postgraduate Certificate offered in a 100% online format, thus avoiding fixed schedules and face-to-face classes of any kind. Specialists will have the freedom to undertake the course load at their own pace, being able to balance it perfectly with the most demanding work schedules or various personal obligations.

This **Postgraduate Certificate in Digestive Pathology in Hospital Pediatrics** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ Practical case studies are 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 the self-assessment process can be carried out to improve learning
- ◆ Special emphasis is placed on innovative methodologies in the approach to pneumological affections
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ Access to content from any fixed or portable device with an Internet connection



*Access demonstrative videos, exercises based on real clinical cases and a multitude of complementary support material that will make your update work much more effective"*

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*Learn about current scientific studies on the classification, etiology and diagnosis of Crohn's disease, as well as ulcerative colitis and unclassified inflammatory bowel disease”*

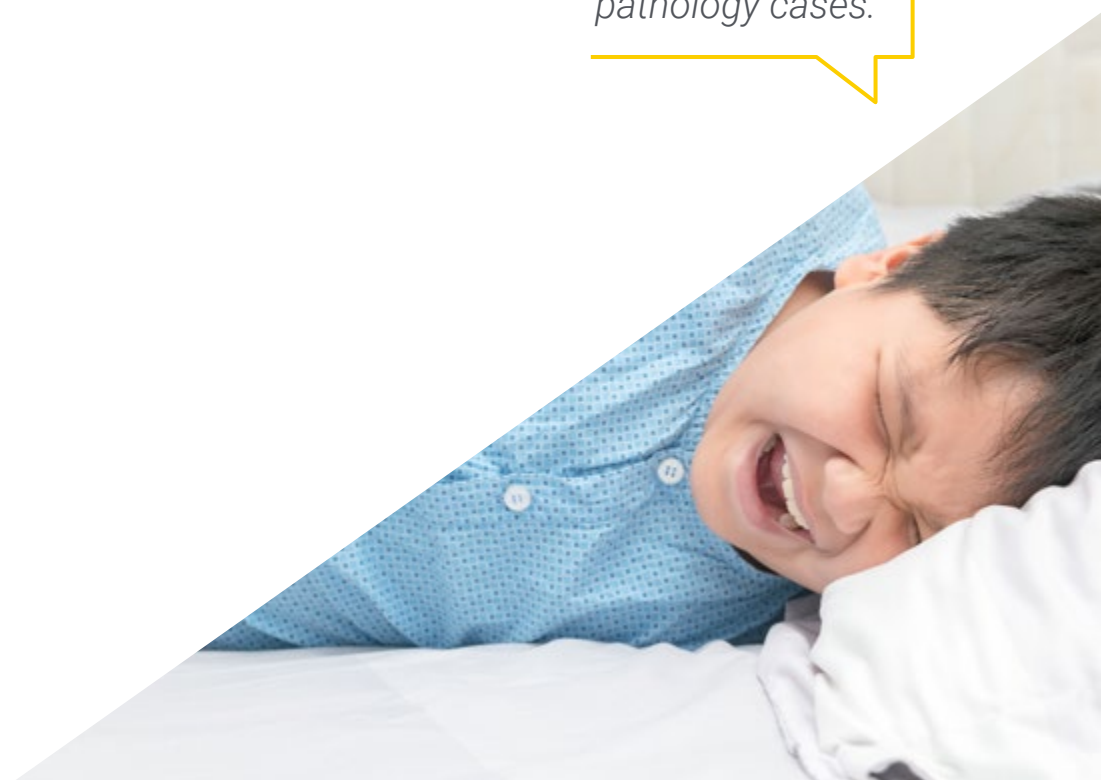
The program's teaching staff includes professionals in the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

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 training programmed to train in real situations.

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

*You will have the flexibility you need to update your knowledge of the most urgent digestive pathologies without having to sacrifice any aspect of your professional or personal life.*

*Learn from the best professionals in the field of pediatrics to refresh and update your knowledge of the most common digestive pathology cases.*



# 02

# Objectives

Being a set of relevant pathologies in the field of hospital pediatrics, the course objective could not be any other than to ensure a deep and comprehensive update of all the theoretical and practical materials in this regard. For this reason, TECH has developed a series of guidelines that specialists will follow throughout the program, thus guaranteeing the most complete update possible.





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*You will incorporate into your daily practice the most renewed methodology in digestive pathologies even before completing the program”*



## 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
- ◆ Update on hospital pediatrics

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*You will not have to invest a lot of time or study hours to achieve all the objectives, as TECH's methodology will make your study work much more effective”*





## Specific Objectives

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- ◆ Take a deeper look into clinical cases and different algorithms in the diagnosis, management and updated therapeutic measures for different pathologies, some very frequent such as abdominal pain and gastroesophageal reflux, and other emerging ones such as eosinophilic esophagitis and biliary lithiasis
- ◆ Manage chronic diarrhea, whose etiology is varied and which can be the expression of a benign process or of a serious disease
- ◆ Update on inflammatory bowel disease and hepatic dysfunction, which require a high diagnostic suspicion, since they can cause, if detection is delayed, important complications causing a decline in patient quality of life.
- ◆ Delve into gastrointestinal bleeding which, although infrequent, can have potentially severe consequences

03

# Course Management

For the development of this program, TECH has brought together a group of experts in the approach to pediatric digestive pathologies, with a multidisciplinary method that gives the program a unique quality. Thanks to the combination of the most recent scientific theses with the most current daily practical application, the didactic material is favored with a distinctive approach, being the best academic option to update and get up to speed with current developments.





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*You will be supported by an academic team with exceptional human and technical quality, enjoying personalized guidance at all times”*

## 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. Vicente Santamaría, Saioa

- ◆ Area Specialist Physician Ramón y Cajal University Hospital
- ◆ Degree in Medicine and Surgery Navarra University
- ◆ Master's Degree in Pediatric Gastroenterology and Hepatology Cardenal Herrera University
- ◆ Master's Degree in Clinical Nutrition in Pediatrics Cardenal Herrera University
- ◆ Postgraduate Course in Pediatric Nutrition Boston University School Medicine
- ◆ Expert Diploma in Malnutrition and Digestive Pathology in Children Cardenal Herrera University

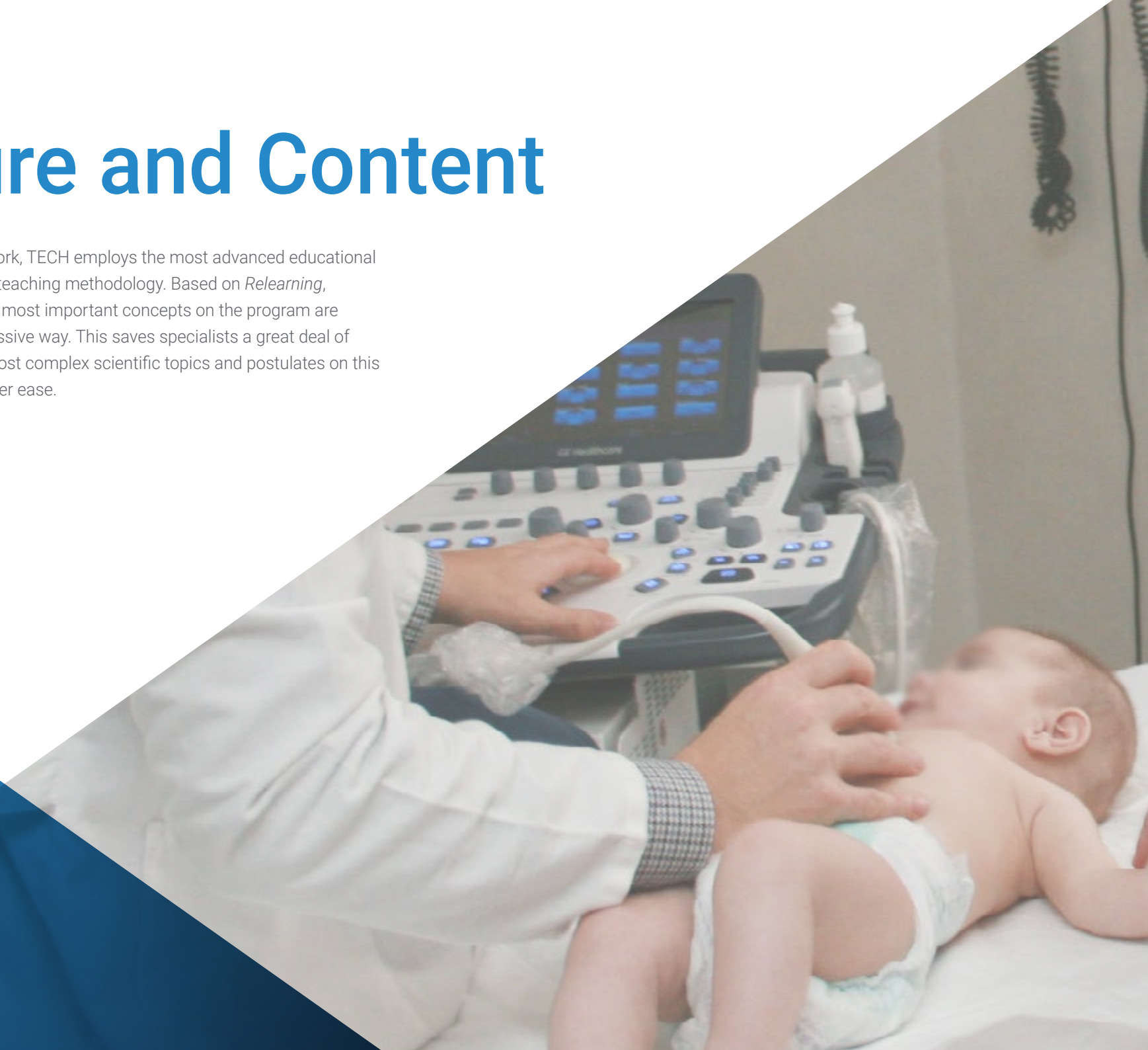
### Dr. Tabares González, Ana

- ◆ Assistant Pediatric Physician in the Emergency Department, Hospitalization and Consultations at Ramón y Cajal University Hospital (Madrid)
- ◆ Assistant Pediatric Physician in Emergency Department, Hospitalization and Consultations of Child Gastroenterology at San Rafael Hospital (Madrid)
- ◆ Assistant Pediatric Physician in the Pediatric Gastroenterology Consultation Area at Ramón y Cajal University Hospital (Madrid)
- ◆ Attending Pediatric Physician in the Pediatric Emergency and Hospitalization Area at Severo Ochoa Hospital in Leganés (Madrid)
- ◆ Degree in Medicine Autonomous University of Madrid
- ◆ Postgraduate Diploma in Immunonutrition San Vicente Mártir Catholic University

# 04

## Structure and Content

To support the specialist's study work, TECH employs the most advanced educational technology and the most effective teaching methodology. Based on *Relearning*, a method TECH has pioneered, the most important concepts on the program are assimilated in a natural and progressive way. This saves specialists a great deal of effort, as they will assimilate the most complex scientific topics and postulates on this Postgraduate Certificate with greater ease.





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*You will have interactive summaries, comprehensive work guides and much more didactic support material that will make your update much more effective”*

## Module 1. Digestive System Diseases in Pediatrics

- 1.1. Abdominal Pain
  - 1.1.1. Acute Abdominal Pain in Children: Clinical Picture Diagnosis and Treatment
  - 1.1.2. Chronic Abdominal Pain: Incidence Etiology
    - 1.1.2.1. Organic Abdominal Pain
    - 1.1.2.2. Functional Abdominal Pain: Treatment
  - 1.1.3. Gastritis: Peptic Ulcers in Pediatrics
    - 1.1.3.1. Gastritis
    - 1.1.3.2. Peptic Ulcers: Clinical Presentation Diagnosis and Treatment
    - 1.1.3.3. Helicobacter pylori gastritis. Clinical Presentation. Digestive and Extradigestive Manifestations Diagnosis and Treatment
- 1.2. Constipation
  - 1.2.1. Constipation
  - 1.2.2. Pathophysiology
  - 1.2.3. Etiology
  - 1.2.4. Triggering Factors
  - 1.2.5. Organic Constipation Causes
  - 1.2.6. Functional Constipation: Clinical Diagnosis
  - 1.2.7. Treatment
    - 1.2.7.1. Lifestyle modifications
    - 1.2.7.2. Pharmacological Treatment: Disimpaction Maintenance Treatment Other Treatments
- 1.3. Gastroesophageal Reflux
  - 1.3.1. Gastroesophageal Reflux
  - 1.3.2. Pathophysiology
  - 1.3.3. Clinical Symptoms
    - 1.3.3.1. Warning Signs and Symptoms
    - 1.3.3.2. Digestive Manifestations
    - 1.3.3.3. Extradigestive Manifestations
  - 1.3.4. Diagnosis
    - 1.3.4.1. pH / Esophageal Impedance
    - 1.3.4.2. Upper Digestive Endoscopy
    - 1.3.4.3. Other Diagnostic Tests





- 1.3.5. Treatment
  - 1.3.5.1. Non-pharmacological methods
  - 1.3.5.2. Medical treatment
  - 1.3.5.3. Surgical Management
- 1.3.6. Therapeutic Diagnostic Approach according to Age
- 1.4. Eosinophilic Esophagitis
  - 1.4.1. Eosinophilic Esophagitis
  - 1.4.2. Epidemiology
  - 1.4.3. Pathogenesis.
    - 1.4.3.1. Environmental Factors
    - 1.4.3.2. Genetic Factors
  - 1.4.4. Clinical Symptoms
  - 1.4.5. Diagnosis
    - 1.4.5.1. Endoscopic Findings
    - 1.4.5.2. Histological Findings
    - 1.4.5.3. Natural History
  - 1.4.6. Treatment
    - 1.4.6.1. Proton Pump Inhibitors
    - 1.4.6.2. Topical Corticosteroids
    - 1.4.6.3. Dietary Treatment
    - 1.4.6.4. Endoscopic Dilatation
    - 1.4.6.5. Other Treatments
- 1.5. Digestive and Nutritional Considerations for CF
  - 1.5.1. Digestive and Nutritional Considerations
  - 1.5.2. Gastrointestinal Tract Involvement in CF Patients
    - 1.5.2.1. Gastroesophageal Reflux
    - 1.5.2.2. Distal Obstruction Syndrome / Constipation
    - 1.5.2.3. Abdominal Pain
    - 1.5.2.4. Meconium Ileus
    - 1.5.2.5. Bowel Intussusception
  - 1.5.3. Pancreatic Involvement
    - 1.5.3.1. Exocrine Pancreatic Insufficiency
    - 1.5.3.2. Pancreatitis
    - 1.5.3.3. Cystic Fibrosis (CF) Related Diabetes

- 1.5.4. Hepatobiliary Disease in CF Patients
  - 1.5.4.1. CF-Related Liver Disease
  - 1.5.4.2. Gallbladder Alterations
- 1.5.5. Nutritional Involvement
  - 1.5.5.1. Chronic Malnutrition
  - 1.5.5.2. Fat-Soluble Vitamin Deficiency
- 1.6. Chronic Diarrhea: Malabsorption
  - 1.6.1. Pathophysiology
    - 1.6.1.1. Osmotic Diarrhea
    - 1.6.1.2. Secretory Diarrhea
    - 1.6.1.3. Inflammatory Diarrhea
    - 1.6.1.4. Intestinal Motility Alteration
  - 1.6.2. Etiology
    - 1.6.2.1. Functional Diarrhea
    - 1.6.2.2. Organic Diarrhea
      - 1.6.2.2.1. Diarrhea due to Infection Mechanism
      - 1.6.2.2.2. Diarrhea due to Immune Mechanism
      - 1.6.2.2.3. Diarrhea due to Carbohydrate Intolerance
      - 1.6.2.2.4. Diarrhea due to Exocrine Pancreatic Insufficiency and Hepatobiliary Dysfunction
      - 1.6.2.2.5. Diarrhea due to Anatomical Alteration
      - 1.6.2.2.6. Diarrhea due to Altered Motility
      - 1.6.2.2.7. Diarrhea due to Enterocyte Structural Defects
      - 1.6.2.2.8. Diarrhea due to Metabolic Errors
      - 1.6.2.2.9. Other Causes of Diarrhea
  - 1.6.3. Diagnosis
  - 1.6.4. Treatment



- 1.7. Inflammatory Bowel Disease
  - 1.7.1. Ulcerative Colitis and Unclassified Inflammatory Bowel Disease
    - 1.7.1.1. Inflammatory Bowel Disease
    - 1.7.1.2. Etiology
    - 1.7.1.3. Incidence
    - 1.7.1.4. Classification
    - 1.7.1.5. Symptoms and Physical Examination
    - 1.7.1.6. Complementary Tests: Laboratory and Imaging Tests Endoscopy with Biopsy
    - 1.7.1.7. Diagnosis
    - 1.7.1.8. Activity Indexes
    - 1.7.1.9. Onset Treatment and Maintenance
    - 1.7.1.10. Complications during Hospital Admission and Treatment
  - 1.7.2. Crohn's Disease
    - 1.7.2.1. Crohn's Disease
    - 1.7.2.2. Etiology
    - 1.7.2.3. Incidence
    - 1.7.2.4. Classification
    - 1.7.2.5. Symptoms and Physical Examination
    - 1.7.2.6. Complementary Tests: Laboratory and Imaging Tests Endoscopy with Biopsy
    - 1.7.2.7. Diagnosis
    - 1.7.2.8. Activity Indexes
    - 1.7.2.9. Onset Treatment and Maintenance
    - 1.7.2.10. Complications during Hospital Admission and Treatment
- 1.8. Biliary Lithiasis. Cholestasis
  - 1.8.1. Biliary Lithiasis
  - 1.8.2. Diagnosis
    - 1.8.2.1. Anamnesis and Physical Examination
    - 1.8.2.2. Complementary Tests: Laboratory and Imaging Tests Other Complementary Tests
  - 1.8.3. Treatment
  - 1.8.4. Newborn and Infant Neurological Examination
  - 1.8.5. Cholestasis in Older Children
    - 1.8.5.1. Cholestasis Secondary to Hepatocellular Injury
    - 1.8.5.2. Cholestasis due to Biliary Tract Involvement
- 1.9. Acute Liver Failure, Hepatic Dysfunction
  - 1.9.1. Hepatic Dysfunction: Hypertransaminasemia
    - 1.9.1.1. Acute Liver Failure
    - 1.9.1.2. Diagnosis
    - 1.9.1.3. Differential Diagnosis of Pathologies Presenting Hypertransaminasemia Infectious hepatitis Wilson's Disease Autoimmune Hepatitis Other Causes of Hypertransaminemia in Pediatrics
  - 1.9.2. Acute Liver Failure
    - 1.9.2.1. Liver Failure
    - 1.9.2.2. Acute Hepatic Failure Diagnosis in Pediatric Patients
    - 1.9.2.3. Therapeutic Approach
    - 1.9.2.4. Differential Diagnosis of Pathologies Presenting Liver Failure
- 1.10. Gastrointestinal bleeding.
  - 1.10.1. Upper Gastrointestinal Bleeding
    - 1.10.1.1. Gastrointestinal Bleeding
    - 1.10.1.2. Etiology
    - 1.10.1.3. Diagnosis
    - 1.10.1.4. Medical and Endoscopic Treatments: Esophageal Varices
  - 1.10.2. Lower Gastrointestinal Bleeding
    - 1.10.2.1. Lower Gastrointestinal Bleeding
    - 1.10.2.2. Diagnosis: Differential Diagnosis of Lower Gastrointestinal Bleeding
    - 1.10.2.3. Treatment



*You will see for yourself the scientific and practical quality displayed in all the topics, written specifically to meet your updating and refresher needs”*

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 Digestive Pathology in Hospital Pediatrics guarantees, in addition to the most rigorous and up-to-date training, access to a qualification issued by TECH Technological University.



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

This **Postgraduate Certificate in Digestive Pathology in Hospital Pediatrics** is the most complete and up-to-date scientific program on the market.

After the student has passed the evaluations, 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 Digestive 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.



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development language  
virtual classroom



**Postgraduate Certificate**  
Digestive Pathology in  
Hospital Pediatrics

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

# Postgraduate Certificate Digestive Pathology in Hospital Pediatrics

