

# Postgraduate Certificate

## General Pediatric Digestive System Surgery





## Postgraduate Certificate General Pediatric Digestive System Surgery

- » 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/general-pediatric-digestive-system-surgery](http://www.techtitute.com/in/medicine/postgraduate-certificate/general-pediatric-digestive-system-surgery)

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# 01

# Introduction

This 100% online university program focuses on digestive pathology management in pediatric patients, which is one of the broadest and most general areas of pediatric surgery. The course includes topics such as esophageal pathologies, evaluation techniques such as pHmetry, impedance and esophageal manometry, gastroesophageal reflux, acquired esophageal pathologies, esophageal motility disorders and esophageal replacement techniques in patients with long-gap esophageal atresia. Gastric pathology, proximal and distal intestinal pathologies, inflammatory bowel disease, Short Bowel Syndrome and Coloproctology in pediatric patients are also addressed. All this, based on the best educational methodology and with the teaching of a specialized faculty with great experience in each subject, presenting the most current treatments with the best results.





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*You are one step away from entering a high level program to acquire new skills to perform highly complex pediatric surgical procedures in the digestive system”*

The Postgraduate Certificate in General Pediatric Digestive System Surgery is designed to update medical specialists in the management of digestive pathologies in pediatric patients. Pediatric surgery is a specialty of medicine that focuses on the diagnosis and surgical treatment of diseases in children and adolescents, being the digestive system one of the broadest and most general areas within this specialty.

In this course, specialists will have the opportunity to be updated on a wide variety of topics related to pediatric digestive pathology, including esophageal pathologies, evaluation techniques such as pHmetry, impedance and esophageal manometry, gastroesophageal reflux, acquired esophageal pathologies, esophageal motility disorders and esophageal replacement techniques in patients with long-gap esophageal atresia. Additionally, gastric pathologies, proximal and distal intestinal pathologies, inflammatory bowel disease, Short Bowel Syndrome and Coloproctology in pediatric patients will be addressed.

Specialized lecturers, with extensive experience in each subject, will present the most current treatments with the best results. The methodology of the course is completely online, which allows medical specialists to access the content from anywhere in the world, adapting to their schedules and learning rhythms. In this way, the course adapts to the professional updating needs of pediatric surgery specialists and provides them with updated tools to improve their clinical practice and performance in the treatment of digestive pathologies in pediatric patients.

This **Postgraduate Certificate in General Pediatric Digestive System Surgery** contains the most complete and up-to-date scientific program on the market.

The most important features include:

- ◆ The development of practical cases presented by experts in Pediatric Surgery
- ◆ The graphic, schematic, and 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
- ◆ Its special emphasis on innovative methodologies
- ◆ 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



*Get updated on cutting-edge techniques such as Exit surgery, robotic surgery and laparoscopic procedures in children"*



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*A rigorous program with which you will learn new approaches to gastric pathology, proximal and distal intestinal pathologies, inflammatory bowel disease, Short Bowel Syndrome and Coloproctology in pediatric patients"*

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 allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive training programmed to train in real situations.

The design of this program focuses on Problem-Based Learning, in which the professional will have to try to solve the different professional practice situations that will arise throughout the academic course. This will be done with the help of an innovative system of interactive videos made by renowned experts.

*You will have access to a multimedia library where you will review real cases and practical approaches to a multitude of pediatric twin surgical pathologies.*

*With this Postgraduate Certificate you will obtain updated knowledge in the management of digestive pathology in pediatric patients.*

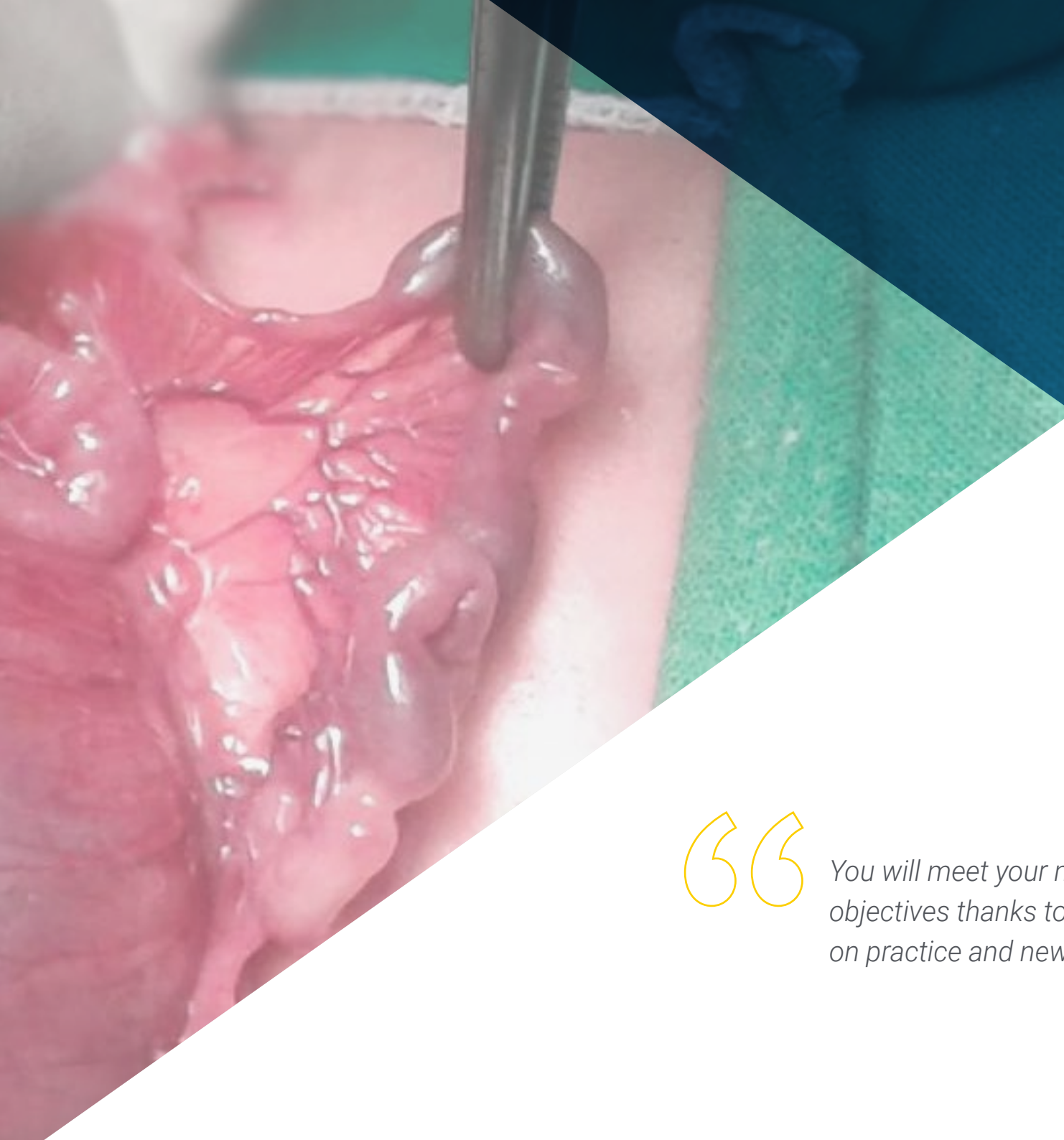


# 02 Objectives

The main objective of the Postgraduate Certificate in General Pediatric Digestive System Surgery is to provide medical specialists with the necessary update in the management of digestive pathology in pediatric patients. Through an online methodology, students will be able to deepen in topics such as esophageal pathologies, evaluation techniques, gastric pathologies, intestinal pathologies, inflammatory bowel disease, short bowel syndrome and coloproctology in pediatric patients, among others. Highly specialized and experienced teachers in each subject, present the most current and effective treatments, which guarantees the complete and updated training of the students in this field of pediatric surgery.







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*You will meet your most demanding update objectives thanks to a syllabus specially focused on practice and new surgical developments”*



## General Objectives

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- ◆ Develop specialized knowledge and current treatments in pediatric surgery
- ◆ Compile the different diagnostic methods, as well as the different therapeutic options, both medical and surgical depending on the pathology
- ◆ Expose the possible associated complications and the prognosis of these diseases
- ◆ Establish the current treatment guidelines for each of the pathologies described

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*A thorough university program with which you will be able to get up to date in the most current techniques and with the best results in the treatment of diseases such as gastroesophageal reflux or inflammatory bowel disease”*







## Specific Objectives

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- ◆ Examine the new techniques and tests available for motility and functional disorders diagnosis
- ◆ Deepen in esophageal functional tests, especially the less common ones such as impedanciometry and esophageal manometry
- ◆ Analyze the treatments with the best results in esophageal replacement
- ◆ Determine the most frequent pathologies with current diagnostic and therapeutic techniques
- ◆ Determine the main digestive and hepatic pathologies that may present in pediatrics, including inflammatory bowel disease, short bowel syndrome and intestinal transplantation, coloproctology as , well as hepatobiliary diseases and liver transplant
- ◆ Acquire specialized knowledge about IBD and development of the various therapeutic options that can be applied
- ◆ Determine the different causes that can lead to intestinal failure Short bowel syndrome management in all its stages
- ◆ Establish patient management with anorectal malformations or Hirschsprung's disease
- ◆ Analyze the functional tests used in coloproctology, with special emphasis on anorectal manometry and its different indications
- ◆ Examine the most common hepatobiliopancreatic pathology

# 03

## Course Management

The teachers of the General Pediatric Digestive System Surgery course are highly trained and experienced specialists in their field. They are professionals from prestigious universities and hospitals around the world, with in-depth knowledge and experience in digestive pathology management in pediatric patients. Their focus is on providing students with the most up-to-date information and the most effective treatments for each topic. Additionally, they are committed to the teaching process and the development of skills in students, encouraging interaction and discussion in online sessions. The professors are leaders in the field of pediatric surgery and provide high quality education to students.





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*You will be taught by a highly specialized staff with great experience in each subject”*

## Management



### Dr. Paredes Esteban, Rosa María

- ◆ Head of Service and Director of the Pediatric Surgery Clinical Management Unit of the Reina Sofia Hospital
- ◆ Specialist in Pediatric Surgery at the Reina Sofia Hospital
- ◆ Specialist in Pediatric Surgery at Jaén Medical-Surgical Hospital
- ◆ Responsible for Pediatric Surgery Training at the Reina Sofia Hospital
- ◆ President of the Spanish Society of Pediatric Surgery
- ◆ Coordinator of the Bioethics Commission of the Spanish Society of Pediatric Surgery
- ◆ Coordinator of the Vascular Anomalies Committee of the Reina Sofia University Hospital
- ◆ Coordinator of the Living Donor Transplant Commission (Renal and Hepatic) of Córdoba.
- ◆ Doctor of Medicine and Surgery from the University of Granada
- ◆ Graduate in Medicine and Surgery from the University of Granada
- ◆ Member of: European Society of Pediatric Endoscopic Surgery, Spanish Society of Pediatric Surgery, Editorial Committee of the Spanish Society of Pediatric Surgery Journal, Scientific Evaluation Committee of the Spanish Society of Pediatric Surgery

## Professors

### Dr. Ramírez Calazans, Ana

- ◆ Specialist in Pediatric Surgery at the Reina Sofia Hospital
- ◆ Graduate in Medicine from the University of Malaga
- ◆ Specialty in Pediatric Surgery at the Reina Sofia Hospital

### Dr. Murcia Pascual, Francisco Javier

- ◆ Specialist in Pediatric Surgery at Reina Sofia University Hospital of Cordoba
- ◆ Specialist in Pediatric Surgery at San Juan de Dios University Hospital
- ◆ Graduate in Medicine from the Autonomous University of Madrid

**Dr. Cadaval Gallardo, Carlos**

- ◆ Specialist in the Pediatric Digestive Surgery Unit at the Virgen del Rocío University Hospital
- ◆ Specialist in the Oncological, Neonatal and Liver Surgery Unit of the Vall d'Hebron University Hospital
- ◆ Specialist in Pediatric Surgery at the Universitari Dexeus Hospital
- ◆ Specialist in Pediatric Surgery at Teknon Medical Center
- ◆ Specialist in Pediatric Surgery at the Hospital of Quirónsalud Barcelona
- ◆ Specialist in Pediatric Surgery at the Maternal-Child Hospital of Badajoz
- ◆ Graduate in Medicine at the University of Extremadura
- ◆ Master's in Education and Audiovisual Communication from the International University of Andalusia
- ◆ Master's in Minimally Invasive Surgery in Pediatrics at CEU Cardenal Herrera University

**Dr. Murcia Zorita, Francisco Javier**

- ◆ Coordinator of the Pediatric Polytrauma Program at La Paz Children's Hospital
- ◆ Member of the Pediatric Liver Transplant Team at La Paz Children's Hospital
- ◆ Member of the Pediatric Digestive Transplant Team at La Paz Children's Hospital
- ◆ Graduate in Medicine and Surgery from the Autonomous University of Madrid
- ◆ Specialist in Pediatric Surgery
- ◆ Professor in Neonatal Surgery and Pediatric Liver Transplant Update Courses

**Dr. Moya Jiménez, María José**

- ◆ Specialist in Pediatric Surgery at the Virgen del Rocío Hospital
- ◆ Graduate in Medicine and Surgery from the University of Seville
- ◆ Specialist in Pediatric Surgery at the Virgen del Rocío's Hospital
- ◆ Lecturer in a multitude of workshops and courses on Pediatric Surgery

**Dr. Bada Bosch, Isabel**

- ◆ Specialist in Pediatric and Minimally Invasive Surgery
- ◆ Specialist at the Children's Hospital and Minimally Invasive Surgery Center of the Federico II University of Naples
- ◆ Teacher of the suture workshop at several conferences of the Spanish Society of Pediatric Emergency Medicine
- ◆ Collaborator in practical teaching at the Public Health and Mother and Child Department of the Complutense University of Madrid
- ◆ Graduate in Medicine and Surgery from the Autonomous University of Madrid
- ◆ Specialty in Pediatric Surgery at the General University Gregorio Marañón Hospital

**Dr. Garrido Pérez, José Ignacio**

- ◆ Specialty in Pediatric Surgery at Reina Sofia University Hospital
- ◆ Collaborator and Instructor in a Variety of Medical Courses and Programs
- ◆ Graduate in Medicine and Surgery from the University of Seville
- ◆ Doctor of Medicine and Surgery from the University of Extremadura
- ◆ Specialty in Pediatric Surgery
- ◆ Master's Degree in Molecular, Cellular and Advanced Biotechnology from the University of Cordoba

**Dr. Granero Cendón, Rocío**

- ◆ Specialist in Pediatric Surgery at the Virgen del Rocío University Hospital
- ◆ Specialist in Pediatric Surgery at the Jaén University Medical Center
- ◆ Specialist in Pediatric Surgery at Reina Sofia University Hospital
- ◆ Graduate in Medicine and Surgery from the University of Santiago de Compostela
- ◆ Specialty in Pediatric Surgery



**Dr. Tolín Hernani, María del Mar**

- ◆ Specialist in Gastroenterology, Hepatology, and Nutrition at the Gregorio Marañón Maternal-Child Hospital
- ◆ Specialist in Pediatric Digestive at the Hospital of San Rafael
- ◆ Degree in Medicine from the Complutense University of Madrid
- ◆ Specialty in Pediatrics at the Gregorio Marañón General University Hospital
- ◆ Subspecialty in Pediatric Digestive and Nutrition at the Hospital General Universitario Gregorio Marañón

**Dr. De Agustín Asensio, Juan Carlos**

- ◆ Head of Pediatric Surgery at Gregorio Marañón University Hospital
- ◆ Head of Pediatric Surgery at the Virgen del Rocío University Hospital
- ◆ Specialist in Pediatric Surgery at La Paz Hospital
- ◆ President of the European Society of Pediatric Endoscopic Surgeons
- ◆ President of the Spanish Society of Laparoscopic and Robotic Surgery
- ◆ Doctor of Medicine and Surgery from the University of Alicante
- ◆ Graduate in Medicine and Surgery from the Autonomous University of Madrid
- ◆ Internships at Cleveland Metropolitan General Hospital, Toronto Children's Hospital, Motol Hospital in Prague and Children's Hospital of Pittsburgh





**Dr. Ibarra Rodríguez, María Rosa**

- ◆ Pediatric Surgeon in the General Surgery and Pediatric Oncology Section of the Reina Sofia Hospital
- ◆ Graduate in Medicine and Surgery from the University of Cordoba
- ◆ Master's Degree in Pediatric Urology from the UNIA
- ◆ Master's in Minimally Invasive Surgery by TECH Technological University
- ◆ Practical stay at the Tawam Hospital in Abu Dhabi
- ◆ Practical stay at Memorial Sloan-Kettering Cancer Center in New York
- ◆ Member of: ACPA: Pediatric Surgeons of Andalusia Association, SECIPE: Spanish Society of Pediatric Surgeons, SIOP: International Society of Pediatric Oncology, IPSO: International Society of Pediatric Surgical Oncology

**Dr. De Diego, Marta**

- ◆ President of the Spanish Society of Pediatric Surgery
- ◆ Head of the Pediatric Surgery Service of the Germans Trias i Pujol Hospital
- ◆ Director of the Continuing Education Program in Pediatric Surgery at the Germans Trias i Pujol Hospital
- ◆ Organizer of the twelfth European Congress of the European Society of Pediatric Surgeons
- ◆ Graduate in Medicine and Surgery from the Central University of Barcelona Specialty in Pediatric Surgery at the Vall d'Hebron Hospital
- ◆ Member of: Board of the Iberoamerican Society of Pediatric Surgery

**Dr. Grijalva Estrada, Ornella**

- ◆ Specialist in Pediatric Urology at the Reina Sofia Hospital
- ◆ Specialist in Pediatric Urology at the La Paz University Hospital
- ◆ Clinical Tutor at Reina Sofia University Hospital
- ◆ Graduate in Medicine from the Central University of Ecuador
- ◆ Master's in Infant Urology from the International University of Andalusia

**Dr. Zelaya Contreras, Luz Emigdia**

- ◆ Pediatric Specialist
- ◆ Specialist in Pediatrics at Hospital Escuela Universitario, Honduran Social Security Institute and Hospital María of Pediatric Specialties
- ◆ Doctor in Social Service in Yarula La Paz
- ◆ Doctor of Medicine and Surgery from the National Autonomous University of Honduras
- ◆ Specialist in Pediatrics from the National Autonomous University of Honduras



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

# 04

## Structure and Content

The Postgraduate Certificate syllabus focuses on digestive pathology management in pediatric patients, which is one of the broadest and most general areas of pediatric surgery. The topics include esophageal pathologies, evaluation techniques such as pHmetry, impedance and esophageal manometry, gastroesophageal reflux, acquired esophageal pathologies, esophageal motility disorders and esophageal replacement techniques in patients with long-gap esophageal atresia. Additionally, gastric pathology, proximal and distal intestinal pathologies, inflammatory bowel disease, Short Bowel Syndrome and Coloproctology in pediatric patients are addressed. Specialized lecturers with extensive experience in each subject will present the most current treatments with the best results.







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*This Postgraduate Certificate provides a complete overview of the new paradigms of General and Digestive Pediatric Surgery, at the same time it delves into the present and future of the profession"*

## Module 1. General and Digestive Pediatric Surgery I

- 1.1. Functional alterations of the esophagus: evaluation methods Functional Tests
  - 1.1.1. Esophageal pHmetry
  - 1.1.2. Esophageal Impedance
  - 1.1.3. Conventional Esophageal Manometry
  - 1.1.4. High-resolution Esophageal Manometry
- 1.2. Gastroesophageal Reflux
  - 1.2.1. Gastroesophageal Reflux
  - 1.2.2. Epidemiology and Pathophysiology
  - 1.2.3. Clinical Presentation
  - 1.2.4. Diagnosis
  - 1.2.5. Treatment
    - 1.2.5.1. Medical Treatment
    - 1.2.5.2. Extraesophageal Manifestations of GERD Treatment
    - 1.2.5.3. Surgical Management
      - 1.2.5.3.1. Fundoplication: types
      - 1.2.5.3.2. Other Surgical Interventions
    - 1.2.5.4. Endoscopic Treatment
  - 1.2.6. Evolution, Complications and Prognosis
- 1.3. Acquired Esophageal Diseases. Esophageal Rupture and Perforation, Caustic Stenosis. Endoscopy
  - 1.3.1. Acquired Esophageal Pathology Prevalent in Childhood
  - 1.3.2. Advances in Esophageal Perforation Management
  - 1.3.3. Esophageal Caustic Injuries
    - 1.3.3.1. Diagnostic Methods and Management of Esophageal Caustic Injury
    - 1.3.3.2. Caustic Esophageal Stricture
  - 1.3.4. Peculiarities in Upper Endoscopy in Children





- 1.4. Achalasia and Esophageal Motility Disorders
  - 1.4.1. Epidemiology
  - 1.4.2. Etiology
  - 1.4.3. Pathophysiology
  - 1.4.4. Clinical Characteristics
  - 1.4.5. Diagnosis
    - 1.4.5.1. Diagnostic Approach
    - 1.4.5.2. Diagnostic Tests
  - 1.4.6. Differential Diagnosis
    - 1.4.6.1. Gastroesophageal Reflux Disease (GERD)
    - 1.4.6.2. Pseudoachalasia
    - 1.4.6.3. Others Esophageal Motility Disorders
  - 1.4.7. Types of Achalasia
    - 1.4.7.1. Type I (Classic Achalasia)
    - 1.4.7.2. Type I
    - 1.4.7.3. Type III (Spastic Achalasia)
  - 1.4.8. Natural History and Prognosis
  - 1.4.9. Treatment
    - 1.4.9.1. Medical Treatment
    - 1.4.9.2. Esophageal Dilations
    - 1.4.9.3. Endoscopic Treatment
    - 1.4.9.4. Surgical Management
  - 1.4.10. Evolution, Complications and Prognosis
- 1.5. Esophageal Replacement Techniques and Indications
  - 1.5.1. Indications
    - 1.5.1.1. Esophageal Atresia
    - 1.5.1.2. Peptic Stenosis
    - 1.5.1.3. Caustic Stenosis
    - 1.5.1.4. Others
  - 1.5.2. Ideal Esophageal Substitution Characteristics
  - 1.5.3. Types of Esophageal Replacement
  - 1.5.4. Ascent Routes of the Esophageal Substitute
  - 1.5.5. Ideal Intervention Time
  - 1.5.6. Surgical Techniques
    - 1.5.6.1. Colonic Interposition
    - 1.5.6.2. Esophagoplasty with Gastric Tubes
    - 1.5.6.3. Jejunal Interposition
    - 1.5.6.4. Gastric Interposition
  - 1.5.7. Post-Operative Care
  - 1.5.8. Evolution and Results
- 1.6. Acquired Gastric Pathology
  - 1.6.1. Hypertrophic Pyloric Stenosis
    - 1.6.1.1. Etiology
    - 1.6.1.2. Clinical Manifestations
    - 1.6.1.3. Diagnosis
    - 1.6.1.4. Treatment
  - 1.6.2. Pyloric Atresia
  - 1.6.3. Peptic Ulcer Disease
    - 1.6.3.1. Clinical Manifestations
    - 1.6.3.2. Diagnosis
  - 1.6.4. Gastric Duplication
  - 1.6.5. Gastrointestinal Bleeding
    - 1.6.5.1. Introduction
    - 1.6.5.2. Assessment and Diagnosis
    - 1.6.5.3. Treatment Management
  - 1.6.6. Gastric Volvulus
  - 1.6.7. Foreign Bodies and Bezoar
- 1.7. Intestinal Duplications Meckel's Diverticulum Persistent Omphalomesenteric Duct
  - 1.7.1. Objectives
  - 1.7.2. Intestinal Duplications
    - 1.7.2.1. Epidemiology
    - 1.7.2.2. Embryology, Anatomical Features, Classification and Localization
    - 1.7.2.3. Clinical Presentation
    - 1.7.2.4. Diagnosis
    - 1.7.2.5. Treatment
    - 1.7.2.6. Post-operative Considerations
    - 1.7.2.7. News and Current Interest

- 1.7.3. Meckel's Diverticulum
  - 1.7.3.1. Epidemiology
  - 1.7.3.2. Embryology, Anatomical Features, other Anomalies of the Omphalomesenteric Duct Persistence
  - 1.7.3.3. Clinical Presentation
  - 1.7.3.4. Diagnosis
  - 1.7.3.5. Treatment
  - 1.7.3.6. Post-operative Considerations
- 1.8. Intestinal Volvulus. Intussusception. Intestinal Malrotation Omentum Torsion
  - 1.8.1. Intestinal Volvulus
    - 1.8.1.1. Epidemiology
    - 1.8.1.2. Clinical Presentation
    - 1.8.1.3. Diagnosis
    - 1.8.1.4. Treatment
  - 1.8.2. Bowel Intussusception
    - 1.8.2.1. Epidemiology
    - 1.8.2.2. Clinical Presentation
    - 1.8.2.3. Diagnosis
    - 1.8.2.4. Treatment
  - 1.8.3. Intestinal Malrotation
    - 1.8.3.1. Epidemiology
    - 1.8.3.2. Clinical Presentation
    - 1.8.3.3. Diagnosis
    - 1.8.3.4. Treatment
  - 1.8.4. Omentum Torsion
    - 1.8.4.1. Epidemiology
    - 1.8.4.2. Clinical Presentation
    - 1.8.4.3. Diagnosis
    - 1.8.4.4. Treatment
- 1.9. Cecal Appendix Pathology Acute Appendicitis, Appendiceal plastron, Carcinoid Tumor Mucocele
  - 1.9.1. Appendix Anatomy
  - 1.9.2. Acute Appendicitis
    - 1.9.2.1. Pathophysiology and Epidemiology
    - 1.9.2.2. Clinical Characteristics
    - 1.9.2.3. Diagnosis
    - 1.9.2.4. Differential Diagnosis
    - 1.9.2.5. Treatment
    - 1.9.2.6. Complications
  - 1.9.3. Carcinoid Tumor
    - 1.9.3.1. Epidemiology
    - 1.9.3.2. Clinical Presentation
    - 1.9.3.3. Diagnosis
    - 1.9.3.4. Treatment
    - 1.9.3.5. Post-operative Considerations
  - 1.9.4. Appendicular Mucocele
    - 1.9.4.1. Epidemiology
    - 1.9.4.2. Clinical Presentation
    - 1.9.4.3. Diagnosis
    - 1.9.4.4. Treatment
    - 1.9.4.5. Post-operative Considerations
- 1.10. Current Status of the Pediatric Abdominal Laparoscopy Digestive Laparoscopy Laparoscopic Techniques in Surgery
  - 1.10.1. Laparoscopic Procedures on Children
    - 1.10.1.1. Abdominal Access
    - 1.10.1.2. Devices and Instruments
  - 1.10.2. Ergonomics in Pediatric Abdominal Laparoscopy
  - 1.10.3. Advances in Pediatric Laparoscopy

**Module 2. General and Digestive Pediatric Surgery II**

- 2.1. Pediatric Chronic Inflammatory Bowel Disease
  - 2.1.1. Ulcerative Colitis
    - 2.1.1.1. Epidemiology
    - 2.1.1.2. Etiology
    - 2.1.1.3. Pathological Anatomy
    - 2.1.1.4. Clinical Presentation
    - 2.1.1.5. Diagnosis
    - 2.1.1.6. Medical Treatment
    - 2.1.1.7. Surgical Management
  - 2.1.2. Crohn's Disease
    - 2.1.2.1. Etiology
    - 2.1.2.2. Pathologic Anatomy
    - 2.1.2.3. Clinical Presentation
    - 2.1.2.4. Diagnosis
    - 2.1.2.5. Medical Treatment
    - 2.1.2.6. Surgical Management
  - 2.1.3. Indeterminate Colitis
- 2.2. Short Bowel Syndrome
  - 2.2.1. Causes of Short Bowel Syndrome
  - 2.2.2. Initial Determinants of Intestinal Function
  - 2.2.3. Intestinal Adaptation Process
  - 2.2.4. Clinical Manifestations
  - 2.2.5. Initial Management of the Patient with Short Bowel Syndrome
  - 2.2.6. Autologous Surgical Reconstruction Techniques
- 2.3. Intestinal and Multi-organ Transplant
  - 2.3.1. Intestinal Rehabilitation
  - 2.3.2. Transplant Indications
  - 2.3.3. Surgical Considerations and Transplant Intervention
  - 2.3.4. Immediate Postoperative Complications
- 2.4. Anorectal Atresia and Cloacal Malformations
  - 2.4.1. Anorectal Atresia
    - 2.4.1.1. Embryological Recall
    - 2.4.1.2. Classification
    - 2.4.1.3. Diagnostic Tests
    - 2.4.1.4. Treatment
    - 2.4.1.5. Post-Operative Care
  - 2.4.2. Sewer
    - 2.4.2.1. Embryological Recall
    - 2.4.2.2. Classification
    - 2.4.2.3. Diagnostic Tests
    - 2.4.2.4. Treatment
- 2.5. Hirschsprung's Disease Intestinal Neural Dysplasias and Other Causes of Megacolon Acquired Anorectal Pathology
  - 2.5.1. Hirschsprung's Disease
    - 2.5.1.1. Etiology
    - 2.5.1.2. Clinical Symptoms
    - 2.5.1.3. Diagnosis. Differential Diagnosis
      - 2.5.1.3.1. Abdominal X-ray
      - 2.5.1.3.2. Opaque enema
      - 2.5.1.3.3. Anorectal Manometry
      - 2.5.1.3.4. Rectal Suction Biopsy
    - 2.5.1.4. Physical Examination
    - 2.5.1.5. Treatment
    - 2.5.1.6. Post-surgical Evolution
  - 2.5.2. Intestinal Neural Dysplasias and Other Causes of Megacolon
  - 2.5.3. Acquired Anorectal Pathology
    - 2.5.3.1. Anal Fissure
    - 2.5.3.2. Clinical Symptoms
    - 2.5.3.3. Diagnosis
    - 2.5.3.4. Treatment
  - 2.5.4. Perianal Abscesses and Fistulas
    - 2.5.4.1. Clinical Symptoms
    - 2.5.4.2. Treatment

- 2.6. Digestive Functional Tests Anorectal Manometry New Therapies for Study and Treatment of Incontinence and Constipation
  - 2.6.1. Anorectal Manometry
    - 2.6.1.1. Normal Values
    - 2.6.1.2. Anal Inhibitory Reflex
    - 2.6.1.3. Pressure Gradient of the Anal Canal
    - 2.6.1.4. Rectal Tenderness
    - 2.6.1.5. Voluntary Contraction
    - 2.6.1.6. Defecation Maneuver
  - 2.6.2. Biofeedback
    - 2.6.2.1. Indications
    - 2.6.2.2. Techniques
    - 2.6.2.3. Initial Findings
  - 2.6.3. Posterior Tibial Nerve Stimulation
    - 2.6.3.1. Indications
    - 2.6.3.2. Technique
    - 2.6.3.3. Initial Findings
- 2.7. Splenic and Pancreatic Pathology. Portal Hypertension
  - 2.7.1. Objectives
  - 2.7.2. Splenic Pathology
    - 2.7.2.1. Anatomy
    - 2.7.2.2. Surgical Indication
      - 2.7.2.2.1. Hematologic Pathology
      - 2.7.2.2.2. Splenic Lesions
    - 2.7.2.3. Pre-operative Considerations
    - 2.7.2.4. Surgical Techniques
    - 2.7.2.5. Post-operative Considerations
    - 2.7.2.6. Complications
  - 2.7.3. Pancreatic Pathology
    - 2.7.3.1. Anatomy
    - 2.7.3.2. Surgical Indication
      - 2.7.3.2.1. Congenital Hyperinsulinism
      - 2.7.3.2.2. Pancreatic Pseudocyst
      - 2.7.3.3. Pancreatic Tumors
    - 2.7.3.3. Surgical Techniques
    - 2.7.3.4. Complications
  - 2.7.4. Portal Hypertension
    - 2.7.4.1. Portal Hypertension Types
    - 2.7.4.2. Diagnosis
    - 2.7.4.3. Clinical Symptoms
    - 2.7.4.4. Therapy Options
    - 2.7.4.5. Surgical Techniques
    - 2.7.4.6. Prognosis
- 2.8. Hepatobiliary Pathology I. Biliary Tract Atresia. Cholestatic Liver Diseases
  - 2.8.1. Objectives
  - 2.8.2. Causes of Jaundice and Cholestasis in Infants
    - 2.8.2.1. Limy Bile Syndrom
    - 2.8.2.2. Alagille's Syndrome
  - 2.8.3. Biliary Tract Atresia
    - 2.8.3.1. Epidemiology
    - 2.8.3.2. Etiopathogenesis
    - 2.8.3.3. Classification
    - 2.8.3.4. Clinical Presentation
    - 2.8.3.5. Diagnosis. Histopathology
    - 2.8.3.6. Kasai Portoenterostomy
    - 2.8.3.7. Post-operative Considerations
    - 2.8.3.8. Medical Treatment. Adjuvant Therapy
    - 2.8.3.9. Complications
    - 2.8.3.10. Prognosis and Results
    - 2.8.3.11. News and Current Interest



- 2.9. Hepatobiliary Pathology II. Choledochal Cyst Pancreatobiliary Malunion Biliary Lithiasis
  - 2.9.1. Objectives
  - 2.9.2. Choledochal Cyst
    - 2.9.2.1. Classification
    - 2.9.2.2. Clinical Presentation
    - 2.9.2.3. Diagnosis
    - 2.9.2.4. Management and Surgical Techniques
    - 2.9.2.5. Complications
    - 2.9.2.6. Special considerations
    - 2.9.2.7. Caroli's Disease and Choledochoceles
    - 2.9.2.8. Prognosis and Long-Term Results
  - 2.9.3. Pancreatobiliary Malunion
  - 2.9.4. Biliary Lithiasis
    - 2.9.4.1. Stone Types
    - 2.9.4.2. Diagnostic Tests
    - 2.9.4.3. Asymptomatic Cholelithiasis
    - 2.9.4.4. Symptomatic Cholelithiasis
    - 2.9.4.5. Surgical Anatomy
    - 2.9.4.6. Surgical Techniques
- 2.10. Pediatric Liver Transplant Current Status
  - 2.10.1. Transplant Indications
  - 2.10.2. Contraindications
  - 2.10.3. Donor Considerations
  - 2.10.4. Preoperative preparation
  - 2.10.5. Transplant Procedure
  - 2.10.6. Immunosuppressive Treatment
  - 2.10.7. Immediate Postoperative Complications
  - 2.10.8. Transplant Evolution



*This program will allow you to advance your career in a comfortable way"*

# 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 General Pediatric Digestive System Surgery 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 qualification without having to travel or fill out laborious paperwork”*

This **Postgraduate Certificate in General Pediatric Digestive System Surgery** 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 General Pediatric Digestive System Surgery**

Official N° of Hours: **300 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**  
General Pediatric Digestive  
System Surgery

- » Modality: online
- » Duration: 12 weeks
- » Certificate: TECH Technological University
- » Dedication: 8h/week
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Certificate

## General Pediatric Digestive System Surgery

