

# Professional Master's Degree

## Minimally Invasive Surgery in Pediatrics





## Professional Master's Degree Minimally Invasive Surgery in Pediatrics

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/professional-master-degree/master-minimally-invasive-surgery-pediatrics](http://www.techtute.com/us/medicine/professional-master-degree/master-minimally-invasive-surgery-pediatrics)

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# 01

# Introduction

Learn to diagnose and treat many of the diseases requiring surgery in pediatric patients with this intensive and highly scientifically rigorous program using minimally invasive techniques such as endoscopy and laparoscopy.

You will learn the latest techniques and instruments in the field from professionals with extensive experience in the sector.



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*This Professional Master's Degree is aimed at specialists who want to update their knowledge and learn the latest techniques in Minimally Invasive Surgery in Pediatrics”*

Comprehensive training in minimally invasive techniques (laparoscopy and endoscopy) is not acquired in the undergraduate or postgraduate teaching programs of the different surgical specialties.

In addition to needing to provide in-depth knowledge of these techniques, this type of program must also include a specific theoretical and practical teaching methodology. The fact that these techniques are offered in hospitals is a seal of quality in health care. Nowadays, patients' parents who are familiar with the latest technologies demand specialized professionals who can treat their children with minimally invasive techniques such as endoscopy and laparoscopy. These techniques can help physicians to diagnose and treat many of the surgical pathologies of pediatric patients.

Therefore, it is logical to promote the training of professionals in this discipline, as their education is not regulated and so they have to rely on postgraduate training that is taught by different professionals who are experts in this field.

In this Professional Master's Degree, the majority of endoscopic and laparoscopic techniques used today on pediatric patients will be studied in depth. The program will cover airway, digestive and urinary tract endoscopy, as well as laparoscopic techniques used in general and thoracic surgery and gynecology and urology. Focusing primarily on minimally invasive techniques, we will review the part of pediatric surgery that can be diagnosed or treated through using these techniques.

In order to ensure this, the best experts in the field will contribute their personal experience and present the latest trends in each of their areas of expertise.

This **Professional Master's Degree in Minimally Invasive Surgery in Pediatrics** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The latest technology in online teaching software
- ♦ A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- ♦ Practical cases presented by practicing experts
- ♦ State-of-the-art interactive video systems
- ♦ Teaching supported by telepractice
- ♦ Continuous updating and recycling systems
- ♦ Autonomous learning: full compatibility with other occupations
- ♦ Practical exercises for self-evaluation and learning verification
- ♦ Support groups and educational synergies: questions to the expert, debate and knowledge forums
- ♦ Communication with the teacher and individual reflection work
- ♦ Content that is available from fixed or portable any device with an Internet connection
- ♦ Supplementary documentation databases are permanently available, even after the course



*Improve the quality of your patient care with this highly scientifically rigorous education"*



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*Apply the latest trends in Minimally Invasive Surgery in Pediatrics into your daily professional practice”*

Our teaching staff is composed of medical professionals, who are currently practicing specialists. That way, we can ensure that we offer students the up-to-date training that we at TECH aim to provide. We have a multidisciplinary team of qualified and experienced physicians from different fields who will demonstrate the theoretical knowledge in an efficient manner, but, above all, will contribute to the course the practical knowledge derived from their own experience: one of the differential qualities of this Professional Master's Degree.

Mastery of the subject will be complemented by the effective methodology used throughout this Professional Master's Degree by our multidisciplinary team of e-learning experts. It integrates the latest advances in educational technology and so you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in your learning.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice learning: with the help of an innovative interactive video system and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to consolidate what you have learned in a more realistic and permanent way.

*You will have access to the latest multimedia tools, designed by experts in Minimally Invasive Surgery in Pediatrics, which will favor the speed of assimilation and learning.*

*This program uses the latest advances in educational technology, based on the e-learning methodology.*



# 02 Objectives

This Professional Master's Degree will provide students with the theoretical and practical knowledge required to easily and confidently approach pediatric surgical pathologies which often need treatment using minimally invasive techniques, thereby benefiting child patients.







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*Our objective is to train highly qualified professionals for the working world”*



## General objectives

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- Complement the training of specialists in pediatric surgery, with special interest in minimally invasive techniques: pediatric laparoscopy and endoscopy
- Adequately prepare these professionals to face, with quality guarantees, the different pediatric pathologies that can be addressed through these access routes
- Enable students to offer professional assistance supported by an accredited teaching program

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*This Professional Master's Degree is the best option to get up to date in Minimally Invasive Surgery in Pediatrics”*





## Specific objectives

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### Module 1. Genitourinary Endoscopy

- ♦ Handle urological endoscopic instruments to diagnose and treat many urological pathologies by means of cystoscopy and ureterorenoscopy
- ♦ Know how to correctly perform renoureteral system endoscopies
- ♦ Know the genitourinary malformations that require endoscopic exploration and treatment

### Module 2. Endoscopy Via Digestive Tract

- ♦ Describe digestive endoscopy as a diagnostic and therapeutic method in the treatment of pediatric digestive tract pathology
- ♦ Provide knowledge of the therapeutic techniques used in esophagogastrosopy and colonoscopy

### Module 3. Airway Endoscopy

- ♦ Know the instrumentation necessary to perform rigid and flexible bronchoscopy in the pediatric patient
- ♦ Study the pathology susceptible to treatment via this route and the endoscopic techniques that are applied for its treatment

### Module 4. Thoracoscopy: Cervicothoracic

- ♦ Describe the thoracic pathologies currently treated by thoracoscopy
- ♦ Know the thoracoscopic approach and the specific surgical techniques used for all child pathologies
- ♦ Understand the specific anesthetic conditions that the patients require while undergoing these treatments

### Module 5. Laparoscopy, General and Digestive Surgery I

- ♦ Skillfully handle, and gain knowledge of, all the pathologies in the field of general surgery that can be treated by laparoscopy

### Module 6. Laparoscopy, General and Digestive Surgery II

- ♦ Deepen on the different laparoscopic surgical techniques that can be applied to different pathologies according to different authors

### Module 7. Oncologic Laparoscopy: Gonadal Laparoscopy

- ♦ Know transperitoneal and retroperitoneal laparoscopy in depth, and know which route is appropriate for the approach of urological pathologies, taking into account that one or the other is usually used dependent on the patient, personal experience or the tendency of each service
- ♦ Study pediatric urological pathologies and the laparoscopic techniques used to treat them
- ♦ Learn about pneumovesicoscopy as an alternative for the treatment of some specific urological pathologies

### Module 8. Urological Laparoscopy

- ♦ Study the different gynecological pathologies in pediatrics and the laparoscopic surgical techniques to solve them

### Module 9. Neonatal and fetal surgery

- ♦ Learn the peculiarities of laparoscopic neonatal surgery, such as the size of the laparoscopic instruments, certain pathologies exclusive to this age group and the surgical techniques used in neonatal pathology
- ♦ Know those neonatal malformations that are attempted to be corrected prenatally and know which ones require prenatal management and how to approach them

### Module 10. Abdominal Surgery Through Single Port and Robotic Surgery

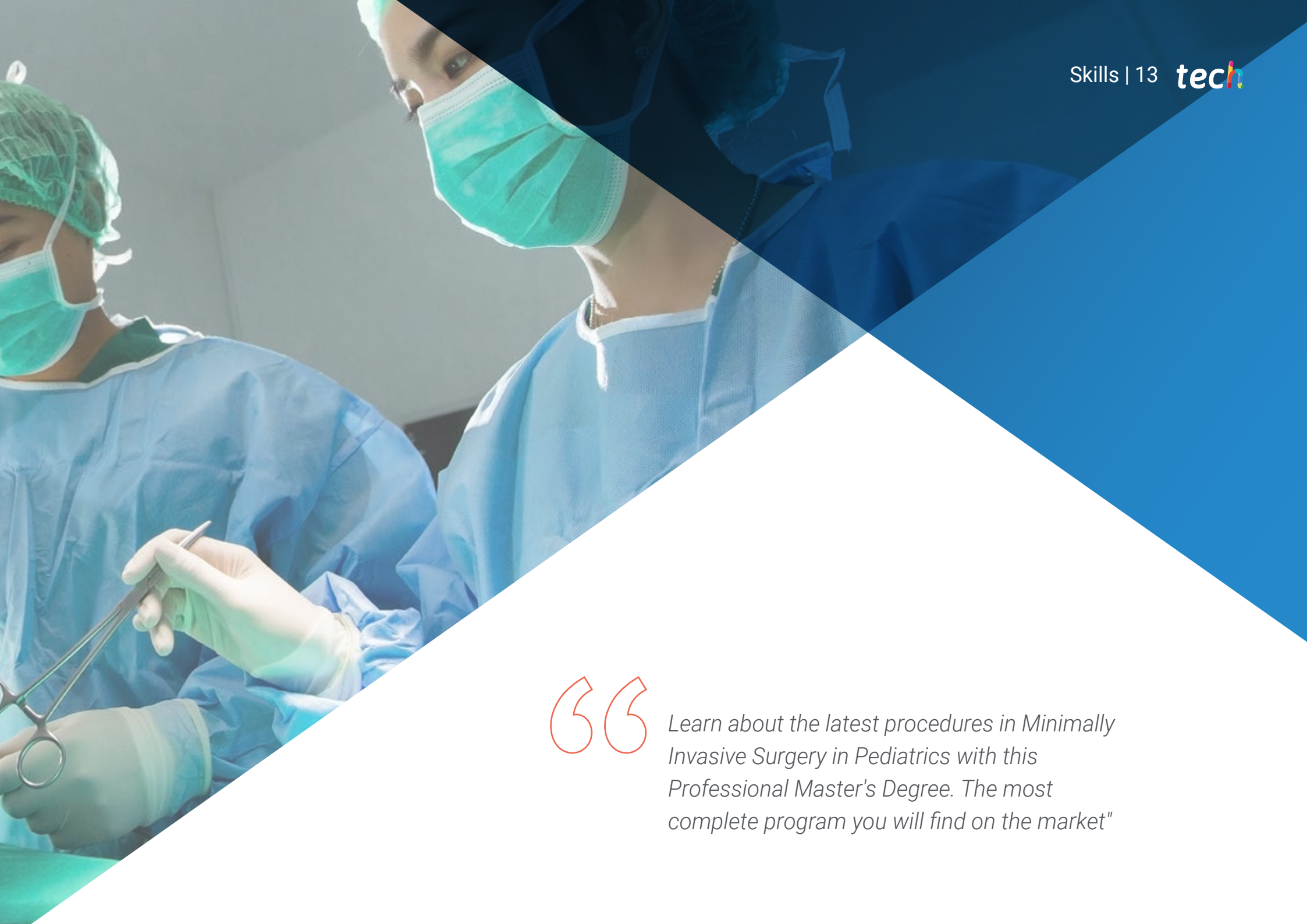
- ♦ Have an in-depth knowledge of laparoscopic surgery, to know which techniques can be performed with it and what are its advantages and limitations This surgery is the maximum expression of laparoscopic minimally invasive surgery and allows different procedures to be performed through it



# 03 Skills

Once all the contents have been studied and the objectives for the Professional Master's Degree in Minimally Invasive Surgery in Pediatrics have been achieved, health specialists will have developed superior skills and performance in this area.





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*Learn about the latest procedures in Minimally Invasive Surgery in Pediatrics with this Professional Master's Degree. The most complete program you will find on the market"*





## General skills

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- Know how to use minimally invasive techniques: Pediatric laparoscopy and endoscopy
- Be able to deal with the different pediatric pathologies that can be addressed through these methods

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*Make the most of the opportunity and take the step to get up to date on the latest developments in Minimally Invasive Surgery in Pediatrics”*





## Specific skills

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- ◆ Know how to use the endoscopic techniques applied for the treatment of pediatric pathology, as well as how to perform rigid and flexible bronchoscopy in pediatric patients
- ◆ Understand digestive endoscopy as a diagnostic and therapeutic method in the treatment of pediatric digestive tract pathology
- ◆ Apply knowledge of the therapeutic techniques used in esophagogastrosopy and colonoscopy into daily practice
- ◆ Handle urological endoscopic instruments with ease
- ◆ Be able to correctly perform the procedures that are managed endoscopically in pathologies of the renoureteral system
- ◆ Recognize the genitourinary malformations that require endoscopic examination and treatment
- ◆ Be able to deliver the thoracoscopic approach and the specific surgical techniques used for each of the pediatric pathologies
- ◆ Know how to apply the different laparoscopic surgical techniques, depending on the pathology
- ◆ Be able to perform transperitoneal and retroperitoneal laparoscopy in pediatric patients
- ◆ Recognize pediatric urological pathologies and know the laparoscopic techniques used to treat them
- ◆ Recognize the different gynecological pathologies in pediatrics and know which laparoscopic surgical techniques used to solve them
- ◆ Master laparoscopic neonatal surgery
- ◆ Recognize neonatal malformations
- ◆ Gain in-depth knowledge of laparoscopic surgery
- ◆ Know which techniques can be performed with it and its advantages and limitations



# 04

# Course Management

This program has the most prestigious teaching staff in minimally invasive interventions in Pediatrics. As such, specialists will be able to access the latest scientific evidence in this medical field in a direct and immediate way, transmitted by the professors from the numerous teaching resources available on the program. That way, not only is the knowledge included in the program guaranteed to be cutting-edge, but it also responds to and reflects the current reality of this complex field of healthcare.





*Learn about the latest advances in procedures  
in Minimally Invasive Surgery in Pediatrics  
from leading professionals"*

## Management



### Dr. Cabezalí Barbancho, Daniel

- ◆ Specialist in Pediatric Surgery
- ◆ Faculty Area Specialist of the Pediatric Surgery Service, Urology Section, 12 de Octubre Hospital, Madrid
- ◆ PhD in Medicine and Surgery, Complutense University of Madrid

## Professors

### Dr. Gómez Fraile, Andrés

- ◆ Specialist in Pediatric Surgery
- ◆ Head of the Pediatric Surgery at 12 de Octubre Hospital
- ◆ PhD in Medicine and Surgery, Complutense University of Madrid

### Dr. Cano Novillo, Indalecio

- ◆ Specialist in Pediatric Surgery
- ◆ Faculty Area Specialist of the Pediatric Surgery Service, General Surgery Section, 12 de Octubre Hospital, Madrid
- ◆ Head of the Pediatric Surgery at Sanitas La Zarzuela Hospital

### Dr. Pacheco Sánchez, Juan Antón

- ◆ Specialist in Pediatric Surgery
- ◆ Facultative Area Specialist in Pediatric Surgery General Surgery at 12 de Octubre Hospital Madrid
- ◆ PhD in Medicine and Surgery, Complutense University of Madrid





05

# Structure and Content

The structure of the contents has been designed by a team of experts, and includes all the latest information on Minimally Invasive Surgery in Pediatrics.





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*This Professional Master's Degree is a quality program adapted to the latest trends in the field of minimally invasive surgery”*

## Module 1. Genitourinary Endoscopy

- 1.1. Equipment. Cystoscopes and Ureterorenoscopes
- 1.2. Instrumentation Material
- 1.3. Hydronephrosis. Ureterohydronephrosis
  - 1.3.1. Pyeloureteral Stenosis Anterograde and Retrograde Dilatation and Endopyelotomy
  - 1.3.2. Congenital Obstructive Megaureter Dilatation of the Uterovesical Junction
- 1.4. Bladder Pathology I
  - 1.4.1. Ureteral Vesic Reflux: Injection of Material at the Uterovesical Junction
- 1.5. Bladder Pathology II
  - 1.5.1. Cystoscopy Bladder Masses
  - 1.5.2. Bladder Diverticulum Ureterocele
- 1.6. Bladder Pathology III
  - 1.6.1. Bladder Dysfunction Botox Injection
- 1.7. Urethral Pathology
  - 1.7.1. Ureteral Stenosis, Ureteral Traumatism, Urethrotomy
  - 1.7.2. Urethra Valves Urethral Diverticula
- 1.8. Lithiasis I
  - 1.8.1. Percutaneous Nephrolithotomy
  - 1.8.2. Retrograde Intrarenal Surgery
- 1.9. Lithiasis II
  - 1.9.1. Ureteral Lithiasis. Ureterorenoscopy
  - 1.9.2. Bladder Lithiasis Enterocystoplasties and Catheterizable Ducts
- 1.10. Gynecological Pathology
  - 1.10.1. Urogenital Sinus Sewer
  - 1.10.2. Vaginal Malformations

## Module 2. Endoscopy Via Digestive Tract

- 2.1. Team, Instrumentation and Pre-Procedure Patient Preparation
- 2.2. Sedation and Anesthesia for Digestive Endoscopic Procedures With Children
- 2.3. Esophagus I
  - 2.3.1. Esophageal Stricture, Achalasia, Esophageal Dilatation and Endoluminal Prostheses
  - 2.3.2. Extraction of Foreign Bodies from the Esophagus
- 2.4. Esophagus II
  - 2.4.1. Esophageal Varices Ligation of Varicose Veins
- 2.5. Caustic Injuries
- 2.6. Stomach I
  - 2.6.1. Percutaneous Gastrostomy
  - 2.6.2. Anti-Reflux Surgical Techniques
- 2.7. Stomach II
  - 2.7.1. Gastric Lesions Excision
  - 2.7.2. Gastric Foreign Bodies Bezoars
- 2.8. Pyloro-Duodenal Pathology
  - 2.8.1. Pyloric Stenosis
  - 2.8.2. Duodenal Stenosis and Duodenal Cysts
- 2.9. Colon I
  - 2.9.1. Colonoscopy Rectal Stenosis
  - 2.9.2. Ulcerative Colitis
  - 2.9.3. Colorectal Polyps
- 2.10. Colon II
  - 2.10.1. Chromoendoscopy
  - 2.10.2. Capsuloendoscopy





### Module 3. Airway Endoscopy

- 3.1. Sedation and Anesthesia in Pediatric Bronchoscopy
- 3.2. Bronchoscopy
  - 3.2.1. Exploration of the Airway in the Otorhinolaryngological Practice
  - 3.2.2. Equipment and Instrumentation in Rigid and Flexible Bronchoscopy
  - 3.2.3. Indications of Rigid and Flexible Bronchoscopy
- 3.3. Diagnostic Procedures I
  - 3.3.1. Bronchoalveolar Lavage
  - 3.3.2. Total Lung Lavage
- 3.4. Diagnostic Procedures II
  - 3.4.1. Endobronchial and Transbronchial Biopsy
  - 3.4.2. EBUS (Ultrasound-Guided Biopsy)
  - 3.4.3. Bronchoscopy and Study of Swallowing
- 3.5. Therapeutic Procedures I
  - 3.5.1. Extraction of Foreign Bodies
  - 3.5.2. Pneumatic Dilation
  - 3.5.3. Placement of Stents in the Airway
- 3.6. Therapeutic Procedures II
  - 3.6.1. Laser Procedures
  - 3.6.2. Cryotherapy
  - 3.6.3. Other Techniques: Endobronchial Valves, Sealants and Drug Application
  - 3.6.4. Technique Complications
- 3.7. Specific Laryngeal Pathologies I
  - 3.7.1. Laryngomalacia
  - 3.7.2. Laryngeal Paralysis
  - 3.7.3. Laryngeal Stenosis
- 3.8. Specific Laryngeal Pathologies II
  - 3.8.1. Laryngeal Tumors and Cysts
  - 3.8.2. Other Less Frequent Pathologies: Clefting



- 3.9. Specific Tracheobronchial Pathologies I
  - 3.9.1. Tracheal/Bronchial Stenosis: Congenital and Acquired
  - 3.9.2. Tracheobronchomalacia: Primary and Secondary
- 3.10. Specific Tracheobronchial Pathologies II
  - 3.10.1. Tumors
  - 3.10.2. The Tracheotomized Patient: Care
  - 3.10.3. Other Less Frequent Pathologies: Clefting, Granuloma

#### Module 4. Thoracoscopy. Cervicoscopy

- 4.1. Anesthesia for Pediatric Thoracoscopy
- 4.2. Equipment, Material and Bases of Thoracoscopy
- 4.3. Chest I
  - 4.3.1. Pectus Excavatum Nuss Bar Placement
- 4.4. Chest II
  - 4.4.1. Pneumothorax
  - 4.4.2. Debridement and Placement of Endothoracic Drainage Empyema
- 4.5. Chest III
  - 4.5.1. Lobectomy in Children. Pulmonary Airway Malformation (CPAM)
  - 4.5.2. Pulmonary Sequestration. Congenital Lobar Hyperinsufflation
- 4.6. Chest IV
  - 4.6.1. Mediastinal Tumors
  - 4.6.2. Esophageal Duplications Bronchogenic Cysts
- 4.7. Chest V
  - 4.7.1. Pulmonary Biopsy
  - 4.7.2. Removal of Metastases
- 4.8. Chest VI
  - 4.8.1. Patent Ductus Arteriosus/Vascular Rings
  - 4.8.2. Aortopexy Tracheomalacia
- 4.9. Chest VII
  - 4.9.1. Palmar Hyperhidrosis
  - 4.9.2. Treatment Thoracoscopic of Chylothorax
- 4.10. Cervicoscopy
  - 4.10.1. Minimally Invasive Thyroid, Parathyroid and Thymus Surgery

#### Module 5. Laparoscopy General and Digestive (I)

- 5.1. Anesthesia for Abdominal Laparoscopic Surgery
- 5.2. Materials and General Aspects of Laparoscopy
- 5.3. Gastrointestinal Tract I
  - 5.3.1. Esophageal Achalasia
  - 5.3.2. Gastroesophageal Reflux. Fundoplication
- 5.4. Gastrointestinal Tract II
  - 5.4.1. Laparoscopic Gastrectomy
  - 5.4.2. Pyloromyotomy
- 5.5. Gastrointestinal Tract III
  - 5.5.1. Bowel Intussusception
  - 5.5.2. Treatment of Intestinal Obstruction
- 5.6. Gastrointestinal Tract IV
  - 5.6.1. Meckel's Diverticulum
  - 5.6.2. Intestinal Duplications
- 5.7. Gastrointestinal Tract V
  - 5.7.1. Acute Appendicitis
- 5.8. Gastrointestinal Tract VI
  - 5.8.1. Laparoscopy in Inflammatory Bowel Disease
- 5.9. Gastrointestinal Tract VII
  - 5.9.1. Hirschsprung's Disease
  - 5.9.2. Anorectal Malformations
- 5.10. Gastrointestinal Tract VIII
  - 5.10.1. Laparoscopy for Stomas
  - 5.10.2. Rectopexy

**Module 6. Laparoscopy Surgery General and Digestive (II)**

- 6.1. Liver I. Biliary Tract
  - 6.1.1. Cholecystectomy
- 6.2. Liver II Biliary Tract
  - 6.2.1. Biliary Tract Atresia Portoenterostomy of Kasai
  - 6.2.2. Choledochal Cyst
- 6.3. Liver III
  - 6.3.1. Hepatectomy
  - 6.3.2. Hepatic Cysts
- 6.4. Spleen/Pancreas
  - 6.4.1. Splenectomy Techniques
  - 6.4.2. Laparoscopic Approach to the Pancreas
- 6.5. Abdomen I
  - 6.5.1. Ventriculoperitoneal Shunts
  - 6.5.2. Catheters of Peritoneal Dialysis
- 6.6. Abdomen II
  - 6.6.1. Abdominal Trauma
- 6.7. Abdomen III
  - 6.7.1. Chronic Abdominal Pain
- 6.8. Obesity Surgery
  - 6.8.1. Laparoscopic Techniques for Obesity
- 6.9. Diaphragm
  - 6.9.1. Morgagni's Hernia
  - 6.6.2. Diaphragmatic Relaxation
- 6.10. Abdominal Wall
  - 6.10.1. Inguinal Hernia. Laparoscopic Inguinal Herniorrhaphy

**Module 7. Oncologic Laparoscopy: Gonadal Laparoscopy**

- 7.1. Laparoscopy in Pediatric Tumors (I)
  - 7.1.1. Laparoscopy for Intra-abdominal Tumor Lesions
- 7.2. Laparoscopy in Pediatric Tumors (II)
  - 7.2.1. Adrenalectomy: Neuroblastoma
- 7.3. Laparoscopy in Pediatric Tumors (III)
  - 7.3.1. Sacrococcygeal Teratomas
- 7.4. Laparoscopy in Pediatric Tumors (IV)
  - 7.4.1. Ovarian Tumors
- 7.5. Testicular Laparoscopy (I)
  - 7.5.1. Non-Palpable Testicle: Diagnosis and Treatment
- 7.6. Urachal Abnormalities
- 7.7. Gynecology Laparoscopy (I)
  - 7.7.1. Peripubertal Ovarian Cysts
- 7.8. Gynecology Laparoscopy (II)
  - 7.8.1. Ovarian Torsion
  - 7.8.2. Tubal Pathology
- 7.9. Gynecology Laparoscopy (III)
  - 7.9.1. Uterovaginal Malformations
- 7.10. Gynecology Laparoscopy (IV)
  - 7.10.1. Laparoscopy in Sexual Differentiation Disorders

## Module 8. Urological Laparoscopy

- 8.1. Upper Urinary Tract I
  - 8.1.1. Renal Annulment Transperitoneal Nephrectomy
  - 8.1.2. Renoureteral Duplication Transperitoneal Heminephrectomy
- 8.2. Upper Urinary Tract II
  - 8.2.1. Retroperitoneal Nephrectomy
  - 8.2.2. Retroperitoneal Heminephrectomy
- 8.3. Upper Urinary Tract III
  - 8.3.1. Pyeloureteral Stenosis (Transperitoneal and Retroperitoneal)
- 8.4. Upper Urinary Tract IV
  - 8.4.1. Retrocaval Ureter
- 8.5. Upper Urinary Tract V. Renal Tumor Surgery
  - 8.5.1. Wilms Tumor
  - 8.5.2. Partial Oncologic Nephrectomy
- 8.6. Lower Urinary Tract I
  - 8.6.1. Extravesical Ureteral Reimplantation
  - 8.6.2. Bladder Diverticulum
- 8.7. Lower Urinary Tract II
  - 8.7.1. Enterocystoplasty
  - 8.7.2. Bladder Neck Reconstruction
- 8.8. Lower Urinary Tract III
  - 8.8.1. Appendicovesicostomy
- 8.9. Lower Urinary Tract IV
  - 8.9.1. Prostatic and Seminal Pathology
- 8.10. Pneumovesicoscopy
  - 8.10.1. Ureteral Reimplantation
  - 8.10.2. Bladder Diverticulum
  - 8.10.3. Bladder Neck Surgery





## Module 9. Neonatal and Fetal Surgery

- 9.1. Fetal Endoscopy
  - 9.1.1. General and Technical
- 9.2. Successful Techniques
- 9.3. Fetal Posterior Urethral Valve Surgery
- 9.4. Fetal Treatment for Congenital Diaphragmatic Hernia
- 9.5. Neonatal Congenital Diaphragmatic Hernia
- 9.6. Long-Gap Esophageal Atresia/ Esophageal Atresia
- 9.7. Duodenal Atresia
- 9.8. Intestinal Atresia
- 9.9. Intestinal Malrotation
- 9.10. Neonatal Ovarian Cysts

## Module 10. Abdominal Surgery Through Single Port and Robotic Surgery

- 10.1. Materials and Generalities of Laparoscopic Single Port Surgery
- 10.2. Single-Port Appendectomy
- 10.3. Single-Port Nephrectomy and Heminephrectomy
- 10.4. Single Port Cholecystectomy
- 10.5. Inguinal Herniorrhaphy
- 10.6. Materials and General Aspects of Robotic Surgery
- 10.7. Thoracic Robotic Surgery
- 10.8. Abdominal Robotic Surgery
- 10.9. Urological Robotic Surgery



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



06

# 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.





07

# Certificate

The Professional Master's Degree in Minimally Invasive Surgery in Pediatrics guarantees you, in addition to the most rigorous and up-to-date training, access to a Professional Master's Degree issued by TECH Global University.





“

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

This program will allow you to obtain your **Professional Master's Degree diploma in Minimally Invasive Surgery in Pediatrics** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

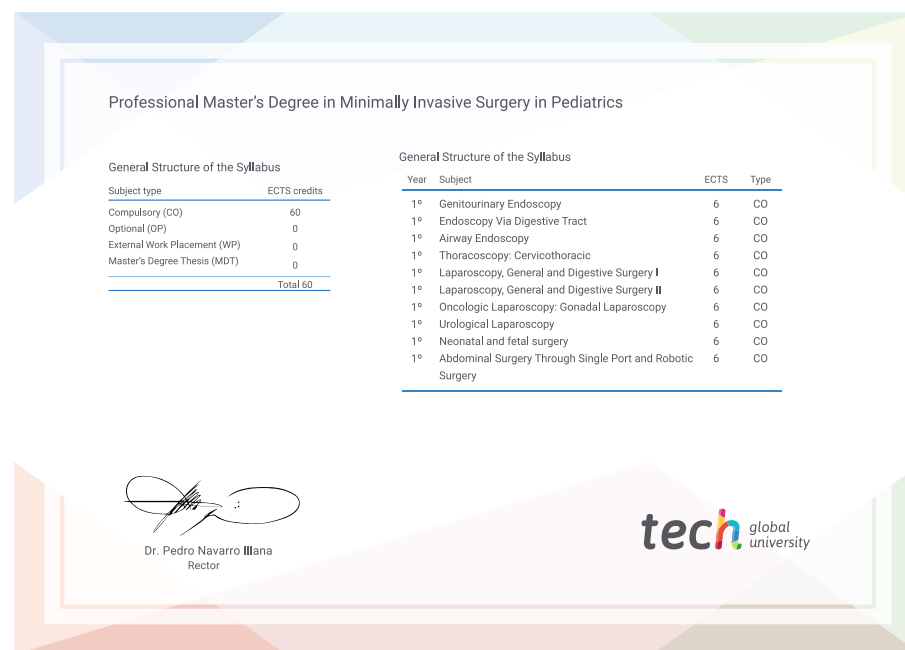
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Professional Master's Degree in Minimally Invasive Surgery in Pediatrics**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**



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

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Minimally Invasive

Surgery in Pediatrics

- » Modality: online
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- » Credits: 60 ECTS
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- » Exams: online

# Professional Master's Degree

## Minimally Invasive Surgery in Pediatrics