

# Postgraduate Certificate

## Update on Percutaneous Nephrolithotomy



## Postgraduate Certificate Update on Percutaneous Nephrolithotomy

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Accreditation: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicina/postgraduate-certificate/update-percutaneous-nephrolithotomy](http://www.techtute.com/us/medicina/postgraduate-certificate/update-percutaneous-nephrolithotomy)

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01

# Introduction to the Program

With the arrival of the Fourth Industrial Revolution, the field of urology has been enriched by the integration of multiple emerging technological tools that optimize clinical results. An example of this is Percutaneous Nephrolithotomy, which offers a non-invasive alternative for the surgical treatment of Kidney Stones. Among its main advantages, it reduces the risk of postoperative complications and shortens recovery times. As a result, specialists need to update their clinical skills to be able to use this instrument skilfully and incorporate it into their daily clinical practice. With this in mind, TECH presents an innovative online university program focused on the latest minimally invasive therapies for the management of urological conditions.





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*With this 100% online program,  
you will perform Percutaneous  
Nephrolithotomy surgical  
procedures with maximum  
precision and safety”*

According to a new study by the World Health Organization, Renal Lithiasis constitutes a significant burden on healthcare systems worldwide, affecting approximately 200 million people. In view of this reality, Percutaneous Nephrolithotomy has emerged as one of the most effective minimally invasive methods for dealing with complicated conditions. So much so that this instrument has a success rate of over 90%. For this reason, it is essential that healthcare professionals have a comprehensive knowledge of this modern technique in order to get the most out of it and thereby improve therapeutic results.

In this context, TECH has created a pioneering program in Update on Percutaneous Nephrolithotomy. Designed by references in this healthcare field, the academic itinerary will analyze factors ranging from the instrumental materials necessary for this therapy or the safest techniques for positioning patients to the management of common complications during dilatation. In turn, the teaching content will offer physicians multiple strategies for the successful use of cutting-edge technologies such as high-resolution fluoroscopy, three-dimensional imaging and even assisted navigation systems. In this way, graduates will develop advanced skills to perform surgical procedures for the treatment of urological conditions with efficiency.

On the other hand, TECH provides physicians with a convenient 100% online platform that will allow them to individually plan both their schedules and their pace of study. In addition, in the Virtual Campus they will find a wide range of multimedia support resources such as in-depth videos, interactive summaries, or specialized readings based on the latest scientific evidence. Along the same lines, TECH offers its exclusive Relearning methodology, which will favor the development of skills and the mastery of complex concepts in a faster, more efficient and flexible way.

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

- ♦ The development of case studies presented by experts in Urology
- ♦ The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable for professional practice
- ♦ Practical exercises where the self-assessment process can be carried out 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



*You will have comprehensive knowledge of Renal Anatomy, which will allow you to position patients optimally during therapeutic procedures"*

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*You will gain in-depth knowledge of the use of small calibers, which will help you adapt interventions to the specific needs of each patient and ensure the effectiveness of Percutaneous Nephrolithotomy”*

The program's teaching staff includes professionals from the field who contribute their work experience to this educational 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 education programmed to prepare for 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 course. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*You will implement the most sophisticated preventive measures to minimize the risks of postoperative complications, including excessive pain.*

*Thanks to the disruptive Relearning system used by TECH, you will reduce long hours of studying and memorization. You will update your knowledge in a progressive way!*



02

# Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it relies on an enormous faculty of more than 6,000 professors of the highest international renown.





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*Study at the world's largest online university and guarantee your professional success. The future starts at TECH”*

**The world's best online university, according to FORBES**

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

**The best top international faculty**

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

**The world's largest online university**

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.



**The most complete syllabuses on the university scene**

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

**A unique learning method**

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

#### The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

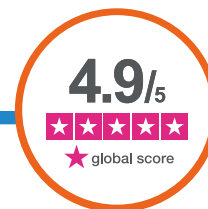
#### Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.



#### Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.



#### The top-rated university by its students

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.



# 03 Syllabus

This university qualification will provide practitioners with a comprehensive understanding of the use of Percutaneous Nephrolithotomy. The teaching materials will therefore go into depth on aspects ranging from the safest patient positions or the use of reduced calibers to the handling of emerging techniques such as fluoroscopy-guided punctures. Along the same lines, the syllabus will delve into a wide range of strategies to reduce the risk of postoperative complications such as excessive bleeding. Thanks to this, graduates will develop advanced clinical skills to carry out minimally invasive procedures with high precision and efficiency.





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*You will master Endoscopic Combined Intrarenal Surgery and obtain a greater visualization of the real apparatus to identify Renal Lithiasis with thoroughness"*

## Module 1. Percutaneous Nephrolithotomy

- 1.1. Position of the Patient for Percutaneous Nephrolithotomy
  - 1.1.1. Prone Position
    - 1.1.1.1. Advantages of the Prone Position
    - 1.1.1.2. Disadvantages of the Prone Position
    - 1.1.1.3. Varieties of the Prone Position
  - 1.1.2. Supine Position
    - 1.1.2.1. Advantages of the Supine Position
    - 1.1.2.2. Disadvantages of the Supine Position
    - 1.1.2.3. Varieties of the Supine Position
  - 1.1.3. Comparison between the Prone Position and the Supine Position
- 1.2. Percutaneous Nephrolithotomy Equipment
  - 1.2.1. Inventoryable Equipment
  - 1.2.2. Expendable Material
  - 1.2.3. The Future of Materials in Percutaneous Surgery
- 1.3. Puncture Techniques
  - 1.3.1. Puncture Techniques. Key Aspects
  - 1.3.2. Fluoroscopy-guided Puncture
  - 1.3.3. Ultrasound-guided Puncture
- 1.4. Dilation Techniques in Percutaneous Nephrolithotomy
  - 1.4.1. General Principles in Dilatation of the Percutaneous Pathway
  - 1.4.2. Dilatation with Alken Metal Dilators
  - 1.4.3. Dilatation with Amplatz-type Fascial Dilators
  - 1.4.4. High-pressure Balloon Dilatation
  - 1.4.5. Single-step Dilatation with Metal Dilators for Minipercutaneous Surgery
  - 1.4.6. Management of Common Complications During Dilatation
- 1.5. Litroticia in Percutaneous Nephrolithotomy. Lasers
  - 1.5.1. Types of Laser Used in Percutaneous Nephrolithotomy
  - 1.5.2. Parameters and Strategies for the Application of Laser in Percutaneous Nephrolithotomy
  - 1.5.3. Precautions, Complications and Results in the Use of Laser in Percutaneous Nephrolithotomy







- 1.6. Percutaneous Nephrolithotomy in Prone and Supine Position
  - 1.6.1. Percutaneous Nephrolithotomy
    - 1.6.1.1. Prone Position
    - 1.6.1.2. Supine Position
  - 1.6.2. Advantages and Disadvantages
    - 1.6.2.1. Prone Position
    - 1.6.2.2. Supine Position
  - 1.6.3. Conclusions. Which One to Choose
- 1.7. *Endoscopic Combined Intrarenal Surgery*: Bilateral Percutaneous Nephrolithotomy
  - 1.7.1. Endoscopic Combined Intrarenal Surgery: Philosophy and General Principles
  - 1.7.2. Endoscopic Combined Intrarenal Surgery: Indications
  - 1.7.3. Endoscopic Combined Intrarenal Surgery: Technique, Tips and Advice
  - 1.7.4. Bilateral Percutaneous Nephrolithotomy: Indications
  - 1.7.5. Bilateral Percutaneous Nephrolithotomy: Technique, Tips and Tricks
- 1.8. Use of Small Calibers in Percutaneous Nephrolithotomy
  - 1.8.1. Justification for Small Caliber in Natural Language Processing
  - 1.8.2. Types of Small Caliber
  - 1.8.3. Miniperc
- 1.9. Percutaneous Nephrolithotomy in Pediatric Patients
  - 1.9.1. Indications
  - 1.9.2. Puncture Techniques
  - 1.9.3. Considerations in Pediatric Patients
- 1.10. Complications in Percutaneous Nephrolithotomy
  - 1.10.1. Intraoperative Complications
    - 1.10.1.1. During the Process
    - 1.10.1.2. During the Procedure
    - 1.10.1.3. During the Discharge Process
  - 1.10.2. Immediate Postoperative Complications

04

# Teaching Objectives

This program in Update on Percutaneous Nephrolithotomy will provide physicians with the essential tools to master the most advanced techniques in the treatment of Kidney Stones. At the same time, graduates will develop advanced clinical skills to correctly adjust the reduced calibers according to the individual needs of each patient. Physicians will also be able to handle emerging technological instruments such as fluoroscopy and ultrasound-guided punctures. As a result, professionals will be able to carry out minimally invasive treatments for different urological conditions with precision, effectiveness and safety.





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*You will acquire advanced clinical skills for the early identification of intraoperative complications, including Urinary Obstructions or Injuries to Adjacent Organs"*



## General Objectives

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- ♦ Identify the fundamental physical and chemical aspects involved in the formation of kidney stones
- ♦ Delve into the classification of kidney stones according to the etiological factors that generate them
- ♦ Establish the diagnostic foundations based on the study of kidney stones
- ♦ Determine the key diagnostic aspects based on the study of urine
- ♦ Delve into the metabolic study of patients with renal lithiasis
- ♦ Define the classifications of patients at risk of urolithiasis, considering factors that may contribute to the formation of stones
- ♦ Assess the various associated metabolic conditions and their specific treatments
- ♦ Acquire a comprehensive approach to the dietary and clinical management of the lithiasic patient
- ♦ Address the etiology and pathophysiology of non-calcium lithiasis, identifying its distinctive characteristics
- ♦ Define the medical treatment options available for each type of condition
- ♦ Assess the role of genetics and microbiota in the management of Urolithiasis
- ♦ Establish guidelines for pH control and coordination of Urolithiasis units
- ♦ Evaluate renal physiology and pathophysiology, as well as the mechanisms of obstruction
- ♦ Delve into the most widely used diagnostic imaging methods in Renal Lithiasis
- ♦ Define therapeutic approaches to renal colic
- ♦ Identify the complications associated with lithiasis and propose management strategies based on international clinical guidelines
- ♦ Analyze the historical evolution of Extracorporeal Shock Wave Lithotripsy
- ♦ Assess the physical principles, types of energy and those of Extracorporeal Shock Wave Lithotripsy
- ♦ Examine the results, complications and post-procedure follow-up, as well as the latest advances in this technology
- ♦ Establish recommendations based on clinical guidelines and develop radiation protection strategies in the context of Endourology
- ♦ Analyze the historical evolution of endourology and its current applications, focusing on technological and surgical advances
- ♦ Examine renal and ureteral anatomy relevant to endourology, establishing its importance in the execution of procedures
- ♦ Assess the criteria for the selection of surgical techniques and energy sources in Endourology
- ♦ Identify the endourological approaches and specific equipment used in semirigid ureteroscopy
- ♦ Delve into the historical evolution of flexible ureteroscopy and its development
- ♦ Evaluate the standard and extended indications for Retrograde Intrarenal Surgery
- ♦ Examine the materials, surgical techniques and advanced technologies used in Retrograde Intrarenal Surgery
- ♦ Identify intraoperative and postoperative complications, establishing strategies for their prevention and management, with a focus on the application of ALARA principles
- ♦ Analyze the different patient positions in percutaneous nephrolithotomy



## Specific Objectives

- ♦ Define the surgical positions of the patient in percutaneous nephrolithotomy and their impact on renal access
- ♦ Analyze puncture and dilatation techniques, identifying the most appropriate ones according to the clinical situation
- ♦ Evaluate the use of different lasers and lithotripsy systems in percutaneous nephrolithotomy
- ♦ Identify the specific indications and techniques for the use of reduced calibers

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*The interactive summaries for each module will allow you to assimilate the concepts of Percutaneous Nephrolithotomy in pediatric patients in a more enjoyable way”*





# 05 Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.





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*TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”*

## The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

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*At TECH you will NOT have live classes  
(which you might not be able to attend)”*



### The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

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*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want”*



## Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



## Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

*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.*



## A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



*The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"*

### 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 assess 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.



### The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

*Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.*

*You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.*



As such, the best educational materials, thoroughly prepared, will be available in this program:



#### 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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



#### Interactive Summaries

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

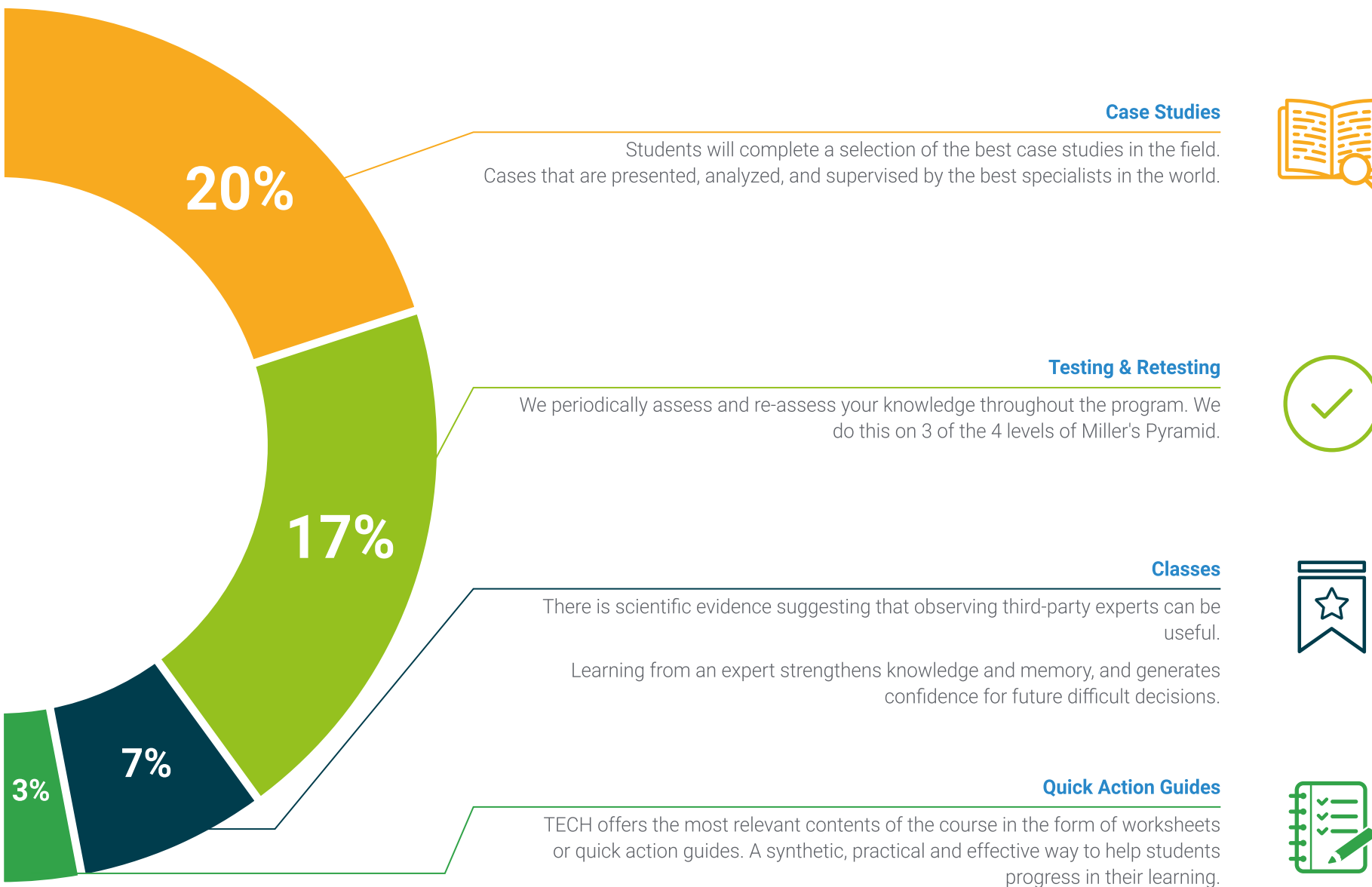
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.







06

# Teaching Staff

The fundamental premise of TECH is to make the most up-to-date and innovative university programs on the educational market available to everyone.

For this reason, it carries out a meticulous process to constitute its teaching staff.

Thanks to this, the following Postgraduate Certificate has the participation of authentic references in the field of Urology. These professionals have extensive work experience, where they have contributed to optimizing the quality of life of multiple patients through minimally invasive therapies such as Percutaneous Nephrolithotomy. Graduates will therefore enjoy an immersive experience that will allow them to significantly improve their usual clinical practice.



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*A teaching team highly specialized in Urology will show you the latest technological advances to carry out Percutaneous Nephrolithotomies more effectively”*

## Management



### Dr. Servera Ruiz de Velasco, Antonio

- ♦ Director of Endourology and Lithiasis at the Hospital of Manacor
- ♦ Urology Specialist at Juaneda Miramar Hospital
- ♦ Internship in Laparoscopic Pelvic and Retroperitoneal Surgery at Heidelberg University Hospital
- ♦ Scientific Researcher
- ♦ Director of 6 international Clinical Trials
- ♦ Internship in Robotic Surgery at the Institut Mutualiste Montsouris
- ♦ Internship in Laparoscopic and Percutaneous Surgery at the Italian Hospital of Buenos Aires
- ♦ PhD in Health Sciences from the University of the Balearic Islands
- ♦ Degree in Medicine and Surgery from the University of Zaragoza
- ♦ Member of the European College of Urology

## Professors

### Dr. González Martín, Enrique

- ♦ Urologist at Río Hortega University Hospital
- ♦ Specialist in Urology
- ♦ Clinical Researcher
- ♦ Expert in Cadaver Dissection
- ♦ Laparoscopy Internship at La Fe University and Polytechnic Hospital
- ♦ Residency in Urology at the Río Hortega University Hospital
- ♦ Degree in Medicine from the Complutense University of Madrid

### Dr. Fernández Duque, Alicia

- ♦ Physician at the University Hospital Complex of Santiago de Compostela
- ♦ Specialist in Urology
- ♦ Clinical Researcher
- ♦ Residency in Internal Medicine at the University Hospital Complex of Santiago de Compostela
- ♦ Degree in Medicine from the University of Navarra



**Dr. Mora Christian, Jorge Alberto**

- ♦ Specialist in Lithiasis, Endourology and Functional Pathology in Clinical Urology Bilbao
- ♦ Doctor in the Urology Department at Cruces University Hospital
- ♦ Urologist at Galdakao-Usánsolo Hospital
- ♦ Specialist in Advanced Renal Surgery
- ♦ Residency in Urology at Cruces University Hospital
- ♦ PhD in Medicine and Surgery from the Central University of Venezuela
- ♦ Master's Degree in Update in Urological Surgery from the Cardenal Herrera University
- ♦ University Expert in Lower Urinary Tract Surgery from the Cardenal Herrera University
- ♦ Certification as a Fellow of the European Board of Urology

**Dr. Pérez Fentes, Daniel Adolfo**

- ♦ Head of the Endourology and Lithiasis Unit of the Urology Service of the University Hospital Complex of Santiago de Compostela
- ♦ Founder and director of Medical Urologia
- ♦ Urology specialist at Rosaleda HM Hospital
- ♦ Researcher in national and international research groups, and in competitive projects of the ISCIII and the European Union.
- ♦ Training instructor in Endourology and Endourological surgery
- ♦ Author of numerous book chapters and articles in national and international medical journals
- ♦ Speaker in more than 100 courses and congresses worldwide.
- ♦ PhD in Medicine and Surgery from the University of Santiago de Compostela
- ♦ Degree in Medicine and Surgery from the University of Santiago de Compostela.
- ♦ Member of: Royal Academy of Medicine and Surgery of Galicia

**Dr. Ballesta Martínez, Begoña**

- ♦ Head of the Urology Department at the Vinalopó University Hospital
- ♦ Expert Urology Physician at the Quirón Salud Torrevieja Group
- ♦ Urology Specialist at Nuestra Señora de Candelaria University Hospital
- ♦ Urologist at José Molina Orosa University Hospital
- ♦ Internship in Minimally Invasive Oncological and Reconstructive Surgery at the Royal Perth Hospital
- ♦ Urology Residency at Patras University Hospital
- ♦ PhD in Urology from the University of La Laguna
- ♦ Bachelor of Medicine from the Miguel Hernández University
- ♦ Member of the European Association of Urology

**Dr. Cepeda Delgado, Marcos**

- ♦ Urology Specialist Río Hortega Valladolid University Hospital
- ♦ SACYL Area Specialist Physician
- ♦ Certified for Da Vinci Robotic Surgery by the Minimally Invasive Center IRCAD of Strasbourg
- ♦ Training Stay in Robotic Surgery and Endourology at Virginia Mason Hospital in Seattle and Wake Forest Hospital in Winston-Salem.
- ♦ Associate Professor of Urology at the Faculty of Medicine of the University of Valladolid.
- ♦ PhD in Surgery and Medicine from the University of Valladolid
- ♦ Graduate in Surgery and Medicine from the University of Valladolid
- ♦ Diploma of the European Board of Urology by the European Association of Urology
- ♦ Member of: EULIS and ESUT

**Dr. Manso Aparicio, Coral**

- ♦ Urologist at Río Hortega University Hospital
- ♦ Urologist at Grupo Recoletas
- ♦ Specialist in Endourology and Lithiasis
- ♦ Expert in Laparoscopic and Robotic Surgery
- ♦ Clinical Researcher
- ♦ Residency in Urology at the Río Hortega University Hospital
- ♦ Degree in Medicine from the University of Valladolid

**Dr. Bujons Tur, Ana**

- ♦ Director of the Pediatric Urology Unit at the Puigvert Foundation
- ♦ Director of Operations at the Puigvert Foundation
- ♦ Urology Specialist at the Plató Hospital, Barcelona
- ♦ Principal Investigator at the Research Institute - Santa Creu i Sant Pau Hospital
- ♦ Internship in Urological Laparoscopy at the Free University of Brussels
- ♦ PhD in Medicine and Surgery from the Autonomous University of Barcelona
- ♦ Master's Degree in Cosmetic, Aesthetic and Anti-Aging Medicine from the University of Barcelona
- ♦ Master's Degree in Health Management and Administration from the University of Barcelona
- ♦ Bachelor's Degree in Medicine and Surgery from the University of Barcelona
- ♦ Member of: Ibero-American Society of Pediatric Urology, Educational Committee of the European Society of Pediatric Urology and European Society of Urology

**Dr. Torrecilla Ortiz, Carlos**

- ♦ Specialist in Urology at Clínica Delfos, Bellvitge Hospital
- ♦ National Coordinator of Lithiasis of the Spanish Association of Urology.
- ♦ Bachelor's Degree in Medicine and Surgery
- ♦ Specialist in Urology

**Dr. Llanes González, Luis**

- ♦ Head of the Urology Department at Getafe University Hospital
- ♦ Director of Urology at Torrejón University Hospital
- ♦ Specialist Urology Physician at Fuenlabrada University Hospital
- ♦ Clinical Researcher with an extensive scientific production
- ♦ Urologist at the Institute of Advanced Urological Surgery
- ♦ Urology Residency at the Medipol Clinic in Perpignan
- ♦ PhD in Medicine and Surgery from the Complutense University of Madrid
- ♦ Master's Degree in Health Management from the UNED
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Member of: European Association of Urology, Spanish Association of Urology, Madrid Urological Society and European Randomized Study of Screening for Prostate Cancer

**Galán Llopis, Juan Antonio**

- ♦ Chief of the Urology Departments of the HGU of Alicante
- ♦ Chief of the Urology Service of Vinalopó Hospital
- ♦ Manager of the Urological Clinic Juan Antonio Galan
- ♦ Coordinator of the Childhood Mental Health Unit, Alicante University General Hospital
- ♦ Specialist in Urology at the General University Hospital of Elche
- ♦ Coordinator of the Urolithiasis Group of the Spanish Association of Urology.
- ♦ Author of numerous scientific articles from his specialty
- ♦ Doctor of Medicine and Surgery from the University of Valencia



#### **Dr. Mendiola López, Alberto**

- ♦ Orthopedic Surgeon and Traumatologist at HM Rosaleda Hospital
- ♦ Urologist at the General University Hospital of Alicante
- ♦ Clinical Researcher at the Institute of Health and Biomedical Research in Alicante
- ♦ Expert in Computer-Assisted Deformity Correction
- ♦ Specialist in Advanced 3D Printing for Bioreplicas
- ♦ Internship at La Paz Hospital
- ♦ Internship at Mayo Clinic
- ♦ Internship at Leeds Hospital
- ♦ Residency in Traumatology and Orthopedic Surgery at Hospital 12 de Octubre
- ♦ PhD in Medicine and Surgery from the University of Santiago de Compostela
- ♦ Official Master's Degree in Research in Clinical and Surgical
- ♦ Medicine from the Miguel Hernández University
- ♦ Master's Degree in Clinical Medicine from the Madrid Open University
- ♦ Degree in Medicine and Surgery from the University of Santiago de Compostela
- ♦ Internship at the Wolf Institute and Charité

#### **Dr. Martínez Corral, María Elena**

- ♦ Specialist Physician in Urology at the University Hospital Complex of Pontevedra
- ♦ Urologist at the Jiménez Díaz Foundation University Hospital
- ♦ Specialist in Lithiasis
- ♦ Clinical Researcher
- ♦ Expert in Endourology

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