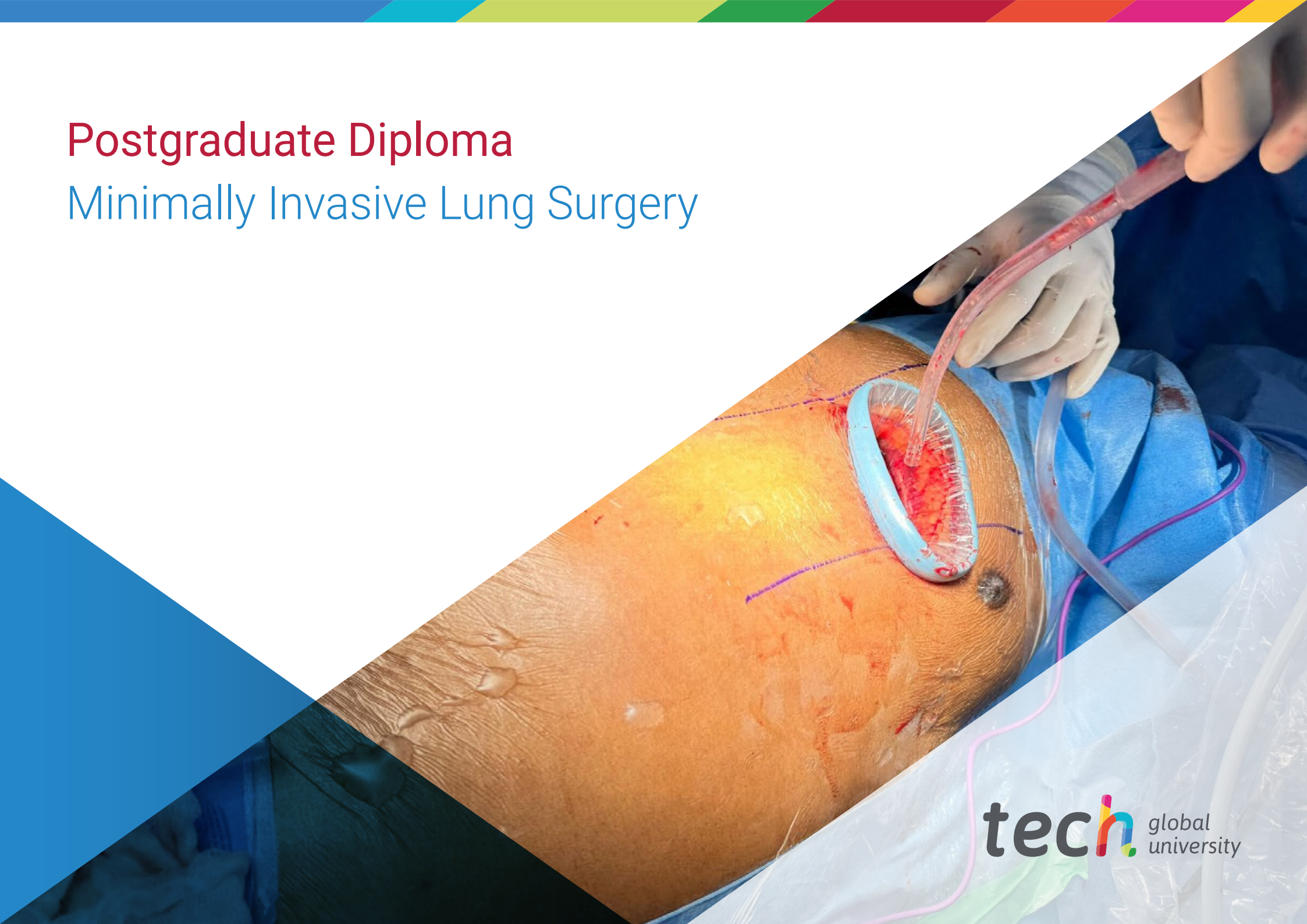
Postgraduate Diploma

Minimally Invasive Lung Surgery



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Postgraduate Diploma

Minimally Invasive Lung Surgery

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Global University**
- Accreditation: **24 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: **www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-minimally-invasive-lun-surgery**

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01

Introduction to the Program

Minimally invasive lung surgery has seen significant advances in recent years, becoming established as a preferred option in the treatment of various lung diseases. Techniques such as single-port video-assisted thoracoscopy and robotic surgery have shown notable benefits in terms of reduced postoperative pain, shorter hospital stays and faster recovery for patients. These advances have shown that this procedure improves the patient experience and maintains oncological results comparable to or even superior to those of conventional open surgery.
In this sense, TECH has created a complete 100% online program, designed to adapt ideally to the professional and personal schedules of graduates. All this is backed by the innovative Relearning methodology, a pioneer at this institution.

With this 100% online program, you will master the most cutting-edge techniques, such as Uniportal Video-Thoracoscopy and Robotic Surgery, which are revolutionizing the treatment of lung diseases"

Minimally Invasive Lung Surgery represents a significant advance in the treatment of lung diseases, offering patients a faster and less painful recovery, without compromising therapeutic efficacy. However, it should be noted that the adoption of these techniques requires specialized training and a careful assessment of each case, considering factors such as the location and size of the lesion.

This is how this program came about, thanks to which physicians will acquire a comprehensive understanding of preoperative planning, ranging from the correct selection of patients to the use of state-of-the-art imaging tools for the precise localization of pulmonary nodules. This approach will significantly improve the effectiveness and precision of interventions, ensuring surgical planning that optimizes results.

Likewise, sublobar pulmonary resections will be addressed, with the possibility of applying precise surgical techniques, such as transegmentary resections and anatomical segmentectomies. This knowledge will be essential for the treatment of early-stage lung cancer, as well as other thoracic neoplasms, allowing functional lung tissue to be preserved while tumors are removed.

Finally, complex techniques will be covered, such as lobar resections using VATS, identifying anatomical variations of each pulmonary lobe and their impact on the surgical strategy. In addition, the specific steps of VATS lobectomies will be detailed, along with strategies for managing complex procedures including bronchoplasty, angioplasty and extended resections. Approaches to managing intraoperative complications and decision making on when to convert to open surgery will also be covered.

In this way, TECH has developed a comprehensive 100% online program, which only requires an electronic device with an Internet connection to access all the teaching resources, eliminating the need to travel to a physical center or adapt to specific schedules. In addition, it is based on the revolutionary Relearning methodology, which focuses on the repetition of key concepts to ensure an effective and fluid understanding of the contents.

This **Postgraduate Diploma in Minimally Invasive Lung Surgery** 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 with a deep knowledge of the latest techniques in Minimally Invasive Thoracic Surgery, which simplifies the work of doctors in clinics, hospitals and other healthcare centers
- 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.

Not only will you strengthen your surgical precision and reduce patients' recovery time, but you will also optimize the management of postoperative pain and reduce the risk of complications"

You will delve into the importance of comprehensive patient management, from the preoperative to the postoperative period, contributing to a faster recovery and minimizing complications. What are you waiting for to enroll?"

You will cover interventions such as those carried out on the airway, pneumothorax and pulmonary emphysema, mastering the techniques and risks associated with these procedures, thanks to an extensive library of multimedia resources.

You will address in detail the combination of different sublobar techniques, especially when tumors affect several segments, through the best teaching materials, at the technological and academic forefront.

The program's teaching staff includes professionals from the sector who contribute their work experience to this specializing 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.

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.

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

Throughout the program, physicians will delve into aspects such as preoperative planning with the use of advanced imaging tools, performing sublobar and lobar lung resections using video-assisted thoracoscopy, and Minimally Invasive Airway Surgery. In addition, the approach will be eminently practical, combining theory with simulations and real clinical cases that will allow graduates to develop technical skills, manage complications and adopt a comprehensive approach to patient management. The latest innovations in Thoracic Surgery will also be integrated, offering a global vision of recovery processes and postoperative management.

You will cover Minimally Invasive Surgery for complex airway diseases, such as pneumothorax and pulmonary emphysema, understanding the anatomy of the central structures and the appropriate surgical approaches"

Module 1. VATS Preoperative Planning and Care in Minimally Invasive Thoracic Surgery

1.1. Resectability Criteria in Minimally Invasive Surgery
- 1.1.1. Resectability
- 1.1.2. Methods for Evaluating Resectability
- 1.1.3. Strategies to Improve Resectability

1.2. Operability Criteria in Minimally Invasive Surgery
- 1.2.1. Operability
- 1.2.2. Preoperative Functional Evaluation Algorithms
- 1.2.3. Other Operability Conditions

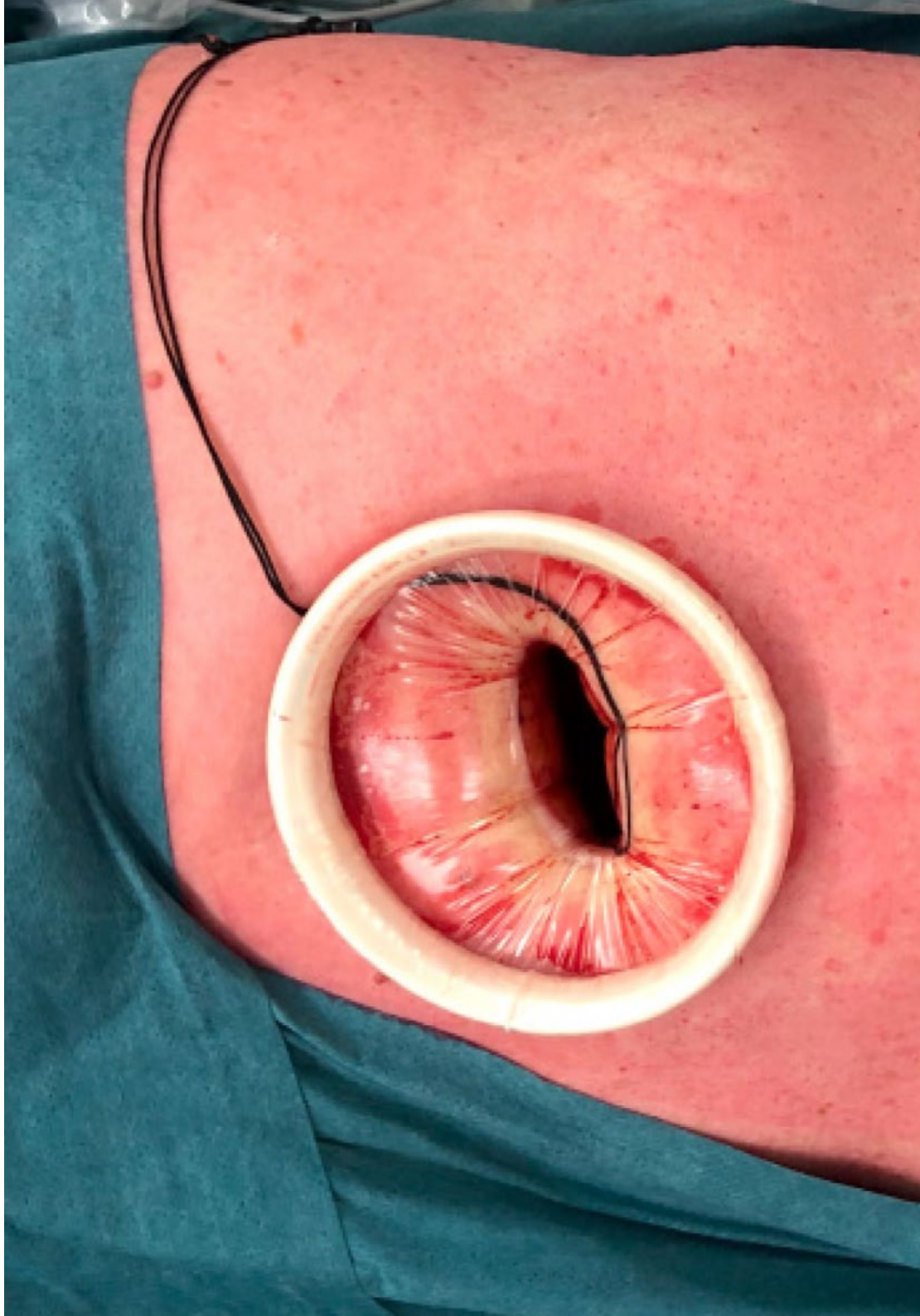
1.3. Marking of Pulmonary Nodules
- 1.3.1. Indications for the Use of Pulmonary Nodule Marking
- 1.3.2. Types of Percutaneous Marking and Bronchoscopic Marking
- 1.3.3. Advantages and Disadvantages of the Different Types of Marking

1.4. Usefulness of 3D Reconstruction
- 1.4.1. 3D Reconstruction. Uses
- 1.4.2. Applications in Minimally Invasive Surgery
- 1.4.3. Advantages of 3D Reconstruction for Minimally Invasive Surgery: Evidence in Literature

1.5. Patient Prehabilitation in Minimally Invasive Surgery
- 1.5.1. Evidence for Patient Prehabilitation
- 1.5.2. Candidates for Prehabilitation
- 1.5.3. Practical Recommendations for Patient Prehabilitation

1.6. ERAS Program: Preoperative in Minimally Invasive Surgery
- 1.6.1. Quitting Smoking. Management of Alcohol Dependence
- 1.6.2. Optimization of Hemoglobin Levels. Optimization of Nutritional Status. Pre-operative Fasting
- 1.6.3. Prophylaxis of Thromboembolic Disease. Antibiotic Prophylaxis

1.7. ERAS Program: Intraoperative in Minimally Invasive Surgery
- 1.7.1. Prevention of Hypothermia
- 1.7.2. Anesthetic Protocol
- 1.7.3. Regional Analgesia



1.8. ERAS Program: Postoperative in Minimally Invasive Surgery
  1.8.1. Nausea and Vomiting Control. Prevention and Treatment of the Arrhythmia
  1.8.2. Pain Management
  1.8.3. Early Physiotherapy and Mobilization
1.9. Drainage Management in Minimally Invasive Surgery. Specific Aspects
  1.9.1. Pleural Space Physiology
  1.9.2. Types of Thoracic Drainage Systems
  1.9.3. Management of Drainages
1.10. Prevention of Late Complications and Urgent Readmissions
  1.10.1. Incidence
  1.10.2. Risk Factors. Main Causes
  1.10.3. Impact on Survival

Module 2. Sublobular Lung Resections

2.1. Sublobar Lung Resections for the Treatment of Lung Cancer
  2.1.1. Sublobar Resections for Functional Impairment
  2.1.2. Elective Sublobar Resections
  2.1.3. Lymphadenectomy
2.2. Lung Sublobar Resections for Lung Metastases and Other Tumors
  2.2.1. Surgical Treatment of Lung Metastases
  2.2.2. Surgical Treatment of Neuroendocrine Neoplasms
  2.2.3. Surgical Treatment of Other Diseases by Sublobar Resection
2.3. Transegmentary Resections
  2.3.1. Anatomical Principles
  2.3.2. Surgical Technique Using VATS Approach
  2.3.3. Complications and Postoperative Results
2.4. Anatomical Sublobar Resections of the Right Upper Lobe
  2.4.1. Right Apical Segmentectomy (S1)
  2.4.2. Right Posterior Segmentectomy (S2)
  2.4.3. Right Anterior Segmentectomy (S3)
2.5. Anatomical Sublobar Resections of the Middle Lobe
  2.5.1. Potential Indications
  2.5.2. Lateral Segmentectomy (S4)
  2.5.3. Medial Segmentectomy (S5)

2.6. Anatomical Sublobar Resections of the Right Lower Lobe
- 2.6.1. Right S6 Segmentectomy
- 2.6.2. Anteromedial Basal Bisegmentectomy (S7+S8)
- 2.6.3. Lateroposterior Basal Bisegmentectomy (S9+S10)

2.7. Anatomical Sublobar Resections of the Left Upper Lobe
- 2.7.1. Left Apicoposterior Bisegmentectomy (S1+2)
- 2.7.2. Left Anterior Segmentectomy (S3)
- 2.7.3. Left Upper Lobe Trisegmentectomy (S1+2+ S3). Lingulectomy (S4+ S5)

2.8. Anatomical Sublobar Resections of the Left Lower Lobe
- 2.8.1. Left S6 Segmentectomy
- 2.8.2. Anterior Basal Segmentectomy (S8)
- 2.8.3. Lateroposterior Basal Bisegmentectomy (S9+S10)

2.9. Combined Anatomical Sublobar Resections
- 2.9.1. Potential Indications
- 2.9.2. Bisegmentectomy S1+S3
- 2.9.3. Bisegmentectomy S6+S10

2.10. Management of Intraoperative Complications
- 2.10.1. Incorrect Interpretation of Segmental Anatomy
- 2.10.2. Bleeding and Bronchial Lesions
- 2.10.3. Complications After Pulmonary Re-expansion

Module 3. VATS Lobar Lung Resections

3.1. VATS Lobar Lung Resections
- 3.1.1. Historical Evolution of Surgical Technique: From Thoracotomy to VATS
- 3.1.3. Patient Positioning, Operating Room and Instrumental Organization
- 3.1.4. Indications and Contraindications

3.2. General Surgical Technique
- 3.2.1. Approaches
- 3.2.2. Principles of Dissection and Exposure
- 3.2.3. Hilum of the Lung. Division of Lung Fissure

3.3. VATS Right Upper Lobectomy
- 3.3.1. Specific Lobar Anatomy
- 3.3.2. Surgical Strategy
- 3.3.3. Tips and Tricks

3.4. VATS Middle Lobectomy
- 3.4.1. Specific Lobar Anatomy
- 3.4.2. Surgical Strategy
- 3.4.3. Tips and Tricks

3.5. VATS Right Lower Lobectomy
- 3.5.1. Specific Lobar Anatomy
- 3.5.2. Surgical Strategy
- 3.5.3. Tips and Tricks

3.6. VATS Left Upper Lobectomy
- 3.6.1. Specific Lobar Anatomy
- 3.6.2. Surgical Strategy
- 3.6.3. Tips and Tricks

3.7. VATS Left Lower Lobectomy
- 3.7.1. Specific Lobar Anatomy
- 3.7.2. Surgical Strategy
- 3.7.3. Tips and Tricks

3.8. Bilobectomy and Pneumonectomy
- 3.8.1. Bilobectomy
- 3.8.2. Right Pneumonectomy
- 3.8.3. Left Pneumonectomy

3.9. Complex Resections
- 3.9.1. Bronchoplasty
- 3.9.2. Angioplasty
- 3.9.3. Extended Resection to the Thoracic Wall

3.10. Management of Complications
- 3.10.1. Conversion to Open Surgery
- 3.10.2. Intraoperative Bleeding
- 3.10.3. Ventilation Problems and Intraoperative Respiratory Management

Module 4. Minimally Invasive Airway Surgery, Malformations, Pneumothorax and Pulmonary Emphysema

4.1. Study of the Patient with Airway Disease
- 4.1.1. General Patient Assessment: Resectability and Operability Criteria
- 4.1.2. Imaging and Functional Tests
- 4.1.3. Histological Diagnosis

4.2. Minimally Invasive Tracheal Surgery
- 4.2.1. Surgical Anatomy of the Trachea
- 4.2.2. Anesthetic Approach. Surgical Technique
- 4.2.3. Results Complications

4.3. Minimally Invasive Management of Airway Obstruction
- 4.3.1. Diagnosis of Acute Airway Obstruction
  - 4.3.1.1. Imaging Techniques
  - 4.3.1.2. Role of Bronchoscopy
- 4.3.2. Anesthetic Approach
  - 4.3.2.1. Surgical Technique
  - 4.3.2.2. Treatment of Associated Lesions
- 4.3.3. Results and Complications

4.4. Left Bronchoplasty Surgery
- 4.4.1. Surgical Anatomy of the Left Bronchial Tree. Diseases that Can Affect It
- 4.4.2. Anesthetic Approach. Surgical Technique
- 4.4.3. Results Complications

4.5. Right Bronchoplasty Surgery
- 4.5.1. Surgical Anatomy of the Right Bronchial Tree. Diseases that Can Affect It
- 4.5.2. Anesthetic Approach. Surgical Technique
- 4.5.3. Results Complications

4.6. Resection and Reconstruction of the Carina of Trachea
- 4.6.1. Surgical Anatomy of the Carina of Trachea. Diseases that Can Affect It
- 4.6.2. Anesthetic Approach. Surgical Technique
- 4.6.3. Results Complications

4.7. Minimally Invasive Surgery for Airway Malformations: Bronchi and Vessels
- 4.7.1. Most Common Bronchial and Vascular Malformations
- 4.7.2. Anesthetic Approach. Surgical Technique
- 4.7.3. Results Complications

4.8. Minimally Invasive Treatment of Pneumothorax
- 4.8.1. Pathophysiological Basis of Primary and Secondary Spontaneous Pneumothorax. Leading Causes of Injury
- 4.8.2. Surgical Technique
  - 4.8.2.1. Pleurodesis: Justification and Types
- 4.8.3. Results Complications

4.9. Minimally Invasive Surgery for Bullous Emphysema
- 4.9.1. Pathophysiology of Emphysema
- 4.9.2. Anesthetic Approach. Surgical Technique
- 4.9.3. Results Complications

4.10. Lung Volume Reduction Surgery
- 4.10.1. Physiological and Functional Justification for Performing this Technique
- 4.10.2. Surgical Technique. Non-surgical Alternatives
- 4.10.3. Results Complications

You will be equipped with the most efficient tools to manage intraoperative complications and develop advanced surgical strategies, adapted to the particular anatomy of each patient"

04

Teaching Objectives

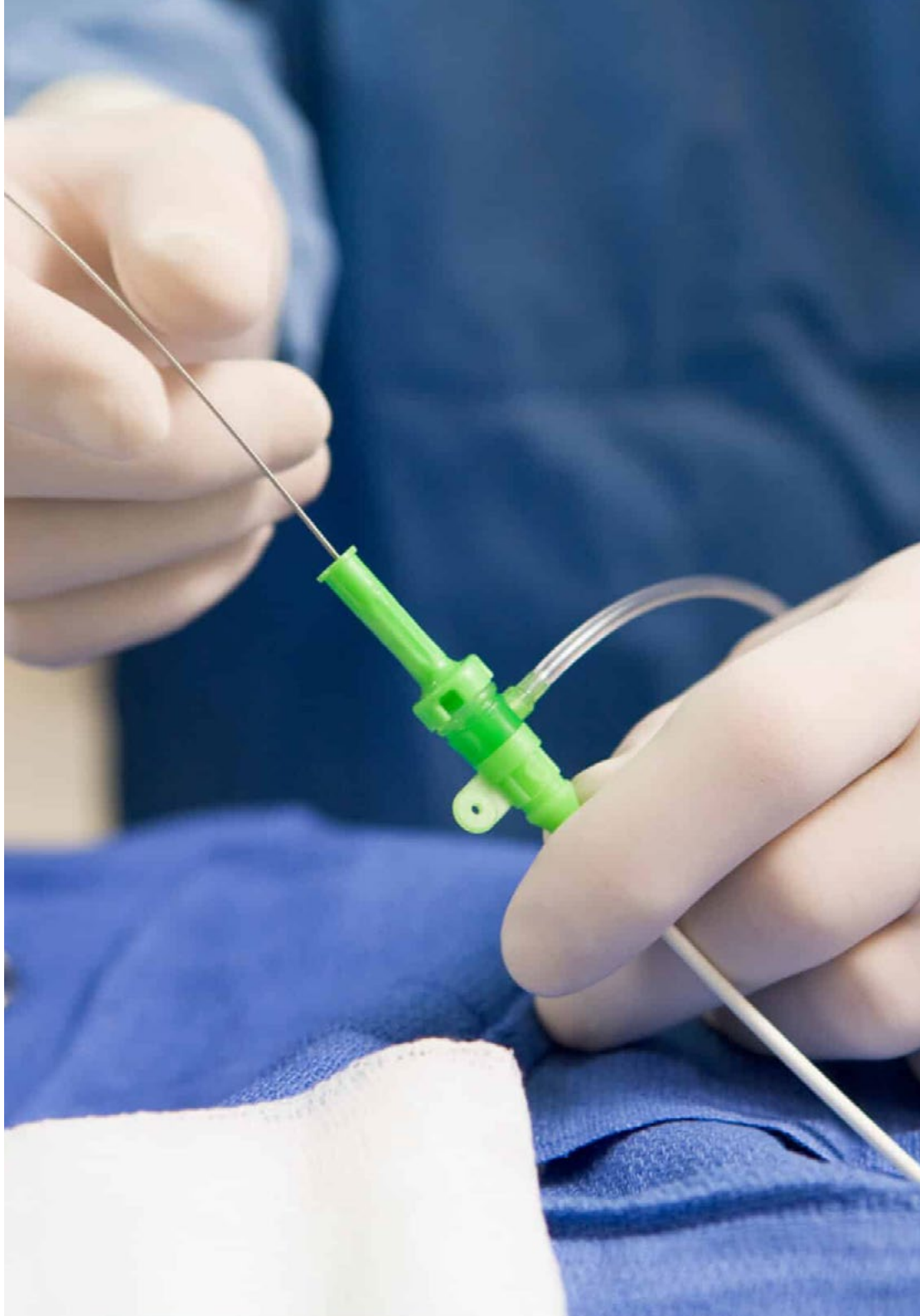
This academic qualification will enable professionals to acquire the knowledge and skills necessary to perform precision surgical interventions, using minimally invasive methods such as video-assisted thoracoscopy and robotic surgery. It will also focus on optimized preoperative planning, the correct selection of procedures and the comprehensive management of the patient, from the initial stage to post-surgical recovery. In this way, physicians will be able to treat a wide range of lung diseases with a focus on minimizing complications, reducing hospitalization time and improving clinical outcomes.

You will perform lung resections and reconstructions with precision, considering the limitations and risks inherent to minimally invasive techniques. With all the TECH quality guarantees!"

General Objectives

- Determine the multimodal perioperative care protocols in thoracic surgery to minimize complications and improve clinical outcomes
- Analyze preoperative planning techniques according to the latest 3D reconstruction technologies
- Analyze the current role of sublobar pulmonary resections in the treatment of lung cancer and other diseases
- Develop advanced technical skills in the performance of anatomical and transegmentary sublobar resections, using minimally invasive surgery
- Define the fundamental principles and present the historical evolution of the surgical technique
- Examine recent technological advances in the field of video-assisted surgery and its application in VATS lobar lung resections
- Examine the different diseases of the central airway, malformations and some specific diseases that can benefit from minimally invasive approaches
- Address the different technical possibilities for the surgical treatment of these diseases, taking into account the existing limitations

You will delve into preoperative planning, with an emphasis on the correct selection of surgical techniques and the use of advanced imaging tools for the precise localization of pulmonary nodules"



Specific Objectives

Module 1. VATS Preoperative Planning and Care in Minimally Invasive Thoracic Surgery

- Identify the selection criteria for different thoracic surgery techniques
- Apply advanced imaging tools and localization of lung nodules in preoperative planning, improving the precision and efficacy of interventions
- Guarantee the comprehensive management of the patient from the preoperative to the postoperative stage, ensuring optimal recovery and minimization of complications

Module 2. Sublobular Lung Resections

- Carry out sublobar resections in the treatment of early-stage lung cancer, lung metastases and other thoracic neoplasms
- Perform VATS transegmentary resections correctly, mastering the key anatomical and surgical aspects to preserve functional lung tissue
- Perform VATS anatomical segmentectomies with precision in each of the pulmonary lobes, adapting the technique to the most common anatomical variants
- Develop strategies for the combination of anatomical sublobar resection techniques, being able to tackle tumors that involve more than one segment or lobe
- Prevent and effectively manage the most common intraoperative complications in sublobar resections

Module 3. VATS Lobar Lung Resections

- Analyze the specific anatomical variations of each lung lobe and their impact on the surgical strategy
- Detail the specific technical steps of each of the VATS lobectomies
- Explore strategies for complex resections, including bronchoplasty, angioplasty and extended thoracic wall resections
- Develop a comprehensive approach to the identification and management of intraoperative complications, as well as for decision making on conversion to open surgery

Module 4. Minimally Invasive Airway Surgery, Malformations, Pneumothorax and Pulmonary Emphysema

- Provide an in-depth understanding of the anatomy of the structures that make up the central airway, anatomical relations, possibilities for resection and subsequent reconstruction using minimally invasive approaches
- Provide technical tips and tricks for the successful performance of this type of surgery
- Be aware of the current limitations that rule out this minimally invasive approach in some cases
- Determine the possibilities of anaesthetic management, natural airway intubation, devices, intracorporeal membrane oxygenation and intubation
- Determine the most common complications, as well as their early diagnosis and treatment, if necessary
- Analyze the specific risks of this surgical approach compared to the traditional one

05

Career Opportunities

Graduates will be able to access leadership positions in hospitals and specialized clinics, where they will apply the most innovative techniques in Thoracic Surgery, improving surgical outcomes and the quality of life of patients. They will also be qualified to perform roles in advanced pulmonary surgery units, clinical research or training new specialists. In addition, physicians will have the opportunity to position themselves as leaders in the field of minimally invasive thoracic surgery, participating in research projects or even contributing to the development of new surgical technologies.

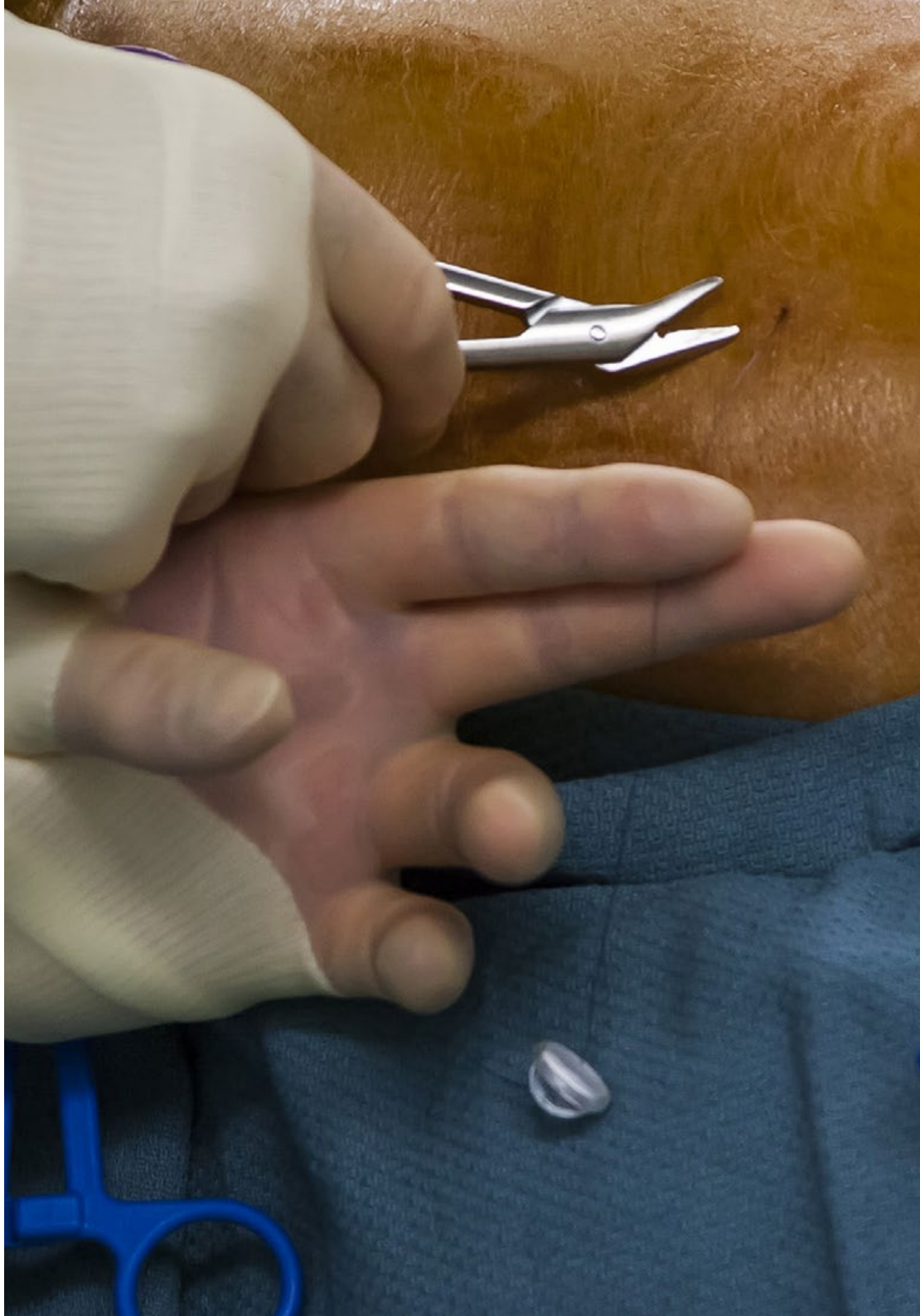
The Postgraduate Diploma in Minimally Invasive Lung Surgery will open up a wide range of professional opportunities for physicians who wish to specialize in this cutting-edge field"

Graduate Profile

Graduates will be highly qualified in the most advanced techniques of thoracic surgery, with a specialization in minimally invasive procedures such as videothoracoscopy and robotic surgery. They will also be able to address a wide range of lung diseases, from preoperative diagnosis to postsurgical management, with a focus on reducing complications, optimizing recovery and improving clinical outcomes. In addition, they will have a solid understanding of lung anatomy, the use of advanced imaging tools and the most innovative surgical strategies.

You will prepare to apply the latest technological innovations in your daily clinical practice, demonstrating your commitment to continuous improvement and leadership in the field of Lung Surgery.

- **Leadership and Management of Surgical Teams:** Ability to coordinate and lead multidisciplinary teams, promoting a collaborative and efficient approach in the surgical environment
- **Effective Communication:** Skills to communicate clearly and empathetically with patients, family members and members of the medical team, facilitating patient-centered care and expectation management
- **Evidence-based Clinical Decision Making:** Development of skills to make informed decisions, integrating the latest technological and scientific advances in Thoracic Surgery, always aimed at optimizing results for the patient
- **Innovation Management and Continuous Improvement:** Ability to identify, apply and promote innovative practices in Thoracic Surgery, contributing to the continuous improvement of the quality of care in the institutions where they work



After completing the program, you will be able to use your knowledge and skills in the following positions:

1. **Thoracic Surgeon Specializing in Minimally Invasive Techniques:** A physician specialized in thoracic surgery using minimally invasive techniques, such as video-assisted thoracoscopy and robotic surgery, for the treatment of lung diseases.
2. **Chief of Thoracic Surgery Unit:** Leader of a medical unit specialized in thoracic surgery within a hospital or clinic, responsible for coordinating surgical treatments and supervising the medical team.
3. **Medical Researcher in Thoracic Surgery:** Professional focused on the research of new techniques and procedures within Minimally Invasive Thoracic Surgery.
4. **Consultant in Minimally Invasive Lung Surgery:** Physician who advises healthcare institutions on the implementation and optimization of minimally invasive surgical techniques in the treatment of lung diseases.
5. **Specialist in Post-operative Management of Lung Surgery:** Physician responsible for supervising and managing the recovery process of patients who have undergone Minimally Invasive Lung Surgery.
6. **Surgeon in Highly Specialized Hospitals:** Thoracic surgeon working in a referral hospital, specializing in advanced surgical procedures to treat various lung diseases.
7. **University Professor in Thoracic Surgery:** Academic professional who trains future thoracic surgeons in the most advanced techniques of Minimally Invasive Lung Surgery.
8. **Coordinator of Training Programs in Lung Surgery:** Physician in charge of designing and coordinating training and refresher programs for health professionals in the field of Minimally Invasive Lung Surgery.

You will increase your competitiveness in Minimally Invasive Thoracic Surgery, improving your surgical results and offering more precise and effective care, in line with the latest trends in Medicine"

06

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.

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.

"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.

> *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.

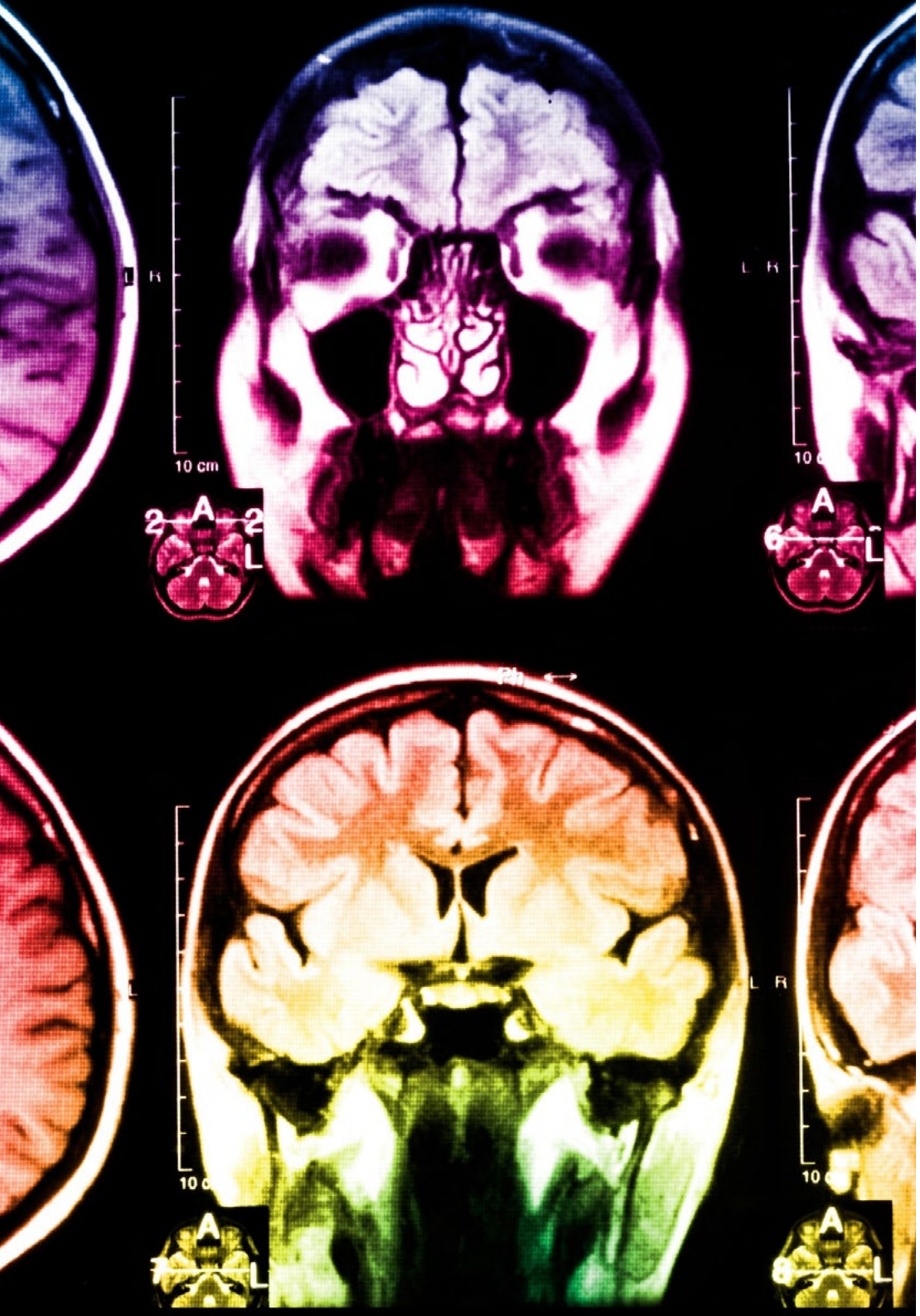
In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

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.

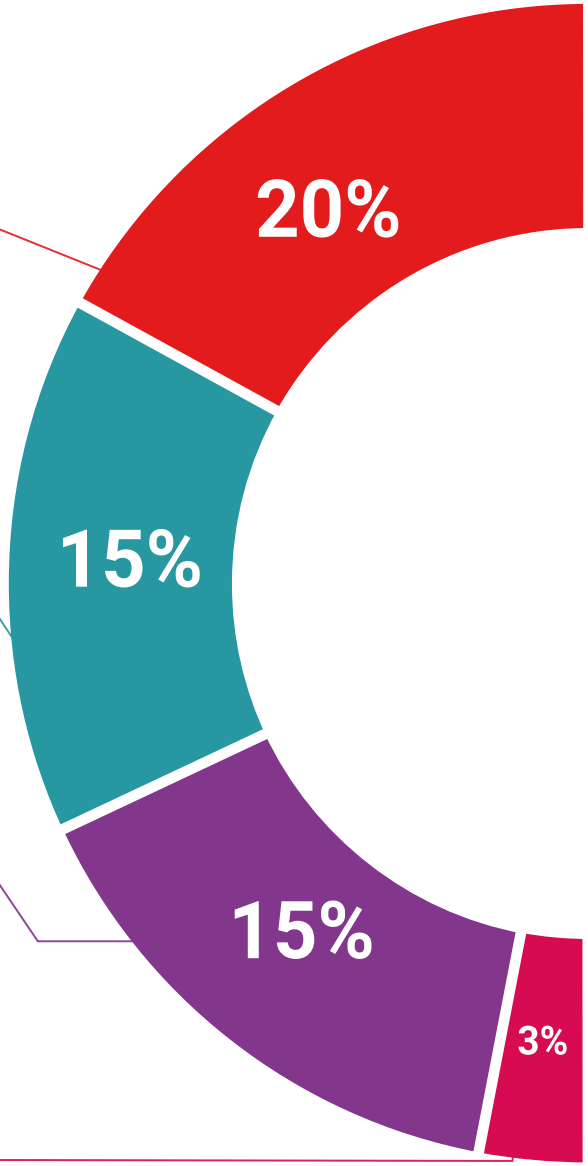
Interactive Summaries

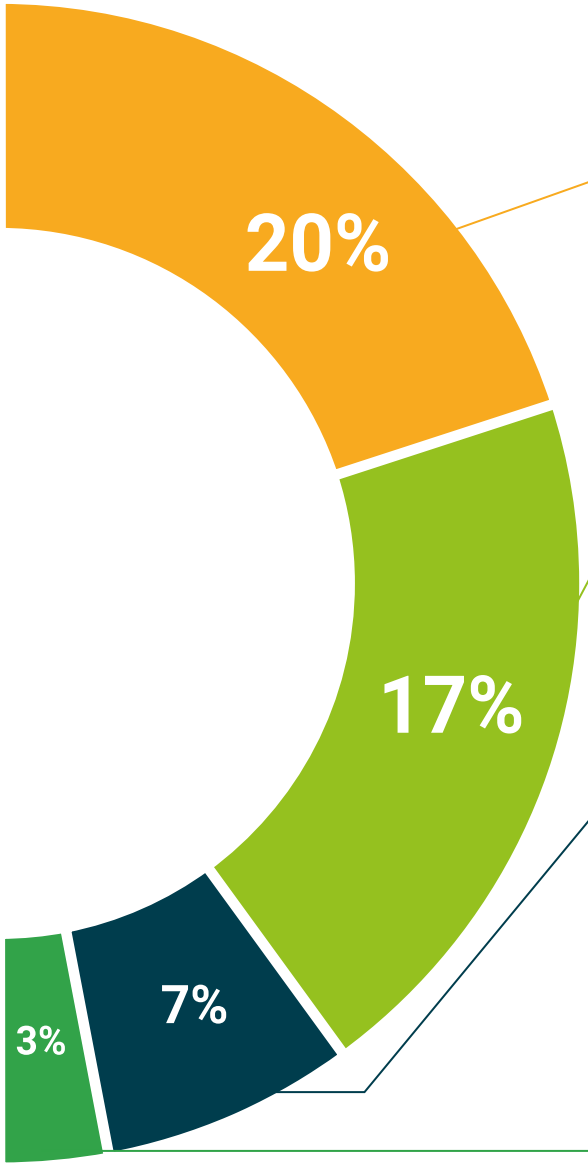
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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.





Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence for 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

Teaching Staff

The teaching team of the Postgraduate Diploma in Minimally Invasive Lung Surgery is made up of outstanding professionals with extensive experience in the field of Thoracic Surgery and minimally invasive techniques. In fact, they have a solid clinical and academic background, so they will not only contribute their theoretical knowledge, but also their practical experience in advanced procedures, such as Videothoracoscopy and Robotic Surgery. Thanks to their experience in renowned hospitals, these mentors provide graduates with cutting-edge education, integrating the latest technological advances and best practices in Lung Surgery.

The pedagogical approach of the teachers will guarantee the acquisition of technical and clinical skills essential to successfully address the challenges of Minimally Invasive Lung Surgery"

Management

Dr. Martínez Hernández, Néstor J.

- President of the Scientific Advisory Office of the Spanish Society of Thoracic Surgery (SECT)
- Coordinator of the Scientific Committee of the Spanish Society of Thoracic Surgery
- Thoracic Surgeon at the University Hospital La Ribera
- Thoracic Surgeon Editor of Cirugía Española in Elsevier
- Guest Editor at the Journal of Visualized Experiments
- Associate Professor at the Department of Respiratory Medicine, Faculty of Medicine, Catholic University of Valencia
- Thoracic Surgeon at the Manises Hospital
- Visiting Physician at Cedars-Sinai Medical Center
- Resident Medical Intern at the General University Hospital of Valencia
- Visiting Physician at Mount Sinai Hospital, New York, United States
- Visiting Physician at Yale New Haven Hospital, United States
- Doctor of Medicine and Surgery from the University of Valencia
- Degree in Medicine and Surgery from the University of Valencia
- Specialist in Thoracic Surgery
- Extraordinary Doctorate Award from the University of Valencia
- Antonio Caralps y Masso Award of the SECT for the Best Communication in Thoracic Surgery
- First Prize of IX Edition to the Best Specialist in Training at the Gregorio Marañón General University Hospital
- Member of: European Society for Thoracic Surgery (ESTS), Spanish Society of Thoracic Surgery (SECT), Spanish Society of Pulmonology and Thoracic Surgery (SEPAR), Valencian Society of Pulmonology (SVN)

Dr. Quero Valenzuela, Florencio

- Chief of the Thoracic Surgery Department at the Virgen de las Nieves University Hospital
- Specialist Physician in Thoracic Surgery at the Virgen de las Nieves University Hospital
- Specialist Physician in Thoracic Surgery at the Virgen Macarena University Hospital
- Member of the Ae22-Cancer Genetics, Biomarkers and Experimental Therapies Research Group
- Doctor of Surgery from the University of Granada
- Master's Degree in Clinical Unit Management from the University of Murcia
- Expert in Epidemiology and Clinical Research from the University of Granada
- Bachelor's Degree in Medicine and Surgery from the University of Granada

Professors

Dr. Gómez Hernández, María Teresa

- Specialist Physician in Thoracic Surgery at the University Hospital of Salamanca
- Specialty Resident in Thoracic Surgery at the University Hospital of Salamanca
- Doctor of Medicine from the University of Salamanca
- Master's Degree in Medical Management and Clinical Management from the UNED
- Master's Degree in Health Research Methodology in Health Sciences from the University of Salamanca
- Bachelor's Degree in Medicine from the University of Salamanca

Dr. Fra Fernández, Sara

- Specialist Physician in Thoracic Surgery at the Ramón y Cajal University Hospital
- Resident in Thoracic Surgery at the Ramón y Cajal University Hospital
- Scholarship holder of the European Association of Cardiothoracic Surgery (EACTS) Program
- Master's Degree in Thoracic Oncology from the CEU San Pablo University
- University Expert in Pleural Pathology from the Autonomous University of Barcelona
- Degree in Medicine from the University of Santiago de Compostela

Dr. Figueroa Almánzar, Santiago

- Vice-President of the Teaching Commission in the Clínico-Malvarrosa Health Department
- Coordinator of the Teaching and Continuing Education Committee of the Spanish Society of Thoracic Surgery
- Specialist Physician in Thoracic Surgery at the General University Hospital of Valencia
- Resident Physician in Thoracic Surgery at the General University Hospital of Valencia
- International VATS Training Program at the Pulmonary Hospital of Shanghai, China
- Specialty in Thoracic Surgery at the Yale Cancer Center, United States
- Master's Degree in Clinical Unit Management from the University of Murcia
- Bachelor's Degree in Medicine from the University of Valladolid
- Member of: Spanish Society of Thoracic Surgery

Dr. Paradela de la Morena, Marina

- Coordinator of the Conference Committee of the Spanish Society of Thoracic Surgery
- Specialist Physician in the Thoracic Surgery Department at Bellvitge University Hospital
- Specialist Physician in Thoracic Surgery at the University Hospital Complex of A Coruña
- Specialist Physician in Thoracic Surgery at the Clinical Hospital of Barcelona
- Specialist Physician in Thoracic Surgery at the Centre Chirurgical Marie Lannelongue, France
- Specialty in Thoracic Surgery from the University Hospital Complex of A Coruña
- Master's Degree in Critical Care and Emergencies from the University of Barcelona
- University Expert in Thoracic Surgery Emergencies from the Spanish Society of Thoracic Surgery
- Bachelor's Degree in Medicine and Surgery from the University of Santiago de Compostela
- Member of: Spanish Society of Thoracic Surgery (SECT)

Dr. García Gómez, Francisco

- Thoracic Surgeon at the Virgen del Rocío Hospital
- Thoracic Surgeon at the Jerez Puerta del Sur Hospital
- Thoracic Surgeon at the Puerta del Mar University Hospital
- Thoracic Surgeon at the Quirón Sagrado Corazón Hospital
- Residency in Thoracic Surgery at the Virgen del Rocío University Hospital
- Specialty in Thoracic Surgery at the Memorial Sloan Kettering Cancer Center, New York
- Doctor of Medicine from the University of Sevilla
- Master's Degree in Thoracic Oncology from the Cardenal Herrera University
- Master's Degree in Emergency Medicine from the University of Sevilla
- University Expert in Lung Cancer, Tumors of the Pleura, Mediastinum and Thoracic Wall from the Cardenal Herrera University
- University Expert in Screening, Molecular Biology and Staging of Thoracic Cancer from the Cardenal Herrera University
- University Expert in Diagnosis and Basis of Treatment in Thoracic Oncology from the Cardenal Herrera University
- Degree in Medicine from the University of Cádiz

Dr. López Villalobos, José Luis

- Thoracic Surgeon at the Quirónsalud Sagrado Corazón Hospital
- Assistant Physician in the Thoracic Surgery Department at the Virgen del Rocío University Hospital
- Medical Intern Resident in Airway Surgery at the Clinical Hospital of Valencia
- Residency in Thoracic Surgery at the Virgen del Rocío University Hospital
- Doctor of Medicine from the University of Sevilla
- Bachelor's Degree of the Faculty of Medicine of the University of Sevilla

Dr. Cabañero Sánchez, Alberto

- Thoracic Surgeon at the Ramón y Cajal University Hospital in Madrid
- Medical Intern Resident in the specialty of Thoracic Surgery at the University Hospital Ramón y Cajal
- Degree in Medicine and Surgery from the University of Alcalá

Dr. García Pérez, Alejandro

- Specialist Physician in Thoracic Surgery and Lung Transplantation at the University Hospital of A Coruña
- Specialty in Thoracic Surgery from the Shanghai Pulmonary Hospital, China
- Residency in Thoracic Surgery at La Fe University Hospital
- Degree in Medicine from the University of Santiago de Compostela

Dr. Monge Blanco, Sara

- Specialist Physician in Thoracic Surgery at the Quirónsalud Sagrado Corazón Hospital
- Specialist Physician in Thoracic Surgery at the Virgen del Rocío Hospital
- Researcher in the Spanish Multicenter Study Group of Primary Spontaneous Pneumothorax (GEMENEP)
- Resident Physician specialized in Thoracic Surgery at the Virgen del Rocío Hospital
- Master's Degree in Healthcare Research and Assistance from the University of A Coruña
- Master's Degree in Thoracic Oncology from the CEU Cardenal Herrera University
- Master's Degree in Catastrophes, Emergencies and Humanitarian Aid from the Catholic University of Murcia
- University Expert in Pain Treatment from the University of Vitoria-Gasteiz
- University Expert in Care for the Critically Ill with Respiratory Disease from the University of Vitoria-Gasteiz
- Degree in Medicine from the University of Sevilla

Dr. Trujillo Sánchez, María

- Specialist Physician in Thoracic Surgery at the Clinical University Hospital of Valencia
- Specialist Physician in Thoracic Surgery at the La Fe University Hospital
- Specialist Physician in Thoracic Surgery at the Puerta de Hierro University Hospital
- Specialty in Thoracic Surgery from the Memorial Sloan Kettering Cancer Center (MSK), New York
- Specialty in Thoracic Surgery from the Toronto General Hospital, Canada
- Resident in Thoracic Surgery at the 12 de Octubre University Hospital
- Degree in Medicine from the University of Navarra
- Member of: Spanish Society of Thoracic Surgery (SECT), Spanish Society of Pulmonology and Thoracic Surgery (SEPAR), Spanish Lung Cancer Group (GECP), European Society of Thoracic Surgeons (ESTS)

All the lecturers on this program have extensive experience, offering you an innovative perspective on the main advances in this field of study"

08

Certificate

The Postgraduate Diploma in Minimally Invasive Lung Surgery guarantees students, in addition to the most rigorous and up-to-date education program, access to a Postgraduate Diploma issued by TECH Global University.

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

This private qualification will allow you to obtain a **Postgraduate Diploma in Minimally Invasive Lung Surgery** 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.

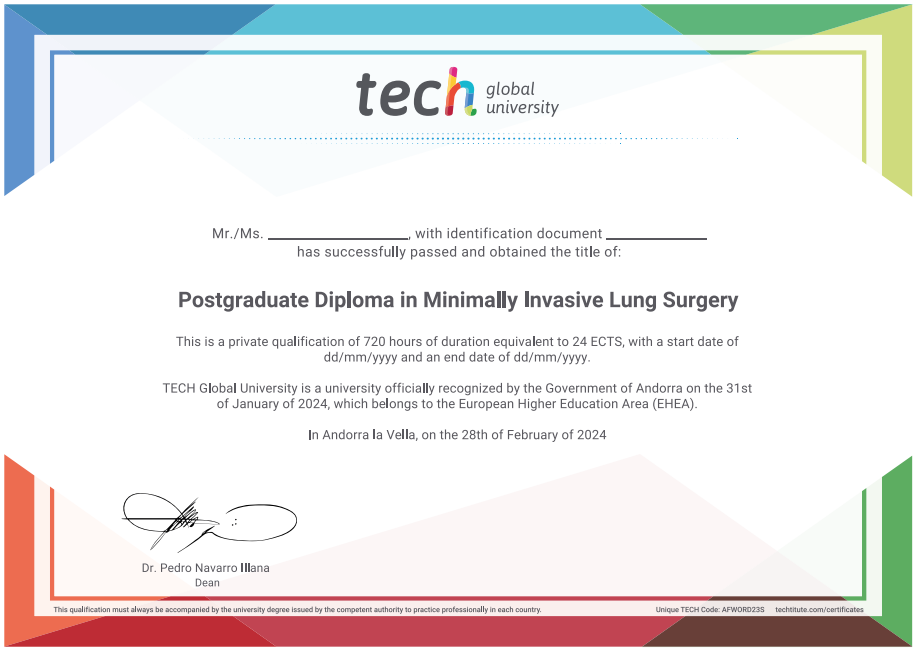
This **TECH Global University private qualification**, is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Minimally Invasive Lung Surgery**

Modality: **online**

Duration: **6 months.**

Accreditation: **24 ECTS**


tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Diploma in Minimally Invasive Lung Surgery

This is a private qualification of 720 hours of duration equivalent to 24 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

*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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Postgraduate Diploma
Minimally Invasive Lung Surgery

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Global University**
- Accreditation: **24 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Postgraduate Diploma

Minimally Invasive Lung Surgery

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