

Postgraduate Diploma

Precision Medicine in Thoracic Oncology



Postgraduate Diploma Precision Medicine in Thoracic Oncology

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

Website: www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-precision-medicine-thoracic-oncology

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 16

05

Methodology

p. 20

06

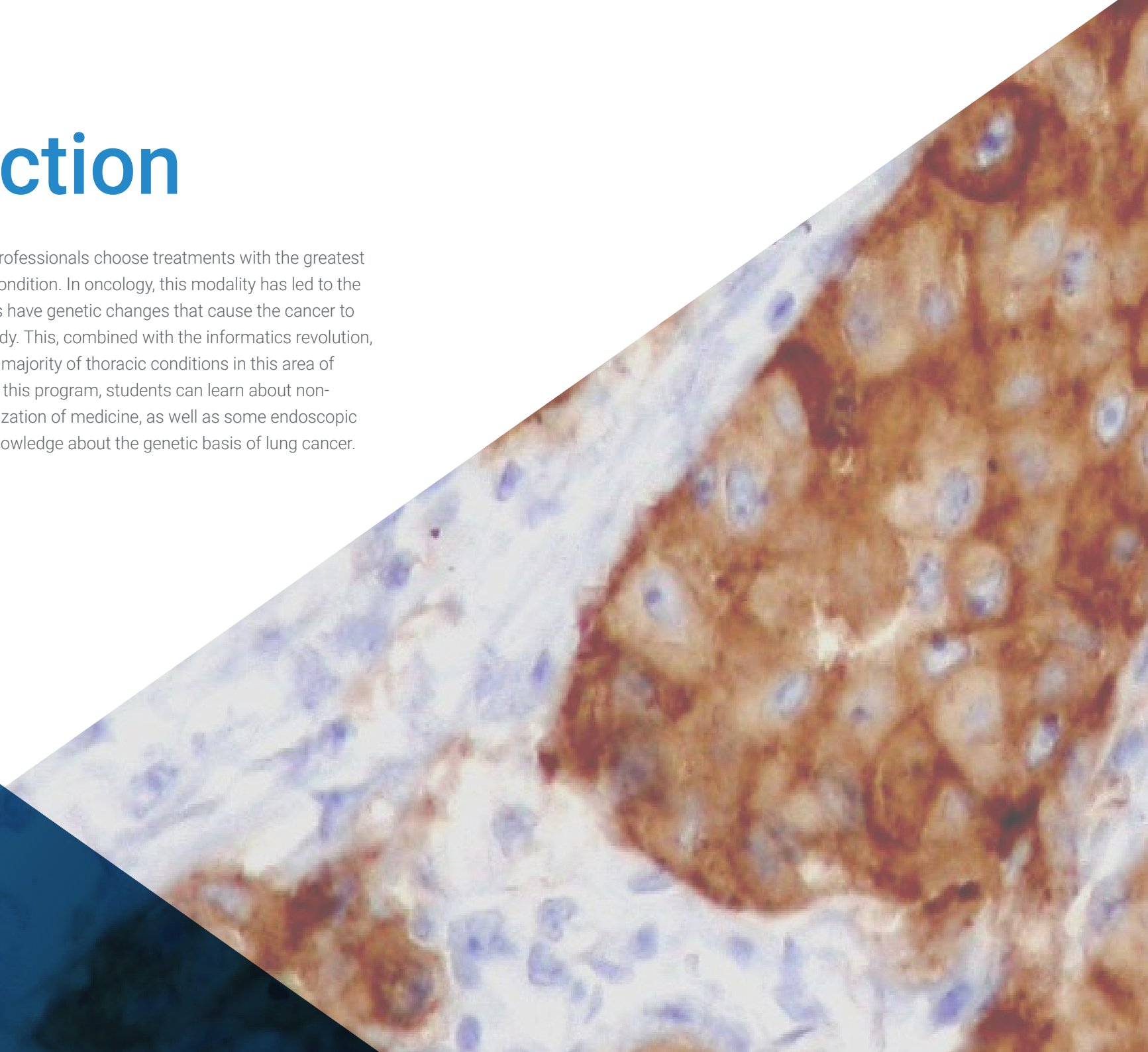
Certificate

p. 28

01

Introduction

Precision Medicine helps medical professionals choose treatments with the greatest likelihood of improving a patient's condition. In oncology, this modality has led to the understanding that patients' tumors have genetic changes that cause the cancer to grow and spread throughout the body. This, combined with the informatics revolution, has established genetic links to the majority of thoracic conditions in this area of medicine. For this reason, by taking this program, students can learn about non-biological advances in the personalization of medicine, as well as some endoscopic techniques and the most current knowledge about the genetic basis of lung cancer.





“

Get to know the advances of Precision Medicine in Oncology helps professionals to improve their diagnosis and treatment".

Be able to have all patients in a worldwide database has changed the way specialists research and diagnose some diseases, improving and developing new forms of treatment. All this information is stored in Big Data, a system that analyzes large amounts of data and finds correlations that are not associated with causation. In the field of oncology, it helps to have the maximum information about a tumor, even when it is in its initial stage.

Thus, this Postgraduate Diploma in Precision Medicine in Thoracic Oncology seeks to study in depth the conceptual aspects in this area and the use of information sources with Big Data, also including real genomics studies.

As the professional advances in the knowledge of this Postgraduate Diploma, he/she will be able to learn and identify the minimally invasive endoscopic techniques that allow increasing the diagnostic precision of pulmonary and pleural processes. Highly specific therapeutic procedures for patients with neoplastic or airway disease will also be reviewed.

In addition, there will be a broad view of the most current knowledge on the genetic basis of lung cancer, the most relevant driver mutations for their therapeutic implications and the current strategy of lung cancer management in the center of genetic therapeutic targets.

The extensive experience of the teaching staff and their training in this area of medicine, both nationally and internationally, positions this Postgraduate Diploma above others in the market, so that the graduate will have a reference of excellence. Both the director of the Postgraduate Diploma and the professors will provide students with their knowledge and professional experience with a practical approach. Therefore, this degree will provide you with accelerated knowledge of all aspects of Precision Medicine in Thoracic Oncology.

A 100% online Postgraduate Diploma that allows the student to study it comfortably, wherever and whenever he/she wants. All you need is a device with internet access to take your career one step further. A modality in accord with the current times and all the guarantees to position professionals in a highly demanded field.

With a complete and up-to-date educational program, this **Postgraduate Diploma in Precision Medicine in Thoracic Oncology** has the following features:

- The development of case studies presented by Postgraduate Diploma experts in Precision Medicine in Thoracic
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice.
- Practical exercises where the self-evaluation 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



Growing in an area of medicine with international projection helps professionals to continue their career path".



Learn about minimally invasive endoscopic techniques to increase diagnostic accuracy in thoracic conditions".

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

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training programmed to train in real situations.

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

Learning in a 100% online environment allows the professional to control their learning and access information anywhere in the world.

The Postgraduate Diploma in Precision Medicine in Thoracic Oncology has one of the most complete and up-to-date educational programs on the market.



02

Objectives

Having a program that helps students acquire new skills is the key to professional growth. The interest of the professors who teach this Postgraduate Diploma is that the students are driven in this field of work from a global perspective and with full training to achieve the proposed objectives. For this reason, TECH has established a series of general and specific objectives for the satisfaction of future graduates, as follows:

“

Take the step you need and propel your career into an area of medicine with international growth.”

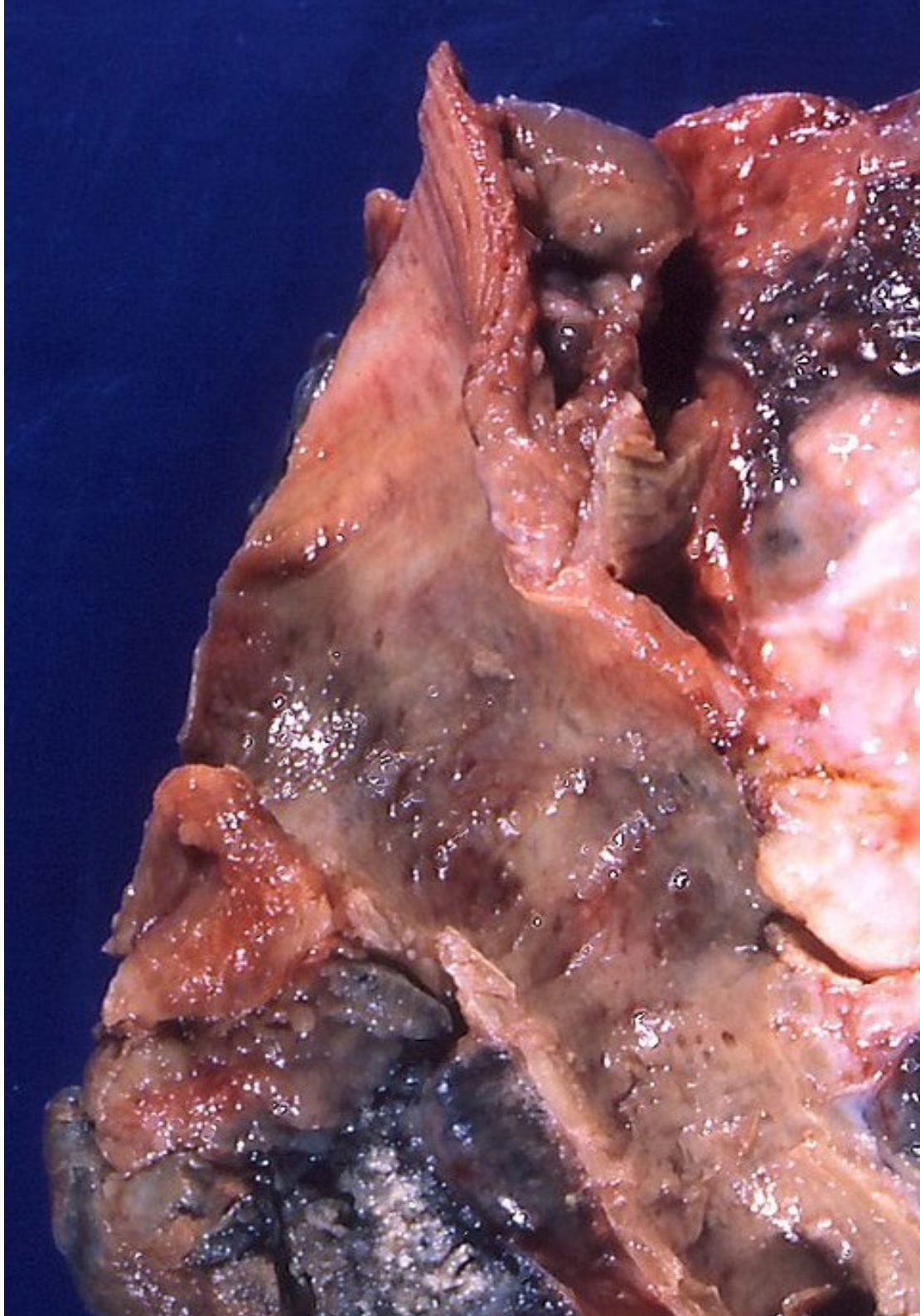


General Objectives

- ♦ Provide in-depth knowledge on the genetic linkage of respiratory diseases.
- ♦ Interpret and generate knowledge with the information provided by primary and secondary Big-Data sources.
- ♦ Improve evaluation for prognosis and prevention of respiratory diseases.
- ♦ Understand the precision treatment of pulmonary pathology in the daily practice of medicine.
- ♦ Acquire a solid knowledge of the different pulmonary pathologies and their genetic basis.



Highly trained professionals will help you achieve your professional goals in this Postgraduate Diploma in Precision Medicine in Thoracic Oncology".





Specific Objectives

Module 1: Personalized Precision Medicine and Big Data in Pneumology prelude

- Delve into the health care and ethical implications of Precision Medicine.
- Study in depth the sources of information on Precision Medicine.
- Master the omic biomarkers of interest in pneumology.
- Determine the contribution of specific care in personalized care.

Module 2: Interventional Pneumology and Precision Medicine

- Study in depth the minimally invasive bronchological techniques that allow genetic and precision diagnosis.
- Delve into minimally invasive pleural techniques that allow genetic and precision diagnosis.
- Master endoscopic invasive treatments for specific pneumologic patients

Module 3: Genetics, Precision Medicine and Lung Cancer

- Studying the genetic susceptibility of lung cancer in more depth.
- Further exploring driver gene mutations with approved lung cancer treatments
- Know future treatments against therapeutic targets
- Master the state of the art of lung cancer treatment with respect to the contribution of treatments based on genetic therapeutic targets.

03

Course Management

TECH has renowned professionals who seek to provide an elite education for all its students. With solid knowledge in the area of Precision Medicine, this Postgraduate Diploma is presented together with a team with extensive experience in the health sector. In this way, the student has the certainty that he/she will develop to the maximum of his/her capabilities as he/she progresses through the program. Thus, he/she has the guarantees required to specialize at an international level in a sector that will catapult his professional career.





“

The teaching staff of this Postgraduate Diploma has extensive international experience for the professional development of its students”.

Management



Dr. Puente Maestu, Luis.

- ♦ Professor of Pneumology, Department of Medicine, Universidad Complutense de Madrid.
- ♦ Chief of the Pneumology Department of the Hospital General Universitario Gregorio Marañón
- ♦ Degree in Medicine from the Complutense University of Madrid.
- ♦ Specialist in Pneumology, Complutense University of Madrid.
- ♦ Doctor Cum Laude in Medicine from the Complutense University of Madrid.
- ♦ Master's Degree in Design and Statistics in Health Sciences from the Autonomous University of Barcelona.
- ♦ University Master's Degree in Senior Management of Health Services and Business Management of the University of Alcalá



Dr. Díez, Javier de Miguel.

- ♦ Section Chief and Resident Tutor in the Pneumology Department of the Hospital General Universitario Gregorio Marañón.
- ♦ PhD in Medicine and Surgery from the Autonomous University of Madrid.
- ♦ Master's Degree in Healthcare Management
- ♦ University Master's Degree in Smoking
- ♦ Master's Degree in Advances in Diagnosis and Treatment of Airway Disease
- ♦ Postgraduate master's degree in Advances in Diagnosis and Treatment of Sleep Disorders
- ♦ Master's Degree in Advances in Diagnosis and Treatment of Diffuse Interstitial Lung Diseases
- ♦ Master in Pulmonary Hypertension and Master in Thrombotic Pathology.

Professors

Dr. Benedetti, Paola Antonella.

- ♦ Assistant of the Bronchoscopy and Functional Tests Section, Pneumology Department, Hospital Gregorio Marañón, Madrid.
- ♦ Surgeon at the Universidad Central de Venezuela.
- ♦ Pneumology Residency at the Hospital Clínico San Carlos, Madrid
- ♦ Doctoral candidate of the Medical Surgical Sciences program. Complutense University of Madrid

Mr. Calles Blanco, Antonio.

- ♦ Regional Ministry of Health in the Department of Medical Oncology, Madrid.
- ♦ Care, teaching and research work at the Hospital General Universitario Gregorio Marañón in Madrid
- ♦ Resident tutor and collaborating medical teacher in External Medical Practice Teaching at the Complutense University of Madrid.
- ♦ Specialist in Medical Oncology at the Hospital Clínico San Carlos, Madrid.
- ♦ Degree in Medicine and Surgery from the Universidad Autónoma de Madrid.

Dr. Calderón Alcalá, Mariara Antonieta


- ♦ Facultative Area Specialist. Pneumology Service at Hospital Universitario Infanta Leonor. Madrid
- ♦ Facultative Area Specialist. Pneumology Service: hospitalization, consultations and techniques at Hospital Central de La Defensa Gómez Ulla, Madrid
- ♦ Facultative Area Specialist. Neurology Service Hospitalization. Pneumology on call. Intermediate Respiratory Care Unit. COVID19 at Hospital Universitario de Getafe. Getafe, Madrid
- ♦ Degree in Medicine: Medical Surgeon Degree. At Universidad Central de Venezuela, School of Medicine, Dr. Luis Razetti School. Caracas, Venezuela
- ♦ Official Degree of Medical Specialist in Pneumology, Ministry of Education, Culture and Sports, Hospital Universitario Clínico San Carlos, Madrid.
- ♦ Postgraduate Diploma in Diffuse Interstitial Pulmonary Interstitial Diseases in Systemic Autoimmune Diseases at Universidad Complutense de Madrid

04

Structure and Content

Following the specifications of the medical specialty and the requirements proposed by the teaching team, a syllabus has been developed that meets the objectives. This curriculum has three modules that provide an excellent overview of what the area of Precision Medicine in Thoracic Oncology is all about, also addressing the needs of boosting the careers of professionals with global skills and knowledge. With the support of an excellent team of Postgraduate Diplomas.





“ This Postgraduate Diploma in Precision Medicine in Thoracic Oncology contains the most complete and up-to-date scientific program on the market”.

Module 1. Personalized Precision Medicine and Big Data in Pneumology prelude

- 1.1. Ethics of Precision Medicine
- 1.2. Advantages
 - 1.2.1. Disadvantages of Precision Medicine
- 1.3. Precision Medicine as a strategy
- 1.4. The Big Data Revolution
- 1.5. Real-Life Studies
 - 1.5.1. Advantages
 - 1.5.2. Inconveniences
- 1.6. Pharmacogenomics
- 1.7. Proteomics
- 1.8. Chronicity
 - 1.8.1. Personalization of Care
- 1.9. Telemedicine
- 1.10. Personalized Care for Dependents
 - 1.10.1. Role of Nursing

Module 2. Interventional Pneumology and Precision Medicine

- 2.1. Linear Endobronchial Ultrasound (EBUS-endobronchial Ultrasound)
 - 2.1.1. Its Role in the Genetic Diagnosis and More Accurate Staging of Lung Cancer
- 2.2. Radial Endobronchial Ultrasound (r-EBUS)
 - 2.2.1. Its Role in the Diagnosis of Peripheral Lesions and the Genetic Typing of Lung Cancer
- 2.3. Electromagnetic Navigation
 - 2.3.1. Their Role in the Diagnosis and Treatment of Peripheral Lesions
- 2.4. Narrow Band Imaging Bronchoscopy in Bronchoscopic Examination for Suspected Bronchial Neoplastic Disease
- 2.5. Endobronchial Therapy of Treatable Features
 - 2.5.1. Homogeneous Emphysema with Intact Cysura
- 2.6. Endobronchial Therapy of Treatable Traits, Homogeneous Emphysema with Interlobar Communication





- 2.7. Endobronchial Therapy of Treatable Features
 - 2.7.1. Non-Eosinophilic Asthma
- 2.8. Detection of Diagnostic Markers of Malignant Pleural Pathology Using Minimally Invasive Techniques
- 2.9. Medical Thoracoscopy
 - 2.9.1. Contribution to the Diagnostic Accuracy of Pleural Effusion
 - 2.9.2. Alveoloscopy: *in vivo* Analysis of Peripheral Airways

Module 3. Genetics, Precision Medicine and Lung Cancer

- 3.1. Quantification of Obstructive Pulmonary Impairment by Chest Computed Tomography Applied as a Tool for Increasing Diagnostic Accuracy
- 3.2. Lung Nodule Volumetry applied as a Tool for Increasing Diagnostic Accuracy
- 3.3. Elastography of Lung Lesions
 - 3.3.1. Pleurals as a Tool for Increasing Diagnostic Accuracy
- 3.4. Pleural Ultrasound Applied as a Tool to Increase Diagnostic Accuracy
- 3.5. Detection of Treatable Traits in Respiratory Diseases
 - 3.5.1. Hyperinflation (Lung Volumes, Dynamic Hyperinflation)
- 3.6. Detection of Treatable Traits in Respiratory Diseases
 - 3.6.1. Pulmonary Resistances
 - 3.6.2. Peripheral Tract Involvement
- 3.7. Detection of Treatable Traits in Respiratory Diseases
 - 3.7.1. Measurement of Physical Activity in Personalizing Patient Care and Prognosis.
- 3.8. Detection of Treatable Traits in Respiratory Diseases
 - 3.8.1. Adherence to Treatment
- 3.9. Detection of Treatable Traits in Respiratory Diseases
 - 3.9.1. Non-Invasive Detection of Bronchial Inflammation by Exhaled Nitric Oxide Fraction
- 3.10. Detection of Treatable Traits in Respiratory Diseases.
 - 3.10.1. Non-invasive Detection of Bronchial Inflammation with Sputum Induced Sputum

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.



“

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. Gervas, 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.

“

Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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



Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises: so that they can see how they are achieving their goals.



Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06 Certificate

The Postgraduate Diploma in Precision Medicine in Thoracic Oncology guarantees, in addition to the most rigorous and up-to-date training, access to a Postgraduate Diploma issued by TECH Technological University.



“

Successfully complete this training and receive your university degree without travel or laborious paperwork”.

This **Postgraduate Diploma in Precision Medicine in Thoracic Oncology** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the University Expert, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional from career evaluation committees.

Title: **Postgraduate Diploma in Precision Medicine in Thoracic Oncology**

Official N° of Hours: **450 h.**



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

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



Postgraduate Diploma
Precision Medicine in
Thoracic Oncology

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

Postgraduate Diploma

Precision Medicine in Thoracic Oncology

