



# Postgraduate Certificate

### Advances in Asthma

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Technological University

» Dedication: 16h/week

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicina/postgraduate-certificate/advances-asthma

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### tech 06 | Introduction

Asthma is one of the major conditions in first world societies, where this pathology has increased in recent years. Scientific and medical efforts to find effective drug treatments or to study asthma together with other pathologies such as COPD are ongoing.

This enables an indisputable framework in the fight against this chronic disease, because now more than ever specialists can access all kinds of research and scientific developments on the subject.

TECH, together with a team of highly trained professionals in Pulmonology, has compiled in this program the most recent studies on issues such as Asthma and pregnancy, pseudoasthma, rhinitis, rhinosinusitis, pulmonary eosinophilias related to Asthma and other topics of high interest for any specialist who regularly treats patients with this pathology.

Furthermore, aware of the high-level work that specialists perform, TECH offers this program in a completely online format that respects both the professional and personal obligations of its students. Thus, the entire syllabus can be downloaded from any device with an Internet connection, being accessible at all times from the beginning of the program.

This **Postgraduate Certificate in Advances in Asthma** contains the most complete and up to date academic program on the market. Its most notable features are:

- Practical cases presented by experts in Pulmonology
- The graphic, schematic, and eminently practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where self-assessment can be used to improve learning
- Special emphasis is placed on innovative methodologies in the approach to respiratory failure and lung transplantation
- 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 be able to continue improving your professional practice thanks to the advanced knowledge of Asthma that you will have access to on this program"



Learn about new discoveries, including causative agents of occupational asthma as well as new treatments and diagnostics to address it"

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.

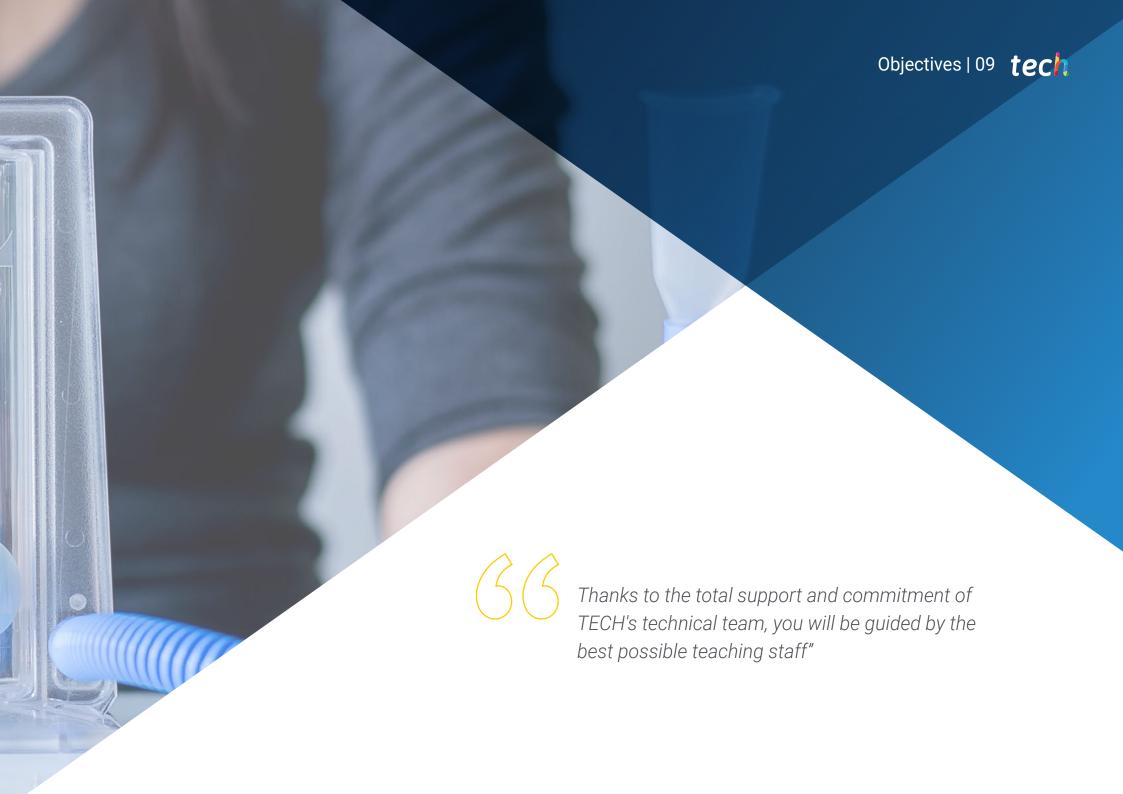
This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced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

You will have the support of a professional team with vast experience in treating and approaching Asthma.

A program adapted to your most demanding professional and personal requirements, giving you the academic flexibility you need.







## tech 10 | Objectives



### **General Objectives**

- Provide an update on the latest scientific evidence available in published guidelines, scientific articles and systematic reviews
- Address the fundamental aspects in treating pulmonary pathologies
- Update knowledge of the most frequent pathologies in Pulmonology



You will expand and update your knowledge in Asthma in a direct and fast way, without investing great effort in achieving your objectives"





### Objectives | 11 tech



# **Specific Objectives**

- Improve asthma control and patient quality of life through knowledge based on the latest scientific evidence available
- Interpret the most commonly used complementary tests in the diagnosis and monitoring of asthma patients
- Identify and manage the main comorbidities associated with asthma
- Update the maintenance treatment for asthma
- Learn to identify the subgroup of patients with severe uncontrolled asthma
- Know the different phenotypes and specific asthma treatment recommendations





#### **International Guest Director**

Dr. Franck Rahaghi is one of the most prolific international figures in the field of **Pneumology**. Noted for his leadership in quality and medical care, as well derived his commitment to clinical research, he has held several important positions at Cleveland Clinic, Florida. Notable among them are his roles as **Chairman of Quality, Medical Director of the Department of Respiratory Care and Director of the Pulmonary Hypertension Clinic**.

Thanks to his studies and continuous preparation in this discipline, he has made several contributions in the rehabilitation of patients with various respiratory pathologies. These contributions and permanent academic improvement have allowed him to assume other responsibilities such as the position of Head of the Department of Pulmonary Education and Rehabilitation. In addition, he is a member of the Internal Review Committee, responsible for supervising the correct execution of research and clinical trials (Activated Protein C and IFN gamma-1b) inside and outside the aforementioned health institution.

In his solid preparation, he has established care links with centers of excellence such as the Rockefeller University Hospital in New York, as well as the Internal Medicine programs at the University of Illinois at Chicago and the University of Minnesota. He also studied at the Department of Interventional Pulmonary Pulmonology and Pulmonary Hypertension at the University of California-San Diego. He has also participated in important academic projects as an instructor in Genetic Medicine.

Dr. Rahaghi has authored and co-authored numerous articles published in renowned scientific journals in the medical field. Among the most recent and significant studies he has unveiled are his researches on the impact of COVID-19 on the respiratory health of patients, specifically on its effects in controlling Pulmonary Hypertension.

His other fields of interest include Scleroderma, Sarcoidosis AATD and ILD/IPF. He is also a consulting member of MedEdCenter Incorporated, a non-profit corporation dedicated to providing educational materials focused on pulmonary pathologies. An initiative from where he is committed to promote the education of patients and physicians through new technologies.



# Dr. Rahaghi, Franck

- Medical Director, Department of Respiratory Care, Cleveland Clinic Hospital, Florida, USA
- Director of the Pulmonary Hypertension Clinic attached to the
- Cleveland Clinic Hospital, Florida, USA.
- Bachelor of Science (BS), Bioengineering and Biomedical Engineering from the University of San Diego.
- Master's Degree in Health Sciences/Administration at UC Berkeley



### tech 16 | Course Management

### Management



### Dr. Jara Chinarro, Beatriz

- Acting Chief of the Pulmonology Service Puerta de Hierro University Hospital.
- Degree in Medicine and Surgery, Complutense University Madrid
- MIR Pulmonary Specialist
- Specialist in sleep disorders, CEAMS



### Dr. Ussetti Gil, Piedad

- Emeritus Advisor in the Pulmonology Department, Puerta de Hierro University Hospital, Majadahonda
- Degree in Medicine and Surgery, Central University of Barcelona
- Specialist in Pulmonology
- Executive Master's Degree in Healthcare Leadership ESADE
- Honorary Professor in the Medicine Department, Autonomous University of Madrid



### Course Management | 17 tech

### **Professors**

#### Dr. Trisán Alonso, Andrea

- Specialist Physician in the Pulmonology Service, Puerta De Hierro University Hospital, Majadahonda
- Specialist Physician in Pulmonology, Puerta De Hierro University Hospital, Majadahonda
- Degree in Medicine, University of Oviedo
- Master's Degree in Advances in Diagnosis and Treatment of Airway Diseases, San Antonio Catholic University of Murcia
- Postgraduate Diploma in Severe Asthma





### tech 20 | Structure and Content

### Module 1. Asthma

- 1.1. Etiopathogenesis
  - 1.1.1. Epidemiology
  - 1.1.2. Risk factors
  - 1.1.3. Pathogenesis
- 1.2. Diagnosis
  - 1.2.1. Clinical symptoms
  - 1.2.2. Spirometry and Bronchodilator Test
  - 1.2.3. Bronchial Provocation Tests
  - 1.2.4. Fractional Exhaled Nitric Oxide (FeNO) Determination
  - 1.2.5. Induced Sputum
  - 1.2.6. Electronic Nose
  - 1.2.7. Volatile Organic Compounds in Exhaled Air
  - 1.2.8. Diagnostic Algorithm
- 1.3. Control and Severity Classification
  - 1.3.1. Control
  - 1.3.2. Severity
- 1.4. Maintenance Treatment
  - 1.4.1. Treatment Objectives
  - 1.4.2. Drugs
  - 1.4.3. Step Treatment
  - 1.4.4. Avoiding Allergens and Environment
  - 1.4.5. Education and Written Action Plans
- 1.5. Asthma Exacerbation Treatment
  - 1.5.1. Risk factors
  - 1.5.2. Severity Assessment
  - 1.5.3. Treatment according to Severity
  - 1.5.4. Emergency Discharge Criteria
  - 1.5.5. Hospitalization Criteria
  - 1.5.6. Hospital Discharge Criteria
  - 1.5.7. Outpatient Monitoring after Exacerbation





### Structure and Content | 21 tech

1	6	Severe	Uncontrolled Asthma

- 1.6.1. Epidemiology
- 1.6.2. Diagnostic Procedure
- 1.6.3. Severe Asthma Phenotypes
- 1.6.4. Treatment Algorithm

#### 1.7. Occupational Asthma

- 1.7.1. Causative Agents
- 1.7.2. Classification
- 1.7.3. Diagnosis
- 1.7.4. Treatment
- 1.7.5. Asthma Aggravated by Work

#### I.8. Nasal Pathology Associated with Asthma

- 1.8.1. Rhinitis
  - 1.8.1.1. Diagnosis
  - 1.8.1.2. Classification
  - 1.8.1.3. Treatment
- 1.8.2. Rhinosinusitis and Nasal Polyposis
  - 1.8.2.1. Diagnosis
  - 1.8.2.2. Treatment

#### 1.9. Pulmonary Eosinophilias Associated with Asthma

- 1.9.1. Chronic Eosinophilic Pneumonia
- 1.9.2. Allergic Bronchopulmonary Aspergillosis
- 1.9.3. Eosinophilic Granulomatosis with Polyangiitis

#### 1.10. Special Situations

- 1.10.1. Asthma and COPD Overlap (ACO)
- 1.10.2. Respiratory Disease Exacerbated by Acetylsalicylic Acid
- 1.10.3. Asthma and Pregnancy
- 1.10.4. Exercise-Induced Asthma
- 1.10.5. Pseudoasthmas





### tech 24 | Methodology

#### At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.



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.



### Methodology | 27 tech

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.

## tech 28 | Methodology

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**

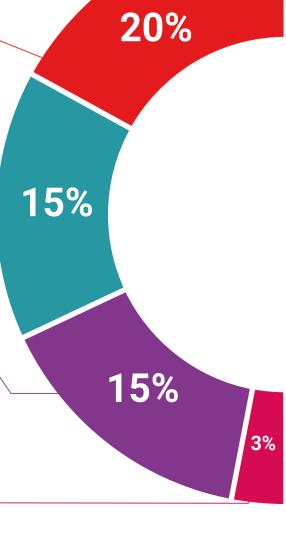
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many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



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20%





### tech 32 | Certificate

This **Postgraduate Certificate in Advances in Asthma** contains the most complete and up-to-date scientific program on the market.

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

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

Title: Postgraduate Certificate in Advances in Asthma Official N° of Hours: 150 h.



#### POSTGRADUATE CERTIFICATE

in

#### Advances in Asthma

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

The qualification must always be accompared by the university degree issued by the competent authority to practice professionally in each country.

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<sup>\*</sup>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.

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institutions technology learning
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- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online



