

# Postgraduate Certificate Advances in COPD





## Postgraduate Certificate Advances in COPD

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

Website: [www.techtute.com/us/medicine/postgraduate-certificate/advances-copd](http://www.techtute.com/us/medicine/postgraduate-certificate/advances-copd)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 18*

05

Methodology

---

*p. 22*

06

Certificate

---

*p. 30*

# 01

# Introduction

As one of the four leading causes of death in the world, Chronic Obstructive Pulmonary Disease (COPD) research is of interest to Pulmonology specialists all over the world. This has led to numerous advances in recent years, because despite the prevalence of this pathology, its diagnosis is complex and sometimes erroneous. For this reason, TECH has compiled in this program the main developments that have taken place in recent years regarding this pathology. This includes an innovative approach to smoking in COPD, as well as the most recent non-pharmacological treatments and rehabilitation and physical activity in COPD patients.





“

*Learn about the latest studies on  
vaccination, oxygen therapy and  
nutrition for COPD patients”*

Underdiagnosis in COPD affects approximately 80% of patients with this pathology, so the specialist's continuous knowledge plays a key role in addressing this kind of pathology in an efficient way.

The program places special emphasis on COPD comorbidities and their impact on COPD mortality, as well as treating possible exacerbations of the disease and how to classify its severity according to the current standards.

Thanks to recent advances in inhaled and oral medication, patient prognosis can be significantly improved, so an entire topic is also devoted to the findings made in COPD pharmacology in recent years.

A Postgraduate Certificate that meets the highest expectations, an online program that allows students to balance their professional, academic and personal lives. The syllabus is fully available to be downloaded or consulted at any time of the day and from any device with an Internet connection. This allows the specialist to decide when, where and how to take on the entire teaching load.

In this program, a leading guest expert will give exclusive masterclasses. Participants will be able to delve deeper into innovations in the discipline. This comprehensive review of the advances and techniques in this medical area will enable participants to quickly incorporate the knowledge into their clinical practice.

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

- ◆ Practical cases presented by experts in Pulmonology
- ◆ 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
- ◆ The practical exercises where the self-evaluation process can be carried out to improve the learning process
- ◆ Its special application of innovative methodologies for the approach to respiratory insufficiencies
- ◆ Theoretical lessons, questions to the expert, forums for discussion of controversial topics and individual reflection work
- ◆ The availability of access to the contents from any fixed or portable device with internet connection



*Thanks to TECH's advanced pedagogical methodology, you won't have to invest large amounts of time or effort to meet the program's objectives"*

“

*Join the world's largest online university, with more than 10,000 programs offered and more than 5,000 highly prestigious professors in a multitude of areas”*

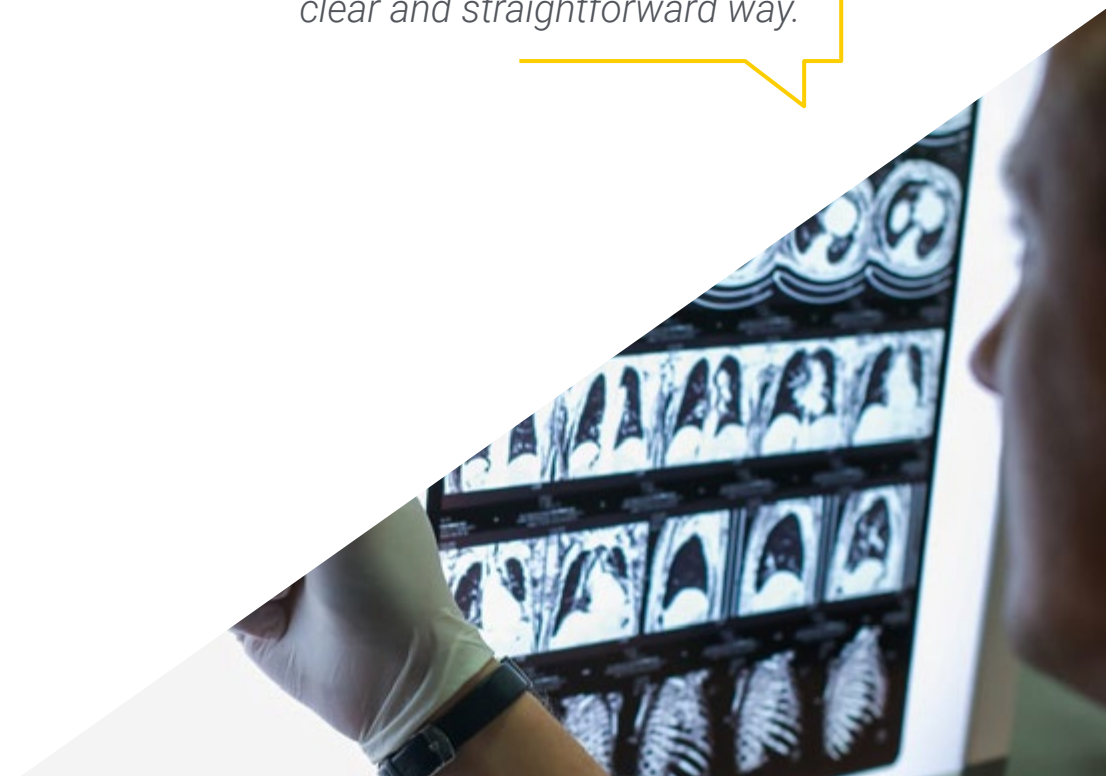
*This program adapts to your hectic and changing pace of life, allowing you to study when it suits you best.*

*Supported by high quality audiovisual material, you will be able to update and expand your knowledge of COPD in a clear and straightforward way.*

The program includes, in its teaching staff, professionals from the sector who pour into this program the experience of their work, in addition to recognized specialists from prestigious reference societies and universities.

Its 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 an immersion education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. To do so, they will be assisted by an innovative interactive video system created by recognized experts.



# 02 Objectives

Since COPD is such a high cause of mortality and is so widespread throughout the Western population, it is essential that the specialist has access to the most recent advances in the approach to this type of pathology. Therefore, TECH has assembled a team of experts in the field, ensuring that the specialist has access to an updated program that incorporates the latest advances and developments in the diagnosis, treatment and epidemiology of COPD.







“

*You will achieve your professional goal of continuing your education before you even finish your studies in a gradual and natural way”*



## General Objectives

---

- ◆ Provide an update on the latest scientific evidence available in published guidelines, scientific articles and systematic reviews
- ◆ Address the fundamental aspects for the care practice of pneumological pathologies
- ◆ Improve the knowledge of pulmonologists and other medical specialists on the most frequent pathologies in the area of Pneumology





## Specific Objectives

---

- ◆ Develop professional competencies aimed at optimizing comprehensive patient-centered care based on the latest available evidence
- ◆ Know how to manage the main comorbidities associated with COPD
- ◆ Gain up-to-date knowledge on the maintenance treatment of COPD



*A prestigious academic and technical team will be at your disposal to solve any kind of doubt that may arise during the program"*

# 03

## Course Management

The direction of this program is composed of great professionals of Pneumology, with experience in the direction and management of areas of this service. This gives the didactic material a unique quality, as it incorporates all the most useful theoretical and practical innovations for the specialist who is looking for a complete revision of his knowledge. Thanks to their vast expertise, the clinical cases and practical exercises proposed are adapted to the reality of the most recent and current COPD treatments.





“

*The personalization of contents and exercises that you will appreciate throughout the program is a sign of the high quality of its contents, designed to bring you up to date on everything concerning COPD”.*

## 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

“

*Thanks to TECH you will be able to learn with the best professionals in the world"*

## Management



### Dr. Jara Chinarro, Beatriz

- ♦ Head of the Pneumology Service at University Hospital Puerta de Hierro Majadahonda
- ♦ Responsible for the Basic Sleep Unit at the University Hospital Puerta de Hierro Majadahonda.
- ♦ Specialist in the Pneumology Area at the University Hospital Puerta de Hierro Majadahonda.
- ♦ Clinical Research
- ♦ Author of several scientific publications on Pneumology.



### Dr. Ussetti Gil, Piedad

- ♦ Head of the Pneumology Service at University Hospital Puerta de Hierro Majadahonda
- ♦ Director of the Pneumology Research Group at the Institute of Sanitary Research Puerta de Hierro-Segovia de Arana
- ♦ Associate Professor of Pneumology at the Autonomous University of Madrid.
- ♦ Specialist in Pulmonology
- ♦ Degree in Medicine and Surgery from the Central University of Barcelona.
- ♦ Executive Master's Degree in Healthcare Leadership from ESADE.
- ♦ Pneumologist of the Year Award 2021 by the Madrid Society of Pneumology and Thoracic Surgery (Neumomadrid).
- ♦ Member of the Spanish Society of Pneumology and Thoracic Surgery (SEPAR).



## Professors

### Dr. Malo de Molina Ruiz, Rosa

- ◆ Pulmonology at the Puerta de Hierro Majadahonda University Hospital
- ◆ Specialist in Pulmonology
- ◆ Teacher in University studies in Medicine
- ◆ Author of numerous scientific publications

### Dra. Alcorta Mesas, África

- ◆ Specialist in Pneumology at the Infanta Leonor University Hospital. Madrid
- ◆ Active member of the COPD, Tobacco and Sleep/Ventilation working groups of the Madrid Society of Pneumology and Thoracic Surgery (Neumomadrid)
- ◆ Degree in Medicine from the Complutense University of Madrid
- ◆ Specialist in Pneumology from the General University Hospital Gregorio Marañón
- ◆ Master in Management of Clinical Units by the Catholic University San Antonio
- ◆ Master's Degree in Smoking Control and Treatment, Catholic University of San Antonio
- ◆ Master in Diagnosis and Treatment of Airway Diseases by the Catholic University San Antonio
- ◆ International Expert in Methodology Applied to Non Invasive Ventilation by the International School of Non Invasive Mechanical Ventilation
- ◆ Expert Course in Smoking by the Spanish Society of Pneumology and Thoracic Surgery (SEPAR)

### Dra. Gómez Punter, Rosa Mar

- ◆ Specialist in Pneumology at the La Princesa University Hospital.
- ◆ Master in Advances in Diagnosis and Treatment of Airway Diseases by the Catholic University San Antonio.
- ◆ Master in Smoking by the Catholic University San Antonio
- ◆ Degree in Medicine and Surgery from the University of Valencia

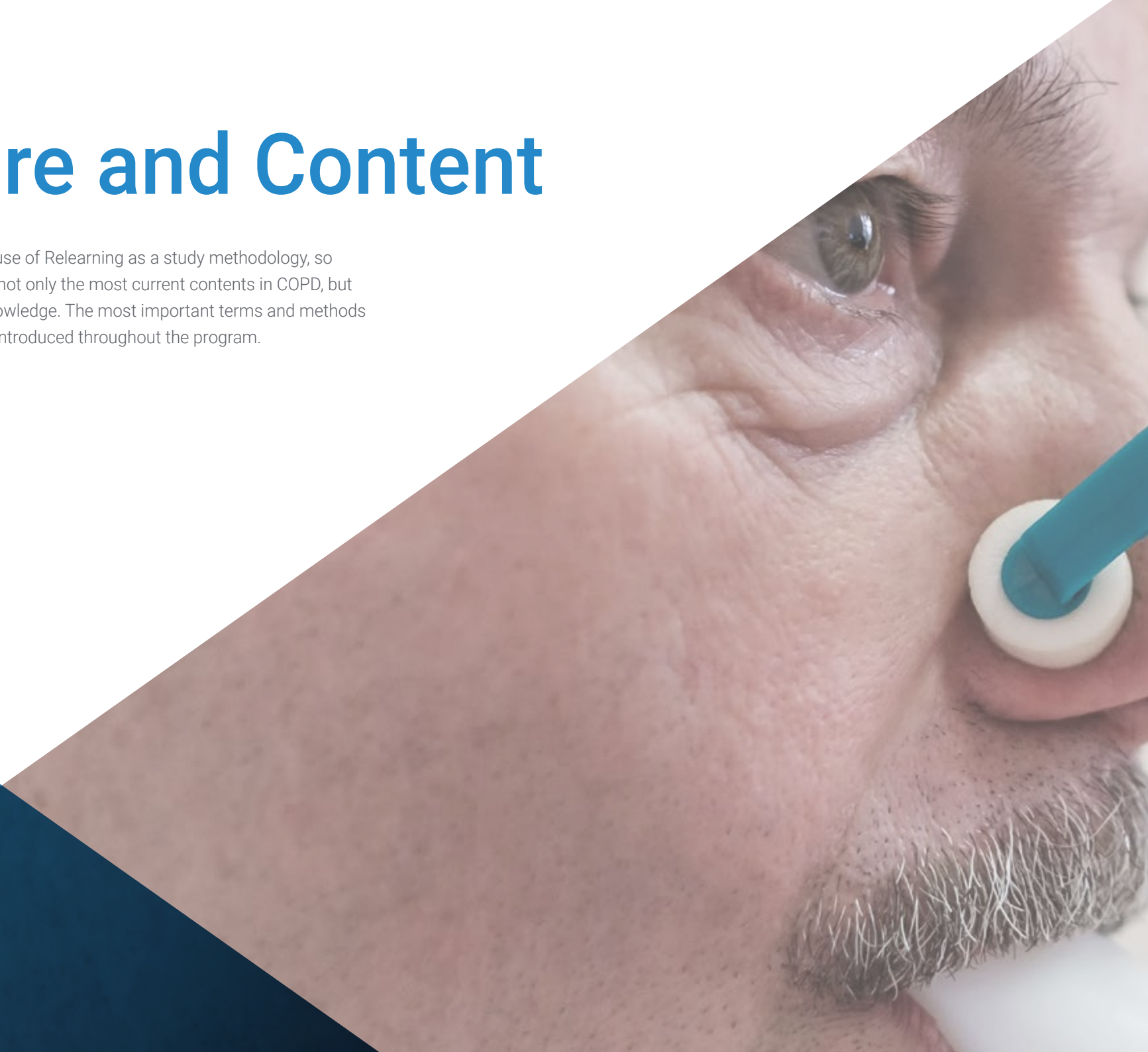
### Dr. Salgado Aranda, Sergio

- ◆ Specialist in Thoracic Oncology.
- ◆ Pneumologist at the University Hospital of Southeast Arganda del Rey, Spain
- ◆ Pneumologist at the Zuber Medical Center
- ◆ Specialist in Pneumology at the Tajo University Hospital.
- ◆ Professor in Thoracic Oncology in the postgraduate program.
- ◆ Degree in Medicine from the Complutense University of Madrid.
- ◆ Master in Advances in Diagnosis and Treatment of Airway Diseases by the Catholic University San Antonio.
- ◆ University Expert in Bronchiectasis by the Alcalá University.
- ◆ University Expert in Contamination and Respiratory Diseases by the University CEU San Pablo

# 04

## Structure and Content

TECH is a pioneer university in the use of Relearning as a study methodology, so specialists will find in this program not only the most current contents in COPD, but also the best way to renew their knowledge. The most important terms and methods will be gradually and progressively introduced throughout the program.





“

*A large number of practical exercises and real clinical cases will complement the advanced and technical knowledge in COPD that you will access on this program”*

## Module 1. Chronic Obstructive Pulmonary Disease

- 1.1. Etiopathogenesis.
  - 1.1.1. Epidemiology
  - 1.1.2. Risk Factors
  - 1.1.3. Pathogenesis.
- 1.2. Pathophysiology of COPD and Clinical Presentation
  - 1.2.1. Pathophysiology
  - 1.2.2. Clinical Manifestations
- 1.3. Diagnosis and Characterization
  - 1.3.1. Diagnosis: Medical History, Physical Examination, Imaging Tests, Clinical Analysis and Functional Respiratory Examination
  - 1.3.2. Characterization
    - 1.3.2.1. By Severity of the Pulmonary Obstruction
    - 1.3.2.2. By Clinical Type: Emphysema and Chronic Bronchitis
    - 1.3.2.3. By Exacerbation Risk
    - 1.3.2.4. By Symptoms
- 1.4. Classification of COPD According to the Guides of COPD: GOLD (Global Initiative for Chronic Obstructive Lung Disease)
  - 1.4.1. GOLD Guide
    - 1.4.1.1. GOLD A
    - 1.4.1.2. GOLD B
    - 1.4.1.3. GOLD C
    - 1.4.1.4. GOLD D
    - 1.4.1.5. Monitoring
- 1.5. Pharmacological Treatment of Maintenance
  - 1.5.1. Treatment Objectives
  - 1.5.2. Drugs:
    - 1.5.2.1. Inhaled Treatment
      - 1.5.2.1.1. Bronchodilators
      - 1.5.2.1.2. Inhaled Corticosteroids
    - 1.5.2.2. Oral Treatment
      - 1.5.2.2.1. Theophylline
      - 1.5.2.2.2. Roflumilast
      - 1.5.2.2.3. Azithromycin
- 1.6. Smoking Management in COPD
  - 1.6.1. Epidemiology
  - 1.6.2. Diagnosis of Smoking in COPD
  - 1.6.3. Non-Pharmacological Therapeutic Interventions
  - 1.6.4. Pharmacological Therapeutic Interventions
- 1.7. Non-Pharmacological Treatment
  - 1.7.1. Oxygen Therapy and NIMV
  - 1.7.2. Vaccines
  - 1.7.3. Nutrition
  - 1.7.4. Palliative Treatment of Dyspnea
  - 1.7.5. Reduction of Pulmonary Volume Due to Broncoscopy
  - 1.7.6. Surgery: Reduction of Volume and Pulmonary Transplant
- 1.8. Exacerbation of COPD
  - 1.8.1. Etiology and Pathogenesis
  - 1.8.2. Classification of Severity
  - 1.8.3. Treatment
- 1.9. Comorbidities



- 1.9.1. Prevalence
- 1.9.2. Impact on Mortality
- 1.9.3. Screening and Management
- 1.10. Rehabilitation and Physical Activity in COPD
  - 1.10.1. Rehabilitation in COPD
    - 1.10.1.1. Benefits
    - 1.10.1.2. Indications
    - 1.10.1.3. Structure of a Rehabilitation Project
    - 1.10.1.4. Rehabilitation After the Exacerbation of COPD
    - 1.10.1.5. Special Situations
  - 1.10.2. Physical Activity
    - 1.10.2.1. Measurement
    - 1.10.2.2. Interventions

“ *Practical guides and interactive summaries will help ease the course load, making them a must-have during your studies* ”

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. 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.*



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 Certificate in Advances in COPD guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



“

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

This program will allow you to obtain your **Postgraduate Certificate in Advances in COPD** endorsed by **TECH Global University**, the world's largest online university.

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

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

Title: **Postgraduate Certificate in Advances in COPD**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



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



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 Certificate Advances in COPD

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

# Postgraduate Certificate Advances in COPD

