

# Postgraduate Certificate

## Respiratory Techniques in Physiotherapy





## Postgraduate Certificate Respiratory Techniques in Physiotherapy

Course Modality: **Online**

Duration: **6 weeks**

Endorsed by: **TECH - Technological University**

**6 ECTS credits**

Teaching Hours: **150 hours.**

Website: [www.techtitute.com/us/physiotherapy/postgraduate-certificate/respiratory-techniques-physiotherapy](http://www.techtitute.com/us/physiotherapy/postgraduate-certificate/respiratory-techniques-physiotherapy)

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01

# Introduction

With this high-level training you will take a journey through the history of respiratory physiotherapy, to know in depth the current state of this increasingly valued and useful technique, and the importance of knowing the physiological mechanisms of the respiratory system that will allow you to understand the techniques of respiratory physiotherapy.





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*A complete Postgraduate Certificate created for physiotherapy professionals, which will allow you to combine your training with other occupations and access from anywhere with total flexibility”*

Respiratory physiotherapy is part of physiotherapy, but focusing on the pathophysiology of the respiratory system, both medical and surgical, requiring a demanding knowledge of the respiratory system and the existing techniques for its treatment, healing and stabilization.

The disciplinary consideration of respiratory physiotherapy with a scientific-technical basis began in the late twentieth century, thanks to technological advances that allow measuring respiratory work and techniques, and is currently becoming necessary and essential in different hospital units. Therefore, it is essential that physical therapists update their knowledge in respiratory physiotherapy and acquire new techniques and tools to apply in their daily practice.

Physiotherapy is considered one of the therapeutic pillars in the management of patients with pulmonary diseases, whether obstructive or restrictive, chronic or acute.

The increase in the incidence of respiratory pathologies that we are going to see during this Postgraduate Certificate, both in children and adults, considerably affects the quality of life of the patients who suffer from them, as well as our health system, with a high social and economic cost due to hospitalization days, sick leave and early death.

The Postgraduate Certificate has a teaching staff specialized in respiratory physiotherapy, who contribute both their practical experience in their day-to-day work in private practice, as well as their lengthy experience in teaching at national and international level. In addition, it has the advantage of being a 100% online training, so the student can decide from where to study and at what time to do it, in this way, they can flexibly self-direct their study hours.

This **Postgraduate Certificate in Respiratory Techniques in Physiotherapy** contains the most complete and up-to-date scientific program on the market. The most important features of the course are:

- ♦ The latest technology in online teaching software
- ♦ A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- ♦ Practical cases presented by practising experts
- ♦ State-of-the-art interactive video systems.
- ♦ Teaching supported by telepractice
- ♦ Continuous updating and recycling systems
- ♦ Autonomous learning: full compatibility with other occupations
- ♦ Practical exercises for self-evaluation and learning verification
- ♦ Support groups and educational synergies: questions to the expert, debate and knowledge forums.
- ♦ Communication with the teacher and individual reflection work
- ♦ Content that is accessible from any fixed or portable device with an Internet connection
- ♦ Supplementary documentation databases are permanently available, even after the course



*A complete and practical Postgraduate Certificate that will allow you to learn in a real and direct way everything you need to work as a physiotherapist"*

“ *An effective and reliable Postgraduate Certificate that will take you through an interesting and efficient learning process so that you acquire all the knowledge of an expert in the field*”

Our teaching staff is made up of working professionals. In this way, we ensure that we provide you with the training update we are aiming for. A multidisciplinary team of professionals trained and experienced in different environments, who will cover the theoretical knowledge in an efficient way, but, above all, will put the practical knowledge derived from their own experience at the service of the course: one of the differential qualities of this course.

This mastery of the subject is complemented by the effectiveness of the methodological design of this Postgraduate Certificate. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. This way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in your training.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice: with the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

*With a methodological design based on proven teaching techniques, this Postgraduate Certificate will take you through different teaching approaches to allow you to learn in a dynamic and effective way*



# 02 Objectives

This comprehensive Postgraduate Certificate has been created from start to finish, to become a tool for personal and professional growth for physiotherapists. Its objective is to take you through a training course that will allow you to acquire the most up-to-date knowledge and techniques for the most advanced and competitive practice in this field.







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*With a real practical objective, this Postgraduate Certificate will allow you to achieve your goals by boosting your CV to excellence”*



## General Objectives

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- Promote specialization in respiratory physiotherapy
- Update knowledge and manage physiotherapy in different patients with respiratory pathologies
- Have knowledge of the pathophysiology and advanced exploration of the respiratory system
- Execute, direct and coordinate the Respiratory Physiotherapy intervention plan for each patient





## Specific Objectives

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- In-depth knowledge of the physiological mechanisms of the respiratory system
- Gain in-depth knowledge of the treatment techniques in respiratory physiotherapy
- Applying different techniques
- Handling of instrumental devices



# 04

# Course Management

For our course to be of the highest quality, we are proud to work with a teaching staff of the highest level, chosen for their proven track record. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.





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*With the expertise of industry professionals who will teach you based on the reality of the sector in a contextual and realistic learning”*

## Management



### Mr. García Coronado, Luis Pablo

- Physiotherapist at La Paz University Hospital
- Supervisor of the Physiotherapy Department at La Paz University Hospital.
- Specialist in sports Physiotherapy, Re-training, electrotherapy, Pilates and Therapeutic exercise.
- Director at Fisioespaña C. B.
- Director at Fisioganas S.L.
- Director at Pilates Wellness & Beauty S.L.



## Professors

### Ms. Peroy Badal, Renata

- ♦ Physiotherapist in charge of Respiratory Rehabilitation for COPD patients. Virgen de la Torre hospital.
- ♦ Respiratory physiotherapy in critical patients admitted to the ICU and in pre- and postoperative patients undergoing abdominal surgery discharged from the inpatient unit.
- ♦ Respiratory physiotherapy in adult and pediatric patients with spinal cord injuries and different neuromuscular pathologies associated with respiratory disorders
- ♦ Degree in Physiotherapy: 1996-1999 Gimbernat University School of Nursing and Physiotherapy (Autonomous University of Barcelona)
- ♦ Graduate in Physiotherapy: 2013-2014 Complutense University of Madrid with the dissertation "Health Education in Respiratory Rehabilitation in COPD in primary care".
- ♦ Official Master's Degree in Respiratory and Cardiac Physiotherapy: 2015-2016. ONCE University School of Physiotherapy (Complutense University of Madrid)
- ♦ D.U in respiratory and cardiovascular kinesitherapy 2007-2008. Université Claude Bernard-lyon with the article "Education before upper abdominal surgery: patient-physiotherapist co-construction of a therapy booklet".

# 05

# Structure and Content

The contents of this Postgraduate Certificate have been developed by the different teachers of this course, with a clear purpose: to ensure that our students acquire each and every one of the skills required to become true experts in this field.

A complete and well-structured program that will take you to the highest standards of quality and success.







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*A very complete syllabus that will take you gradually through each and every one of the learning processes that the Respiratory Physiotherapy professional needs. With an added bonus: the commitment to excellence that characterizes us"*

## Module 1. Respiratory Techniques in Physiotherapy

- 1.1 Historical Evolution of Respiratory Physiotherapy
  - 1.1.1. Different Schools of Respiratory Physiotherapy
  - 1.1.2. Different Classification of Respiratory Physiotherapy
- 1.2 Objectives of Respiratory Physiotherapy
  - 1.2.1. General Objectives
  - 1.2.2. Specific Objectives
- 1.3 Physiologic Mechanisms for Understanding Respiratory Physiotherapy Techniques
  - 1.3.1. Rocher Equation
  - 1.3.2. Poiseuille's Law
  - 1.3.3. Collateral Ventilation
- 1.4 Treatment Techniques in Respiratory Physiotherapy
  - 1.4.1. Forced Inspiratory Techniques
  - 1.4.2. Slow Expiratory Techniques
  - 1.4.3. Forced Expiratory Techniques
  - 1.4.4. Slow Inspiratory Techniques
- 1.5 Secretion Drainage Techniques
  - 1.5.1. Techniques Based on Gravity
  - 1.5.2. Techniques Based on Shock Waves
  - 1.5.3. Techniques Based on Air Flow
- 1.6 Lung Expansion Techniques
  - 1.6.1. EDIC
  - 1.6.2. Encouraged Spirometry
  - 1.6.3. Air Staking
- 1.7 Ventilatory Techniques
  - 1.7.1. Directed Costal Ventilation Technique
  - 1.7.2. Targeted Abdomino-Diaphragmatic Ventilation Technique





- 1.8 Instrumental Devices
  - 1.8.1. Cough Assist ®
  - 1.8.2. Vibration Vests ®
  - 1.8.3. Percussionaire ®
  - 1.8.4. Pep Devices
- 1.9 Aerosol Therapy
  - 1.9.1. Type of Nebulizers
  - 1.9.2. Type of Inhalers
  - 1.9.3. Inhalation Technique
- 1.10 Health Education and Relaxation
  - 1.10.1. Importance of Health Education in Chronic Pathologies
  - 1.10.2. Importance of Relaxation in Chronic Pathologies



*A comprehensive teaching program, structured in well-developed teaching units, oriented toward a high impact learning and training"*

# 05

# Methodology

This training provides you with a different way of learning. Our methodology uses a cyclical learning approach: **Re-learning**.

This teaching system is used 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.





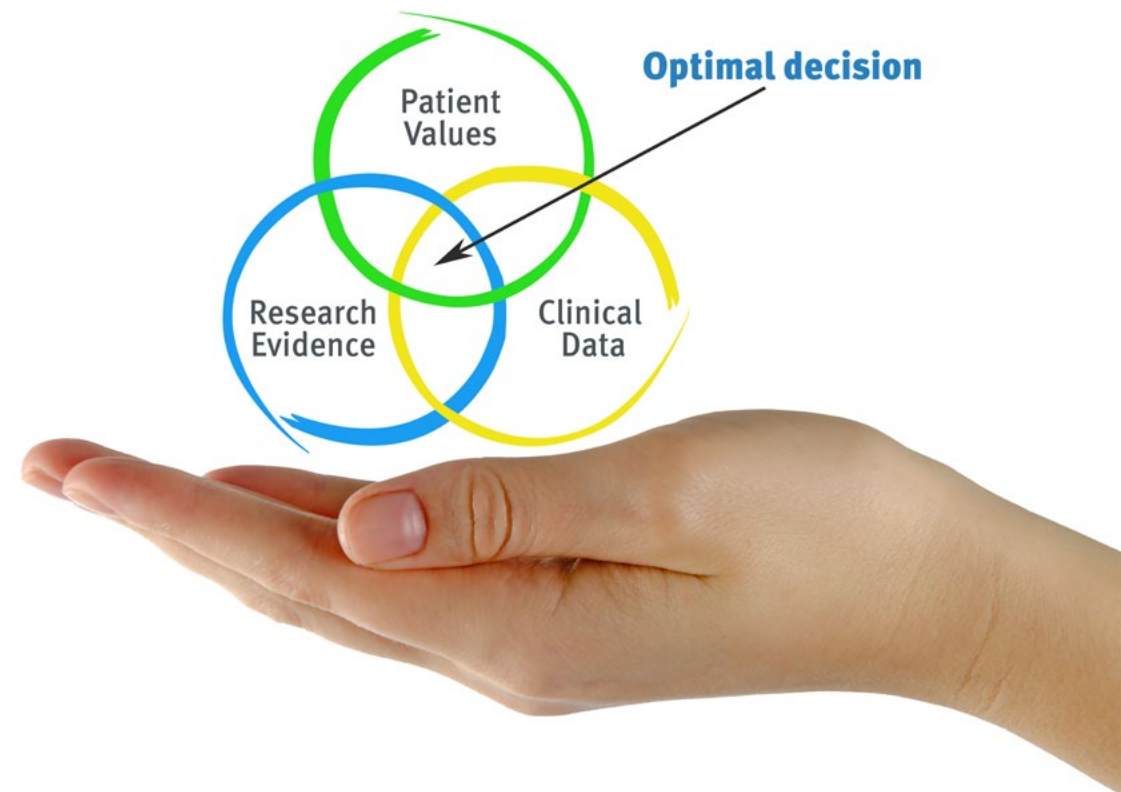
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*Discover Re-learning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH we use the Case Method

In a given clinical situation, what would you do? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method. Physiotherapists/kinesiologists learn better, faster, and more sustainably over time.

*With TECH you can 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 potential 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 of professional physiotherapy practice.

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*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. Physiotherapists/kinesiologists who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the physiotherapist/kinesiologist 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.



## Re-Learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our 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, which represent a real revolution with respect to simply studying and analyzing cases.



*The physiotherapist/kinesiologist will learn through real cases and by solving 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 Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we trained more than 65,000 physiotherapists/kinesiologists with unprecedented success, in all clinical specialties regardless of the workload. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*Re-learning will allow you to learn with less effort and better performance, involving you more in your training, 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 (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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



In this program you will have access to the best educational material, prepared with you 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 really 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.



#### Physiotherapy Techniques and Procedures on Video

We introduce you to the latest techniques, the latest educational advances, and the forefront of physiotherapy and kinesiology procedures and techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### Interactive Summaries

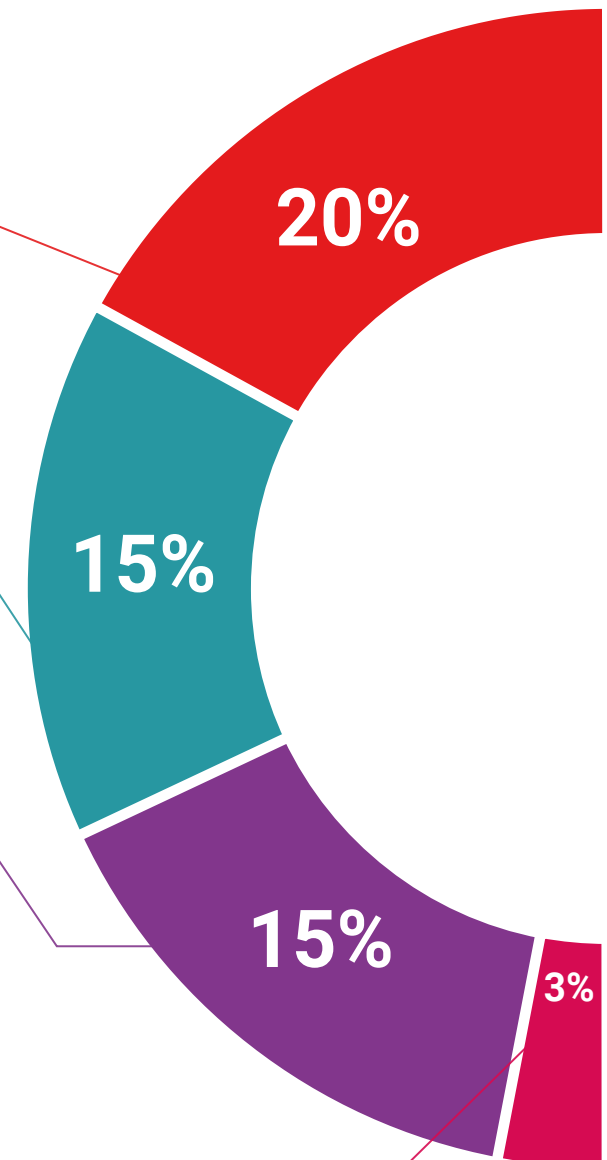
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

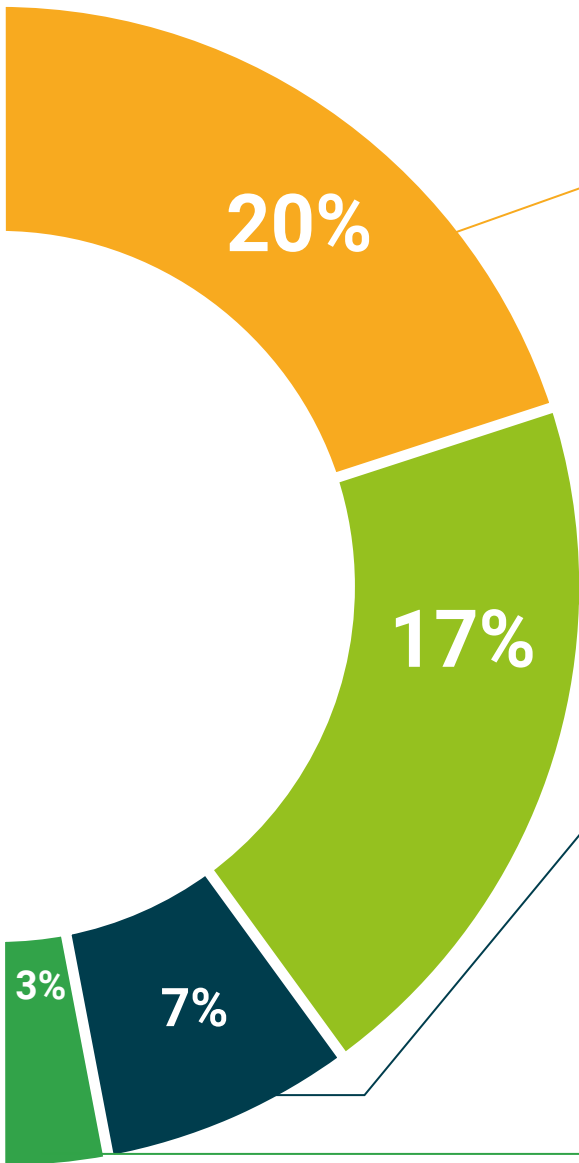
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### Additional Reading

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





**Expert-Led Case Studies and Case Analysis**

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



**Testing & Re-testing**

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



**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 in our future difficult decisions.



**Quick Action Guides**

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.



# 06 Certificate

The Postgraduate Certificate in Respiratory Techniques in Physiotherapy guarantees, in addition to the most rigorous and up-to-date training, access to a Postgraduate Certificate issued by TECH-Technological University.





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*Include in your training a Postgraduate Certificate in Respiratory Techniques in Physiotherapy: a highly qualified added value for any physiotherapy professional”*

This **Postgraduate Certificate in Respiratory Techniques in Physiotherapy** contains the most complete and up-to-date scientific program on the market.

After students have passed the evaluations, they will receive their corresponding **Postgraduate Certificate** issued by **TECH - Technological University** via tracked delivery.

The certificate 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.

Title: **Postgraduate Certificate in Respiratory Techniques in Physiotherapy**

ECTS: **6**

Nº Hours: **150**



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**  
Respiratory Techniques  
in Physiotherapy

Course Modality: Online

Duration: 6 weeks

Endorsed by: TECH - Technological University

6 ECTS credits

Teaching Hours: 150 hours.

# Postgraduate Certificate

## Respiratory Techniques in Physiotherapy

