

# Postgraduate Certificate

Respiratory Physiotherapy for Critical Patients in Rehabilitation Medicine





## Postgraduate Certificate Respiratory Physiotherapy for Critical Patients in Rehabilitation Medicine

- » 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/respiratory-physiotherapy-critical-patients-rehabilitation-medicine](http://www.techtute.com/us/medicine/postgraduate-certificate/respiratory-physiotherapy-critical-patients-rehabilitation-medicine)

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# 01

# Introduction

Patients in a critical condition require the intervention of rehabilitation physicians who are able to use physiotherapy methods to improve their breathing capacity. If your objective is to specialize in this field, don't think twice and come study with us. We offer you the best academic program on the market and the opportunity to study with a teaching staff of renowned professionals in the sector.





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*Improve your skills in caring for critical patients,  
applying the main techniques of respiratory  
physiotherapy”*



Once the critical patient is stabilized in the ICU, the only technique that can improve their condition is respiratory physiotherapy. For this reason, the figure of the rehabilitation physician in ICU and in caring for critical patients is increasingly in demand. To meet the training needs of these professionals, TECH has designed this comprehensive Postgraduate Certificate, with the participation of expert professors in this field, who have extensive work and teaching experience.

A teaching program that will give you the opportunity to acquire the necessary skills to work with critical patients in different hospital departments, providing all your value and ability to achieve the recovery of the patients, and using therapeutic physiotherapy, which has been considered as one of the pillars in the management of this type of patients.

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. Highly trained professionals are required to offer personalized treatments that allow patients to recover effectively.

The Postgraduate Certificate has specialised teaching staff in Respiratory Physiotherapy, who contribute both their practical experience from their day-to-day work in practice, as well as their extensive experience in teaching at a national and international level. In addition, it has the advantage of being a 100% online training, so the student can decide when and where to study. This way, you will be able to flexibly self-direct your study hours.

This **Postgraduate Certificate in Respiratory Physiotherapy for Critical Patients in Rehabilitation Medicine** contains the most complete and up-to-date scientific program on the market. The most important features of the program include:

- Clinical cases presented by experts in Respiratory Physiotherapy.
- 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.
- The presentation of practical workshops on procedures and techniques.
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course.
- Action protocols and clinical practice guidelines, which cover the most important and latest developments in this specialist area.
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments.
- Special emphasis on test-based medicine and research methodologies.
- Content that is accessible from any fixed or portable device with an Internet connection.



*This Postgraduate Certificate is the best option you can find to increase your knowledge on Respiratory Physiotherapy and add another dimension to your professional career"*

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*This program is the best investment you can make when studying a specialist course to update your knowledge in Respiratory Physiotherapy”*

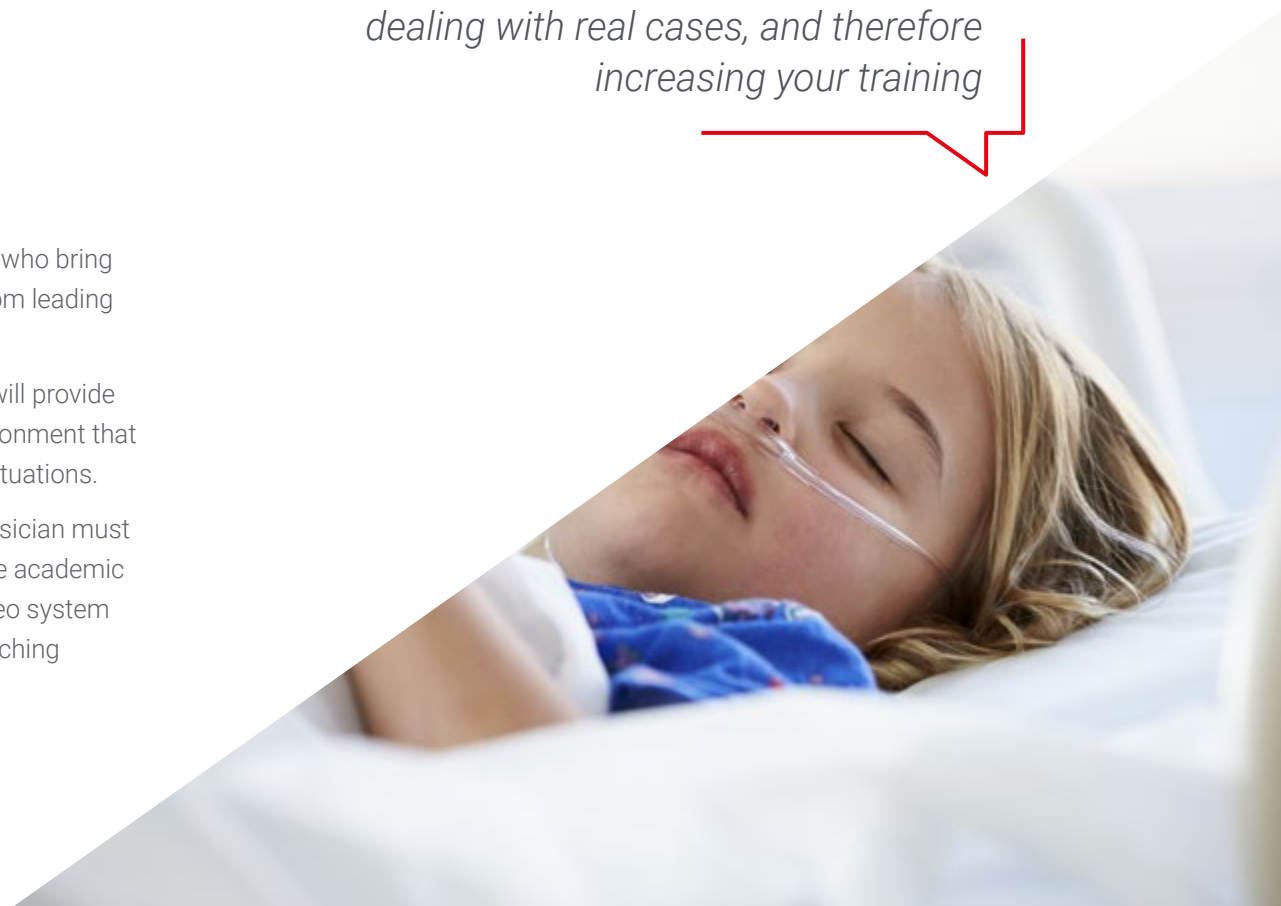
*This 100% online Postgraduate Certificate will allow you to study from anywhere in the world. All you need is a computer or mobile device with an internet connection*

*Our innovative teaching methodology will allow you to study as if you were dealing with real cases, and therefore increasing your training*

The teaching staff includes a team of rehabilitation medicine professionals, who bring their experience to this training program, as well as renowned specialists from leading scientific societies.

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 an immersive training experience designed to train for real-life situations.

This program is designed around Problem Based Learning, whereby the physician must try to solve the different professional practice situations that arise during the academic course. For this reason, you will be assisted by an innovative, interactive video system created by renowned and experienced experts in the field with extensive teaching experience.



# 02 Objectives

The Postgraduate Certificate in Respiratory Physiotherapy for Critical Patients in **Rehabilitation Medicine** is aimed at facilitating the medical professional's performance with the latest advances and most innovative treatments in the sector. Its objective is to take you through a training that will allow you to acquire the most updated knowledge for the most advanced and competitive praxis in this field.







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*With a real practical objective, this course will allow you to achieve your training goals by boosting your CV to a higher level of excellence”*



## General Objectives

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- Promote specialization in respiratory physiotherapy.
- Gain up-to-date knowledge of how to manage physiotherapy in different patients with respiratory pathologies.
- Possess knowledge of the pathophysiology and advanced exploration of the respiratory system.
- Execute, direct and coordinate the respiratory physiotherapy intervention plan for each patient.

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*Highly specialized objectives  
in a training course created to  
train the best professionals in  
Respiratory Physiotherapy”*





## Specific Objectives

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- Delve into respiratory physiotherapy in ICUs.
- Manage the different respiratory techniques in critical patients.
- Apply pre/post surgery exercise programs.



# 03

# Course Management

The materials in the course have been created by a team of leading professionals in Respiratory Physiotherapy, who work in the main reference hospitals, bringing to the program the experience they have gained in their jobs throughout their careers.





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*The best professionals in this area have joined forces to offer you the most specialized and up-to-date knowledge in the field"*



## Management



### 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.

## Professor

### **Pérez-Esteban Luis-Yagüe, Teresa**

- Physiotherapist at Gregorio Marañón General University Hospital. November 2019-20 septiembre 2020
- Specialist in Respiratory Physiotherapy. University of Castilla La Mancha-Toledo
- Master's Degree in Manual Physical Therapy of the Locomotor System. University of Alcalá-Madrid
- Degree in Physiotherapy. Pontificia University of Salamanca, Salus Infirmorum-Madrid
- Online course of Basic Radiology for Physical Therapists.
- Therapeutic exercise update program by the Consejo Gral. Colegios de Fisioterapeutas de España (Spanish General Council of Physiotherapists' Associations)



04

# Structure and Content

The structure of the syllabus has been designed by a team of professionals who understand the implications of medical training in the approach to patients, who are aware of the relevance of current training and are committed to quality teaching through new educational technologies.





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



## Module 1. Respiratory Physiotherapy in Critically Ill Patients

- 1.1. Critical Patients
  - 1.1.1. Definition
  - 1.1.2. Different Critical Patient Work Units
  - 1.1.3. Multidisciplinary Work Team
- 1.2. Critical Unit
  - 1.2.1. Basic Knowledge of Patient Monitoring
  - 1.2.2. Different Oxygen Support Devices
  - 1.2.3. Health Worker Protection
- 1.3. Physiotherapy in the ICU
  - 1.3.1. Intensive Care Unit
  - 1.3.2. Role of the Physiotherapist in this Unit
  - 1.3.3. Systems of Mechanical Ventilation Monitoring of Mechanical Ventilation
- 1.4. Physiotherapy in the Thoracic Area
  - 1.4.1. Thoracic Resuscitation Unit
  - 1.4.2. Pleure-back and Pulmonary Drainage Devices
  - 1.4.3. Basic Notions in Thoracic Radiography
- 1.5. Physiotherapy in the Coronary Unit
  - 1.5.1. Cardiac Pathology Sternotomies
  - 1.5.2. Main Heart Surgeries and Treatment
  - 1.5.3. Breathing Exercise Programs Pre/Post Surgery
  - 1.5.4. Complications and Contraindications







- 1.6. Physiotherapy in Neuromuscular Patients
  - 1.6.1. Concept on Neuromuscular Diseases (NMD) and Main Characteristics
  - 1.6.2. Respiratory Alterations in ENM and Complications with Hospital Admission
  - 1.6.3. Main Respiratory Physiotherapy Techniques Applied to NME (Hyperinflation and Assisted Cough Techniques)
  - 1.6.4. Phonatory Valve and Suction Techniques
- 1.7. URPA
  - 1.7.1. Post-Anesthesia Resuscitation Unit
  - 1.7.2. Sedation. Basic Concepts of Pharmacology
  - 1.7.3. Importance of Early Mobilization of Patients and Sedation
- 1.8. Physiotherapy in Neonatal ICU and Pediatrics
  - 1.8.1. Embryonic Factors: Antenatal and Postnatal Factors that Determine Lung Development
  - 1.8.2. Frequent Respiratory Pathologies in Neonatology and Pediatrics
  - 1.8.3. Treatment Techniques
- 1.9. Approach to Bioethics
  - 1.9.1. Code of Ethics
  - 1.9.2. Ethical Issues in Critical Care Units
- 1.10. Importance of Family and the Environment During the Process of Recovery
  - 1.10.1. Emotional Factors
  - 1.10.2. Guidelines for Accompaniment



*A unique, key and decisive training to give a boost to your professional development”*

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 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. Specialists 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 in the physician's professional 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. Students 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 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.





## 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 physician 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 have trained more than 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. 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 the teaching materials are specifically created for the course by specialists who teach on 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.



#### Latest Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical 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 training 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 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 Physiotherapy for Critical Patients in Rehabilitation Medicine guarantees you, in addition to the most rigorous and Training, access to a Postgraduate Certificate issued by TECH Global University.





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*Successfully complete this training and receive your university degree without travel or laborious paperwork"*

This program will allow you to obtain your **Postgraduate Certificate in Respiratory Physiotherapy for Critical Patients in Rehabilitation Medicine** 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 Respiratory Physiotherapy for Critical Patients in Rehabilitation Medicine**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



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



**Postgraduate Certificate**  
Respiratory Physiotherapy  
for Critical Patients  
in Rehabilitation Medicine

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

# Postgraduate Certificate

## Respiratory Physiotherapy for Critical Patients in Rehabilitation Medicine

