

# Postgraduate Certificate Advanced Nursing Care of the Respiratory Patient



## Postgraduate Certificate Advanced Nursing Care of the Respiratory Patient

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

Website: [www.techtute.com/us/nursing/postgraduate-certificate/advanced-nursing-care-respiratory-patient](http://www.techtute.com/us/nursing/postgraduate-certificate/advanced-nursing-care-respiratory-patient)

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# 01

# Introduction

COVID-19 and its serious incidence in the respiratory patient forced nursing professionals to develop new management techniques adapted to the needs caused by the multiple pathologies affecting this system. This accelerated improvement of certain devices, as well as the adaptation of many strategies that today increase effectiveness and efficiency in both triage and care. And in all these advances TECH has focused on developing this Postgraduate Certificate. Thus, in just 6 weeks, the nurse will be able to get up to date in Intensive Care in the Respiratory Patient, through 150 hours of the best theoretical, practical and additional content presented in a convenient and flexible 100% online format.





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*Do not stay behind, enroll now in this Postgraduate Certificate and get up to date with the novelties associated with Advanced Nursing Care in the Respiratory Patient in a 100% online way"*

Nursing is a science in constant evolution. Continuous advances in treatment and clinical and techniques allow professionals to offer their patients an increasingly specialized and effective treatment, focused on their needs and the requirements of each pathology. This has been clearly evidenced in the post-COVID-19 era. The global pandemic forced the development of new management strategies, which continue to evolve to this day given the good results they have yielded, for example, in the for example, in the management of the respiratory patient. Thus, there has been an important leap forward in oxygen therapy, intubation, mechanical ventilation and the design of increasingly efficient and accurate therapeutic guidelines.

For this reason, and in order to offer professionals in this field a complete and intensive update on all these issues, TECH and its teaching team have developed this Postgraduate Certificate. It is a rigorous, innovative and exhaustive degree that gathers the advances of Advanced Nursing Intensive Care in the Respiratory Patient in 150 hours of the best theoretical, practical and additional content. Thus, over 6 weeks, the graduate will be able to delve into the latest developments concerning the various respiratory disorders through the most effective and accurate clinical strategies in the current healthcare scenario.

All of this is 100% online. It is a Postgraduate Certificate program adapted to the latest pedagogical technology, presented in a format that will allow the graduate to contact from anywhere, without schedules or face-to-face classes. In addition, you will have full access to dozens of hours of additional material (detailed videos, research articles, news, images, dynamic summaries, case studies...), which can be downloaded to any device for consultation, even after the academic experience has been completed. Thus, TECH guarantees a convenient and flexible update, perfect for all those professionals who want to keep up to date in a way that is coordinated with their hospital activity.

This **Postgraduate Certificate in Advanced Nursing Care in the Respiratory Patient** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical case studies presented by experts in Intensive Care Nursing
- ♦ The graphic, schematic, and practical contents which provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where the process of self-assessment can be used 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



*You will be able to delve into the latest advances in intubation and airway stabilization through dozens of hours of multidisciplinary content of the highest quality"*

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*If you are looking to strengthen your mastery in the management of mechanical ventilation, TECH will provide you with the best advice to update your practice with this Postgraduate Certificate"*

The Postgraduate Certificate includes in its teaching staff professionals from the sector who bring to this training the experience of their work, as well as recognized specialists from leading societies and prestigious universities.

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

The design of this program focuses on Problem-Based Learning, by means of which the professional will have to try to solve the different professional practice situations that are presented to them. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

*Would you like to improve your skills in the management of acid-base balance? In this course you will find the keys to achieve it in just 6 weeks.*

*The best program in the current academic market to delve into the management of the most innovative oxygen therapy equipment.*



# 02 Objectives

TECH and its team of experts in Intensive Care Nursing has developed this degree with the aim of providing graduates with the best theoretical, practical and additional content that will allow them to get up to date in the management of the respiratory patient. For this, it has carried out an important work of research and analysis of the current clinical context, compacting in 150 hours the best resources to ensure a rigorous, comprehensive and dynamic update.







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*If your goals include perfecting monitoring through the different respiratory supports, this is the most comfortable and accurate option to achieve it"*



## General Objectives

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- ♦ Synthesize data to inform the assessment of the respiratory patient
- ♦ Collect data to inform respiratory patient assessment
- ♦ Use data to inform respiratory patient assessment
- ♦ Plan care collaboratively and in a patient-centered manner
- ♦ Incorporate the latest evidence-based practice in critical care nursing
- ♦ Act effectively in pressurized and demanding situations
- ♦ Contextualize each action to the situation at hand





## Specific Objectives

- ◆ Provide nursing care in Respiratory Disorders
- ◆ Initiating, managing and managing patients undergoing invasive mechanical ventilation
- ◆ Initiate, manage and manage patients undergoing non-invasive mechanical ventilation
- ◆ Manage the airway in processes that may be compromised
- ◆ Comprehensively assess the airway
- ◆ Set up and operate oxygen administration equipment



*With this Postgraduate Certificate you will also work on updating the physiology and pathophysiology of the most common respiratory diseases through a specific module for this purpose"*

# 03

## Course Management

The faculty of this Postgraduate Certificate is composed of a select team of nursing professionals from different areas, but all of them versed in Intensive Care. In this way, the graduate will be able to obtain a broad and critical vision of the current clinical context, through the experience of the best professionals. In addition, they have included in the content practical cases taken from their own career, so that they can improve their skills through the resolution of real situations in the hospital environment specialized in the management of the respiratory patient.



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*The teaching team is made up of practicing nurses, professionals who will share their experience with you in order to up to date on a one-to-one basis"*

## Management



### Ms. Fernández Lebrusán, Laura

- ♦ Nurse in the Medical ICU at the Puerta De Hierro Hospital
- ♦ ICU Nurse at the Hospital Universitario del Sureste
- ♦ Surgical ICU Nurse at Hospital General Universitario Gregorio Marañón
- ♦ ICU Nurse at the Hospital Quirón Salud
- ♦ Associate Teacher at the University Francisco of Vitoria
- ♦ Graduate in Nursing at the Francisco de Vitoria University
- ♦ Professional Master's Degree in Critical Care and Intrahospital Emergency Care
- ♦ HEMS Specialist (*Helicopter Emergency Medical Services*), University of Alicante
- ♦ Advanced Clinical Simulation Instructor by Francisco de Vitoria University

## Professors

### Dr. Pérez Redondo, Marina

- ♦ Transplant Coordinator of at the Puerta De Hierro Hospital
- ♦ Attending Physician of the Intensive Care Medicine Service at Hospital Universitario Puerta de Hierro Majadahonda de Hierro Majadahonda
- ♦ Member of the Intensive Care Medicine Research Group in the areas of Cardiovascular, Digestive and Rheumatology Biopathology
- ♦ Scientific Collaborator of the Medicine Faculty at the Universidad Autónoma de Madrid (UAM)
- ♦ Degree in Medicine and Surgery from the University of Santiago de Compostela

### Ms. Gil Hernández, Cristina

- ♦ Nurse at the Ramón y Cajal University Hospital
- ♦ Nurse in Primary Care Management
- ♦ Nurse at San Francisco de Asis University Hospital
- ♦ Nurse at the Móstoles University Hospital
- ♦ Researcher in the BPSO Working Group at Hospital Sureste
- ♦ Graduate in Nursing from the Complutense University of Madrid
- ♦ Expert in Out-of-hospital Emergencies and Emergencies, Universidad Complutense de Madrid Expert in School Health, Universidad Católica de Ávila

## Professors

### Mr. Domínguez García, Sergio

- ♦ Surgical ICU nurse at Puerta de Hierro Majahonda University Hospital
- ♦ Nurse in Intensive Care Unit of Infanta Elena University Hospital
- ♦ Nurse in the CPR - Critical Care Unit of the Hospital General Universitario Gregorio Marañón
- ♦ Nurse in Intensive Care Unit of Jiménez Díaz Foundation Hospital
- ♦ Professional Master's Degree in Respiratory and Mechanical Ventilation by the University of Valencia
- ♦ Master's Degree in Critical Care at Universidad Rey Juan Carlos
- ♦ Collaborating member of CPR in SEEIUC

### Dr. González González, Elena

- ♦ Assistant Physician of the Intensive Care Department, Torrejón University Hospital
- ♦ Assistant Physician of the Intensive Care Department, Getafe University Hospital
- ♦ Transplant Coordinator of the Hospital Universitario de Torrejón
- ♦ Pulmonary and Critical Care Division in the Northwestern Memorial Hospital in Chicago
- ♦ Clinical Simulation Instructor
- ♦ PNRCP SVA SVI Instructor
- ♦ Director and teacher of Advanced Life Support courses
- ♦ Degree in Medicine from the Autonomous University Madrid
- ♦ President of the CPR Committee of the Hospital Universitario de Torrejón

### Mr. Buena vida Camarero, Javier

- ♦ Nurse in the Medical ICU of the Hospital Universitario Puerta de Hierro Majadahonda
- ♦ Nurse at Móstoles University Hospital
- ♦ Nurse at University Hospital of Getafe
- ♦ Professional Master's Degree in Critical Illness and Emergencies given by the University of Barcelona

### Ms. Sánchez Hernández, Mónica

- ♦ Nurse in the Post-Surgical Critical Care Unit (UCPQ) at the "Puerta de Hierro" Majadahonda University Hospital
- ♦ Responsible for Patient Safety and referral nurse in Chronic Wound Care
- ♦ Nurse in Primary Care substitutes in several Area V Centers
- ♦ Collaborating Nurse in the Center for Vascular Ulcer Cures (CCUV)
- ♦ Clinical teaching collaborator at the UAM
- ♦ Postgraduate Certificate in Nursing from the Escuela Universitaria de Enfermería Puerta de Hierro, a center attached to the Universidad Autónoma de Madrid
- ♦ Member of: Commission of Dermal Ulcers. Commission of Pressure Ulcers and Chronic Wounds

# 04

## Structure and Content

The teaching team has been working for weeks on the design of the content of this Postgraduate Certificate in Advanced Nursing Care in the Respiratory Patient, as well as in the structuring of its didactic material. Thus, it has been possible to present a complete and comprehensive program, based on the latest developments in the sector. In addition, the syllabus includes a variety of complementary material, so that the graduate can expand each section in a personalized way, delving into those aspects that generate more interest or that are more important for their professional performance.







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*The pedagogical methodology used in this program will allow you to catch up without having to invest extra hours in studying”*

**Module 1.** Rehabilitation monitoring and support. Advanced care of the patient with respiratory problems

- 1.1. Basic monitoring of the respiratory pattern
  - 1.1.1. SpO<sub>2</sub>
  - 1.1.2. FR
  - 1.1.3. Capnography
- 1.2. Oxygen therapy systems
  - 1.2.1. Low Flow
  - 1.2.2. High Flow
  - 1.2.3. Humidification
- 1.3. Mechanical Ventilation. The starting point
  - 1.3.1. Physiology and pathophysiology
  - 1.3.2. Difference between ventilation and perfusion
  - 1.3.3. Mechanical concepts
  - 1.3.4. Gasometry. Interpretation and patient follow-up
- 1.4. Invasive Mechanical Ventilation I
  - 1.4.1. Indications and objectives
  - 1.4.2. Modalities of total ventilatory support
  - 1.4.3. Modalities of partial ventilatory support
- 1.5. Invasive Mechanical Ventilation II
  - 1.5.1. Zero Pneumonia
  - 1.5.2. Endotracheal tube and nasotracheal tube. Nursing care
  - 1.5.3. Tracheostomy cannula. Nursing care
- 1.6. Noninvasive Mechanical Ventilation
  - 1.6.1. Indications and objectives
  - 1.6.2. Contraindications
  - 1.6.3. Ventilatory support modes



- 1.7. Noninvasive Mechanical Ventilation II
  - 1.7.1. Choice of devices
  - 1.7.2. Nursing care
- 1.8. Extracorporeal membrane oxygenation system: ECMO
  - 1.8.1. Implantation and operation
  - 1.8.2. Assessment and nursing care
  - 1.8.3. Weaning
- 1.9. Extracorporeal CO2 removal
  - 1.9.1. Indications and operation
  - 1.9.2. Hemolung
  - 1.9.3. Prolung
- 1.10. Administration of inhaled drugs
  - 1.10.1. Types and recommendations
  - 1.10.2. AnaConDa system
  - 1.10.3. Nitric Oxide

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*Invest in a top level qualification and get up to date with the latest respiratory protocols, as well as recommendations on the management of patients with TECH and this Postgraduate Certificate"*

# 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.



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*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 Nursing School we use the Case Method

In a given situation, what should a professional do? 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. Nurses learn better, faster, and more sustainably over time.

*With TECH, nurses can experience a learning methodology 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, in an attempt to recreate the real conditions in professional nursing 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. Nurses 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 nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
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 case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.



*The nurse 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 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 we have trained more than 175,000 nurses with unprecedented success in all specialities regardless of practical workload. 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 really 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.



### Nursing 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 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 them as many times as you want.



### 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 suggesting that observing third-party experts can be useful.

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 Advanced Nursing Care of the Respiratory Patient guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



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*Successfully complete this Postgraduate Certificate and receive your University Degree without the hassle of travel or paperwork”*

This **Postgraduate Certificate in Advanced Nursing Care of the Respiratory Patient** 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 Advanced Nursing Care of the Respiratory Patient**  
Official Nº of Hours: **150 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  
development language  
virtual classroom



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# Postgraduate Certificate

## Advanced Nursing Care of the Respiratory Patient