

# Postgraduate Certificate

Ethics, Innovation,  
and Research in  
NIMV for Nursing





## Postgraduate Certificate Ethics, Innovation, and Research in NIMV for Nursing

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

Website: [www.techtitute.com/pk/nursing/postgraduate-certificate/ethics-innovation-research-nimv-nursing](http://www.techtitute.com/pk/nursing/postgraduate-certificate/ethics-innovation-research-nimv-nursing)

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# 01

# Introduction

The application of NIMV has had a significant impact in various clinical situations in recent years. This has led to a boom in technological and research innovation in this field, as well as to the updating of its use in different healthcare contexts. Therefore, it is necessary for nurses who wish to avoid being left behind with respect to the continuous advances in the sector to keep up to date. Therefore, TECH has designed this program, which enables the student to investigate the cutting-edge ethical recommendations for their use or in the design protocols of clinical studies on NIMV. All this, 100% online and without being subject to the rigidity of a schedule.





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*You will delve into the most updated ethical principles of Non Invasive Mechanical Ventilation thanks to this Postgraduate Certificate that only TECH offers”*

Today, noninvasive mechanical ventilation is used in a wide range of clinical settings to address the respiratory difficulties experienced by patients with various physical characteristics. As a result, new technologies have been incorporated to help optimize care for these individuals, as well as updated ethical recommendations for the use of NIMV in different circumstances. Likewise, innovative methodologies have been developed to improve the results of the research carried out on this model of ventilatory support. Consequently, nurses who wish to position themselves at the forefront of healthcare are obliged to adopt these advances in their daily practice.

That is why TECH has created this program, through which the student will get a complete update on Ethics, Innovation and Research in just 6 weeks. Throughout this academic period, you will identify recent recommendations regarding the use of NIMV in emergency situations or during end of life. In the same way, you will learn about the latest scientific evidence on the care required by the patient with home NIMV or the state-of-the-art methods for the design of research on Non Invasive Mechanical Ventilation.

Thanks to the fact that this academic proposal is presented in a 100% online format, the nurse will be updated at any time and place, just by using a device with an Internet connection. In addition, it will have a variety of teaching materials, including specialized readings, videos or simulations of real cases, giving the student the ability to choose those that best suit their academic needs.

This **Postgraduate Certificate in Ethics, Innovation, and Research in NIMV for Nursing** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ Practical cases presented by specialists 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
- ♦ Practical exercises where the self-assessment process can be carried out 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



*With this program, you will analyze the leading ethical recommendations for the use of NIMV in different emergency situations"*

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*Get up to date on Ethics, Innovation and Research in NIMV for Nursing through simulations of real cases or explanatory videos"*

The program's teaching staff includes professionals from the sector who contribute their work experience to this 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 education programmed to learn 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 students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Study from wherever you want and 24 hours a day through the 100% online modality offered by this updating program.*

*Through this program, you will learn about the state-of-the-art care required by the home NIMV patient.*



# 02 Objectives

The aim of this program is to provide nurses with the most solid and up-to-date knowledge of the ethical aspects related to the use of NIMV. It will also allow you to delve into the recent innovations in this field and the protocols for conducting clinical studies on Noninvasive Mechanical Ventilation, positioning you at the forefront of healthcare.







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Complete your update as a nurse in only 150 hours of intensive study”



## General Objectives

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- ◆ Understand the importance and role of Non Invasive Mechanical Ventilation in the treatment of acute and chronic respiratory pathologies
- ◆ Know the updated indications and contraindications for the use of Non Invasive Mechanical Ventilation, as well as the different types of devices and modes of ventilation
- ◆ Acquire skills and competences in the monitoring of the patient with Non Invasive Mechanical Ventilation, including the interpretation of the data obtained and the detection and prevention of complications
- ◆ Investigate the state-of-the-art technologies used in the telemonitoring of patients with Non Invasive Mechanical Ventilation and the ethical and legal aspects related to their use
- ◆ Delve into the main differences in Non Invasive Mechanical Ventilation in Pediatrics
- ◆ Delve into the ethical aspects related to the management of patients requiring NIMV





## Specific Objectives

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- ◆ Understand the ethical principles in the use of NIMV, as well as the relevant rules and regulations and the civil and criminal liability of healthcare personnel
- ◆ Have a thorough understanding of the ethical and legal considerations in decision making in patients with limited decision-making capacity and in patients at the end of life
- ◆ Investigate new technologies in mechanical ventilation, NIMV in sleep apnea and NIMV at home
- ◆ Delve into the latest research in the management of NIMV

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*Investigate the updated procedures for the use of NIMV in patients with morbid obesity and advanced neuromuscular pathologies”*

# 03

# Course Management

TECH has selected a distinguished team of faculty composed of experts in Pulmonology to design this curriculum. These physicians actively practice their profession in leading medical centers, while constantly participating in research related to Non Invasive Mechanical Ventilation. Therefore, the knowledge imparted in this Postgraduate Certificate will be aligned with the latest advances in this field.





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*You will have the most prestigious teaching staff and the most complete syllabus in the market on Ethics, Innovation and Research in NIMV for Nursing”*

## Management



### Dr. Landete Rodríguez, Pedro

- Head of the Intermediate Respiratory Care Unit of the Hospital Emergencias Nurse Isabel Zendal
- Co-coordinator of the Basic Ventilation Unit of the Hospital Universitario de La Princesa
- Pulmonologist at the Hospital Universitario de La Princesa
- Pulmonologist at Blue Healthcare
- Researcher in several research groups
- Professor in undergraduate and postgraduate university studies
- Author of scientific numerous publications International journals and participation in book chapters
- Speaker at international medical congresses
- Doctorate Cum Laude by the Autonomous University of Madrid



## Professors

### Dr. Muñoz Archidona, Cristina

- ◆ Doctor and teaching collaborator
- ◆ Specialist in Pneumology at Reina Sofia University Hospital
- ◆ Teaching collaborator in university studies of Medicine
- ◆ Lecturer in national and international conferences of Pulmonology
- ◆ Expert in Thoracic Musculoskeletal by the University of Barcelona

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*Take the step to get up to date on the latest developments in Ethics, Innovation, and Research in NIMV for Nursing”*

# 04

## Structure and Content

This qualification is made up of the most relevant and updated concepts in Non-Invasive Mechanical Ventilation Monitoring. In addition, each of the related topics can be found in various multimedia formats, allowing the student to choose those that best suit their study needs. In addition, its 100% online modality will allow you to learn at any time and place.







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*A study plan tailored to your needs  
and designed under the most effective  
pedagogical methodology, Relearning”*

## Module 1. Ethics, Innovation and Research

- 1.1. Ethics and Legality in Noninvasive Mechanical Ventilation
  - 1.1.1. Ethical Principles in Noninvasive Mechanical Ventilation
  - 1.1.2. Patient Confidentiality and Privacy
  - 1.1.3. Professional and Legal Responsibility of Health Care Personnel
  - 1.1.4. Standards and Regulations on Noninvasive Mechanical Ventilation
  - 1.1.5. Civil and Criminal Liability in Noninvasive Mechanical Ventilation
- 1.2. NIMV Use in Emergency Situations
  - 1.2.1. NIMV in Emergency Settings: Assessing the Risks and Benefits in the Pandemic Context
  - 1.2.2. Patient Selection for NIMV in Emergency Situations: How to Choose the Most Suitable Patients?
  - 1.2.3. NIMV in Emergency Situations: Practical and Logistical Aspects in a High Demand Setting
  - 1.2.4. Role of Nurses in the Application and Monitoring of NIMV in Emergency Situations
  - 1.2.5. Ethical and Legal Considerations in the Application of NIMV in Emergency Situations During and After the Pandemic
- 1.3. Use of NIMV in Patients with Limited Decision-Making Ability
  - 1.3.1. Ethical Considerations in Decision Making in Patients with Limited Decision Making Capacity in NIMV
  - 1.3.2. Role of the Multidisciplinary Team in the Evaluation and Decision Making
  - 1.3.3. Importance of Effective Communication with Family or Caregivers in Decision Making
  - 1.3.4. Assessment of the Patient's Quality of Life and Ability to Tolerate NIMV
  - 1.3.5. Analysis of the Possible Consequences of NIMV in Patients with Limited Decision Making Capacity and its Impact on Medical Decision Making
- 1.4. Use of Noninvasive Mechanical Ventilation in Patients at the End of Life
  - 1.4.1. The Role of the Palliative Care Team in the Decision to Use NIMV at the End of Life
  - 1.4.2. Ethical Considerations in the Use of NIMV in Patients at the End of Life
  - 1.4.3. Psychological Impact on Patients and Families when using NIMV at the End of Life
  - 1.4.4. Identification of Patients who are Candidates for NIMV at the End of Life
  - 1.4.5. Alternatives to NIMV in Palliative Care





- 1.5. Effective Communication in Noninvasive Mechanical Ventilation
  - 1.5.1. Importance of Effective Communication in Health Care
  - 1.5.2. Techniques for Effective Communication with the Patient and their Family
  - 1.5.3. Non-verbal Communication in Noninvasive Mechanical Ventilation
  - 1.5.4. Effective Communication in Chronic NIMV Patient Discharge Planning
- 1.6. Education and Training of Healthcare Personnel for Patients and Family Members in the Management of Home NIMV
- 1.7. Conflicting Situations in the Management of Noninvasive Mechanical Ventilation
  - 1.7.1. Difficulties in the Application of NIMV in Morbidly Obese Patients
  - 1.7.2. Situations of Intolerance to Noninvasive Mechanical Ventilation: Causes and Alternatives
  - 1.7.3. Approach to NIMV in Patients with Advanced Neuromuscular Pathology
- 1.8. NIMV in the Care of the Patient in the Palliative Care Context
  - 1.8.1. Indications and Ethical Considerations
  - 1.8.2. NIMV in Terminally Ill Patients: When to Initiate and When to Discontinue
- 1.9. Innovation in Non-Invasive Mechanical Ventilation
  - 1.9.1. New Technologies in NIMV: Advanced Ventilators and Ventilation Modes
  - 1.9.2. NIMV in Sleep Apnea: Advances and Challenges
  - 1.9.3. NIMV in the Home: Implications and Recommendations for Self-Care
- 1.10. Research in Noninvasive Mechanical Ventilation Management
  - 1.10.1. Design of Studies in Noninvasive Mechanical Ventilation Management
  - 1.10.2. Research
    - 1.10.2.1. Efficacy and Safety of NIMV
    - 1.10.2.2. Quality of Life and Patient Satisfaction
    - 1.10.2.3. Implementation and Dissemination of Guidelines and Recommendations for the Management of NIMV

# 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 Ethics, Innovation and Research in NIMV for Nursing guarantees students, in addition to the most rigorous and up-to-date education, access to a qualification issued by TECH Technological University.





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

This **Postgraduate Certificate in Ethics, Innovation and Research in NIMV for Nursing** contains the most complete and up-to-date scientific 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 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 committees.

Title: **Postgraduate Certificate in Ethics, Innovation, and Research in NIMV for Nursing**

Official N° of Hours: **150 h.**



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

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guarantee accreditation teaching  
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community commitment  
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development languages  
virtual classroom



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