

Postgraduate Certificate

Non-Invasive Mechanical Ventilation in Nursing





Postgraduate Certificate Non-Invasive Mechanical Ventilation in Nursing

- » 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/non-invasive-mechanical-ventilation-nursing

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01

Introduction

The objective of this program on Non-Invasive Mechanical Ventilation in Nursing was born from the need to bring nurses up to date in respiratory therapies that are currently being used, in order to offer the best care and practices to patients. Once on the program, students will acquire new skills and abilities that will serve to improve their nursing skills.





The Postgraduate Certificate in Non-Invasive Mechanical Ventilation in Nursing contains the most complete and up-to-date scientific program on the market"

The Postgraduate Certificate consists of a broad educational overview, which seeks to teach new techniques and methods, in order to improve non-invasive mechanical ventilation in pneumological processes. With this program, students will learn about the new advances that are allowing specialists to treat pneumological complications more successfully.

The program consists of high-quality multimedia content, in which the analysis of clinical cases elaborated by experts in respiratory therapies is presented, together with explanatory videos for the different therapies, photos of the materials used for the different techniques, as well as the most recent developments and innovations.

As this is a program offered entirely online, students can organize their own time and adapt the pace of learning to their own schedules. The contents of this Postgraduate Certificate can be accessed from any computer or mobile device and be consulted at any time, as long as students have an internet connection or have previously downloaded them onto their computer.

This **Postgraduate Certificate in Non-Invasive Mechanical Ventilation in Nursing** contains the most complete and up-to-date scientific program on the market. Its most important features include:

- ♦ Development of clinical cases presented by experts in related, multidisciplinary areas
- ♦ Graphic, schematic, and practical contents created in order to provide scientific and practical information on those disciplines that are essential for professional practice
- ♦ New developments in Non-Invasive Mechanical Ventilation in Nursing
- ♦ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- ♦ Special emphasis on evidence-based nursing and research methodologies in Non-Invasive Mechanical Ventilation in Nursing
- ♦ All of this will be complemented by 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



Expand your abilities in the approach to Non-Invasive Mechanical Ventilation in Nursing through this program"

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This program is the best investment you can make in selecting a refresher program, for two reasons: in addition to updating your knowledge of Non-Invasive Mechanical Ventilation in Nursing, you will earn a Postgraduate Certificate from TECH Technological University”

Its teaching staff includes health professionals in the field of Non-Invasive Mechanical Ventilation in Nursing, who bring the experience of their work to this program, in addition to recognized specialists belonging to leading scientific societies.

Its multimedia content, developed with the latest educational technology, will provide the professional with situational and contextual learning, i.e., a simulated environment that will provide immersive training for real situations.

This program is designed around Problem-Based Learning, whereby the physician must try to solve the different professional practice situations that arise throughout the program. This will be done with the help of an innovative interactive video system developed by renowned experts in the field of nephrology with extensive teaching experience.

Increase your decision-making confidence by bringing your knowledge up to date through this Postgraduate Certificate in Non-Invasive Mechanical Ventilation in Nursing.

Don't miss out on the opportunity to bring your knowledge up to date in Non-Invasive Mechanical Ventilation in Nursing, and improve your patient care.



02 Objectives

The main objective of the program is to develop theoretical as well as practical learning, so that nurses can master Non-Invasive Mechanical Ventilation in Nursing in a practical and rigorous way.



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This refresher program will generate a sense of confidence when practising nursing, which will help you grow both personally and professionally”



General Objectives

- ♦ Acquire up-to-date knowledge of existing respiratory therapies in which nursing staff is involved
- ♦ Promote strategies to provide individualized quality care for respiratory patients and to serve as a basis for achieving excellence in care
- ♦ Provide technical skills in respiratory therapies through audiovisual means and the presentation of quality clinical cases
- ♦ Encourage professional enhancement through specialized continued education and research



Make the most of this opportunity and get up to date on the latest developments in Non-Invasive Mechanical Ventilation Therapy in Nursing”





Specific Objectives

- ◆ Identify physiological ventilation in healthy patients to understand the physiology of non-invasive mechanical ventilation
- ◆ Describe the different methods for non-invasive mechanical ventilation
- ◆ Gain an in-depth understanding of the basic concepts necessary to individualize treatments with non-invasive mechanical ventilation according to patient needs
- ◆ Describe the different ventilatory modes used to adjust to patient needs
- ◆ Update on the different devices used in non-invasive mechanical ventilation
- ◆ Recognize the consumables and complementary equipment necessary to provide quality and individualized treatment
- ◆ Identify main implementation problems for non-invasive mechanical ventilation and how to apply best solutions for each case
- ◆ Describe procedure for installing mechanical ventilation equipment in a patient's home
- ◆ Understand health education advice that can be provided to help ventilated patients in the adaptation process
- ◆ Explain how to carry out correct monitoring of ventilated patients
- ◆ Learn to apply mechanical ventilation combined with aerosol therapy or oxygen therapy
- ◆ Describe a nursing care plan for patients on non-invasive mechanical ventilation

03

Course Management

This program includes in its teaching staff recognized health professionals in the field of Non-Invasive Mechanical Ventilation Therapy in Nursing who contribute with the experience of their work.

In addition, renowned specialists, members of prestigious national and international scientific communities, are involved in designing and preparing the program.



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Learn about the latest advances in procedures for Non-Invasive Mechanical Ventilation in Nursing from leading professionals"

Guest Director



Dr. Amado Canillas, Javier

- ♦ Nursing Supervisor at 12 de Octubre H. Hospitalization of Pneumology Endocrinology and Rheumatology
- ♦ Associate Professor of Health Sciences at the Complutense University of Madrid: Associate Clinician of Medical-Surgical Nursing
- ♦ Evaluator of teaching activities for the Technical Secretariat of the Directorate General of Planning, Research and Training of the Community of Madrid
- ♦ PhD Outstanding Cum Laude, Complutense University of Madrid, 2014
- ♦ Degree in Nursing and Master's Degree in Research in Care from the Complutense University of Madrid
- ♦ Bachelor's Degree in Computer Science IT, Complutense University
- ♦ Currently studying a PhD in Audiovisual Communication at the Complutense University
- ♦ More than 10,000 accredited teaching hours as a professor of specialized care for different organizations, in particular the Nursing College of Madrid and FUDEN

Co-Direction



Ms. Santamarina López, Ana

- ♦ Nurse with extensive experience in home respiratory therapy
- ♦ Graduate in Nurses Medicine from the University of Leon, Spain
- ♦ Postgraduate Diploma in Digital Teaching in Nursing, CEU Cardenal Herrera University
- ♦ Master's Degree in Research in Dental Sciences, (University of León)

Professors

Ms. Castaño Menéndez, Alba

- ♦ UCRI (Intermediate Respiratory Care Unit) at 12 Octubre University Hospital
- ♦ Bachelor's Degree in Nursing, Complutense University, Madrid
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- ♦ Nurse in home respiratory therapies, MMNI, MMI Completing TRD at the 12 de Octubre University Hospital
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Ms. Almeida Calderero, Cristina

- ♦ Pneumology, Endocrine and Rheumatology Service, 12 de Octubre University Hospital, Madrid
- ♦ University Diploma in Nursing University of Salamanca
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- ♦ Collaborator of the Faculty of Nursing, Physiotherapy and Podiatry at the Complutense University of Madrid
- ♦ Pediatric Surgical Unit Gregorio Marañón Maternity Hospital, Madrid
- ♦ Intensive Care Unit. Clinical University Hospital Salamanca
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- ♦ Nurse in Primary Care in Health Center in Salamanca

Ms. De Prado de Cima, Silvia

- ♦ Graduate in Physiotherapy from the University of Valladolid, Spain
- ♦ Master's Degree in Thoracic Physiotherapy by Gimbernat and Tomás Cerdà University (Campus Sant Cugat)
- ♦ Physiotherapist in home respiratory therapies

Ms. García Vañes, Cristina

- ♦ Graduate in Nurses Medicine from the University of Cantabria, Spain
- ♦ Nurse in home respiratory therapies

Ms. Rojo Rojo, Angélica

- ♦ Graduate in Nurses Medicine from the University of Valladolid, Spain
- ♦ Postgraduate Diploma in Nursing in the Integral Care of Respiratory Patients
- ♦ Nurse in home respiratory therapies

Mr. Amado Durán, Alfredo

- ♦ Diploma in Physiotherapy from Europea University
- ♦ Móstoles Hospital, Madrid Clinical training: cervical spine treatment
- ♦ Traditional Thai Massage Training at Wat Po School of Traditional Medicine Bangkok, Thailand
- ♦ Degree in Nursing from Europea University
- ♦ Master's Degree in Osteopathy, Belgian College of Osteopathy, FBO First, Structural
- ♦ Consultations in Chembenyumba, Mayotte
- ♦ Consultations en Sainte Suzanne Reunión Island
- ♦ Consultations at the Frejus-Saint-Raphael Hospital Frejus, France

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- ♦ Pneumology, Endocrine and Rheumatology Service, 12 de Octubre University Hospital, Madrid
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- ♦ Certificate in Nursing from the Complutense University, Madrid
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- ♦ Neurosurgery Department, 12 de Octubre University Hospital, Madrid.
- ♦ UCI and Pediatrics Service, 12 de Octubre University Hospital, Madrid
- ♦ Member of teaching staff at the Faculty of Nursing, Physiotherapy and Podiatry, Complutense University, Madrid, for clinical practice sessions of the Nursing degree

04

Structure and Content

The syllabus has been designed by a team of professionals who recognize the implications of specialization in nursing daily practice and are aware of the relevance of current training to treat the pediatric patients with learning difficulties or mental disorders, and are committed to quality teaching using new educational technologies.



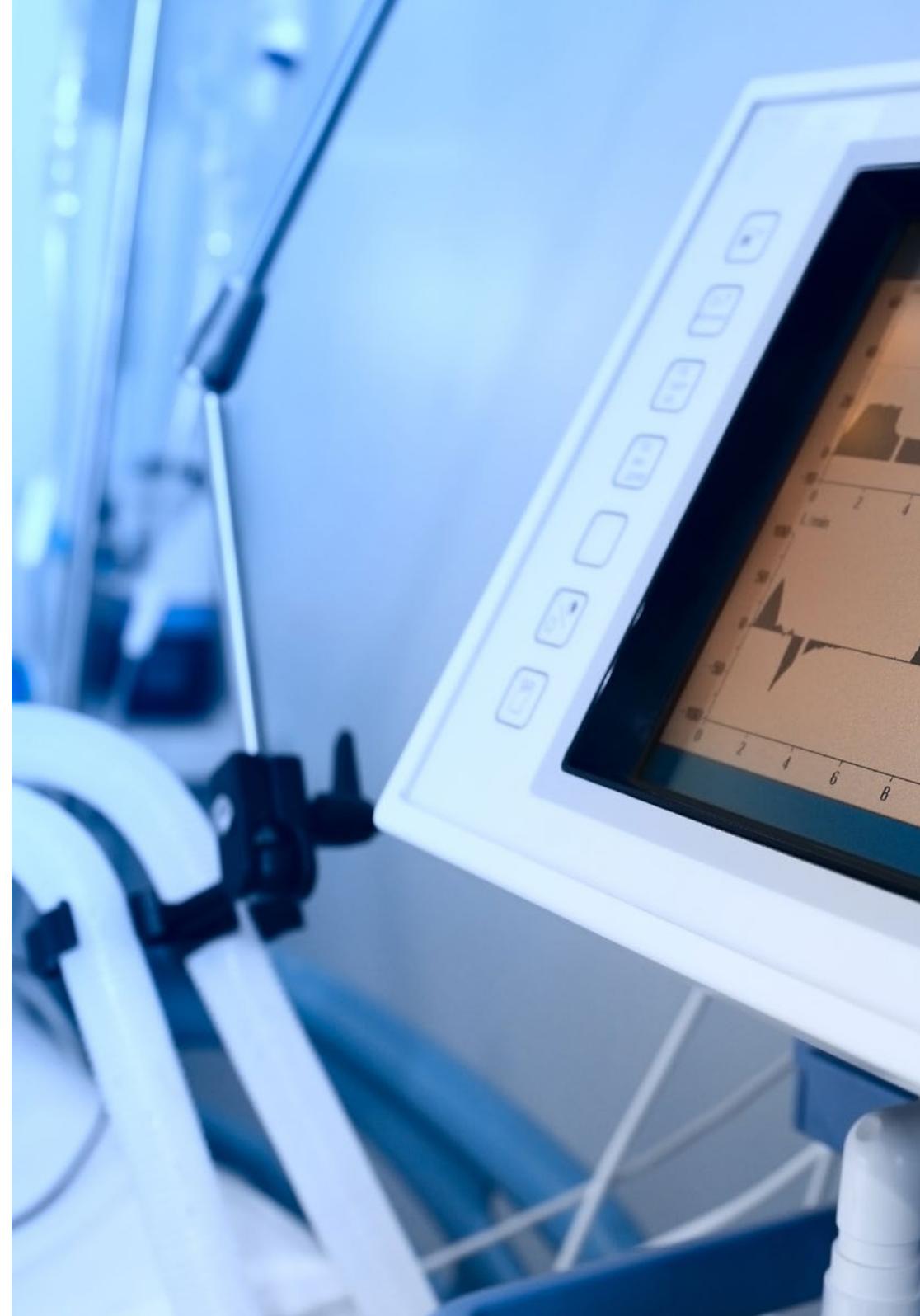


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Module 1. Non-Invasive Mechanical Ventilation

- 1.1. Pathophysiology
 - 1.1.1. Physiological Ventilation
 - 1.1.2. Physiology of Non-invasive Mechanical Ventilation
 - 1.1.3. Indications and Contraindications
- 1.2. Ventilation Methods
 - 1.2.1. Negative Pressure Ventilation
 - 1.2.2. Positive Pressure Ventilation
- 1.3. Basic Concepts
 - 1.3.1. IPAP
 - 1.3.2. EPAP
 - 1.3.3. Trigger
 - 1.3.4. Cycling
 - 1.3.5. PEEP
 - 1.3.6. Inspiration/Expiration Ratio
 - 1.3.7. Pressure Support
 - 1.3.8. Expiratory Pressure Relief
 - 1.3.9. Rise Time
 - 1.3.10. Ramp
 - 1.3.11. Alerts
 - 1.3.12. Other Concepts
- 1.4. Ventilatory Modes
 - 1.4.1. Spontaneous Ventilation
 - 1.4.2. Synchronized Intermittent Mandatory Ventilation
 - 1.4.3. Controlled or Assisted-Controlled Ventilation
 - 1.4.4. Pressure-Controlled Ventilation
 - 1.4.5. Volume-Controlled Ventilation
 - 1.4.6. Alternative Ventilatory Modes
- 1.5. Physiology of Non-invasive Mechanical Ventilation
 - 1.5.1. CPAP
 - 1.5.2. BIPAP
 - 1.5.3. Conventional Ventilator
 - 1.5.4. Servo Ventilation





- 1.6. Necessary Material
 - 1.6.1. Masks
 - 1.6.2. Tubing
 - 1.6.3. Filters
 - 1.6.4. Humidifiers
 - 1.6.5. Other Equipment
 - 1.6.6. Cleaning and Maintenance
- 1.7. Main Adjustment Problems and Possible Solutions
 - 1.7.1. Equipment-Related
 - 1.7.2. Pressure-Related
 - 1.7.3. Mask-Related
 - 1.7.4. Tubing-Related
 - 1.7.5. Humidifier-Related
 - 1.7.6. Other Complications
- 1.8. Equipment Installation at Patient's Home
 - 1.8.1. Patient Preparation
 - 1.8.2. Equipment Programming
 - 1.8.3. Mask Fitting
 - 1.8.4. Pressure Adaptation
 - 1.8.5. Patient Education
- 1.9. Monitoring Patients on Non-Invasive Mechanical Ventilation
 - 1.9.1. Home Visits
 - 1.9.2. Importance of Therapeutic Compliance
 - 1.9.3. Patient Education
- 1.10. Non-Invasive Mechanical Ventilation Combined with Other Treatments
 - 1.10.1. NIMV and Aerosol Therapy
 - 1.10.2. NIMV and Oxygen Therapy
- 1.11. Nursing Care Plan in IMV Therapy
 - 1.11.1. NANDA Diagnosis
 - 1.11.2. Nursing Outcomes and Interventions

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.





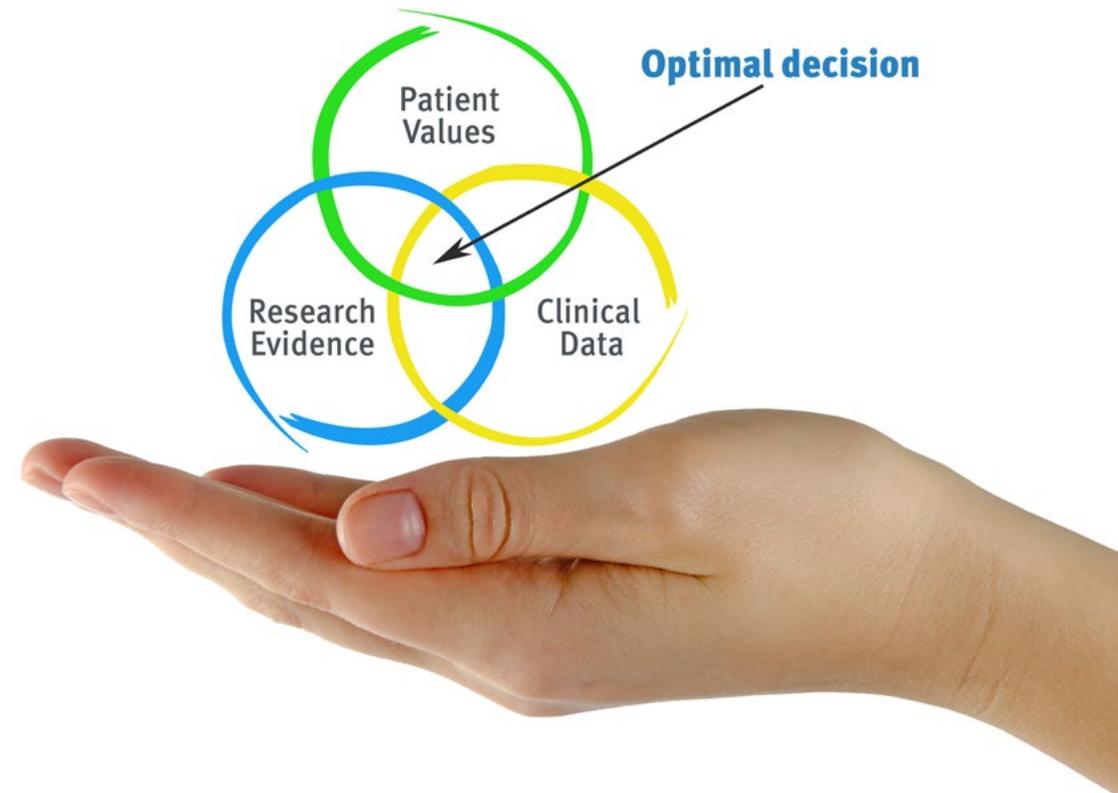
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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization”

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

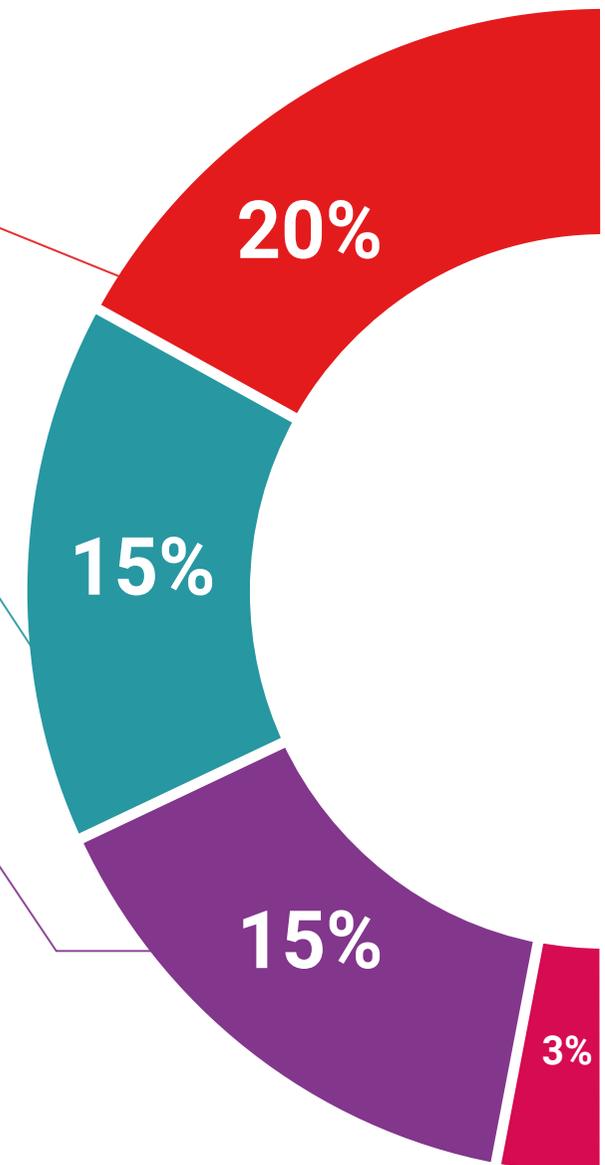
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

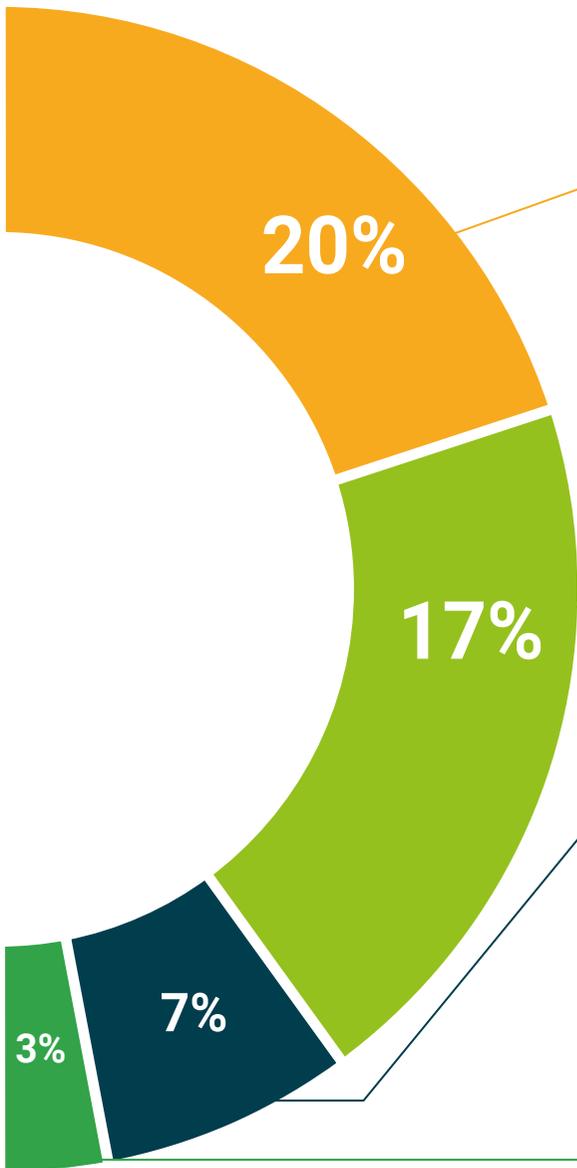
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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 Non-Invasive Mechanical Ventilation in Nursing 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 program and receive your university qualification without having to travel or fill out laborious paperwork”

This **Postgraduate Certificate in Non-Invasive Mechanical Ventilation in Nursing** 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 Non-Invasive Mechanical Ventilation in Nursing**
Official N° 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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