

# Postgraduate Certificate

## Intermediate Respiratory Care Units (IRCUs) for Nursing





## Postgraduate Certificate Intermediate Respiratory Care Units (IRCUs) for Nursing

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

Website: [www.techtute.com/us/nursing/postgraduate-certificate/intermediate-respiratory-care-units-ircus-nursing](http://www.techtute.com/us/nursing/postgraduate-certificate/intermediate-respiratory-care-units-ircus-nursing)

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# 01

# Introduction

Thanks to constant scientific progress, Intermediate Respiratory Care Units have undergone a remarkable development in recent years. As a result, these areas have incorporated innovative monitoring tools to optimize the surveillance of patients suffering from respiratory diseases, thus contributing to their well-being. It is therefore essential for nurses to be fully updated on the operation of IRCUs in order to position themselves at the forefront of healthcare.

Consequently, TECH has developed this program, through which the student will be introduced to monitoring devices or the sophisticated procedures for the management of complications that arise in these units. In addition, its 100% online mode will allow you to update your knowledge without having to travel to a study center.





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*Get to know in depth the new monitoring technologies used in IRCUs with this Postgraduate Certificate only offered by TECH”*

Intermediate Respiratory Care Units have been consolidated in the healthcare environment due to their importance in the effective management of complex respiratory diseases. As a result, their presence is becoming more and more common in the most prestigious hospitals. As a result, the methods used to deal with complications and the technologies employed in these areas are constantly being improved to preserve the well-being of the hospitalized patient.

Given this situation, nurses have the responsibility to keep abreast of the latest developments in Intermediate Respiratory Care Units so as not to be left behind with respect to the evolution of these areas. Following this approach, TECH has developed this Postgraduate Certificate, through which you will delve into the new IRCU technologies, delving into their advantages and disadvantages in each clinical context. In the same way, you will learn about the state-of-the-art procedures to deal with respiratory, cardiovascular or neurological complications associated with NIMV or the techniques for the administration of nutrients to the patient in IRCU.

This program will be offered in 100% online mode, which allows students to enjoy the didactic content at any time and place, as long as they have a device with an Internet connection. In this way, you will have access to specialized readings, interactive summaries or explanatory videos at the time of your choice, thus enjoying a completely flexible study.

This **Postgraduate Certificate in Intermediate Respiratory Care Units (IRCUC) for Nursing** contains the most complete and up-to-date scientific program on the market.

Its most notable features are:

- ♦ 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



*Identify the updated protocols to create a personalized care plan in the IRCUC*



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*Position yourself at the forefront of Nursing through an academic program of the highest level"*

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.

*Identify, throughout this program, the innovative protocols to address the complications associated with NIMV.*

*Update your professional profile in a dynamic and completely effective way, through didactic supports such as the simulation of real cases or the interactive summary.*

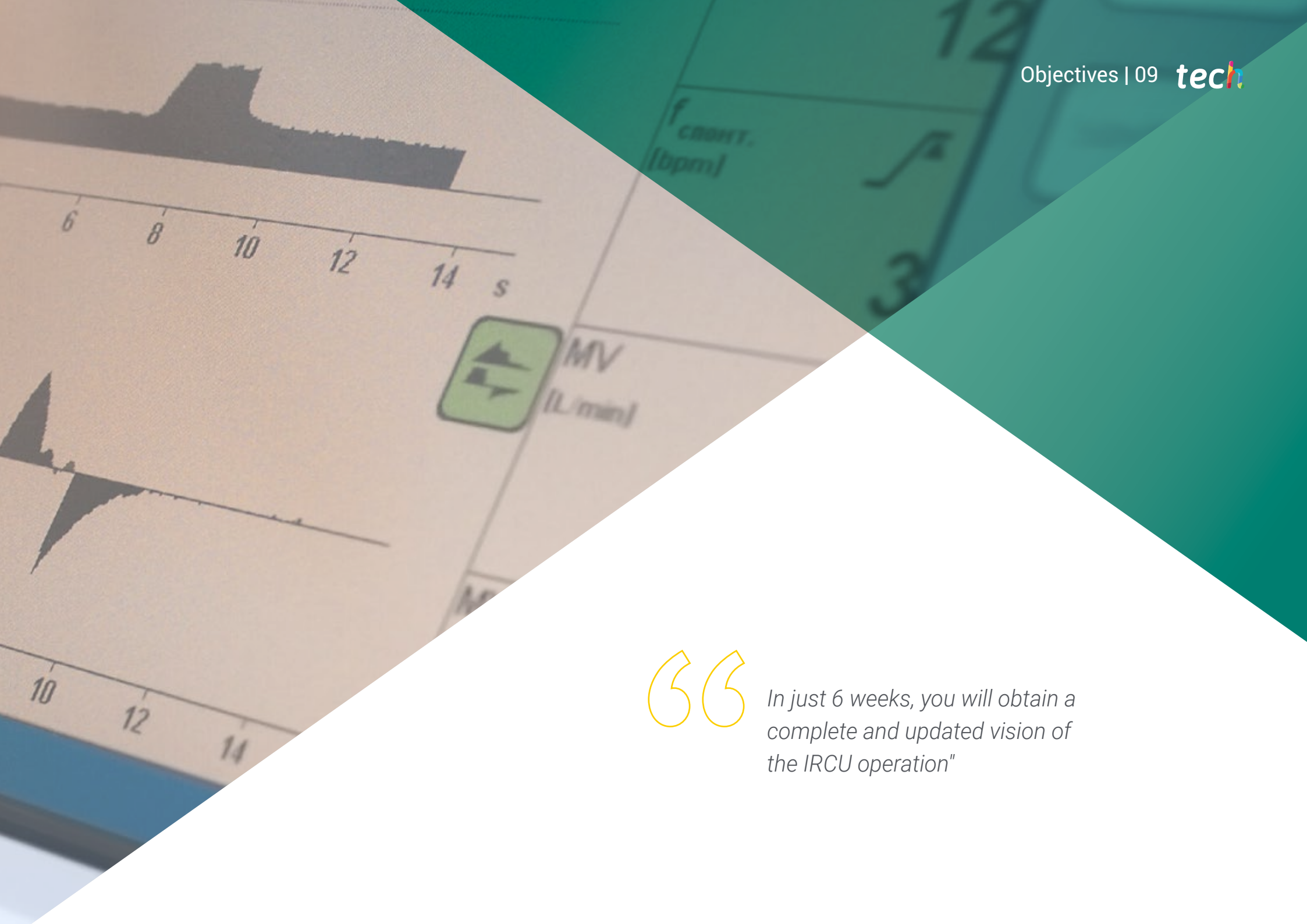


# 02 Objectives

The objective of this program is to facilitate the nurse's update in relation to the operation of the tools available in the Intermediate Respiratory Care Units. Through this program, the professional will delve into the innovative technologies used in IRCUs, as well as sophisticated procedures to address the complications associated with Non-Invasive Mechanical Ventilation.







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*In just 6 weeks, you will obtain a complete and updated vision of the IRCU operation”*



## 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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- ♦ Analyze the role of the IRCU in the care and treatment of critically ill patients.
- ♦ Have an in-depth knowledge of the structure and design of the IRCU and the mechanisms of coordination and collaboration between the different services
- ♦ Identify the types of equipment and technologies available in the IRCU and their advantages and disadvantages.
- ♦ Detect the latest trends and advances in the technology used in IRCUs.
- ♦ Delve into the prognostic scales used in NPPV
- ♦ Delve into the respiratory, cardiovascular, neurological, gastrointestinal, dermatological and psychological complications in NIV and to know the updated protocols to manage them.



*Delve into advanced techniques for establishing patient assessment and follow-up in the IRCU."*



03

# Course Management

TECH has selected an outstanding team of teachers to design this program. This will ensure that students are taught by leading experts, with vast experience in leading Intermediate Respiratory Care Units. In this way, nurses will be assured of obtaining a recognized qualification that will provide them with the most cutting-edge knowledge in this field.





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*Update your knowledge of Intermediate Respiratory Care Units alongside specialists who are actively working in these areas.”*

## 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. González, Elizabeth

- ◆ Specialist in Pulmonology
- ◆ Responsible for Hospitalization, Intermediate Respiratory Care Unit and Mechanical Ventilation Consultation for chronic patients at the Hospital Universitario Clínico San Carlos.
- ◆ Specialist in Pulmonology at the University Hospital of Getafe.
- ◆ FEA in Pulmonology at the San Carlos University Clinical Hospital
- ◆ Teacher in university studies



*Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"*

# 04

## Structure and Content

The curriculum of this program has been designed to provide the nurse with the most updated knowledge in relation to the technology and organizational structure of the Intermediate Respiratory Care Units. Each of the topics addressed, through which the most relevant aspects of these areas will be delved into, is available in various study formats such as readings, explanatory videos and self-assessment exercises. As a result of this, and following a completely online approach, the professional will experience an attractive, personalized and decisive update.







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

## Module 1. Intermediate Respiratory Care Units (IRCU)

- 1.1. Fundamentals and Objectives of the IRCU
  - 1.1.1. Evolution Over Time
  - 1.1.2. Importance and Benefits
  - 1.1.3. Role of IRCUs in Public Health Management
- 1.2. Characteristics and Organisation of IRCUs
  - 1.2.1. Structure and Design
  - 1.2.2. Coordination and Collaboration Mechanisms between the Different Services
  - 1.2.3. Development of Personalized Care Plans for Each Patient
  - 1.2.4. Evaluation and Follow-up of Treatment Results
- 1.3. Equipment and Technology in IRCUs
  - 1.3.1. Types of Equipment and Technology Available in the IRCUs
  - 1.3.2. Advantages and Disadvantages of the Different Technologies Available
  - 1.3.3. New Trends and Advances in the Technology Used in IRCUs
- 1.4. Health Care Personnel in IRCUs: Functions and Competencies
  - 1.4.1. Professional Profile and Training Requirements of Health Care Professionals Working in IRCUs
  - 1.4.2. Competencies and Responsibilities of the Different Members of the Health Care Personnel
  - 1.4.3. Teamwork and Coordination among the Different Health Care Professionals in the IRCUs
  - 1.4.4. Continuous Training and Professional Updating of Health Care Personnel in the IRCUs
- 1.5. Indications and Criteria in IRCUs
  - 1.5.1. Criteria for Selecting Patients for Admission to the IRCUs
  - 1.5.2. Admission Process and Evaluation of the Patients' Health Status
- 1.6. Monitoring of the Patient in the IRCU
  - 1.6.1. Capnography
  - 1.6.2. Continuous Pulse Oximetry
  - 1.6.3. Respiratory Softwares
- 1.7. VMNI Success and Failure Criteria
  - 1.7.1. Prognosis Scales
  - 1.7.2. Factors that Affect VMN Success





- 1.7.3. Early Identification of NIV Failure
- 1.8. Complications and Management of NIV
  - 1.8.1. Respiratory Complications.
  - 1.8.2. Cardiovascular Complications
  - 1.8.3. Neurological Complications
  - 1.8.4. Gastrointestinal Complications
  - 1.8.5. Dermatological Complications
  - 1.8.6. Psychological Complications
- 1.9. Pharmacological Treatments in IRCUs
  - 1.9.1. Nutrition and Nutritional Support
  - 1.9.2. Sedation and Analgesia in the NIV Patient
  - 1.9.3. Others Drugs in IRCUs
- 1.10. Criteria for Discharge and Follow-up of Patients after their Stay in the IRCU
  - 1.10.1. Evaluation of the Patient's Clinical Stability Prior to Discharge from the IRCU
  - 1.10.2. Discharge Planning and Patient Follow-up
  - 1.10.3. Discharge Criteria for NIV
  - 1.10.4. Outpatient Follow-up after Discharge from the IRCU
  - 1.10.5. Assessment of Quality of Life after Discharge from the IRCU

“Bring yourself up to date at your own pace of study thanks to the revolutionary Relearning system that only TECH offers”.



# 05

# Methodology

This 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

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

*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 prepared more than 175,000 nurses with unprecedented success in all specialities regardless of practical workload. Our educational 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 adapted in 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**

The student's knowledge is periodically assessed and re-assessed throughout the program, through evaluative and self-evaluative activities and exercises: in this way, students can check how they are doing in terms of 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 Diploma in Intermediate Respiratory Care (IRCUs) for Nursing guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.





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

This program will allow you to obtain your **Postgraduate Certificate in Intermediate Respiratory Care Units (IRCUs) for Nursing** 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 Intermediate Respiratory Care Units (IRCUs) for Nursing**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





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