

# Postgraduate Certificate

Critical Care Update on  
Neurological and Common  
Pathologies in the ICU



## Postgraduate Certificate

### Critical Care Update on Neurological and Common Pathologies in the ICU

Course Modality: Online

Duration: 6 weeks

Certificate: TECH Technological University

Official N° of hours: 100 h.

Website: [www.techtute.com/pk/nursing/postgraduate-certificate/critical-care-update-neurological-common-pathologies-icu](http://www.techtute.com/pk/nursing/postgraduate-certificate/critical-care-update-neurological-common-pathologies-icu)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

---

*p. 28*

# 01

# Introduction

Advances in nursing procedures and medical technology make it essential for intensive care professionals to undertake continuous professional development in order to care for critically ill patients based on the latest scientific evidence. This program allows professionals to update their knowledge in a practical way, which is tailored to their needs.





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*The standard of care for patients with neurological pathologies depends on the professionals who attend them having up-to-date knowledge. Get up to date on nursing procedures for Common Pathologies in Intensive Care”*

Patients who are in critical condition due to a neurological pathology require specific care from nursing professional because they are susceptible to complications and their brain injuries could even deteriorate, leading to brain death.

Nursing professionals responsible for their care require specialist expertise on the management and monitoring of people with neurological pathology and other common pathologies in the intensive care unit, such as fulminant hepatic failure, in order to anticipate possible complications and thus improve their quality of life.

This Postgraduate Certificate provides up-to-date knowledge on the care of critical patients, so that nursing professionals can perform their duties with the utmost rigor and professionalism in the Intensive Care Unit.

This **Postgraduate Certificate in Critical Care Update on Neurological and Common Pathologies in the ICU** contains the most complete and up-to-date scientific program on the market. The most important features include::

- ♦ Clinical cases presented by experts
- ♦ Graphic, schematic, and practical contents which provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Diagnostic and therapeutic innovations for critical patient care
- ♦ Nursing procedures for patients with neurological and other common pathologies in the Intensive Care Unit
- ♦ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- ♦ Theoretical lectures, questions to the expert, discussion forums on controversial issues and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*With this Postgraduate Certificate, you will be able to update your knowledge of critical patient care, improve their prognosis and reduce sequelae and complications"*

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*This Postgraduate Certificate is the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in Critical Care for Neurological and Common ICU Pathologies, you will obtain a Postgraduate Certificate from TECH Technological University"*

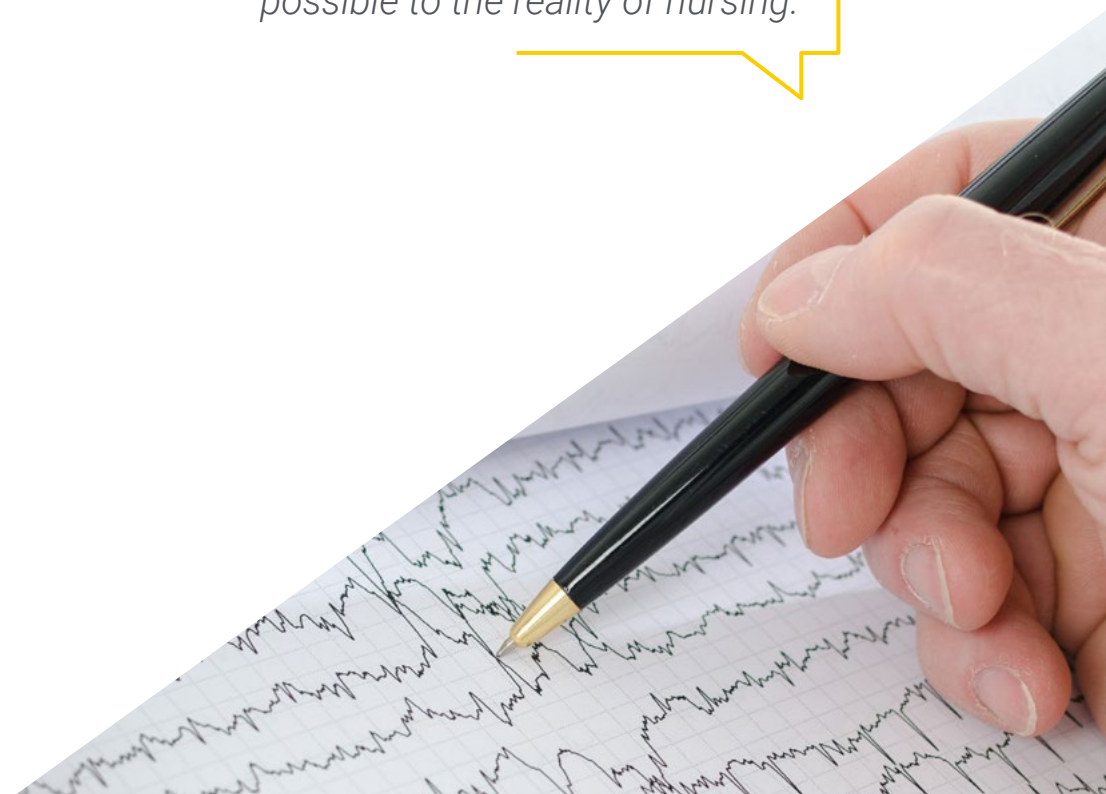
It includes in its teaching staff reference nursing professionals, who pour into this refresher program the experience of their work, in addition to other professionals specializing in the intensive care unit.

Multimedia content developed with the latest educational technology, will provide professionals with situated and contextual learning, that is to say, a simulated environment that will provide immersive learning designed to prepare them for real situations.

The design of the program is based on Problem-Based Learning, by means of which nursing professionals must try to solve the different professional practice situations that arise throughout the course. All this is supported by an innovative interactive video system developed by renowned experts in Intensive Care nursing with extensive teaching experience.

*This Postgraduate Certificate uses simulated environments, which provide immersive learning designed to prepare professional for real situations.*

*It includes clinical cases to bring the program's syllabus as close as possible to the reality of nursing.*



02

# Objectives

The program is aimed at reviewing the main aspects of critical patient management, based on scientific evidence and the experience of renowned professionals.





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*This program will give you a sense of confidence when taking decisions and providing care, which will help you grow both personally and professionally”*



### General Objective

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- Update nursing professionals who work in intensive care, following established nursing methodology, in order to provide excellent care to patients with Neurological and Common Pathologies in critically ill patients

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*Seize this opportunity and take the next step to get up to date on the most important developments in Critical Care for Neurological and Common Pathologies in the ICU”*





## Specific Objectives

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- ◆ Describe the anatomy and physiology of the cardiovascular system
- ◆ Recognize the most common pathologies in the neurocritical patient
- ◆ Identifying and recognize a Code Stroke
- ◆ Know about invasive procedures and techniques for patients with neurological disorders
- ◆ Analyze the patient's neurological status by assessing the state of consciousness
- ◆ Assess neurological status using validated scales
- ◆ Recognize anatomophysiological changes in the pregnant woman
- ◆ Anticipate the most common complications arising from the pathological processes of critically ill patients and their treatment in order to prevent their occurrence
- ◆ Develop the necessary skills for effective communication with the user and their family environment, as well as facilitating the grief process, if necessary
- ◆ Identify warning signs and/or symptoms of fulminant hepatic failure
- ◆ Provide effective care for patients with acute pancreatitis, based on the latest scientific evidence



03

# Course Management

The program's teaching staff includes leading nursing professionals in the field of intensive care, who bring their professional experience to this program. In addition, other renowned specialists have participated in the creation of the contents, completing the program in an interdisciplinary manner.



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*Learn about the latest advances in critical patient care in the Intensive Care Unit, from leading professionals”*



## Guest Director



### Ms. Díez Sáenz, Cristina

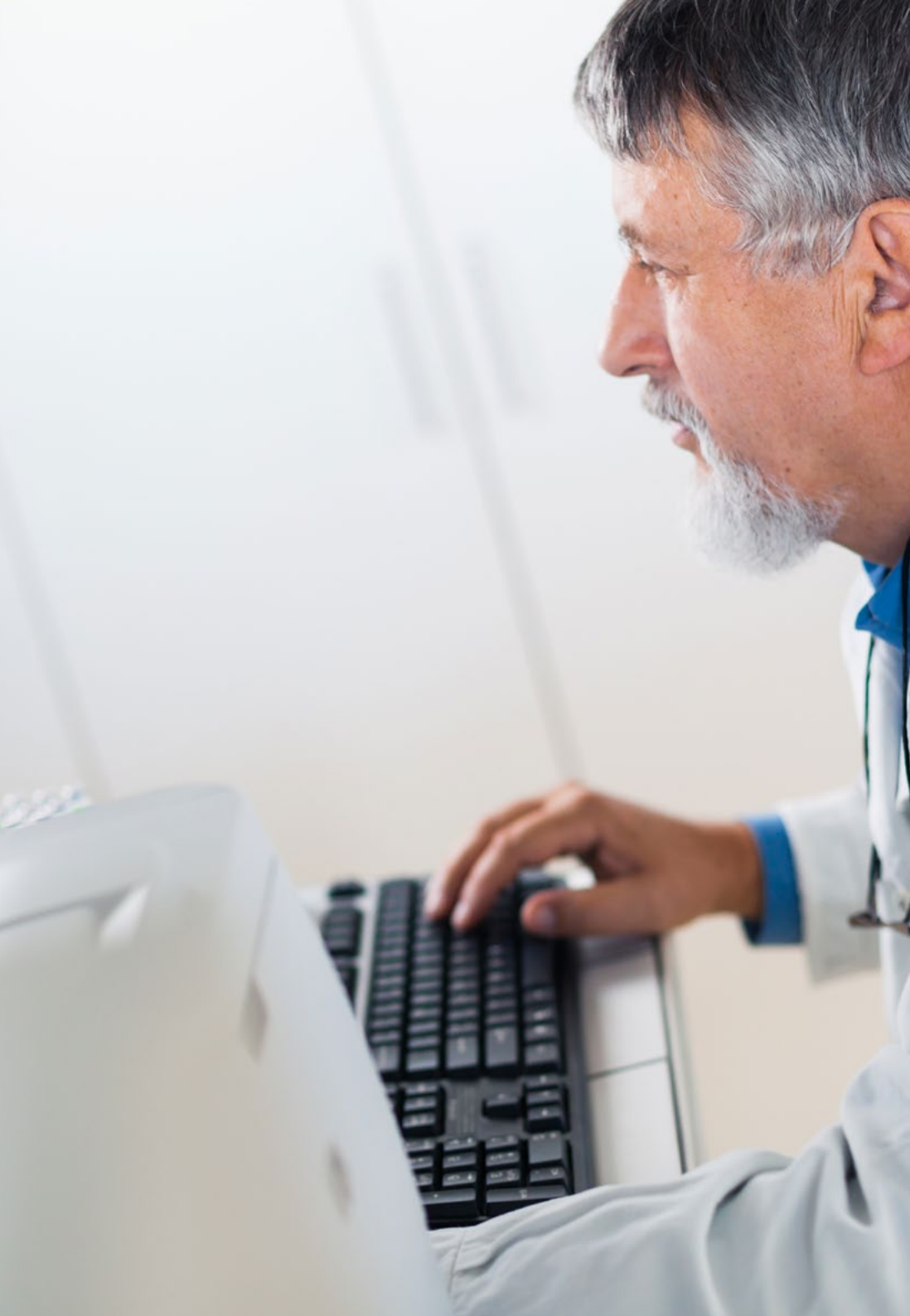
- ♦ Nursing supervisor at Gregorio Marañón ICU
- ♦ Head of Adult Intensive Care Unit from October 16, 2014 to present
- ♦ Collaborating teacher at the International School of Health Sciences
- ♦ Nurse assistant since 1993 in different hospitalization areas, from May 1999 in Intensive Care until appointment as Head of Unit
- ♦ University Diploma in Nursing at the "Salus Infirmorum" school, attached to the Pontifical University of Salamanca
- ♦ Participation as collaborating researcher in the multicenter project "National Validation of the Scale of Satisfaction with Nursing Care from the Perspective of the Critical Patient"

## Management



### Dr. Lospitao Gómez, Sara

- ♦ Intensive Care Nurse at University Hospital in Fuenlabrada, Madrid
- ♦ Cardiac Surgery Post-Surgical Intensive Care Unit 12 de Octubre Hospital
- ♦ Coronary Intensive Care Unit 12 de Octubre Hospital
- ♦ Master's Degree in Critical Care Rey Juan Carlos I University
- ♦ Bachelor's Degree in Humanities European University of Madrid
- ♦ Advanced Nursing Degree European University of Madrid
- ♦ Postgraduate Diploma in Continuing Education Complutense University of Madrid
- ♦ Internship tutor for undergraduate and graduate students in Nursing at the European University of Madrid (UEM) and Juan Carlos I University (URJC)
- ♦ Instructor in SVA by the National CPR Plan of SEMICYUC



## Professors

### Ms. Álvarez Carrascal, Inmaculada

- ◆ Assisting Nurse in ICU, Gregorio Marañón General University Hospital
- ◆ Consultant Nurse for safety in ICU, Gregorio Marañón General University Hospital
- ◆ Critical Care Nurse at Gregorio Marañón Hospital
- ◆ Instrumentalist nurse in operating rooms of different specialisms Churchill Hospital, Oxford, United Kingdom
- ◆ Nurse in various hospital and health center services in the Andalusian Health Service (SAS)

### Mr. González Palacios, Rubén

- ◆ Attending Nurse in the Internal Medicine Unit of the 12 de Octubre General University Hospital, Madrid
- ◆ Nurse assistant in different Primary Care centers in the Community of Madrid
- ◆ Nurse assistance in ICU Gregorio Marañón General University Hospital, Madrid
- ◆ Developer of the mobile application “*Compatibility drugs*” for intravenous compatibility of drugs
- ◆ 5 communications in international congresses

### Mr. Ruiz Henestrosa Campos, Manuel Jesús

- ◆ Attending Nurse Puerta del Mar General University Hospital, Cádiz
- ◆ Head of the Emergency Unit Gregorio Marañón General University Hospital
- ◆ Attending Nurse, Gregorio Marañón General University Hospital
- ◆ Associate Professor Nursing Practicum III
- ◆ Collaborating teacher at the International School of Health Sciences
- ◆ Nebrija University Collaborating Professor
- ◆ Esforem Collaborating Teacher

04

# Structure and Content

The syllabus has been designed by a team of professionals who are aware of the importance of professional development in order to provide expertise leading to excellent patient care in the intensive care unit and committed to teaching through new educational technologies.

A close-up photograph of a medical device, possibly a ventilator or humidifier, with clear plastic tubing and black plastic components. The device is covered in condensation droplets, suggesting it is in use in a humid environment. The background is a soft, out-of-focus light color. The image is partially obscured by a large green diagonal graphic element that covers the top right and bottom right portions of the page.

“

*This Postgraduate Certificate in Critical Care Update on Neurological and Common Pathologies in the ICU contains the most complete and up-to-date scientific program on the market"*

### Module 1. Care for Patients with Neurological Disorders

- 1.1. Anatomophysiological Review of the Nervous System
- 1.2. Cerebrovascular Disease: Code Stroke
- 1.3. Intracranial Hypertension
- 1.4. Delirium
- 1.5. Guillain-Barré Syndrome
- 1.6. Seizures and Convulsions
- 1.7. Meningitis and Lumbar Puncture Practice
- 1.8. Comatose Patient
- 1.9. Pain and Sedoanalgesia
- 1.10. Neurological Assessment in ICU: Most Frequently Used Diagnostic Tests

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*A unique, key, and decisive educational experience to boost your professional development”*







## Module 2. Digestive and Renal Pathology in the ICU and Other Pathologies

- 2.1. Gastrointestinal bleeding.
- 2.2. Intestinal Obstruction
- 2.3. Inflammatory Bowel Disease
- 2.4. Mesenteric Ischemia
- 2.5. Acute Abdomen
- 2.6. Fulminant Hepatic Failure
- 2.7. Albumin-Based Liver Replacement System
- 2.8. Acute Pancreatitis
- 2.9. Intestinal Ostomy Patient: Colostomy
- 2.10. Intestinal Ostomy Patient: Ileostomy
- 2.11. Disseminated Intravascular Coagulation
- 2.12. Multiorgan Failure
- 2.13. Endocrinometabolic Alterations
- 2.14. Acute Renal Failure in the ICU
- 2.15. Urostomy Patient
- 2.16. Critical Care in Poisoning
- 2.17. Critical Care in Digestive Pathologies
- 2.18. Nosocomial Infections in the ICU
- 2.19. Sepsis and Septic Shock
- 2.20. Nursing Care in the Septic Patient

06

# 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.



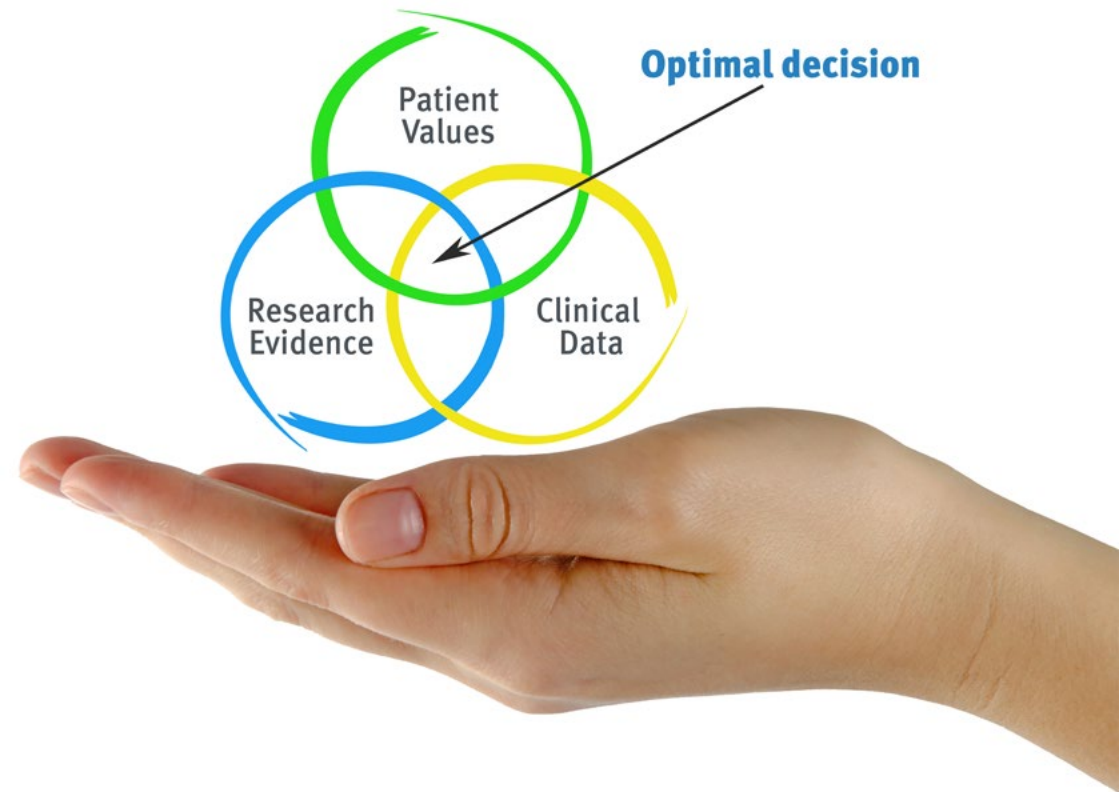
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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.

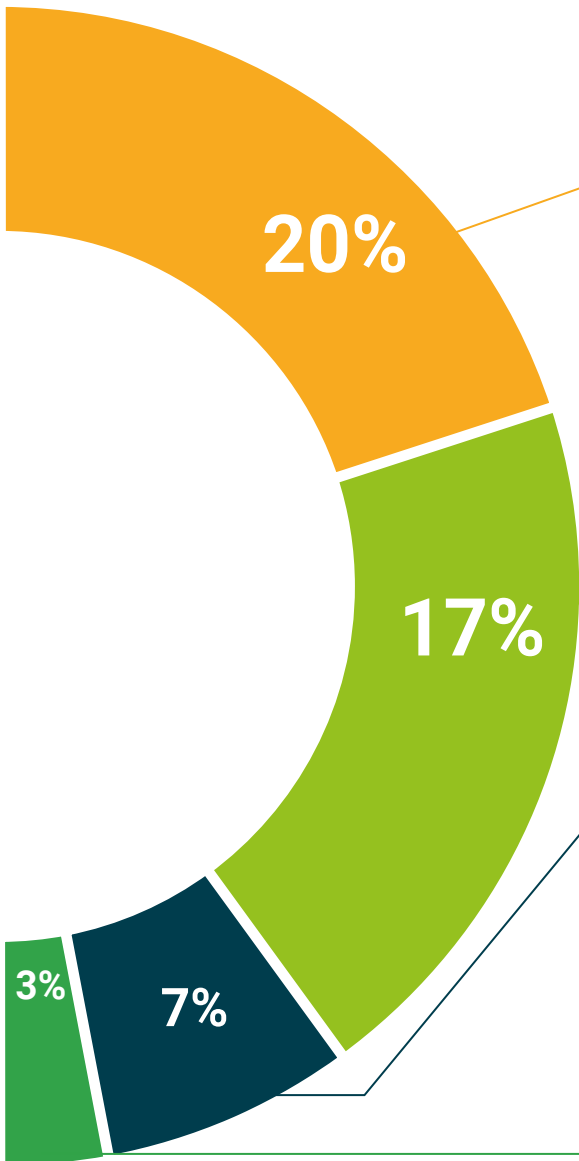
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



### 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 Critical Care Update in Neurological Pathology and Common Pathologies in the ICU 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 Postgraduate Certificate without having to travel or fill out laborious paperwork”*

This **Postgraduate Certificate in Critical Care Update on Neurological and Common Pathologies in the ICU** 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 certificate issued by **TECH Technological University** will reflect the qualification obtained in Postgraduate Certificate, and meets the requirements commonly demanded by job markets, competitive examinations and professional career evaluation committees.

Title: **Postgraduate Certificate in Critical Care Update on Neurological and Common Pathologies in the ICU**

Official N° of Hours: **100 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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personalized service innovation  
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development online training  
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university

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