

Postgraduate Certificate

Monitoring of the Pediatric and Neonatal Critically Ill Patient with Hemodynamic Alterations for Nursing





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Monitoring of the Pediatric and Neonatal Critically Ill Patient with Hemodynamic Alterations for Nursing

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

Website: www.techtute.com/us/nursing/postgraduate-certificate/monitoring-pediatric-neonatal-critically-ill-patient-hemodynamic-alterations-nursing

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01

Introduction

Hemodynamic monitoring of critical pediatric patients is a fundamental practice in the field of nursing. Its importance lies in the early detection of any alteration in the cardiac and circulatory function of minors (such as tissue hypoperfusion or shock). This enables professionals to intervene immediately to prevent serious complications and to make adjustments in treatments to optimize the stability of the users. However, interpreting data in children can be challenging due to their physiological particularities. It is therefore essential for nurses to have a thorough understanding of the different hemodynamic parameters. In view of this, TECH develops a 100% online program that will focus in depth on this subject through the disruptive Relearning methodology.



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*Thanks to this 100% online
Postgraduate Certificate, you will
develop advanced competences to
perform an optimal Hemodynamic
Monitoring and guarantee the
safety of your Critical Patients”*

The Nursing staff faces almost daily cases of Critical Pediatric and Neonatal Patients, who require comprehensive care to improve their health status. Faced with these situations, it is vital that professionals actively demonstrate the ethics that should characterize them. For example, when providing families with the corresponding informed consents. This requires nurses to enhance their communication skills to provide family members with all relevant information about treatments, ranging from risks or benefits to possible alternatives. Also, professionals must maintain high ethical standards to act responsibly in cases of obvious abuse or gender-based violence.

In this context, TECH implements a revolutionary Postgraduate Certificate in Monitoring of the Pediatric and Neonatal Critically Ill Patient with Hemodynamic Alterations for Nursing. Designed by experts in this field, the syllabus will provide nurses with the bioethical and legal principles to be addressed during the care of critical minor users. Likewise, the syllabus will provide different techniques that will encourage the collaboration of families in the recovery process of patients. On the other hand, the didactic materials will provide graduates with the keys to perform complementary tests to analyze the clinical condition of people in real time. Likewise, the program will provide several recommendations for an optimal follow-up of children suffering from respiratory disorders such as Asthma, Bronchiolitis or Upper Respiratory Obstruction.

As for the methodology of this program, it should be noted that it reinforces its innovative character. TECH provides students with a 100% online educational environment, therefore adapting to the needs of busy professionals who want to advance in their careers. It also employs the Relearning teaching system, based on the repetition of key concepts to fix knowledge and facilitate learning. In this way, the combination of flexibility and a robust pedagogical approach makes it highly accessible.

This **Postgraduate Certificate in Monitoring of the Pediatric and Neonatal Critically Ill Patient with Hemodynamic Alterations for Nursing** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical cases presented by experts in 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 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



You will approach the technique of Parenteral Feeding through this academic itinerary of TECH, the best digital university in the world according to Forbes”

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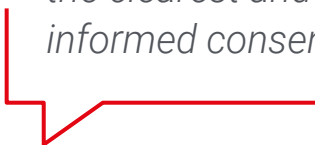
You will delve into the different routes that exist for the administration of drugs, ensuring the safety of minors at all times”

The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

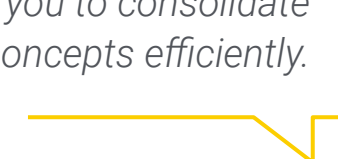
The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the course. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

You will develop communication skills that will allow you to make the clearest and most accurate informed consents.



A university program supported by the revolutionary Relearning method that will allow you to consolidate complex concepts efficiently.



02 Objectives

Through this Postgraduate Certificate, the nursing staff will comprehensively understand both the anatomy and physiology of the cardiovascular system in pediatric and neonatal patients. They will also effectively employ non-invasive hemodynamic monitoring techniques, including the interpretation of the data obtained. In tune with this, graduates will be equipped with the most innovative strategies to improve vital organ perfusion and cardiac function. Therefore, they will prioritize the safety of young children and provide them with comprehensive care to avoid complications such as infections, metabolic alterations or adverse drug reactions.



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You will be highly qualified to recognize symptoms of hemodynamic alterations and take appropriate actions for their initial management”



General Objectives

- ♦ Fundamentals of the most relevant aspects of monitoring the Pediatric Critical Patient
- ♦ Acquire knowledge of the pathophysiological processes that can lead to hemodynamic imbalances in children and neonates, including causes, clinical manifestations and health consequences
- ♦ Identify various types of pediatric respiratory monitoring devices and Pediatric Hemodynamic Monitoring
- ♦ Raise awareness of the importance of Respiratory and Cardiovascular Monitoring in the Emergency Department Critically Ill Patient





Specific Objectives

- ◆ Establish the importance of invasive and non-invasive hemodynamic monitoring in the pediatric critically ill patient
- ◆ Determine the forms of respiratory support for the pediatric critically ill patient and their forms of monitoring for Nursing
- ◆ Evaluate advanced invasive and non-invasive devices in the hemodynamic alterations of the pediatric critically ill patient for Nursing
- ◆ Examine the ethical considerations of the pediatric critically ill patient

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The emphasis on practical and real clinical cases that you will be able to analyze will help you greatly in the contextualization of the entire program”

03

Course Management

Firmly committed to its objective of providing educational experiences of a high standard, TECH brings together in this Postgraduate Certificate a first class teaching staff. Specializing in Advanced Life Support and Critical Patient Monitoring, these professionals have designed a myriad of academic resources based on both their solid knowledge of these subjects and their extensive careers. Therefore, graduates have the guarantees they demand to enjoy an intensive syllabus that will significantly enhance their professional horizons.



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The teaching team of this Postgraduate Certificate is composed of authentic references in the field of Critical Patient Monitoring and Advanced Life Support”

Management



Dr. Ramirez Torres, Carmen Amaia

- Nurse of the Intensive Care Unit at the San Pedro University Hospital
- Nurse of the Intensive Care Unit at the Hospital Viamed Los Manzanos
- Radiodiagnostic Nurse at Alliance Medical
- Nurse at the Residence for Elderly People of La Rioja
- Nurse in Gynecology and Obstetrics Operating Room at La Paz University Hospital
- Doctor in Nursing Sciences by the University Jaime I of Castellón
- Master's Degree in Management and Direction of Nursing Units from the University of La Rioja
- Master's Degree in Surgical Nursing, Medical Practice Group
- Graduate in Nursing from the Autonomous University of Madrid



Professors

Dr. Nebot Bergua, Carlos José

- ◆ Nurse in the Neonatal ICU of the Hospital Sant Joan de Déu of Barcelona
- ◆ Nurse in the Neonatal Unit of the Hospital San Pedro de Logroño
- ◆ PhD in Nursing Sciences from the University of Barcelona
- ◆ Master's Degree in Management of Educational Centers from the Cardenal Herrera University
- ◆ Master's Degree in Nursing Management from the Cardenal Herrera University
- ◆ Master's Degree in Comprehensive Care of Critical Patients and Emergencies from the University of Barcelona and the Autonomous University of Barcelona
- ◆ Master's Degree in Nursing Care in Childhood and Adolescence by the University of Barcelona
- ◆ Member of: Research Group in Nursing, Education and Society (GIES) of the Research Foundation, Sant Joan de Déu and Research Group in Care and Health (GRUPAC) of the University of La Rioja

Dr. Sapiña Beltrán, Ester

- ◆ Nurse Specialized in Health Sciences and Biomedical Research
- ◆ Nurse in the Pneumology and Intensive Care Unit at the San Pedro University Hospital
- ◆ Nurse in the Sleep Unit and Internal Medicine at the Santa María Hospital
- ◆ Researcher at the Institute of Biomedical Research of Lleida
- ◆ Researcher at the Center for Biomedical Research Network on Respiratory Diseases (CIBERES)
- ◆ Nurse at Clinical Hospital of Valencia
- ◆ PhD in Health by the University of Lleida
- ◆ Master's Degree in Biomedical Research, University of Lleida
- ◆ Graduate in Nursing from the University of Lleida

04

Structure and Content

This university program, with a duration of 180 teaching hours, will provide nurses with a comprehensive knowledge of the conditions that cause Hemodynamic Alterations in pediatric and neonatal users. To achieve this, the academic itinerary will provide innovative non-invasive techniques for patient follow-up. Therefore, graduates will avoid additional discomfort or complications in children. Also, the syllabus will delve into critical cases with pain, sedation and relaxation; taking into account the different pharmacological treatments. On the other hand, the program will delve into both legal and bioethical aspects that professionals should be aware of (such as informed consent).



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You will have a holistic approach to hemodynamic management in Pediatric and Neonatal Critically Ill Patients, including strategies to optimize blood circulation”

Module 1. Monitoring of the Pediatric and Neonatal Critically Ill Patient with Hemodynamic Alterations for Nursing

- 1.1. Pediatric and Neonatal Intensive Care Unit Infrastructure for Nursing
 - 1.1.1. Pediatric Intensive Care Units (PICU)
 - 1.1.2. Neonatal Intensive Care Units (NICU)
 - 1.1.3. Pediatric Resuscitation Units
- 1.2. Monitoring in Pediatric and Neonatal Intensive Care for Nursing
 - 1.2.1. Non-invasive Monitoring
 - 1.2.2. Invasive Monitoring
 - 1.2.3. Complementary Tests
- 1.3. Monitoring of the Pediatric and Neonatal Critically Ill Patient Connected to Mechanical Ventilation for Nursing
 - 1.3.1. Management and Monitoring of Non-Invasive Mechanical Ventilation (NIV)
 - 1.3.2. Management and Monitoring of Invasive Mechanical Ventilation (IMV)
 - 1.3.3. Care during Intubation and Extubation (Extubation Process Impossible)
- 1.4. Monitoring of the Pediatric and Neonatal Patient with Respiratory Alterations for Nursing
 - 1.4.1. Bronchopneumonia
 - 1.4.2. Bronchiolitis
 - 1.4.3. Asthma
 - 1.4.4. Upper Respiratory Obstruction
- 1.5. Monitoring of the Pediatric and Neonatal Critically Ill Patient with Venous and/or Arterial Accesses for Nursing
 - 1.5.1. Types and Techniques of Routes of Administration (e.g. Umbilical and Intraosseous)
 - 1.5.2. Maintenance of Administration Routes
 - 1.5.3. Recommendations to Avoid Adverse Effects related to Cannulation and Handling
- 1.6. Monitoring of the Pediatric and Neonatal Critically Ill Patient during the Administration of Drugs and Fluids for Nursing
 - 1.6.1. Other Routes of Administration: Enteral, Rectal, Intramuscular, Subcutaneous Route
 - 1.6.2. Preparation and Administration of Drugs and Fluids
 - 1.6.3. Patient Safety for Administration





- 1.7. Monitoring of the Critically Ill Pediatric and Neonatal Patient during Nutrition for Nursing
 - 1.7.1. Breastfeeding and Pediatric Nutrition
 - 1.7.2. Parenteral and Enteral Feeding
 - 1.7.3. Monitoring of Feeding: Biochemical Parameters and Growth Charts
- 1.8. Monitoring of the Pediatric and Neonatal Critically Ill Patient with Pain, Sedation and/or Muscle Relaxation for Nursing
 - 1.8.1. Pain: Types, Treatment and Assessment
 - 1.8.2. Sedation: Types, Induction, Maintenance and Assessment
 - 1.8.3. Muscle Relaxation: Types, Induction, Maintenance and Assessment
- 1.9. Management of the Family of the Pediatric and Neonatal Critically Ill Patient for Nursing
 - 1.9.1. Promotion of Collaboration and Participation
 - 1.9.2. Bioethical and Legal Aspects
 - 1.9.3. Practical Recommendations
- 1.10. Ethical Framework in Pediatrics and Neonates for Nursing
 - 1.10.1. Ethical Framework
 - 1.10.2. Informed Consent and Will
 - 1.10.3. Abuse, Gender Violence and other Issues



With this intensive university program you will increase your level of performance and informed clinical decision making. Enroll now!"

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.

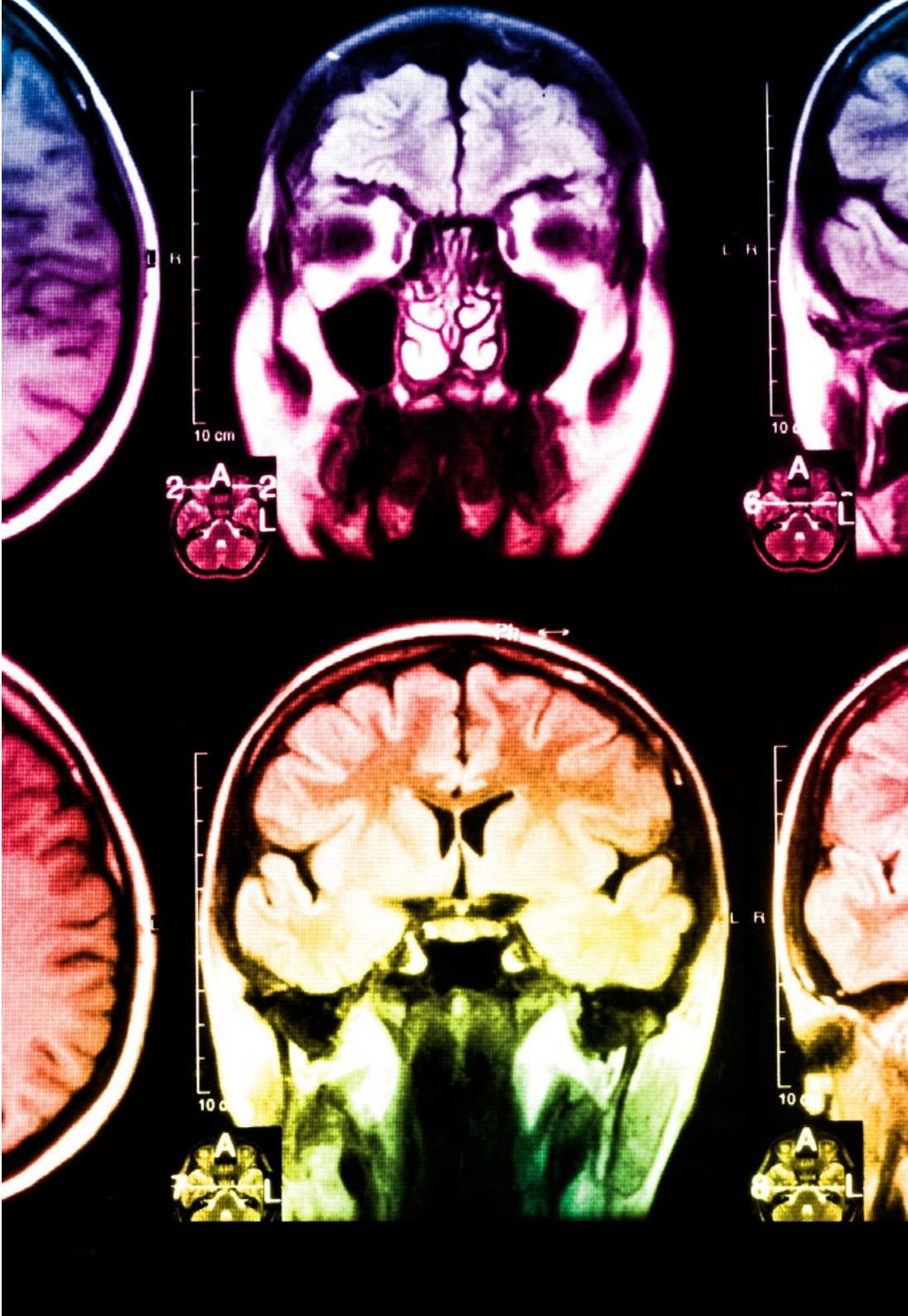
At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

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 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 them 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, they can watch them as many times as they 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 Certificate in Monitoring of the Pediatric and Neonatal Critically Ill Patient with Hemodynamic Alterations 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 private qualification will allow you to obtain a **Postgraduate Certificate in Monitoring of the Pediatric and Neonatal Critically Ill Patient with Hemodynamic Alterations 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.

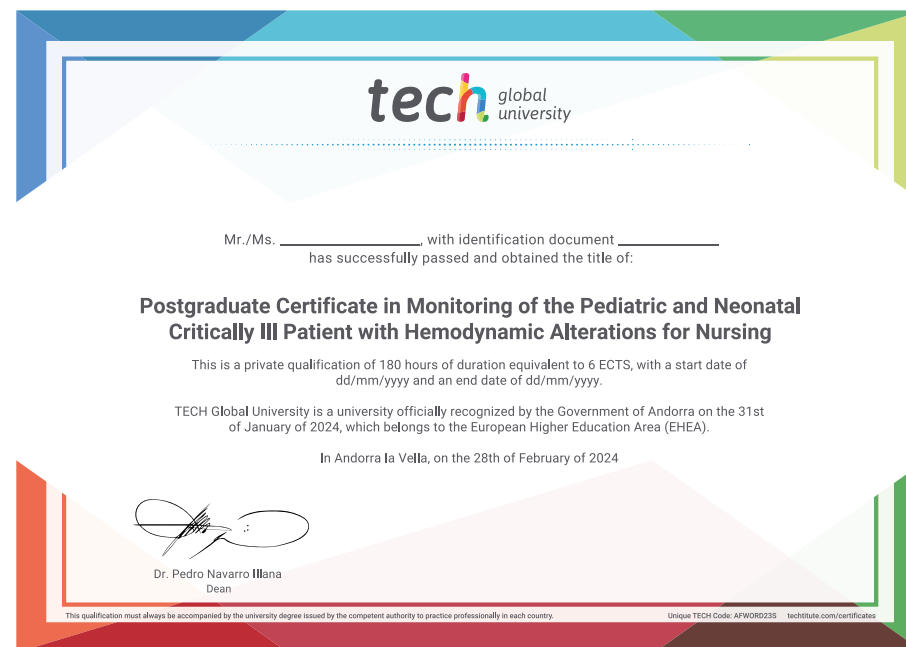
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Monitoring of the Pediatric and Neonatal Critically Ill Patient with Hemodynamic Alterations for Nursing**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





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Postgraduate Certificate

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