

Postgraduate Certificate

ICU Pharmacology for Nursing

Endorsed by:





Postgraduate Certificate ICU Pharmacology 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/icu-pharmacology-nursing

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01

Introduction

Recent scientific research has made possible the development of Pharmacology oriented to the Intensive Care Unit. In this line, personalized tests have been adopted to determine the most appropriate dose of medication for each patient or strategies to reduce pain by limiting the use of opioids. As these advances help to ensure patient wellbeing and minimize the potential adverse effects of drugs, knowledge of them is essential for the nurses who want to keep up-to-date in their field. For this reason, TECH has designed this program, with which the student will delve into the latest scientific evidence on analgesic drugs or muscle relaxants, online and without having to travel to a study center.



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Through this Postgraduate Certificate, you will delve into the latest scientific evidence on analgesic, sedation, and muscle relaxant drugs"

Pharmacology is a discipline that is constantly evolving in order to find drugs and delivery strategies that offer the greatest efficacy and cause the least negative impact on the patient. As a result, cutting-edge techniques have been developed that make it possible to optimize the dose required by each patient, as well as drugs that help to relieve pain in a less aggressive manner. In this sense, the great benefits provided by these updated methods to ensure the proper quality of life of people make the nurse must know them to carry out a cutting-edge health praxis.

For this reason, TECH has opted to create this program, through which the professional will delve into the latest scientific evidence on ICU Pharmacology for Nursing. Throughout this educational period, you will be able to learn about the latest updates in antibiotics or the latest precautions to take into account when administering drugs. In the same way, you will learn the up-to-date protocols for the calculation of the pharmacological doses required by patients.

Since this program is developed through a very complete 100% online methodology, the students will have the exquisite possibility of combining their excellent updating with their personal and professional obligations. In addition, this Postgraduate Certificate has been designed and developed by the best nurses specialized in the field of Intensive Care, an area in which they actively perform their functions. Therefore, all the knowledge you will receive will be fully in tune with the latest developments in the industry.

This **Postgraduate Certificate in ICU Pharmacology for Nursing** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of case studies presented by experts in Intensive Care Nursing
- ♦ 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 self-assessment can be used 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



Learn, through this program, the cutting-edge protocols for the administration of drugs and the calculation of personalized doses"

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The 100% online methodology of this program will allow you to optimize your upgrade from your own home”

Choose the educational formats that best suit your study needs and enjoy a customized learning experience.

Identifies the precautions to be taken into account in the administration of drugs according to the most recent scientific evidence.

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 educational year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.



02 Objectives

TECH has carried out the development of this Postgraduate Certificate with the primary objective of allowing the nurse to delve into the latest scientific evidence on Pharmacology in the Intensive Care Unit. Through this program, you will delve into the latest vasodilator and antiarrhythmic drugs and up-to-date techniques for dose calculation. All this, enjoying a first-class educational methodology and the best pedagogical materials of the educational panorama.





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Incorporate recent advances in ICU Pharmacology for Nursing into your practice in only 180 hours”



General Objectives

- Update the necessary knowledge in the nursing care of critical patients, in order to increase the quality and safety of nursing practice in the Intensive Care Unit
- Acquire the necessary skills to provide comprehensive care to the critical patient with criteria of speed, efficiency and quality
- Review the fundamental principles of critical care nursing





Specific Objectives

- ◆ Update the procedures for the use of the most frequent drugs in the intensive care unit
- ◆ Describe the therapeutic action and most important side effects of frequently used drugs in the intensive care unit
- ◆ Review the standards for administration of drug therapy in the intensive care unit



Achieve the objectives TECH has outlined for this program and enjoy an excellent update as a nurse"

03

Course Management

In order to provide the highest educational level to all its programs, this TECH program has a faculty made up of leading nurses in the field of Intensive Care, where they are currently working. Since these specialists are responsible for the elaboration of the educational materials of this Postgraduate Certificate, all the knowledge that the student will assimilate will be fully up-to-date.





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This program has a guest director who has held important positions in prestigious hospitals in Spain"

Guest Director



Ms. Díez Sáenz, Cristina

- ♦ Head Nurse of the Adult Intensive Care Unit at Gregorio Marañón General University Hospital
- ♦ Nursing supervisor at Gregorio Marañón ICU
- ♦ Nurse Assistant in different hospitalization areas in different health centers and hospitals
- ♦ 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"

Co-Direction



Ms. Lospitao Gómez, Sara

- ♦ Intensive Care and Interventional Cardiology Nurse in Fuenlabrada University Hospital (HUF)
- ♦ Nurse Cardiac Surgery Post-Surgical Intensive Care Unit PCU 12 de Octubre Hospital
- ♦ Nurse Coronary Intensive Care Unit 12 de Octubre Hospital
- ♦ Nurse of the Interventional Cardiology Unit (Hemodynamics, EUS and Implants)
- ♦ Responsible for RRSS #TEAyudamos and Member of the group #JuntosxElCáncer
- ♦ Instructor for SVA by the National CPR Plan of SEMICYUC
- ♦ Member of the Care Sub-Commission (HUF), Care Commission (HUF), Secretary of the Ulcers and Wounds Working Group (HUF)



Professors

Ms. Álvarez Carrascal, Inmaculada

- ◆ Nurse in charge of ICU Safety at the Gregorio Marañón General University Hospital
- ◆ Instrumentalist nurse in operating room of Churchill Hospital
- ◆ Nurse assistant in various services of hospitals and health centers of the Andalusian Health Service
- ◆ Diploma in Nursing from the University of Seville
- ◆ Expert in Critical Care by the Complutense University of Madrid

Mr. González Palacios, Rubén

- ◆ Nurse assistant in the Intensive Care Unit of the Gregorio Marañón General University Hospital
- ◆ Attending Nurse in the Internal Medicine Unit of the Doce de Octubre University Hospital
- ◆ Nurse assistant in different Primary Care centers in the Community of Madrid
- ◆ Developer of the mobile application "Compatibility drugs" for intravenous compatibility of drugs

Mr. Ruiz Henestrosa Campos, Manuel Jesús

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

04

Structure and Content

The syllabus of this program has been designed with the idea of favoring the professional updating of the student in ICU Pharmacology for Nursing. Each of the program's topics has a wide range of teaching formats, both textual and multimedia, allowing you to choose the support that best suits your study preferences. In addition, its 100% online modality will enable you to adjust your learning schedule to your personal needs.





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This syllabus has been designed by the best experts in Intensive Care Nursing to provide you with the most up-to-date teaching content in the field"

Module 1. Pharmacology in Intensive Care

- 1.1. Basic Concepts in Pharmacology
- 1.2. Drug Administration Safety
- 1.3. Most Frequently Used Drugs: Analgesia, Sedation and Muscle Relaxants
- 1.4. Most Frequently Used Drugs: Antiarrhythmics, Vasodilators and Inotropes
- 1.5. Most Frequently Used Drugs: Respiratory System and Antibiotics
- 1.6. Drug Administration Precautions: Oral and Enteral, Parenteral, and Transfusion
- 1.7. Drug Administration Precautions: Cytostatics, Epidural, PCA and Insulin Pumps
- 1.8. Formulas and Dosis Calculation
- 1.9. Enteral Nutrition at and Parenteral
- 1.10. Pharmacology in Pediatrics





“*Optimize your learning through videos, interactive summaries, or evaluative tests. This is your chance to update yourself in an enjoyable and resolute way!*”

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 ICU Pharmacology 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 ICU Pharmacology 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 ICU Pharmacology for Nursing**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**

Endorsed by: The Spanish Society of Intensive Care Nursing and Coronary Units.



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



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Postgraduate Certificate

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A close-up, high-angle photograph of a clear plastic medical syringe with a white plunger, set against a dark background. The syringe is angled from the bottom left towards the top right. The plunger has a white rubber seal and a white plastic cap. The barrel of the syringe has some faint markings. The background is a mix of dark grey and black, with a diagonal line separating it from a lighter grey area at the top right. There are also some green geometric shapes in the bottom left corner.

tech global
university