

# Postgraduate Certificate Emergency Pharmacology for Nursing





## Postgraduate Certificate Emergency Pharmacology for Nursing

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Accreditation: 5 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/nursing/postgraduate-certificate/emergency-pharmacology-nursing](http://www.techtute.com/us/nursing/postgraduate-certificate/emergency-pharmacology-nursing)

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# 01

# Introduction

Advances in the formulas of active ingredients and new pharmaceutical presentations make it necessary to constantly update the use of pharmacology by the nursing professional. Nursing procedures in emergencies are no stranger to these advances, so the professional needs to know them and apply them, especially in situations where the patient's life is at stake, in order to guarantee the best care.







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*This Postgraduate Certificate deals with the procedures for the use of the main drugs used in medical emergencies, so that you will be able to face those situations in which the patient suffers a serious emergency situation and manage the pharmacological treatment with rigour"*

Medication-related errors are a cause of patient safety incidents. There are many reasons that contribute to these safety failures, hence the importance of constantly updating knowledge in pharmacology to improve the clinical safety dimension.

This Postgraduate Certificate in Emergency Pharmacology for Nursing aims to update the nursing professional in the knowledge and safe management of the most commonly used drugs in daily practice in the field of emergencies. Using them in line with the latest scientific evidence in the medical treatment of healthcare processes with the aim of minimizing the risks of their administration.



*Update your knowledge through the Postgraduate Certificate in Emergency Pharmacology for Nursing in a practical way and adapted to your needs"*

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

- ◆ Clinical cases presented by experts in emergencies
- ◆ 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
- ◆ Diagnostic and therapeutic novelties on protocols for the use of pharmacology in emergencies by the nursing professional
- ◆ An algorithm-based interactive learning system for decision-making in the clinical different situations presented throughout the course
- ◆ 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

“ *This Postgraduate Certificate may be the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge in emergency pharmacology, you will obtain a qualification from TECH Technological University*”

Forming part of the teaching staff is a group of professionals in the field of emergencies, who bring to this training their work experience, as well as a group of renowned specialists, recognised by esteemed scientific communities.

Thanks to its multimedia content developed with the latest educational technology, it will allow the professional a situated and contextual learning, that is to say, a simulated environment that will provide an immersive learning programmed to train in real situations.

This program is designed around Problem-Based Learning, whereby the student will must try to solve the different professional practice situations that arise during the course. For this reason, you will be assisted by an innovative, interactive video system created by renowned and experienced experts in the field of emergencies with extensive teaching experience.

*This course allows training in simulated environments, which provide immersive learning programmed to train for real situations.*

*It includes clinical cases to bring the program as close as possible to the reality of care in nursing.*



# 02 Objectives

The main objective of the program is the development of theoretical and practical learning, so that the nursing professional achieves a rigorous mastery of the approach to the patient in an emergency situation.





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



### General Objective

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- Update the nursing professional in the use of pharmacological therapeutics in urgent and emergency situations, in order to provide quality medical care to the seriously ill patient



*Make the most of the opportunity and take the step to get up-to-date on the latest developments in emergency pharmacology”*





## Specific Objectives

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- ♦ Differentiate between the concepts of accidents, emergencies and disasters
- ♦ Identify the fundamentals of emergency health care
- ♦ Apply clinical and non-clinical professional skills in emergency and disaster medicine
- ♦ Update knowledge on how an emergency coordination center works
- ♦ Identify the equipment and the communication systems in an EMS.
- ♦ Describe the main routes of administration of drugs used in the different emergency departments
- ♦ Explain the principles of safety in drug handling
- ♦ List drugs frequently used in emergency medicine, indications and contraindications
- ♦ Describe the formulas for dose calculation
- ♦ Update the procedures for the management of fluid therapy and the situations in which its use is indicated



03

# Course Management

The materials have been created by a team of renowned professionals, both in the area of hospital and out-of-hospital emergency care, who carry out their professional work in the main hospital centers and emergency care units in the country. Bringing to the program the experience they have gained throughout their careers.







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*Learn about the latest advances  
in emergency and catastrophe  
nursing from leading professionals”*

## Directeur invité international

Dr. Fadi Salah Issa has become one of the world's leading experts in the field of Emergency Medicine. For more than 20 years he has developed a tireless work in this subspecialty of Urgencies and Emergencies.

A work that starts from his performance as an emergency physician at the King Faisal Specialist Hospital & Research Centre, where he implemented a new system and rapid care facility that reduced waiting times for patients. This allowed him to improve care and more efficiently handle complex cases of oncology, transplant patients and congenital diseases. Thanks to his deep interest in providing the best healthcare response to disaster situations, Salah Issa has turned his efforts to academia and research, promoting specialized and continuous education for medical professionals.

In this regard, he is the Director of Education for the Disaster Medicine Fellowship at the BIMC Medical Harvard Medical School. A role that joins the co-supervision of the European Disaster Medicine Thesis Board at the University of Eastern Piedmont. His impact in this area has been positive, contributing to the better preparation of health workers. In addition, his concern for humanitarian work has led him to become involved in the World Association of Disaster and Emergency Medicine (WADEM), where he serves as chairman of the special interest group against terrorism.

In this line, his scientific studies also include his analysis of attacks on educational institutions, the prevention of post-traumatic stress and the promotion of the resilience of healthcare personnel in the face of COVID-19, anti-terrorist medicine and the analysis of variability in the training of expatriate pre-hospital providers in Bahrain.



## Dr. Salah Issa, Fadi

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- Emergency Physician specialized in Emergency Medicine
- Co-supervisor of the European Disaster Medicine Thesis Board at the University of Eastern Piedmont
- Director of Education for the BIMC Disaster Medicine Fellowship at Harvard Medical School BIMC Physicians
- Director of Disaster Preparedness Education Initiatives at Harvard Medical School BIDMC Physicians
- Research Fellowship in Disaster Medicine at Harvard Medical School
- Emergency Physician at King Faisal Specialist Hospital & Research Centre
- Team Leader and Emergency Physician at Armed Forces Hospitals-Southern Region, Khamis Mushayt, KSA
- Bachelor of Medicine and Surgery, University of Medicine and Pharmacology, Cariova, Romania
- Disaster Medicine and Emergency Management from Harvard Medical School Medical Doctors in BIDMC
- Master's Degree in Disaster Medicine from the University of Piemonte Orientale, Italy
- Chairman of the Counterterrorism Special Interest Group of the World Association of Disaster and Emergency Medicine (WADEM)
- Fellow of the Academy of Harvard Medical School

“

Thanks to TECH, you will be able to learn with the best professionals in the world”

## Guest Directors



### Ruiz López, Daniel

- Nursing Supervisor in the Adult Emergency Department of the La Paz University Hospital (Madrid)
- Diploma in Nursing (D.U.E.), University School of Nursing, Cordoba
- Master's Degree in Nursing Management. Cardenal Herrera University
- University Expert in Nursing in the Hospital Emergency Department. Cardenal Herrera University
- University Expert in Management Skills for Nursing. Cardenal Herrera University
- University Expert in Quality Management for Nursing. Cardenal Herrera University
- University Expert in Management and Services Supervision for Nursing. Cardenal Herrera University
- University Expert in Direction and Management of Health Services for Nurses. Cardenal Herrera University
- Training Course for Trainers and Auditors in Triage Manchester. Spanish Triage Group



### Ms. Souto Novas, Ana María

- Emergency Supervisor at La Paz University Hospital
- University Diploma in Nursing from the Universidad Pontificia of Salamanca
- Master's Degree in Integration and Critical Problem Solving in Nursing from the University of Alcalá
- Degree in Social and Cultural Anthropology from the Autonomous University of Madrid
- Advanced Training in Dialysis Techniques for Nurses
- University Expert in Accidents and Emergencies from the Complutense University of Madrid.
- Training Course on Out-of-Hospital Emergencies from the Complutense University of Madrid
- University Expert in Management and Services Leadership for Nursing
- Priority Triage in the Emergency Department. Manchester System



## Co-Direction



### Roig D'Cunha-Kamath, Francisco Vicente

- Member of the Primary Care team at C. S. Lliria from June to October 2001.
- Member of the Primary Care team at C. S. Burjassot during the month of June, 2001.
- Member of the Primary Care team at C. S. de Massanasa during the month of July, 2001.
- Attending physician in the Emergency Department at Requena General Hospital during the months of July and August, 2001.
- Attending physician in the Emergency Department at Valencia Clinical University Hospital from November 2001 to November 2003 as an attending physician on a continuous care contract with periods of full contract and from November 2003 to the present date on a full time contract.
- Doctor at Unión de Mutuas from December 2001 to June 2002.
- Doctor at the Parqueluz II Residence in Catarroja from its creation in 2002 until November 2003.
- Doctor of the Ascires group, currently in charge of the general medicine/family and community medicine office of the Ascires group in the Valencia area.

## Professors

### Ms. Gómez Lage, Laura

- ♦ Adult Emergency Supervisor at La Paz University Hospital
- ♦ Degree in Nursing from the Complutense University of Madrid
- ♦ University Expert in the Nursing Processes and Interventions of Pediatric Patients in Life Threatening Situations
- ♦ University Expert in the Emotional Development and Upbringing of a Child
- ♦ Pharmacology Residency in Emergency Medicine
- ♦ Nursing Basics in Emergencies

### Ms. Chamizo Alberto, Leticia

- ♦ Nurse in the Emergency Services of H.U La Paz
- ♦ Diploma in Nursing from the Red Cross School, Autonomous University of Madrid
- ♦ Expert in Out-of-Hospital Emergency Care at the School of Health Sciences, Complutense University, Madrid
- ♦ Qualifying certificate for Manchester Triage at HU La Paz
- ♦ Basic Life Support and Advanced Life Support Course
- ♦ Course on Initial Care of the Polytraumatized Patient; Nursing action response to the main traumas of a polytraumatized patient and monitoring of the critically ill patient.







#### **Ms. Forés Rivas, Ana**

- ◆ Member of the Intensive Care Unit of the Dr. Peset University Hospital
- ◆ University Diploma in Nursing
- ◆ Diploma in Corporate Nursing
- ◆ Master's Degree in the Prevention and Treatment of Addictive Behaviors
- ◆ Technical Laboratory Specialist
- ◆ Certificate of Pedagogical Aptitude (CAP)
- ◆ Health and Community Foundation. 7/2006-2012 and 6/2017 until present

#### **Vega Vega, Luis**

- ◆ Nurse in the Emergency Services of HU La Paz
- ◆ Degree in Nursing from the Red Cross School
- ◆ Expert in out-of-hospital care and Master of Nursing in Emergency and Critical Care at the European University of Madrid
- ◆ University Expert in Comprehensive Management of Adults in Infectious Diseases Care Processes
- ◆ Instructor of Basic Life Support and First Aid
- ◆ Manchester Triage Enabling Course
- ◆ Active member of the Red Cross ERIE Health Care

#### **Dr. Brasó Aznar, José Vicente**

- ◆ Hospital Emergency Physician
- ◆ Associate Professor of Emergency Medicine at the Faculty of Medicine of the University of Valencia.
- ◆ Head of Department Emergency Medicine. Ribera University Hospital

# 04

# Structure and Content

The structure of the contents has been designed by a team of professionals who recognise the implications of training in daily medical praxis for emergency trauma care, aware of the relevance of current training to treat patients with emergency pathologies and who are committed to quality teaching using new educational technologies.





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*This Postgraduate Certificate in Emergency Pharmacology for Nurses contains the most complete and up-to-date scientific program on the market”*

### Module 1. General Aspects

- 1.1. Definitions and Concepts.
- 1.2. Comprehensive Study of Health Emergencies
- 1.3. Functions of Emergency and Disaster Nursing
- 1.4. Bioethics in Emergencies and Disasters

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



## Module 2. Pharmacology of Accidents and Emergencies

- 2.1. Basic Concepts
- 2.2. Drug Administration Routes in Accidents and Emergencies
- 2.3. Drug Administration Safety
- 2.4. Fluid Therapy
- 2.5. Most Common Drugs Used in Accident and Emergency Care
- 2.6. Formulas and Dosis Calculation





# 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. Gervas, 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 Harvard 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 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 Emergency 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 private qualification will allow you to obtain a **Postgraduate Certificate in Emergency 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** 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 Emergency Pharmacology for Nursing**

Modality: **online**

Duration: **6 weeks**

Accreditation: **5 ECTS**



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
online training  
development language  
classroom



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# Postgraduate Certificate

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