

# Postgraduate Certificate

## Cardiovascular and CNS Infections in the Emergency Department for Nursing





## Postgraduate Certificate Cardiovascular and CNS Infections in the Emergency Department for Nursing

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

Website: [www.techtute.com/us/nursing/postgraduate-certificate/cardiovascular-cns-infections-emergency-department-nursing](http://www.techtute.com/us/nursing/postgraduate-certificate/cardiovascular-cns-infections-emergency-department-nursing)

# 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

Nurses working in the Emergency Department may be confronted, during their daily work, with the care of patients with infectious diseases. Therefore, their professional duty is to be constantly updating their knowledge in order to be able to offer the most personalized care according to the needs of the patients. The student will be able to specialize with TECH and acquire the necessary skills to develop successfully in this field.





“

*Join our community of students and acquire specialized knowledge in infectious diseases. You will achieve personal and professional growth in a short time”*

Caring for patients with infectious diseases is a challenge for nurses who, especially in the Emergency Department, may face new or infrequent situations. For this reason, it is of great importance to carry out specializations such as the one TECH presents on this occasion, in which nurses will find an up to date syllabus on Cardiovascular and CNS infections that has been prepared by a team of professionals with extensive work and teaching experience.

Specifically, the program includes the classic aspects in the management of infectious pathology by apparatus or organs, obviously taking into account any updates that may have occurred up to the time of the design of this program. However, new and essential items have also been incorporated for the correct management of infectious diseases in the current scenario of health globalization.

In this way, TECH has set out to offer nurses a high academic level of training that allows professionals to specialize and improve in their daily practice, since it is not only intended that professionals acquire a higher level of education, but also to train them so that patients are cared for by the best.

One of the main advantages of this Postgraduate Certificate is that, as it is a 100% online specialization, the professionals will be able to decide when and from where to study, without any commitments or obligations, thus being able to combine their study time with the rest of their daily obligations.

This **Postgraduate Certificate in Cardiovascular and CNS Infections in the Emergency Department for Nursing** contains the most complete and up to date scientific program on the market. The most outstanding features of this program are:

- ♦ Clinical cases presented by experts in Infectious Diseases
- ♦ The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional
- ♦ Therapeutic developments on the intervention in Cardiovascular and CNS Infections in the Emergency Department
- ♦ Practical exercises where to carry out the self assessment process to improve learning
- ♦ An algorithm based interactive learning system for decision making in the clinical situations presented throughout the course
- ♦ Its special emphasis on research 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



*Update your knowledge through this program and give a boost to your profession. You will be able to help your patients more effectively"*

“

*With this complete program you will learn how to explain the diagnosis and treatment of endocarditis and intravascular infections in the emergency department"*

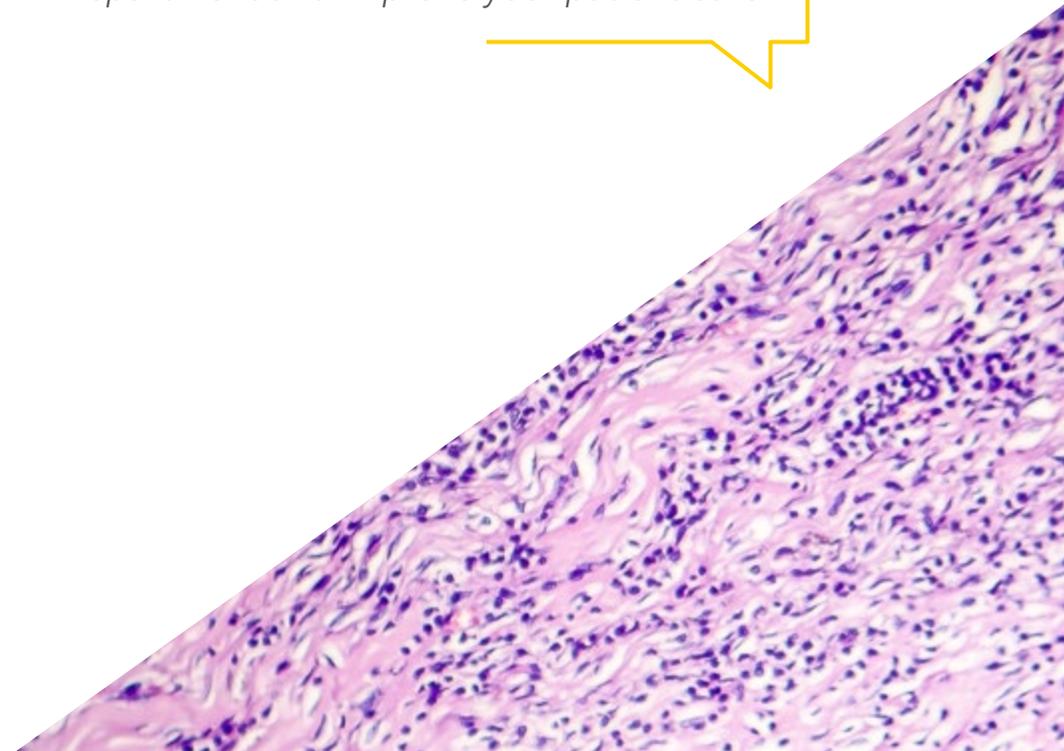
It includes, in its teaching staff, professionals belonging to the field of Cardiovascular and CNS Infections in the Emergency Department, who contribute their work experience to this training, in addition to recognized specialists from leading scientific societies.

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 an immersive training experience designed to train for real life situations.

The design of this program focuses on Problem Based Learning, by means of which the nurse must try to solve the different professional practice situations that arise throughout the academic year. For this purpose, the professional will be assisted by an innovative interactive video system developed by renowned experts in the field of Cardiovascular and CNS Infections in the Emergency Department, with extensive teaching experience.

*Increase your decision making confidence by updating your knowledge through this Postgraduate Certificate.*

*Make the most of the opportunity to learn about the latest advances in Cardiovascular and CNS Infections in the Emergency Department and improve your patient care.*



# 02 Objectives

The Postgraduate Certificate in Cardiovascular and CNS Infections in the Emergency Department for Nursing is aimed at facilitating the performance of the professional dedicated to the treatment of urgent infectious pathology in all areas, but especially in the Emergency Department.





“

*We offer you high level training to help you achieve academic excellence”*



## General Objectives

---

- Provide the necessary theoretical knowledge to be able to understand the environment in which the professional activity is developed to care for patients with Infectious Diseases
- Provide the appropriate treatment in the different cases of infectious diseases
- In depth study of each of the areas in which professionals must specialize in order to practice with knowledge in the care of infectious pathologies



*Update your knowledge through the program on Cardiovascular and CNS Infections in the Emergency Department for Nursing"*





## Specific Objectives

---

- ◆ Explain the diagnosis and treatment of Endocarditis and Intravascular Infections in the emergency department
- ◆ Explain the diagnosis and treatment of septic thrombophlebitis in the emergency department
- ◆ Explain the diagnosis and treatment of intravascular devices infections in the Emergency Department
- ◆ Explain the diagnosis and treatment of tunneled and non tunneled catheter infection in the emergency department
- ◆ Explain the diagnosis and treatment of pacemaker infections in the Emergency Department
- ◆ Explain the emergency department diagnosis and treatment of infection of other devices
- ◆ Explain the diagnosis and treatment of pericarditis and myocarditis in the Emergency Department
- ◆ Explain the diagnosis and treatment of mediastinitis in the Emergency Department
- ◆ Explain the diagnosis and treatment of meningitis in the Emergency Department
- ◆ Explain the diagnosis and treatment of encephalitis in the Emergency Department
- ◆ Explain the diagnosis and treatment of myelitis in the Emergency Department
- ◆ Explain the diagnosis and treatment of brain abscess in the emergency department
- ◆ Explain the diagnosis and treatment of subdural empyema, epidural abscess and intracranial thrombophlebitis in the Emergency Department
- ◆ Explain the diagnosis and treatment of CSF shunt infections in the Emergency Department

03

# Course Management

The program includes in its teaching staff leading specialists in Cardiovascular and CNS Infections in the Emergency Department and other related areas, who bring their work experience to this training. Additionally, other recognized specialists participate in its design and preparation, which means that the program is developed in an interdisciplinary manner.





“

*The best teachers are at the best university. Don't miss the opportunity to prepare with them"*

## Management



### Dr. García del Toro, Miguel

- ♦ PhD in Medicine from the University of Valencia
- ♦ Head of the Infectious Diseases Unit at the General University Hospital Consortium of Valencia
- ♦ 50 national and international publications in journals and books, 33 of them indexed in Pubmed and/or Scopus
- ♦ President Congress of the National Group for the Study of Hepatitis of the Society of Infectious Diseases and Clinical Microbiology 2017
- ♦ More than 200 communications at national and international congresses in the specialty of Infectious Diseases, HIV and Viral Hepatitis
- ♦ Main investigator of some twenty clinical trials and/or research projects



### Ms. García Rodríguez, Magdalena

- ♦ Degree in Medicine and Surgery
- ♦ Specialist in Internal Medicine
- ♦ Attending Physician in the Infectious Diseases Unit and the Consorcio General Hospital Valencia
- ♦ Head of the International Health and Travel Advice Section
- ♦ Author of several publication and research projects
- ♦ Founding member and advisor of the Chagas Disease Association of the Valencian Community
- ♦ Member of a vaccine study group for the Spanish Society of Infectious Diseases and Clinical Microbiology
- ♦ Member of a Malaria study group for the Spanish Society of Infectious Diseases and Clinical Microbiology



### **Ms. Ricart Olmos, María del Carmen**

- ◆ Degree in Medicine and Surgery
- ◆ Specialist in Internal Medicine
- ◆ Attending Physician in the Infectious Diseases Unit and the Consorcio General University Hospital, Valencia
- ◆ Author of several publication and research projects
- ◆ Editor of the Consensus Document on Age and Human Immunodeficiency Virus Infection Expert Group of the Secretariat of the National AIDS Plan (SPNS), Spanish Society of Geriatrics and Gerontology (SEGG)
- ◆ Master's Degree in Infectious Diseases in Intensive Care

04

# Structure and Content

The structure of the contents has been designed by a team of professionals from the best hospitals and universities, aware of the relevance of this specialization in order to intervene in the treatment and monitoring of cardiovascular and CNS infections in the Emergency Department and committed to quality teaching through new educational technologies.





“

*This Postgraduate Certificate contains the most complete and up to date scientific program on the market”*

## Module 1. Infections of Organs and Apparatus: Cardiovascular, CNS

- 1.1. Infectious Endocarditis
  - 1.1.1. Epidemiology
  - 1.1.2. Etiology
  - 1.1.3. Clinical Symptoms
  - 1.1.4. Diagnosis
  - 1.1.5. Treatment
  - 1.1.6. Prevention
- 1.2. Infection of Intravascular Devices
  - 1.2.1. Infections Associated with Intravascular Catheter
  - 1.2.2. Infections Related to Implantable Electronic Cardiovascular Implantable Cardiovascular Devices
- 1.3. Acute Pericarditis
  - 1.3.1. Definition
  - 1.3.2. Incessant and Chronic Pericarditis
  - 1.3.3. Recurrent Pericarditis
  - 1.3.4. Myopericarditis
- 1.4. Mediastinitis
  - 1.4.1. Acute Mediastinitis
  - 1.4.2. Sclerosing Mediastinitis
- 1.5. Meningitis
  - 1.5.1. Epidemiology and Etiopathogenesis
  - 1.5.2. Diagnosis of Meningitis: Clinical and Laboratory
  - 1.5.3. Antimicrobial Treatment
- 1.6. Encephalitis
  - 1.6.1. Epidemiology and Etiopathogenesis
  - 1.6.2. Diagnosis of Encephalitis: Clinical and Complementary Evaluations
  - 1.6.3. Antimicrobial Treatment





- 1.7. Myelitis
  - 1.7.1. Epidemiology and Etiopathogenesis
  - 1.7.2. Clinical Symptoms
  - 1.7.3. Diagnosis
  - 1.7.4. Treatment
- 1.8. Cerebral Abscess
  - 1.8.1. Aetiopathogenesis
  - 1.8.2. Clinical Manifestations and Diagnosis
  - 1.8.3. Treatment
- 1.9. Subdural Empyema, Epidural Abscess and Intracranial Thrombophlebitis
  - 1.9.1. Subdural Empyema: Etiopathogenesis, Clinical Manifestations, Diagnosis and Treatment
  - 1.9.2. Epidural Abscess: Etiopathogenesis, Clinical Manifestations, Diagnosis and Treatment
  - 1.9.3. Septic Thrombophlebitis: Etiopathogenesis, Clinical Manifestations, Diagnosis and Treatment
- 1.10. CSF Shunt Infections
  - 1.10.1. Aetiopathogenesis
  - 1.10.2. Clinical manifestations
  - 1.10.3. Diagnosis
  - 1.10.4. Treatment



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

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***.



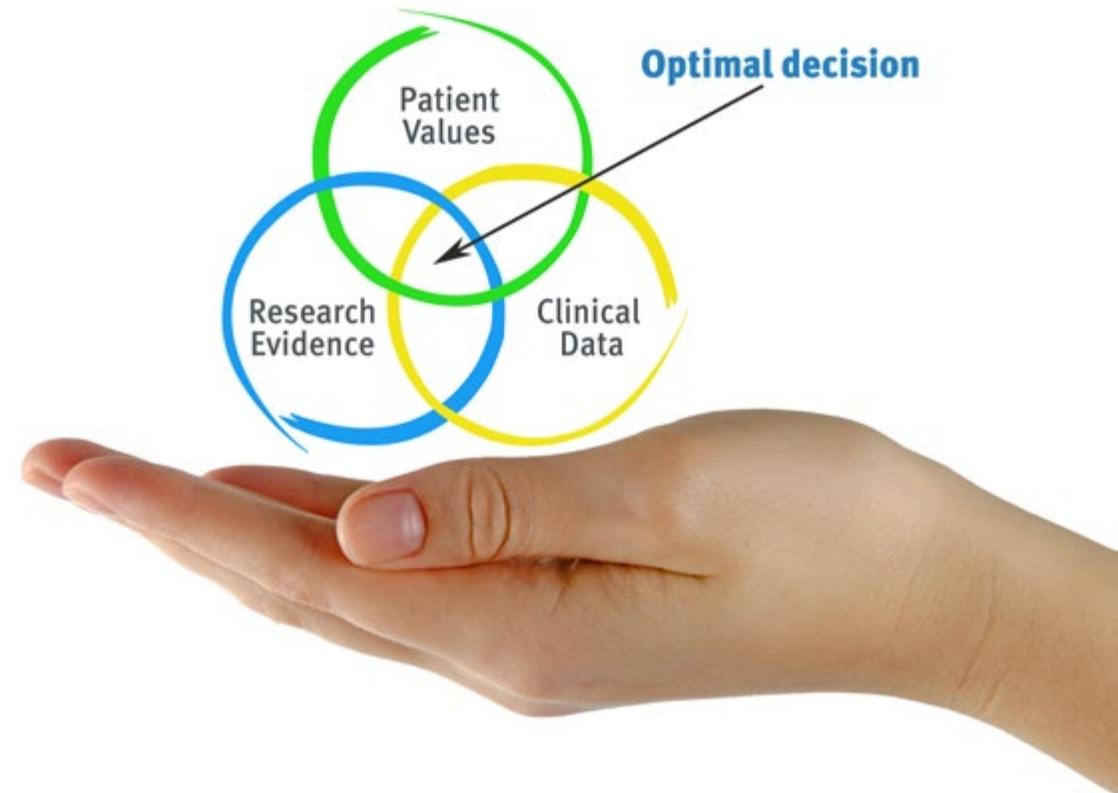
“

*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.

“

*Did you know that this method was developed in 1912 for Harvard 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 specialties regardless of practical workload. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*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 the videos as many times as you like.



### Interactive Summaries

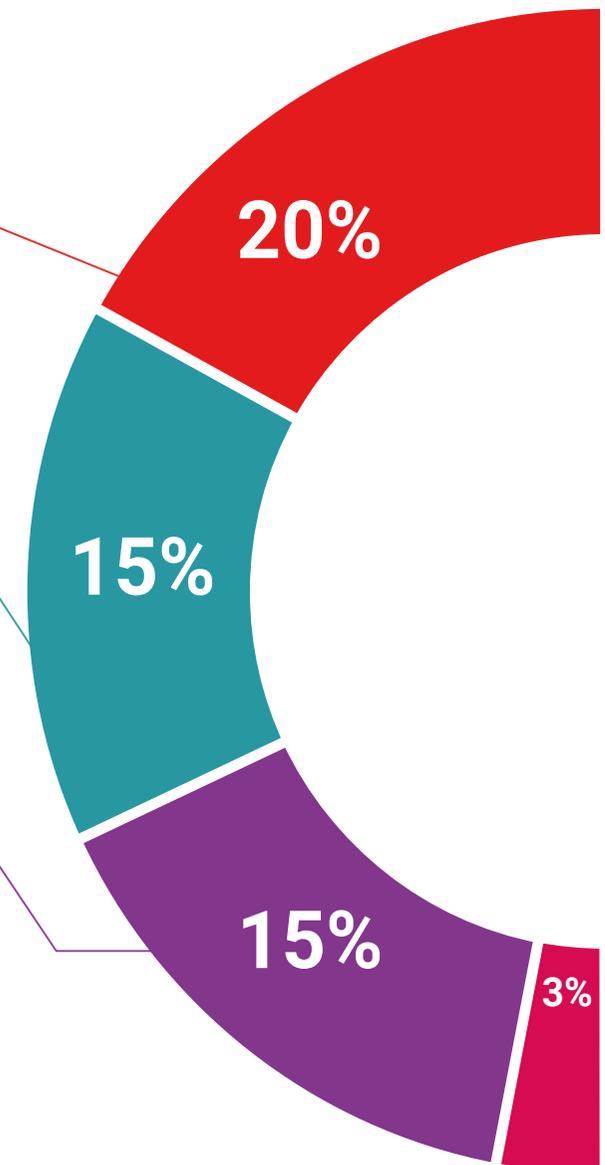
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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 Cardiovascular and CNS Infections in the Emergency Department for Nursing guarantees, in addition to the most rigorous and up to date training, access to a certificate issued by TECH Global University.





“

*Successfully complete this training and receive your university degree without travel or laborious paperwork"*

This program will allow you to obtain your **Postgraduate Certificate in Cardiovascular and CNS Infections in the Emergency Department 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.

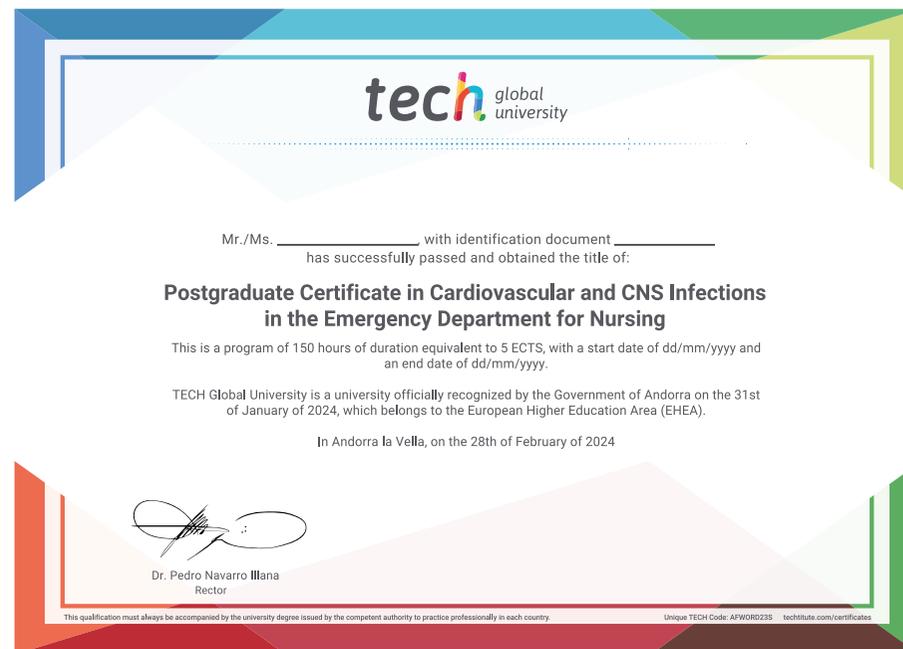
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Cardiovascular and CNS Infections in the Emergency Department for Nursing**

Modality: **online**

Duration: **6 weeks**

Accreditation: **5 ECTS**



\*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.

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



**Postgraduate Certificate**  
Cardiovascular and  
CNS Infections in the  
Emergency Department  
for Nursing

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

# Postgraduate Certificate

## Cardiovascular and CNS Infections in the Emergency Department for Nursing