

# Postgraduate Certificate

Emergencies and Major Disasters, Life Support and Diagnostic Techniques in the Outpatient Setting for Nursing





## Postgraduate Certificate

### Emergencies and Major Disasters, Life Support and Diagnostic Techniques in the Outpatient Setting for Nursing

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Accreditation: 7 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/nursing/postgraduate-certificate/emergencies-major-disasters-life-support-diagnostic-techniques-outpatient-setting-nursing](http://www.techtute.com/us/nursing/postgraduate-certificate/emergencies-major-disasters-life-support-diagnostic-techniques-outpatient-setting-nursing)

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# 01

# Introduction

In both Emergency and Major Disaster situations, the response of nurses outside the hospital environment plays a decisive role in the survival of victims. It is therefore essential for experts to have a solid understanding of Advanced Life Support procedures in order to perform optimal interventions that contribute to improving the clinical condition of the victims. However, this work can be challenging for professionals due to the rapid evolution of protocols in the face of large-scale disasters, together with technological advances in this field. Within this framework, TECH is developing a revolutionary online university program that brings together the most innovative methodologies for the correct approach to incidents involving multiple victims.





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*Through this 100% online Postgraduate Certificate, you will quickly identify critical situations such as Cerebrovascular Accidents and apply the most effective therapeutic methods to stabilize patients”*

The World Health Organization shared in a recent conference its concern for the increase of Catastrophes on a global scale, being an example of this the earthquakes that have affected 23 million people in Turkey. Aware of this reality, the organization recalls the vital role played by nursing professionals in these events, providing essential clinical care and offering emotional support to people to cope with these episodes. In this sense, experts must be prepared at all times to actively contribute to the management of these incidents, so they need to incorporate into their daily praxis the most cutting-edge multiple victim care techniques in order to prioritize their attention according to the severity of the individuals.

In this context, TECH implements a pioneering Postgraduate Certificate in Emergencies and Major Disasters, Life Support and Diagnostic Techniques in the Outpatient Setting. The academic itinerary will delve into the different logistics processes that must be taken into account in accidents that affect many people, emphasizing the importance of applying severity scales such as triage to prioritize care according to the clinical condition of patients. Likewise, the syllabus will provide graduates with the keys to perform a wide range of therapeutic methods to successfully stabilize users. Therefore, professionals will develop advanced skills to perform procedures such as central venous cannulations, Pleural Drainage or catheter placement.

On the other hand, TECH provides nurses with a 100% online academic environment, adapted to the needs of professionals who want to advance in their professional careers. Therefore, they will be able to individually plan their schedules and evaluation chronograms. Likewise, the Postgraduate Certificate employs the innovative Relearning 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 Emergencies and Major Disasters, Life Support and Diagnostic Techniques in the Outpatient Setting 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 Emergencies and Medical Emergencies in the outpatient setting
- ♦ The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable 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



*This university program gives you the opportunity to update your knowledge in a real scenario, with the maximum scientific rigor of a technological reference institution”*

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*You gain knowledge of Pediatric Life Support algorithms to ensure that children respond favorably to the administration of chest compressions”*

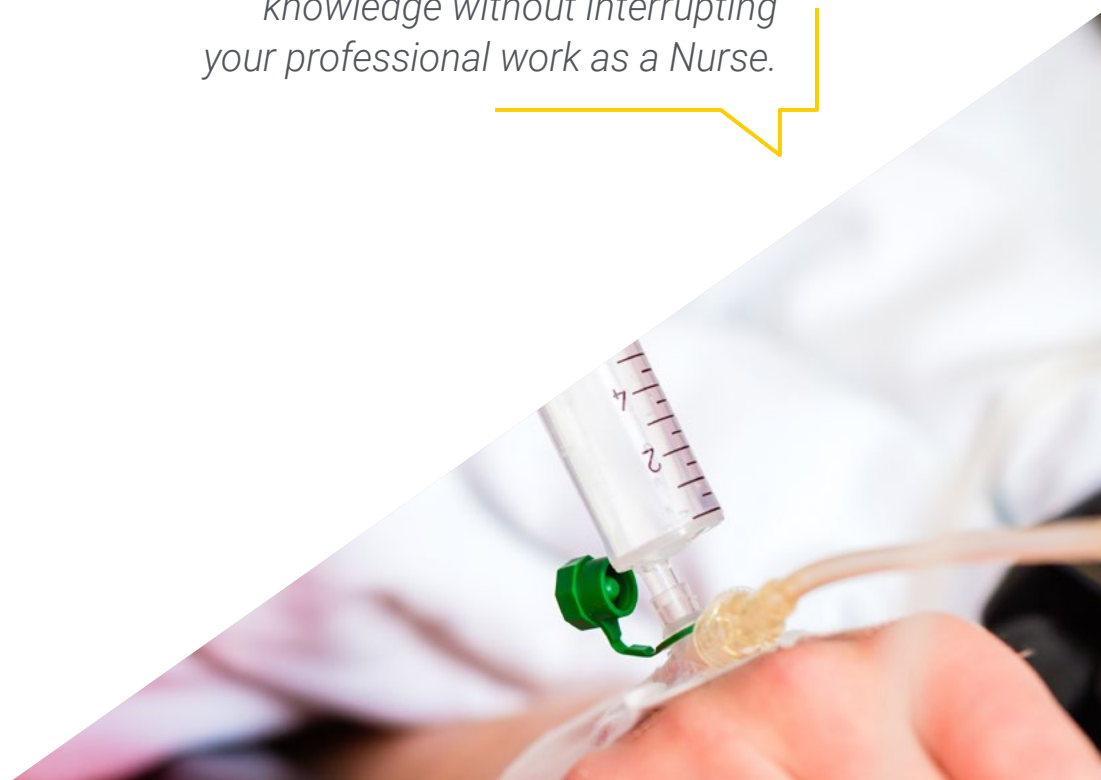
The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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.

*Do you want to incorporate the most modern triage techniques into your daily clinical practice? Achieve it through this university program.*

*TECH's 100% online methodology will allow you to update your knowledge without interrupting your professional work as a Nurse.*



# 02

## Objectives

Thanks to this Postgraduate Certificate, Nursing professionals will be highly qualified to perform accurate and immediate assessments of patients in Emergency situations in the Outpatient environment. Likewise, graduates will develop advanced skills to carry out clinical therapeutic procedures such as the management of Non Invasive Mechanical Ventilation, Pleural Drainage or continuous monitoring of the hemodynamic status of individuals. Thanks to this, professionals will effectively manage accidents derived from Major Disasters and considerably improve the recovery prognosis of victims.





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*You will handle state-of-the-art ultrasound equipment to evaluate severe conditions in real time, such as Deep Venous Thrombosis”*



## General Objectives

- Analyze the management of multiple casualty incidents and catastrophes
- Identify diagnostic and therapeutic techniques in emergency situations
- Delve into the principles of pharmacology as applied to medical emergencies
- Examine the most innovative emergency protocols and procedures



*You will have multiple clinical case studies in simulated learning environments, which will enhance your skills in the management of patients with critical conditions such as Tachyarrhythmias”*





## Specific Objectives

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### Module 1. Generalities

- ♦ Define the fundamental concepts related to emergencies, including comprehensive care
- ♦ Delineate the principles of bioethics as applied to emergency situations, evaluating their importance in medical decision making
- ♦ Delve into current legislation related to emergency care, identifying key regulations and their impact on clinical practice
- ♦ Clarify knowledge of bioethics and legislation in practical cases of emergencies, ensuring appropriate ethical and legal care

### Module 2. Advanced Cardiovascular Support

- ♦ Identify the essential techniques and procedures for basic and advanced life support in adults, including bradyarrhythmias and tachyarrhythmias
- ♦ Describe the principles and methods of basic and advanced life support in pediatric and neonatal patients, focusing on the recognition and management of the critically ill child and advanced airway management
- ♦ Analyze the strategies and algorithms of neonatal resuscitation and advanced life support in severe trauma patients, emphasizing neonatal stabilization and neonatal transport
- ♦ Differentiate effective advanced life support interventions in special cases, applying the acquired knowledge to provide adequate and timely treatment

### Module 3. Mass Casualty Incidents (MCI) and Catastrophes

- ♦ Differentiate the general concepts related to mass casualty incidents (MCI) and disasters, as well as the importance of effective management in these situations
- ♦ Address the sectorization, deployment and logistic procedures necessary for an organized and efficient response to MCIs and disasters
- ♦ Delineate triage and multiple casualty care techniques, ensuring appropriate prioritization of patients according to the severity of their conditions
- ♦ Evaluate emergency plans and evacuation strategies, as well as the management of MCI in a hospital environment, including response to NBCR (Nuclear, Biological, Chemical and Radiological) incidents

### Module 4. Diagnostic and Therapeutic Techniques (HSE and Catastrophic)

- ♦ Analyze invasive and non-invasive procedures such as catheterization, peripheral and central venous cannulation, intraosseous line, and advanced airway management techniques (IOT and difficult airway)
- ♦ Evaluate invasive and non-invasive mechanical ventilation techniques, as well as critical interventions such as pericardiocentesis and thoracocentesis, ensuring correct application in emergency situations
- ♦ Identify diagnostic tools such as emergency ultrasound, hemodynamic monitoring, electrocardiography, capnography and pulse oximetry, to properly assess and manage the patient's status
- ♦ Determine the neurological and sedoanalgesia status, applying electrical and oxygen therapy, and collecting analytical samples, using scales and physiological parameters in adults and children for a comprehensive care in emergencies

# 03

# Course Management

TECH's maximum premise is to offer the most pragmatic and updated university programs in the academic market, so it makes a thorough process to form its teaching staff. For the delivery of this Postgraduate Certificate, TECH has enlisted the services of the best experts in the field of Outpatient medical Emergencies. These professionals have extensive work experience, where they have contributed to optimize the general welfare of many patients affected by Major Disasters. Therefore, they have poured their solid knowledge of this field into the didactic materials that make up this university program.





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*You will have the support of a teaching team integrated by authentic references in the field of Medical Emergencies in the Outpatient Setting”*

## Management



### Dr. Sendra Más, Juan Amaro

- ♦ Assistant Physician of the Emergency Service at the Vega Baja Hospital. Alicante, Spain
- ♦ Emergency Physician in the Specialized Medical Unit (UME 1)
- ♦ Doctor in the Emergency Medical Attention Service (SAMU)
- ♦ Medical Helicopter Doctor
- ♦ Degree in Medicine and Surgery from the University of Alicante
- ♦ Specialist in Family and Community Medicine
- ♦ Accredited Professor of the Spanish Society of Emergency Medicine
- ♦ Member of the Spanish Society of Emergency Medicine

## Professors

### Dr. Medina Martínez, María Ángeles

- ♦ Medical Director and Cofounder of Healthy Blue Bits
- ♦ Family and Community Medicine Specialist of the Ministry of Universal Health of the Valencian Government
- ♦ Co-founder of Toubabs Team
- ♦ Degree in Medicine from the University of Miguel Hernández de Elche
- ♦ Postgraduate degree in Clinical Management from the Open University of Catalonia
- ♦ Postgraduate degree in Public and Community Health from the University of Murcia
- ♦ Member of: ASD (Vocal), SoVaMFIC (President) and Forum of Primary Care Physicians of the Valencian Region

### Dr. Gavilán Martín, Cristina

- ♦ Assistant Physician of Pediatric Emergencies at Elche General University Hospital
- ♦ Specialist in Family and Community Medicine
- ♦ Doctor in Medicine by the Miguel Hernández University of Elche
- ♦ Degree in Medicine and Surgery from the University of Alicante.
- ♦ APLS credential by the American Academy of Pediatrics and the American College of Emergency Physicians
- ♦ Professor of Masters Degrees and postgraduate courses
- ♦ Member of: The Spanish Society of Pediatric Emergencies (SEUP)

**Dr. López Llames, Aurora**

- ♦ Medical Specialist in Otorhinolaryngology
- ♦ Head of the Department of Otorhinolaryngology at the University Hospital of Torrevieja
- ♦ Specialist Physician in Menorca Ib-Salut
- ♦ Otorhinolaryngologist at Asturias Central University Hospital
- ♦ Master's Degree in Clinical Management from the Open University of Catalonia
- ♦ Graduate in Medicine and Surgery from the University of Oviedo

**Dr. Perales Cano, Raquel**

- ♦ Specialist in Family and Community Medicine
- ♦ Primary Care Physician at La Loma Health Center
- ♦ Specialist of the Emergency Department at the Vega Baja Hospital
- ♦ Physician of the Emergency Medicalized Unit 1 of the Murcian Health Service
- ♦ Health Professional of Samu

**Dr. Zazo Menargues, Juan Manuel**

- ♦ Medical Coordinator of El Raval Health Center in Elche
- ♦ Primary Care Physician at the San Fermín Health Center
- ♦ Researcher of the Department of Clinical Medicine of CEU Cardenal Herrera University

**Dr. Pérez Marín, Estefanía**

- ♦ Medical Specialist in Mental Health
- ♦ Medical Specialist in Psychiatry at the General University Hospital of Elche
- ♦ Degree in Medicine and Surgery from Miguel Hernández University of Elche
- ♦ Expert in Mental Health Emergencies

**Dr. Fernández Martínez, Maria Ángeles**

- ♦ Biochemist-Nutritionist-Phytotherapist Responsible for Natural Life Nutrition Center
- ♦ Manager of the Parapharmacy, Dermopharmacy, Nutricosmetics and Phytotherapy Line
- ♦ Degree in Biochemistry from the University of Valencia
- ♦ University Expert in Nutrition, Dietetics and Diet Therapy
- ♦ Postgraduate Diploma in Microbiological Analysis of Foodstuffs
- ♦ Expert in Prevention and Treatment with Nutrition, Diet and Cancer
- ♦ Expert in Vegetarian, Clinical, and Sports Nutrition
- ♦ Specialist in Food Intolerances and the Study of the Intestinal Microbiota
- ♦ Numerous courses of study in Intestinal Microbiota, Analysis Methods and Applications
- ♦ Diploma in Natural and Orthomolecular Medicine
- ♦ Expert in the current use of Nutricosmetics and Nutraceuticals in general.
- ♦ Expert in Point of Sale Management in the Pharmacy and Parapharmacy Office
- ♦ Member of: Spanish Society of Probiotics and Prebiotics (SEPyP), Spanish Society of Dietetics (SEDCA) and Spanish Society of Nutrition (SEÑ)

# 04

## Structure and Content

With this program, nurses will have a solid understanding of Emergency and Major Disaster management in the Outpatient setting. The study plan will delve into issues ranging from Bioethics or legal regulations to Cardiovascular Support methods. The syllabus will also delve into the use of diagnostic tools such as triage or severity scales, which will allow graduates to determine the extent of injuries. Likewise, the program will offer the keys to perform a variety of therapeutic procedures effectively (such as the placement of catheters or management of Invasive Mechanical Ventilation).







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*You will handle the most advanced Cardiovascular Support devices to stabilize patients, including Drug Infusion Pumps”*

### Module 1. Generalities

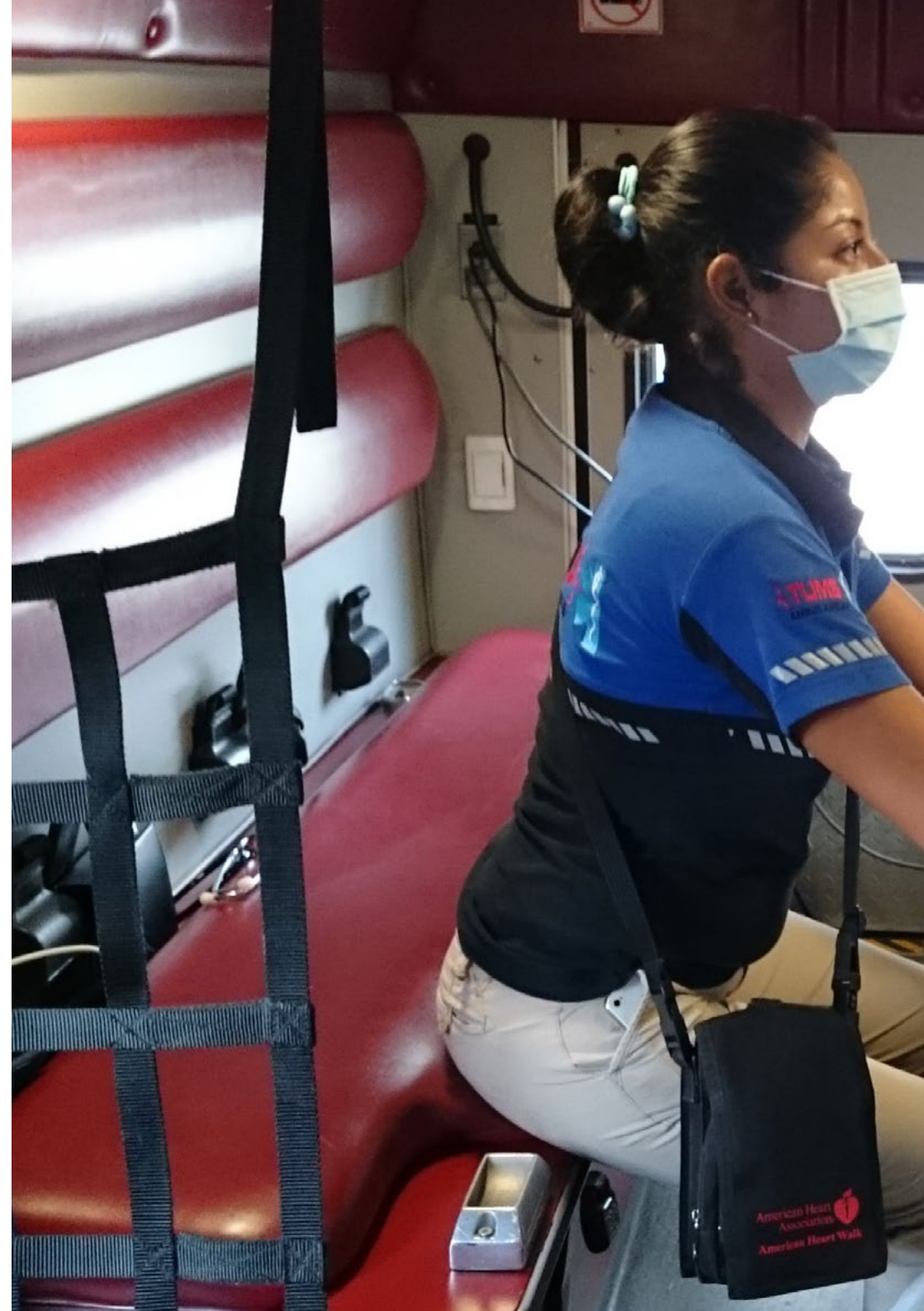
- 1.1. Definitions and Concepts
- 1.2. Comprehensive Care
- 1.3. Bioethics and Legislation in Emergency Medicine
- 1.4. Bioethics
- 1.5. Legislation

### Module 2. Advanced Cardiovascular Support

- 2.1. Basic Life Support in Adults
  - 2.1.1. Generalities
- 2.2. Advanced Life Support in Adults
  - 2.2.1. Action in Case of Bradyarrhythmia
  - 2.2.2. Action in Response to Tachyarrhythmias
- 2.3. Basic Pediatric Life Support
- 2.4. Pediatric and Neonatal Advanced Life Support
  - 2.4.1. Recognition and Management of Critically Ill Children
  - 2.4.2. Advanced Airway Management
  - 2.4.3. Basics of Mechanical Ventilation in Pediatrics
  - 2.4.4. Infusion Routes and Drugs in Pediatric CPR
  - 2.4.5. Pediatric VAS Algorithms and Arrhythmia Treatment
- 2.5. Neonatal Resuscitation
  - 2.5.1. Post-resuscitation Stabilization and Neonatal Transport
- 2.6. Advanced Life Support in Serious Trauma Patients
- 2.7. Advanced Life Support in Special Cases



*A quality syllabus at the forefront of academic teaching that will provide you with the most updated knowledge in Advanced Life Support. Enroll now!"*





### Module 3. Mass Casualty Incidents (MCI) and Catastrophes

- 3.1. Generalities
- 3.2. MVI and Disaster Management
- 3.3. Sectorization
- 3.4. Deployment and Logistics
- 3.5. Triage
- 3.6. Multiple Victim Care
- 3.7. Evacuation.
- 3.8. MVI Management in a Hospital
- 3.9. CBRN Incidents
- 3.10. Emergency Planning

### Module 4. Diagnostic and Therapeutic Techniques (HSE and Catastrophic)

- 4.1. Probes
- 4.2. Peripheral and Central Vein Cannulation
- 4.3. Intraosseous Route
- 4.4. OTI (Orotracheal Intubation)
- 4.5. Difficult Airway
- 4.6. Invasive Mechanical Ventilation
- 4.7. Management of Noninvasive Mechanical Ventilation
- 4.8. Pericardiocentesis
- 4.9. Thoracocentesis and Pleural Drainage
- 4.10. Emergency Department Ultrasonography
- 4.11. Electrical Therapy (MP, CV, DF)
- 4.12. Monitoring of Hemodynamic Status and Electrocardiography
- 4.13. Capnography and Pulse Oximetry
- 4.14. Oxygen Therapy
- 4.15. Monitoring of Neurological Status
- 4.16. Monitoring of Sedoanalgesia
- 4.17. Collecting Analytical Samples
- 4.18. Frequently Used Scales in Accident and Emergency Medicine
- 4.19. Physiological Parameters in Adults and Children

# 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.



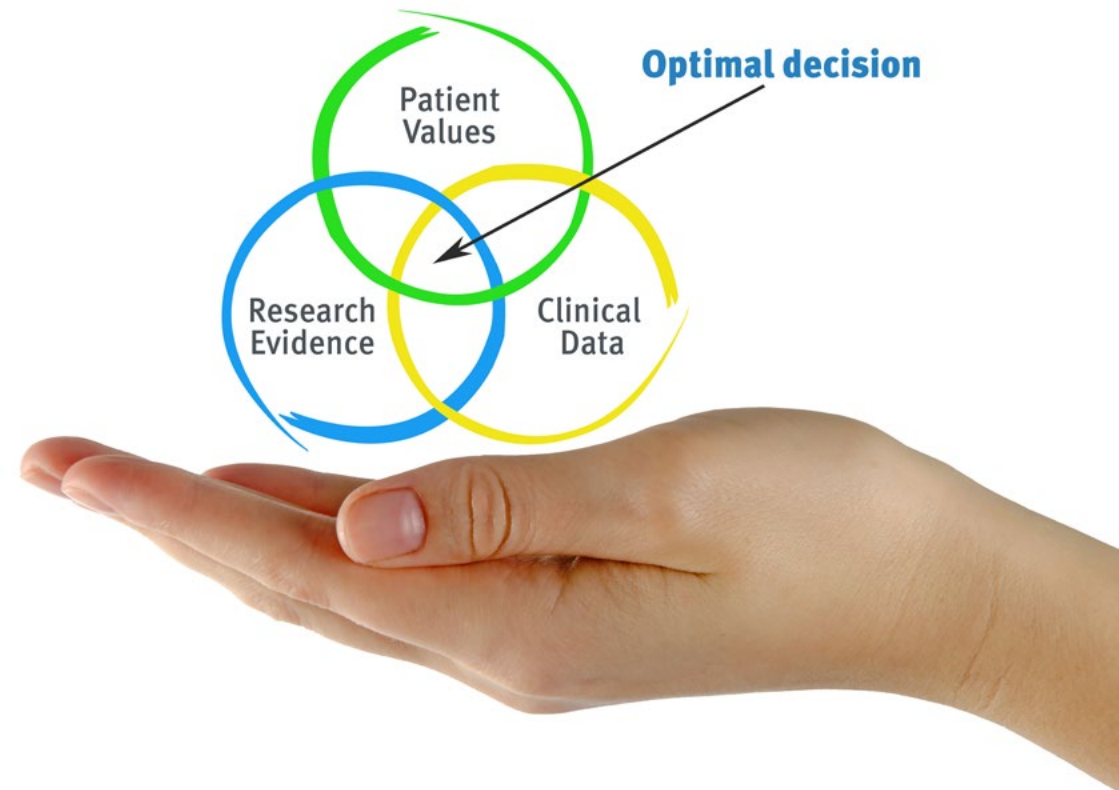
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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.

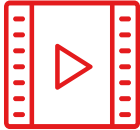
*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

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 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

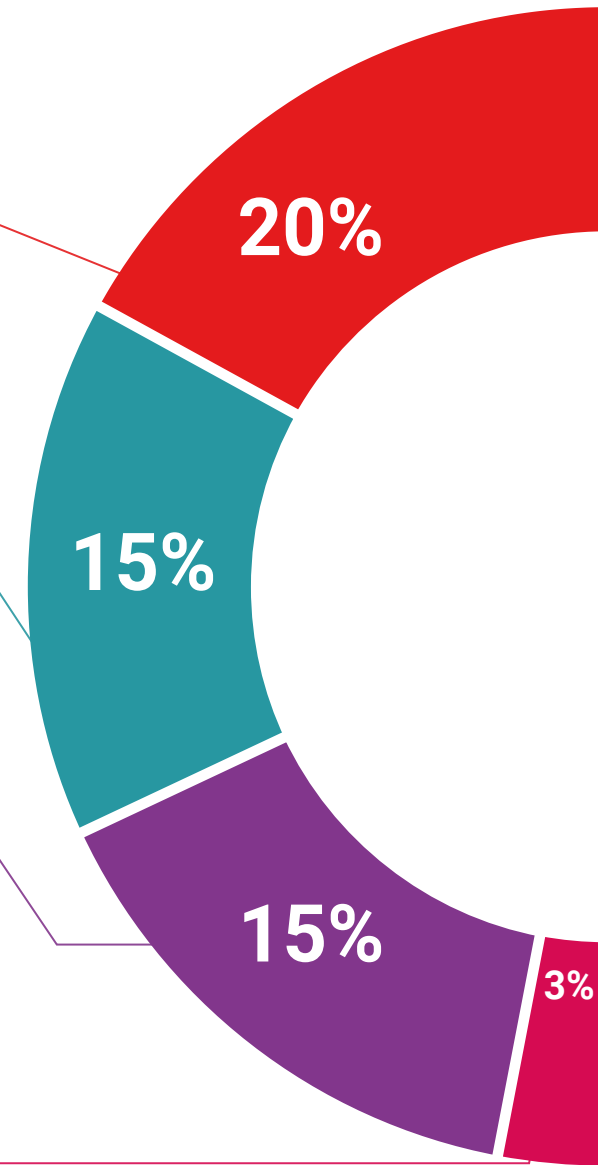
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

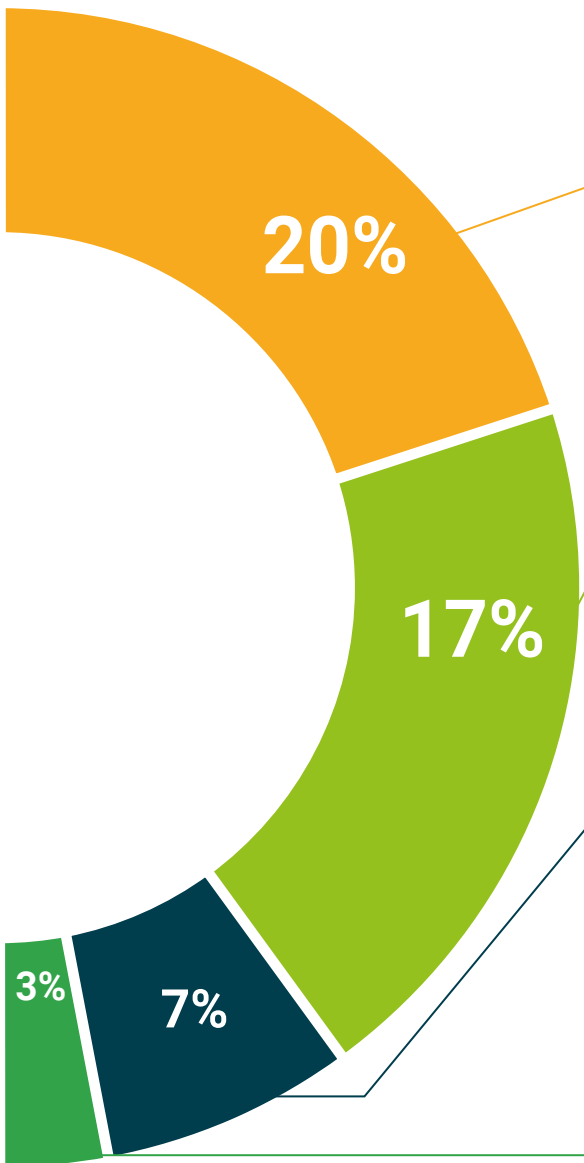
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



### 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

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 Emergencies and Major Disasters, Life Support and Diagnostic Techniques in the Outpatient Setting 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 Emergencies and Major Disasters, Life Support and Diagnostic Techniques in the Outpatient Setting 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 Emergencies and Major Disasters, Life Support and Diagnostic Techniques in the Outpatient Setting for Nursing**

Modality: **online**

Duration: **6 weeks**

Accreditation: **7 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.



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