



# Postgraduate Diploma

# Advanced Life Support for Nursing

Course Modality: **Online** Duration: **6 months**.

Certificate: TECH Technological University

22 ECTS

Teaching Hours: 550 hours.

Website: www.techtitute.com/nursing/postgraduate-diploma/postgraduate-diploma-advanced-life-support-nursing

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# tech 06 | Introduction



There is sufficient evidence to demonstrate that early recognition of cardiorespiratory arrest, activation and adequate response of emergency systems, early initiation of cardiopulmonary resuscitation maneuvers and defibrillation can reduce mortality and its sequelae.

The survival of SCA is determined by the quality of the scientific evidence supported by international guidelines or recommendations, such as that published by the International Liasion Committee on Resuscitation (ILCOR) in the International Consensus document on the Science of Cardiopulmonary Resuscitation and Cardiovascular Emergency Care with Treatment Recommendations (CoSTR).

This program is designed for the nursing professional to update their knowledge and skills to deal with guarantees to the patient in cardiorespiratory arrest, following the scientific evidence of the ILCOR recommendations, and in a practical way and adapted to their needs.

This **Postgraduate Diploma in Advanced Life Support 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 advanced life support.
- The graphic, schematic, and eminently practical contents with which they are created contain information that is indispensable for professional practice.
- It contains exercises where the self-assessment process can be carried out to improve learning.
- Interactive learning system based on algorithms for decision making in cardiorespiratory arrest situations and patient life support.
- 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.



Through this postgraduate diploma you will be able to update your knowledge in advanced life support, improve the prognosis and reduce the sequelae and complications of patients"





This Postgraduate Diploma may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in advanced life support, you will obtain a diploma from TECH Technological University"

Its teaching staff includes leading nursing professionals, who bring to this training the experience of their work, as well as other professionals who specialize in the various fields of emergency care.

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 training program to train in real situations.

The design of the program is based on Problem-Based Learning, by means of which the nursing professional must try to solve the different professional practice situations that arise throughout the program. For this reason, you will be assisted by an innovative, interactive video system created by renowned and experienced experts in life support and with extensive teaching experience.

This program offers training in simulated environments, which provides an immersive learning experience designed to train for real-life situations.







# tech 10 | Objectives



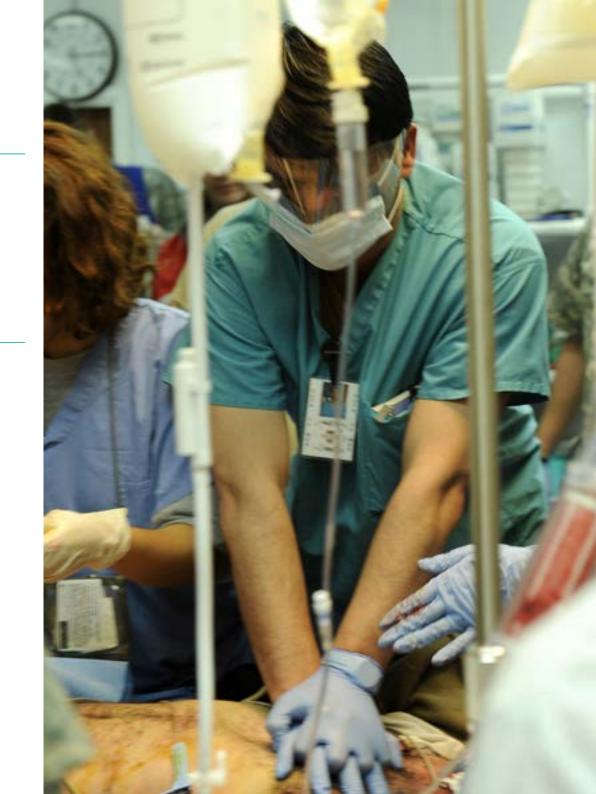
## **General Objective**

 Update the nursing professional in advanced life support procedures for patients with cardiorespiratory arrest, in order to provide correct care to reduce mortality and improve patient prognosis.



# **Specific Objectives**

- Develop advanced life support techniques according to new international guidelines and recommendations.
- 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 catastrophe medicine.
- Understand the importance of medical records in the emergency department and understand the most relevant legal and ethical aspects of health care in emergencies.
- Prioritize, organize and manage patient care in the most efficient way through triage.
- Understand the basic workings of an emergency coordination center.
- Identify the equipment and the communication systems in an EMS.



- Describe the concept of continuity of care and hospital transfer.
- Apply up-to-date basic and advanced CPR techniques for all ages.
- Correctly use an automatic external defibrillator
- Describe and apply the procedures for neonatal resuscitation.
- Handle drugs frequently used in emergency medicine.







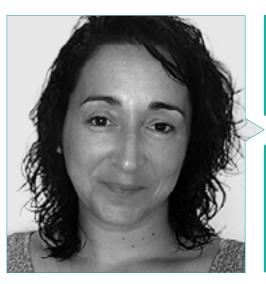
# tech 14 | Course Management

## Management



## Ruiz López, Daniel

- University Diploma in Nursing (D.U.E.), at the University School of Nursing in Cordoba, finishing in July 1999 (Promotion 1996-1999).
- University Expert in Nursing in the Hospital Emergency Department. Cardenal Herrera University (2018-- 2019).
- Master's Degree in Nursing Management. Cardenal Herrera University (2017-- 2018).
- Since 4/05/2017, carries out tasks of Nursing Supervisor in the Adult Emergency Department of the Hospital Universitario La Paz (Madrid).



## Souto Novas, Ana Mª

- Master's Degree in Integration of Care and Problem Solving in Nursing from the University of Alcalá (2015)
- Priority Triage in the Emergency Department. Manchester System (2018).
- Training in Catastrophy Planning and Self-Protection (2017.2015, 2013)
- Emergency Supervisor at La Paz University Hospital (2017- present).
- Admission Nurse in La Paz University Hospital (2008 2017).

### **Professors**

### **Gómez Lage, Laura**

- Degree in Nursing from the Complutense University of Madrid.
- University Expert in the Nursing Processes and Interventions of Pediatric Patients in Life Threatening Situations. Foundation for the Development of Nursing (FUDEN) and Catholic University of Ávila.
- University Expert in the Emotional Development and Upbringing of a Child. FUDEN and Catholic University of Ávila.
- La Paz University Hospital: Adult Emergency Service.

### Chamizo Alberto, Leticia

- Diploma in Nursing from the Red Cross School, Autonomous University of Madrid (2007-2010).
- \*\*Degree validated in Degree in Nursing (2015).
- Nurse in the Emergency Services of La Paz University Hospital (2016 -present).
- Principal tutor of clinical practices Autonomous University of Madrid and Collaborator/Teacher E.I.R Comunitaria (2011- 2018).

### Vega Vega, Luis

- Degree in Nursing from the Red Cross School (2011-2015).
- Nurse in the Emergency Services of La Paz University Hospital (2015 present)
- Member of the Red Cross health ERIE (Active).
- Referent training EPIs infectious diseases La Paz University Hospital (2018-continuous).
- Anakena preventive health services (SVA and SVB) (2017- continuous).
- SUMMA 112 Nurse (2018-2019).





# tech 18 | Structure and Content

## Module 1. General aspects

- 1.1. Definitions and Concepts.
- 1.2. Comprehensive Study of Health Emergencies.
- 1.3. Functions of an Emergency Nurse.
- 1.4. Bioethics in Accidents, Emergencies and Disasters.

## Module 2. Life Support.

- 2.1. General Aspects.
- 2.2. Basic Life Support and AED in Adults.
- 2.3. Basic Life Support and AED in Children.
- 2.4. Basic Electrocardiography and Arrhythmias.
- 2.5. Advanced Life Support in Adults.
- 2.6. Advanced Pediatric Life Support.
- 2.7. Neonatal Resuscitation.
- 2.8. Resuscitation in Special Cases.





# **Module 3.** Diagnostic and Therapeutic Techniques in Accident and Emergency Care.

- 3.1. Probes.
- 3.2. Peripheral and Central Vein Cannulation.
- 3.3. Intraosseous Route.
- 3.4. Orotracheal Intubation (OTI).
- 3.5. Management of Difficult VA.
- 3.6. Mechanical Ventilation.
- 3.7. Use of Non-Invasive Mechanical Ventilation.
- 3.8. Pericardiocentesis.
- 3.9. Thoracentesis.
- 3.10. Ultrasound for Nurses. Self-guided Techniques.
- 3.11. Electrotherapy (MMP, CV).
- 3.12. Monitoring of Neurological Status.
- 3.13. Monitoring of Sedoanalgesia.
- 3.14. Collecting Analytical Samples.
- 3.15. Frequently Used Scales in Accident and Emergency Medicine.
- 3.16. Physiological Parameters in Adults and Children.

## Module 4. Pharmacology of Accidents and Emergencies.

- 4.1. Basic Concepts.
- 4.2. Drug Administration Routes in Accidents and Emergencies.
- 4.3. Drug Administration Security.
- 4.4. Fluid Therapy.
- 4.5. Most Common Drugs Used in Accident and Emergency Care.
- 4.6. Formulas and Dose Calculation.

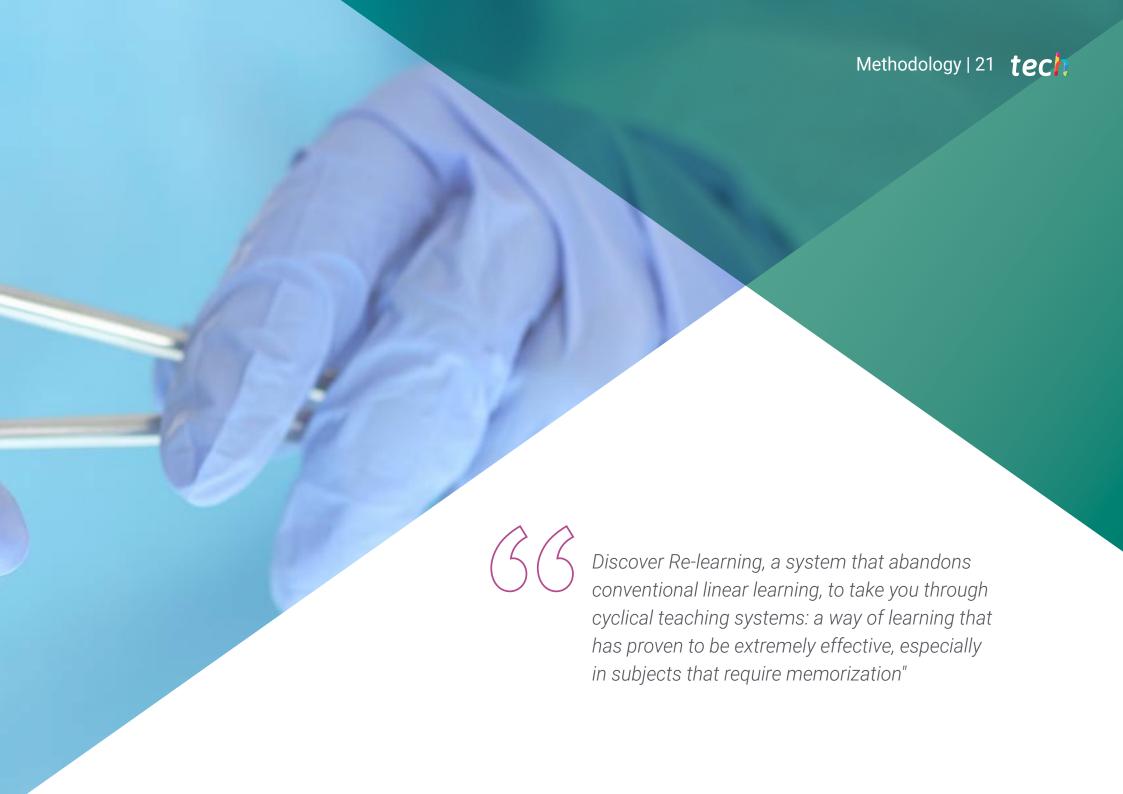






This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: *Re-learning*.

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*.



# tech 22 | Methodology



## At TECH Nursing School we use the Case Method

In a given situation, what should a professional do? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant 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 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:

- 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.





## **Re-learning Methodology**

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our University is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing 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.





# Methodology | 25 tech

At the forefront of world teaching, the Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking 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. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Re-learning 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 (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by our learning system is 8.01, according to the highest international standards

In this program you will have access to the best educational material, prepared with you 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**

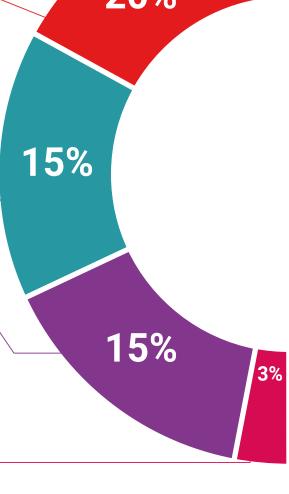
We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigour, explained and detailed for your assimilation and Studies understanding. And best of all, you can watch them as many times as you want.



#### **Interactive Summaries**

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This multimedia content presentation training system 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 the student will have access to everything they need to complete their training.



20%

17%



Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through. Focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



## **Testing & Re-Testing**

The learner's knowledge is periodically assessed and reassessed throughout the programme, through evaluative and self-assessment activities and exercises: in this way, the learner can see how he/she is achieving his/her goals.



### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.





#### **Quick Action Guides**

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.









# tech 30 | Certificate

This **Postgraduate Diploma in Advanced Life Support for Nursing** contains the most complete and up-to-date scientific program on the market.

Once the student has passed the evaluation, they will receive by post, with acknowledgement of receipt, their corresponding **Postgraduate Diploma** issued by **TECH Technological University.** 

The certificate issued by **TECH Technological University** specifies the qualification obtained through the **Postgraduate Diploma**, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: Postgraduate Diploma in Advanced Life Support for Nursing

ECTS: 22

Official Number of Hours: 550





<sup>\*</sup>Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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guarantee accreditation teaching
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