

# Postgraduate Certificate

Advanced Life Support and Invasive  
Techniques in Primary Care





## Postgraduate Certificate Advanced Life Support and Invasive Techniques in Primary Care

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 3 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-certificate/advanced-life-support-invasive-techniques-primary-care](http://www.techtute.com/us/medicine/postgraduate-certificate/advanced-life-support-invasive-techniques-primary-care)

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# 01

# Introduction

This program contains the latest advances in the physician's action procedures to be able to confidently face a situation of cardiorespiratory arrest in adult and pediatric patients, according to the latest recommendations of the main international scientific institutions in advanced life support, in addition to addressing the latest developments in techniques and procedures in emergencies.





*This Postgraduate Certificate addresses the main advances in life support and invasive techniques in primary care, so that you will be able to face situations that can compromise a patient's life. Learn how to identify, initially care for and transfer hemodynamically unstable patients from primary care to a specialized care center"*

Primary care is the gateway to the health system, often receiving patients with potentially serious conditions that require immediate and complex treatment. In addition, it usually occurs with scarce resources, which makes the role of the family physician who attends to emergencies in Primary Care a key factor.

This Postgraduate Certificate in Advanced Life Support and Invasive Techniques in Primary Care is a complete program that describes how to approach the management of cardiorespiratory arrest, both in adult and pediatric patients, and explains through demonstrative workshops the main procedures and the main invasive techniques that are carried out in the emergency department.

The methodological proposal is based on the method "from Practice to Theory", creating step by step, within each clinical case, the cognitive bridges that allow for significant learning that lasts over time. This program is designed with the latest educational technology, allowing the exchange of knowledge and experiences, maintaining and updating the training level of its members, creating action protocols and disseminating advances in life support procedures and techniques.



*Update your knowledge through the Postgraduate Certificate in Advanced Life Support and Invasive Techniques in Primary Care in a practical way and adapted to your needs"*

This **Postgraduate Certificate in Advanced Life Support and Invasive Techniques in Primary Care** contains the most complete and up-to-date scientific program on the market. The most important features include:

- Clinical cases presented by experts in the different specialties.
- 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 developments in the most frequent cardiovascular and respiratory emergencies in the primary health care setting; it also includes the use of semiautomatic defibrillators and airway obstructions, the approach to arrhythmias, and the latest in advanced life support procedures.
- Presentation of procedures, diagnostic and therapeutic techniques, such as the introduction of the use of external pacemakers, electrical cardioversion or defibrillation in the emergency department.
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course.
- It also includes pediatric life support maneuvers and echocardiography workshops.
- With a special emphasis on evidence-based medicine and research methodologies in emergencies.
- 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



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*This Postgraduate Certificate is the best investment you can make when selecting a refresher program, for two reasons: in addition to updating your knowledge of Advanced Life Support and Invasive Techniques in Primary Care, you will obtain a qualification from TECH Global University”*

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

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 program to train in real situations.

This program is designed around Problem-Based Learning, whereby the physician 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 experts in the field of the primary health care emergencies with extensive teaching experience.

*This online methodology allows you to practice in a simulated environment through clinical cases.*

*Take the opportunity to update your knowledge of life support and invasive techniques in Primary Care emergencies to improve patient care.*

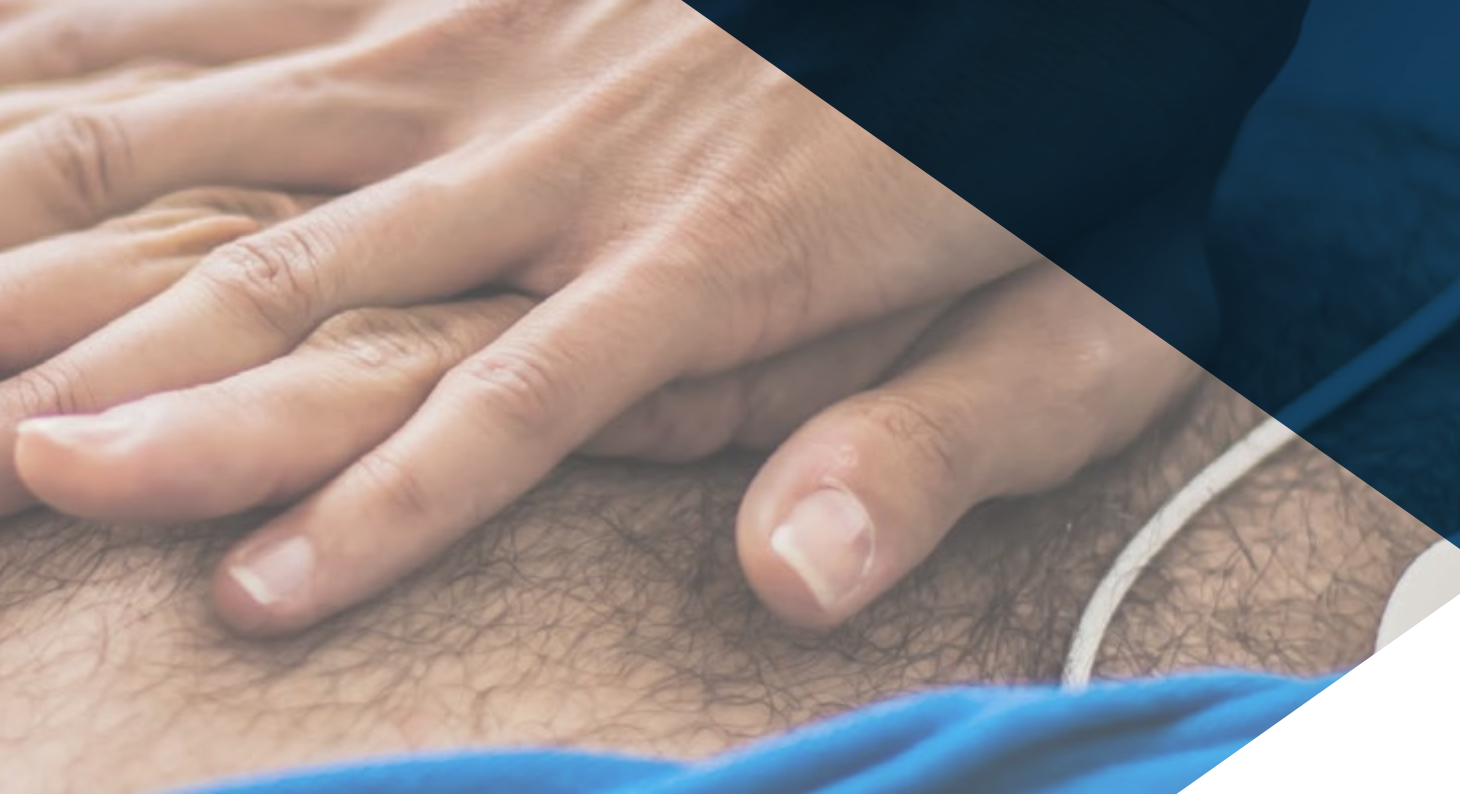


# 02 Objectives

The main objective of this program is to develop theoretical and practical learning, so that physicians can practically and rigorously master life support maneuvers and invasive emergency techniques in primary health care.







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



### General Objective

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- Get up to date on the diagnostic and therapeutic procedures for the most frequent urgent and emergency situations that doctors usually deal with in Primary Care.



*Seize the opportunity and take the step to get up to date on the latest developments in cardiovascular life support maneuvers and know the techniques and invasive procedures in primary health care emergencies.*







## Specific Objectives

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- ◆ Adequate use of the comprehensive action plan with regard to The Heart Attack Code
- ◆ Resolve a hypertensive emergency situation using the updated procedure of care
- ◆ Incorporate advances in the appropriate management of patients with Congestive Heart Failure and Acute Pulmonary Edema
- ◆ Review the basic concepts of non-invasive mechanical ventilation management.
- ◆ Correct use of non-invasive mechanical ventilation through the Boussignac CPAP System
- ◆ Apply up-to-date basic and advanced CPR techniques for all ages.
- ◆ Identify the different vital rhythms to apply the appropriate algorithm for advanced cardiopulmonary resuscitation, according to the latest scientific evidence on advanced cardiovascular support
- ◆ Adequately define the different parameters involved in invasive mechanical ventilation
- ◆ Master the procedure of pediatric and neonatal cardiopulmonary resuscitation in the primary care setting
- ◆ Demonstrate the correct sequence of transcutaneous pacemaker application

03

# Course Management

This program includes highly regarded health professionals in the field of emergency care in its teaching staff, who bring the experience of their work to this training. In addition, renowned specialists, members of prestigious national and international scientific communities, are involved in designing and preparing the program.







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*Learn the latest advances in medical procedures for life support and invasive techniques in Primary Care emergencies from leading professionals”*



## International Guest Director

As National Director of Clinical Innovation at US Acute Care Solutions, Jesse M. Pines, M.D., is one of the most recognized figures in the Emergency Medicine and Healthcare Services field. In fact, his accomplishments include the creation and execution of the first governmental alternative payment model (ED EQUIP, in Maryland) to reduce the total cost of care. In addition, he leads the development and implementation of Telemedicine programs covering a wide variety of specialties, including the ER, Psychiatry and Intensive Care Units, among others.

His extensive experience in medical leadership, large database study design and Big Data research has led him to publish over 350 peer-reviewed articles and writing seven books in these areas. His work has been recognized internationally in various reputable media outlets, including TIME Magazine, the Wall Street Journal and Slate Magazine.

His more than two decades of experience have earned him several leadership positions at George Washington University. Among them, he was the Director of the Center for Health Innovation and Research, also leading the Research Fellowship program and the Center for Healthcare Quality.

Therefore, throughout his career, Dr. Jesse M. Pines has received multiple awards, both for the articles he has published and for his own work and contribution to the field of Emergency Medicine. He is also the Chair of the American College of Emergency Physicians (ACEP) Task Force on New Practice Models, holding various positions in ACEP, the Society for Academic Emergency Medicine and the American Academy of Emergency Medicine.



## Dr. M. Pines, Jesse

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- National Director of Clinical Innovation at US Acute Care Solutions, United States.
- Emergency Physician at Allegheny Health Network
- Professor of Emergency Medicine at The George Washington University, USA
- Professor of Emergency Medicine at Drexel University
- Director of the Medical Research Fellowship Program at The George Washington University
- Director of the George Washington University Center for Health Research and Innovation
- M.D., Georgetown University
- Master of Business Administration from Georgetown University
- M.S. in Clinical Epidemiology from the University of Pennsylvania

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

## Management



### Dr. Vicente Fco Roig D' Cunha-Kamath

- ◆ Degree in Medicine from the University of Valencia
- ◆ Specialist via MIR in Family and Community Medicine
- ◆ Assistant Physician of the Emergency Medicine Department at the Clinical University Hospital of Valencia.
- ◆ Professor of Human Anatomy at the European University of Valencia.
- ◆ Physician at the Valencia Health and Community Foundation.
- ◆ Doctor for the ASCIRES group

## Professors

### 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 knowledgeable about the implications of specialization in daily medical practice in out-of-hospital emergency care, aware of the relevance of current knowledge to be able to care for the patient with urgent pathology and committed to quality teaching through new educational technologies.







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*This Postgraduate Certificate in Advanced Life Support and Invasive Techniques in Primary Care contains the most complete and up-to-date scientific program on the market”*

**Module 1.** Advanced Cardiovascular Support and Invasive Techniques in the Emergency Room

- 1.1. Basic Vital Support
  - 1.1.1. Basic Life Support with Automatic External Defibrillator.
  - 1.1.2. Foreign Object Airway Obstruction.
- 1.2. Action in Response to Bradyarrhythmias.
- 1.3. Action in Response to Tachyarrhythmias.
- 1.4. Advanced Vital Support
  - 1.4.1. Advanced Airway Management.
  - 1.4.2. Arrhythmia Treatment.
  - 1.4.3. Infusion Routes and Drugs.
  - 1.4.4. Rapid Intubation Sequence Workshop
- 1.5. Invasive Procedures and Techniques in the Emergency Department
  - 1.5.1. External Pacemaker
  - 1.5.2. Electrical Cardioversion
  - 1.5.3. Defibrillation in Emergencies
- 1.6. Workshop: Echocopy Management in the Emergency Department
- 1.7. Basic and Advanced Pediatric Life Support
  - 1.7.1. Basic Pediatric Life Support
  - 1.7.2. Airway and Ventilation in Pediatrics.
  - 1.7.3. Infusion Routes and Drugs, Diagnosis and Treatment of Arrhythmias.
  - 1.7.4. Neonatal Resuscitation.





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*A unique, key, and decisive program 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.



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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, we use the Case Method

What should a professional do in a given situation? 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. Specialists learn better, faster, and more sustainably over time.

*With TECH you will experience a way of learning 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, trying to recreate the real conditions in the physician's professional 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. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
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

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

*Professionals will learn through real cases and by resolving 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, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. 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 highly 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.



#### Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and 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

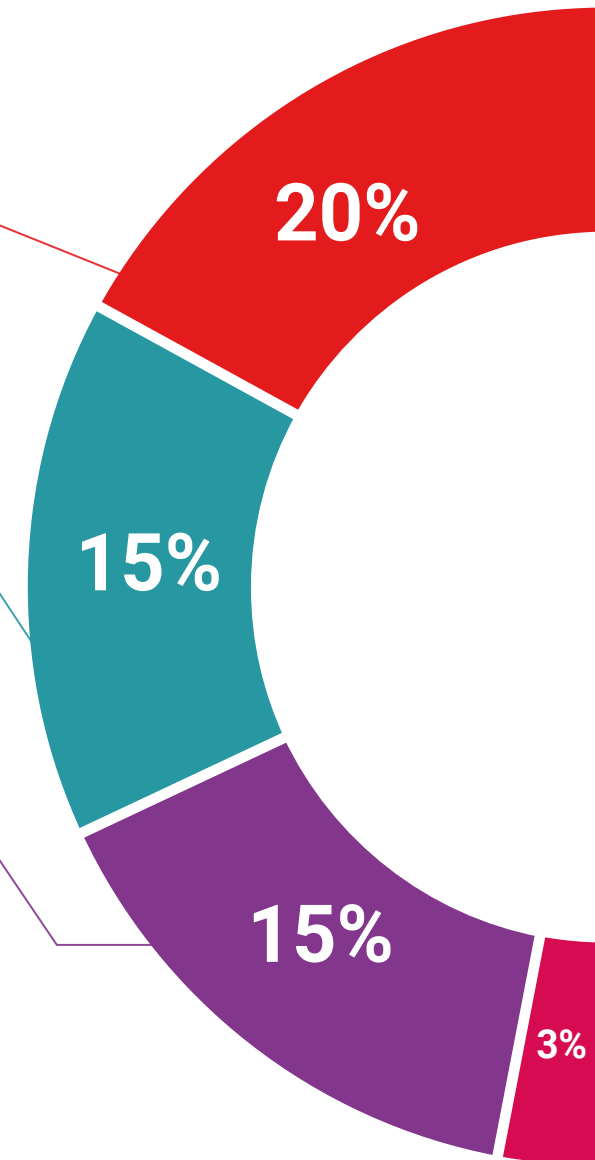
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

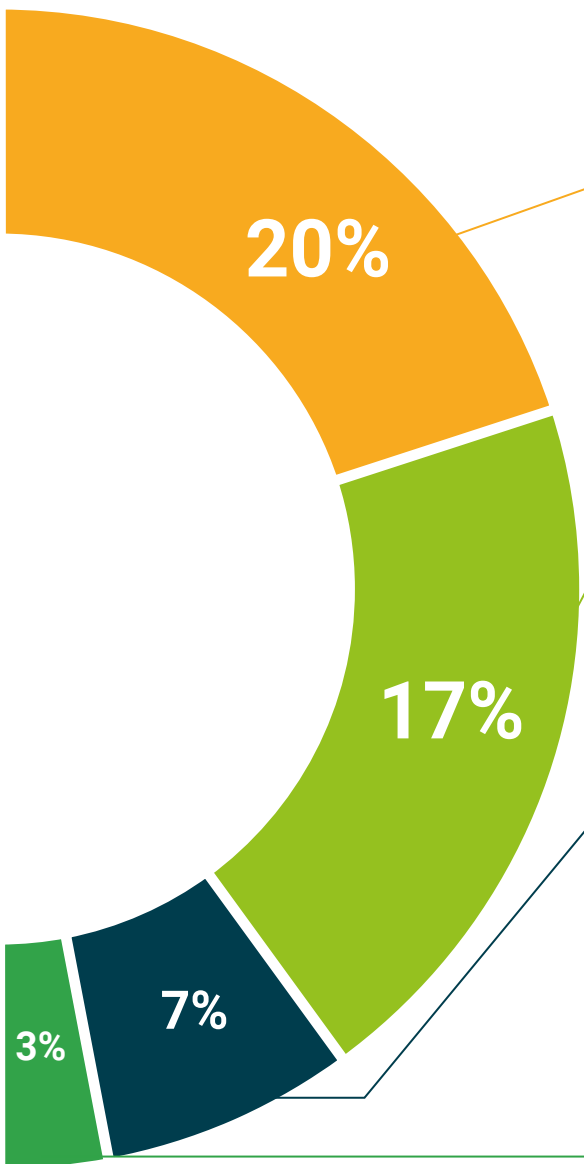


#### Additional Reading

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

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 on the usefulness of learning by observing experts. The system known as 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 Advanced Life Support and Invasive Techniques in Primary Care guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



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*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*

This program will allow you to obtain your **Postgraduate Certificate in Advanced Life Support and Invasive Techniques in Primary Care** 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.

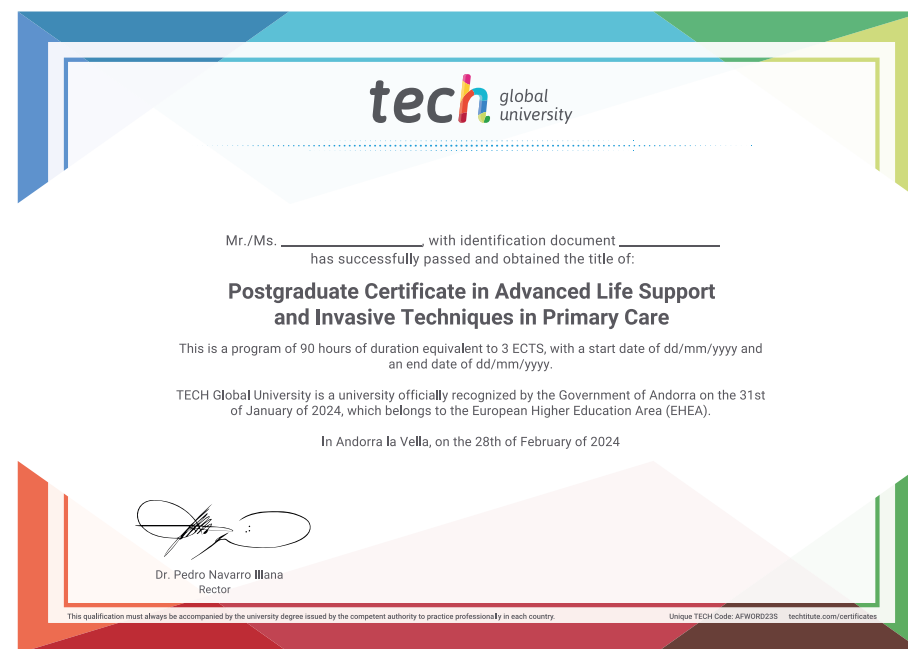
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Advanced Life Support and Invasive Techniques in Primary Care**

Modality: **online**

Duration: **6 weeks**

Accreditation: **3 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.



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



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