

# Postgraduate Certificate

## Critical Care Update for Polytraumatized Patients and Life Support





## Postgraduate Certificate

### Critical Care Update for Polytraumatized Patients and Life Support

- » 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/critical-care-update-polytraumatized-patients-life-support](http://www.techtute.com/us/nursing/postgraduate-certificate/critical-care-update-polytraumatized-patients-life-support)

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01

# Introduction

The syllabus has been designed by a team of professionals who are aware of the importance of professional development in order to provide expertise leading to excellent patient care in the intensive care unit and committed to teaching through new educational technologies.



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*Excellent patient care depends on professionals having up-to-date knowledge. Get up to date on nursing procedures for critically ill patients in Intensive Care"*

Critically ill patients require advanced care from nursing professionals. Because of this, these nursing professionals must have specialist expertise in order to anticipate possible complications, thus improving the patient's prognosis and quality of life.

Keeping up to date is a responsibility of nursing professionals that facilitates good practice and evidence-based care of critically ill patients.

This Postgraduate Certificate provides up-to-date knowledge on the care of critical patients, so that nursing professionals can perform their duties with the utmost rigor and professionalism in the Intensive Care Unit.

This **Postgraduate Certificate in Critical Care Update for Polytraumatized Patients and Life Support** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ Clinical cases presented by experts
- ◆ Graphic, schematic, and practical contents which provide scientific and practical information on the disciplines that are essential for professional practice
- ◆ Diagnostic and therapeutic innovations for critical patient care
- ◆ Nursing procedures for patients in intensive care
- ◆ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- ◆ Theoretical lectures, questions to the expert, discussion forums on controversial issues and individual reflection assignments
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



*With this Postgraduate Certificate you will be able to update your knowledge of critical patient care, improve their prognosis and reduce sequelae and complications"*



“

*This Postgraduate Certificate 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 Critical Care for Polytraumatized Patients and Life Support, you will obtain a Postgraduate Certificate from TECH Global University”*

The teaching staff includes leading nursing professionals, who contribute their professional experience to this refresher program, in addition to other professionals specializing in intensive care.

Multimedia content developed with the latest educational technology, will provide professionals with situated and contextual learning, that is to say, a simulated environment that will provide immersive learning designed to prepare them for real situations.

The design of the program is based on Problem-Based Learning, by means of which nursing professionals must try to solve the different professional practice situations that arise throughout the course. All this is supported by an innovative interactive video system developed by renowned experts in Intensive Care nursing with extensive teaching experience.

*This program uses simulated environments, which provide immersive learning designed to prepare professionals for real situations.*

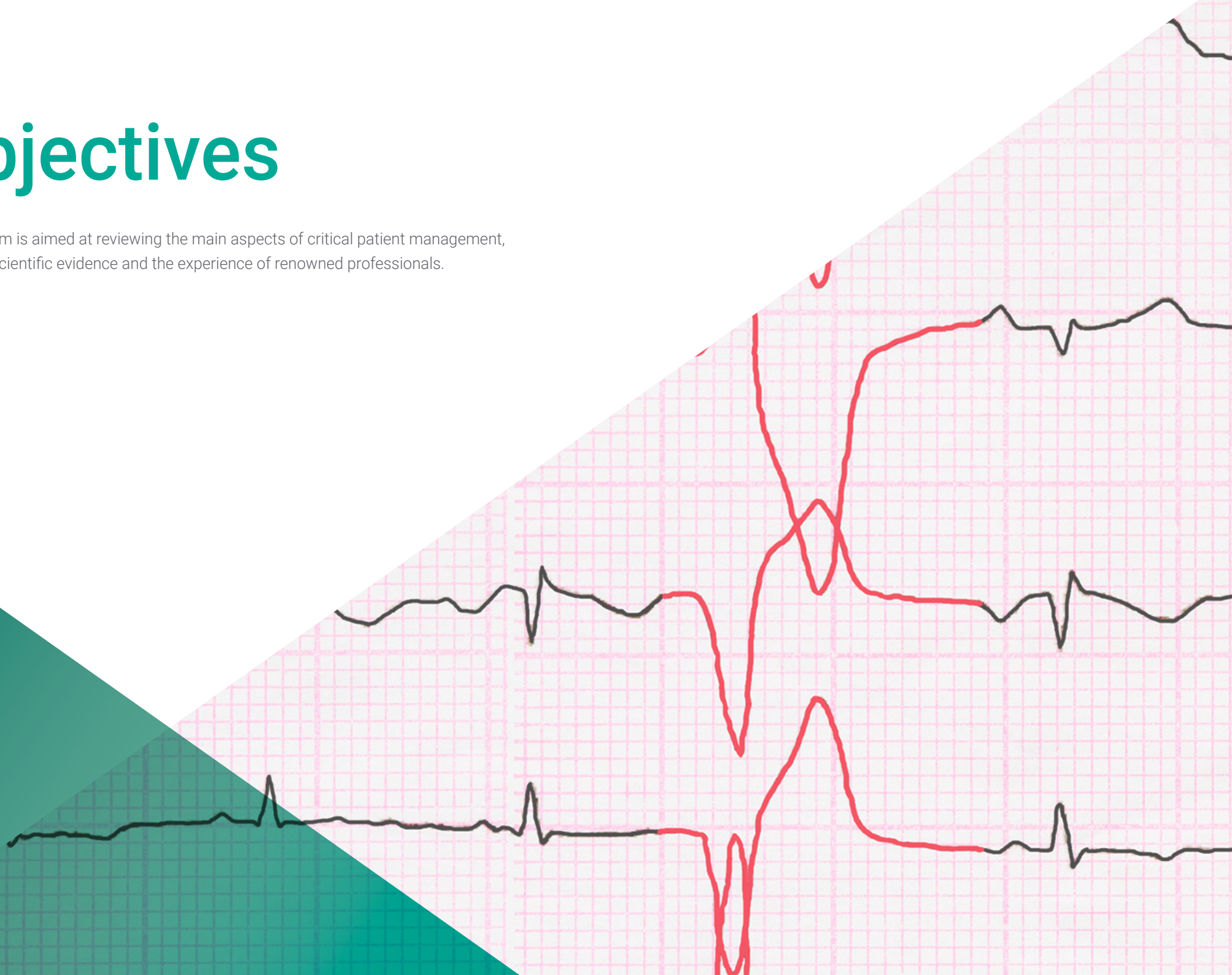
*It includes clinical cases to bring the syllabus as close as possible to the reality of nursing.*



02

# Objectives

The program is aimed at reviewing the main aspects of critical patient management, based on scientific evidence and the experience of renowned professionals.





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*This program will give you a sense of confidence when taking decisions and providing care, which will help you grow both personally and professionally”*



## General Objective

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- ♦ Update nursing professionals who work in intensive care, following established nursing methodology, so that they can provide excellent care to critical patients

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*Seize this opportunity and take the next step to get up to date on the most important developments in Critical Care for Polytraumatized Patients and Life Support”*







## Specific Objectives

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- ♦ Describe the fundamentals of critical care nursing
- ♦ Apply essential theoretical and practical knowledge in critical patient care
- ♦ Review concepts on the specific procedures and care for cardiac patients
- ♦ Update concepts on the specific procedures and care for patients with respiratory problems
- ♦ Review concepts on the specific procedures and care of in the RCP environment
- ♦ Define the role of the nurse in terms of the care they provide and their importance in the patient's life or death



03

# Course Management

The program's teaching staff includes leading nursing professionals in the field of intensive care, who bring their professional experience to this program. In addition, other renowned specialists have participated in the creation of the contents, completing the program in an interdisciplinary manner.





“

*Learn about the latest advances in critical patient care in the Intensive Care Unit, from leading professionals"*

## Guest Director



### Ms. Díez Sáenz, Cristina

- ♦ Nursing supervisor at Gregorio Marañón ICU
- ♦ Head of Adult Intensive Care Unit from October 16, 2014 to present
- ♦ Collaborating teacher at the International School of Health Sciences
- ♦ Nurse assistant since 1993 in different hospitalization areas, from May 1999 in Intensive Care until appointment as Head of Unit
- ♦ University Diploma in Nursing at the "Salus Infirmorum" school, attached to the Pontifical University of Salamanca
- ♦ Participation as collaborating researcher in the multicenter project "National Validation of the Scale of Satisfaction with Nursing Care from the Perspective of the Critical Patient"

## Management



### Dr. Lospitao Gómez, Sara

- ♦ Intensive Care Nurse at University Hospital in Fuenlabrada, Madrid
- ♦ Cardiac Surgery Post-Surgical Intensive Care Unit 12 de Octubre Hospital
- ♦ Coronary Intensive Care Unit 12 de Octubre Hospital
- ♦ Master's Degree in Critical Care Rey Juan Carlos I University
- ♦ Bachelor's Degree in Humanities European University of Madrid
- ♦ Advanced Nursing Degree European University of Madrid
- ♦ Postgraduate Diploma in Continuing Education Complutense University of Madrid
- ♦ Internship tutor for undergraduate and graduate students in Nursing at the European University of Madrid (UEM) and Juan Carlos I University (URJC)
- ♦ Instructor in SVA by the National CPR Plan of SEMICYUC





## Professors

### Ms. Álvarez Carrascal, Inmaculada

- ♦ Assisting Nurse in ICU, Gregorio Marañón General University Hospital
- ♦ Consultant Nurse for safety in ICU, Gregorio Marañón General University Hospital
- ♦ Critical Care Nurse at Gregorio Marañón Hospital
- ♦ Instrumentalist nurse in operating rooms of different specialisms Churchill Hospital, Oxford, United Kingdom
- ♦ Nurse in various hospital and health center services in the Andalusian Health Service (SAS)

### Mr. González Palacios, Rubén

- ♦ Attending Nurse in the Internal Medicine Unit of the 12 de Octubre General University Hospital, Madrid.
- ♦ Nurse assistant in different Primary Care centers in the Community of Madrid
- ♦ Nurse assistance in ICU Gregorio Marañón General University Hospital, Madrid
- ♦ Developer of the mobile application "*Compatibility drugs*" for intravenous compatibility of drugs
- ♦ 5 communications in international congresses

### Mr. Ruiz Henestrosa Campos, , Manuel Jesús

- ♦ Attending Nurse Puerta del Mar General University Hospital, Cádiz
- ♦ Head of the Emergency Unit Gregorio Marañón General University Hospital
- ♦ Attending Nurse, Gregorio Marañón General University Hospital
- ♦ Associate Professor Nursing Practicum III
- ♦ Collaborating teacher at the International School of Health Sciences
- ♦ Nebrija University Collaborating Professor
- ♦ Esforem Collaborating Teacher

04

# Structure and Content

The syllabus has been designed by a team of professionals who are aware of the importance of professional development in order to provide expertise enabling excellent patient care in the intensive care unit and committed to teaching through new educational technologies.



“

*This Postgraduate Certificate in Critical Care Update for Polytraumatized Patients and Life Support contains the most complete and up-to-date academic program the market”*



## Module 1. Critical Care for Severe Trauma Patients

- 1.1. The Critically Ill Burns Patient
- 1.2. The Polytraumatized Patient
- 1.3. Initial Assessment of the Polytraumatized Patient
- 1.4. TBI and Spinal Trauma: Spinal cord Injury
- 1.5. Thoracic and Abdominal Trauma: Hypovolemic Shock
- 1.6. Trauma to Extremities
- 1.7. Trauma in Special Situations(I)
- 1.8. Trauma in Special Situations (II)

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



## Module 2. Life Support.

- 2.1. General Aspects
- 2.2. Basic Electrocardiography and Arrhythmias
- 2.3. Basic Life Support and AED in Adults
- 2.4. Peripartum Arrhythmia
- 2.5. Airway Management
- 2.6. Advanced Life Support in Adults
- 2.7. Routes of Administering Medication
- 2.8. Resuscitation in Special Cases
- 2.9. Basic Life Support and AED in Children
- 2.10. Recognition and Management of Critically Ill Children
- 2.11. Advanced Airway Management in Pediatrics
- 2.12. Basics of Mechanical Ventilation in Pediatrics
- 2.13. Infusion Routes and Drugs in Pediatric CPR
- 2.14. Pediatric VAS Algorithms and Arrhythmia Treatment
- 2.15. Neonatal Resuscitation
- 2.16. Post-resuscitation Stabilization and Neonatal Transport

05

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.







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

## At TECH Nursing School we use the Case Method

In a given situation, what should a professional do? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Nurses learn better, faster, and more sustainably over time.

*With TECH, nurses can experience a learning methodology that is shaking the foundations of traditional universities around the world.*



According to Dr. Gervas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the real conditions in professional nursing practice.

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*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

The effectiveness of the method is justified by four fundamental achievements:

1. Nurses who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.





## Relearning Methodology

At TECH we enhance the 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 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 them as many times as you want.



### Interactive Summaries

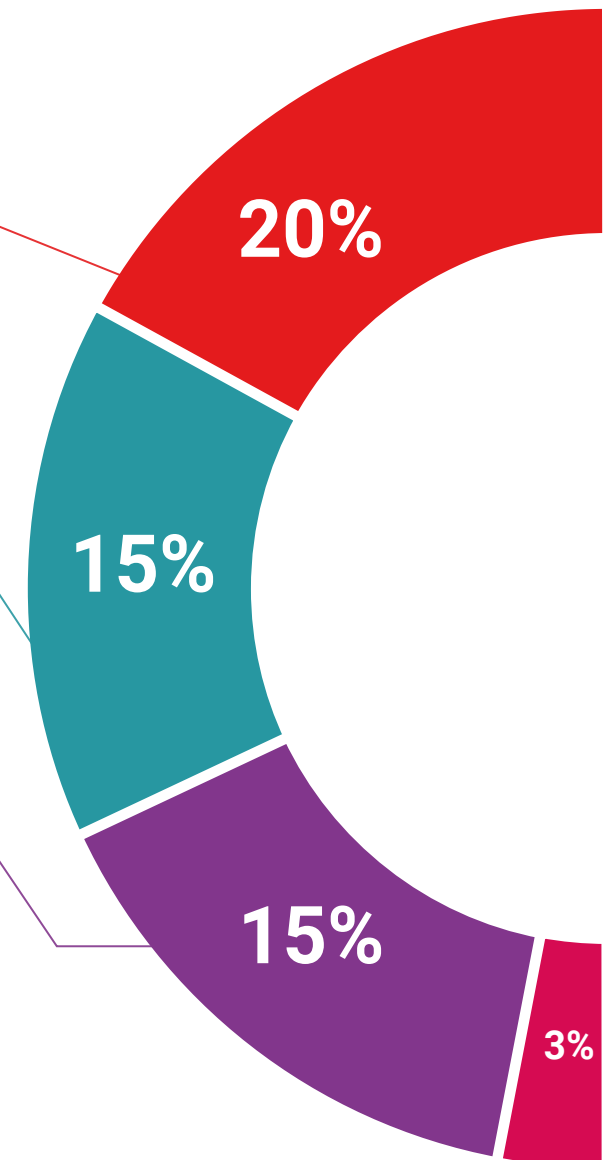
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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



### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.







#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

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

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06

# Certificate

The Postgraduate Certificate in Critical Care Update for Polytraumatized Patients and Life Support 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 Postgraduate Certificate without having to travel or fill out laborious paperwork”*



This private qualification will allow you to obtain a **Postgraduate Certificate in Critical Care Update for Polytraumatized Patients and Life Support** 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.

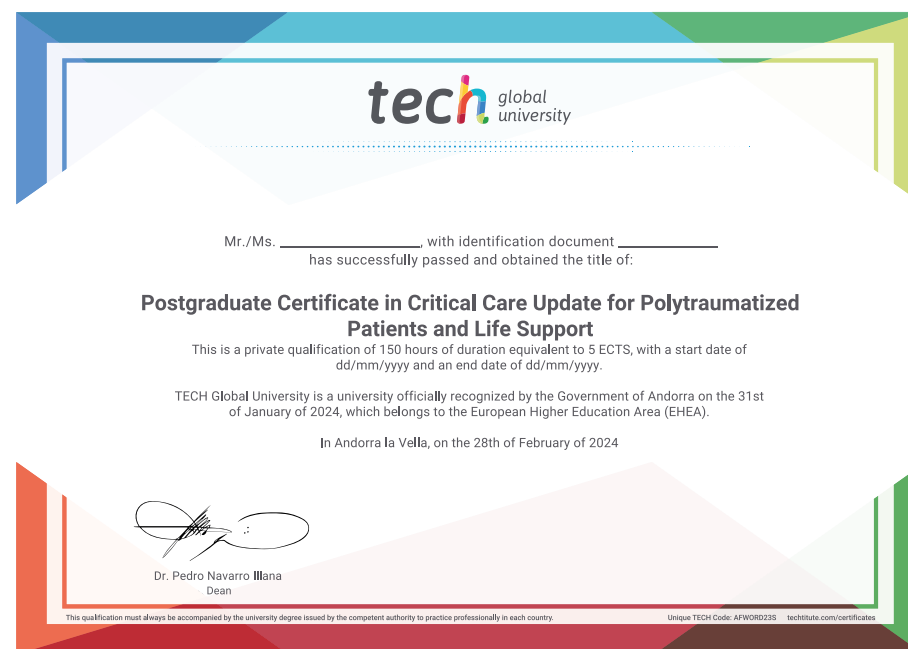
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Critical Care Update for Polytraumatized Patients and Life Support**

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  
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community commitment  
personalized service innovation  
knowledge present  
online training  
development language  
classroom



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