

Postgraduate Certificate Advanced Care in the ICU





Postgraduate Certificate Advanced Care in the ICU

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

Website: www.techtute.com/us/medicine/postgraduate-certificate/advanced-care-icu

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01

Introduction

In the intricate fabric of contemporary healthcare, Intensive Care Units (ICU) stand as the epicenter where healthcare professionals face unique challenges. These areas demand specific skills and in-depth knowledge in the specialist, who must renew and evolve along with their field of work if they are to provide high quality care. For all this, TECH offers the graduate this comprehensive academic program, which ensures mastery of the latest trends in diagnosis and treatment in Advanced Care in the ICU. The academic content is taught by a leading faculty in the field, completely online, through an innovative methodology: Relearning.



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The best Postgraduate Certificate in Advanced Care in the ICU! You will get up-to-date in an agile and simple way in the most innovative diagnostics and treatments"

The constant evolution of medicine has led to important advances in critical care, transforming the care provided in Intensive Care Units (ICU). In this context, the physician plays a crucial role in optimizing outcomes and preserving lives.

In fact, one of the fundamental principles of Advanced Care is the continuous and advanced monitoring of the patient. Modern monitoring systems allow real-time evaluation of vital parameters such as blood pressure, heart rate, oxygen saturation and brain activity. This information facilitates faster and more accurate decision making by the healthcare team, therefore improving the therapeutic response.

This Postgraduate Certificate will focus on specialized care for patients with traumatic injuries in ICU. Therefore, the professional will analyze the protocols for evaluation, monitoring and care in critical situations. In addition, they will acquire important skills for handling medical devices, administering medications and providing emotional support to patients and family members.

They will also learn strategies to prevent complications, manage pain and optimize interprofessional communication, including instruction in wound care techniques and specific trauma care. Likewise, the student will develop advanced competencies to ensure the safety and well-being of trauma patients, contributing significantly to a multidisciplinary care team.

In this way, the program will provide the specialist with a robust theoretical base, as well as the training to apply it in real critical situations. Thanks to the leadership and support of an outstanding faculty, composed of experts in Internal Medicine, the best academic results are assured. TECH offers exclusive access to the latest learning methodology: *Relearning*. This innovative pedagogical technique is based on the repetition of key concepts, thus allowing an effective assimilation of all knowledge.

This **Postgraduate Certificate in Advanced Care in the ICU** 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 Advanced Care in the ICU
- 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
- 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



Advanced Care in the ICU not only saves lives, but improves them with a proactive approach. What are you waiting for to renew your skills?"

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You will analyze the ABC-SBAR technique for the proper transfer of the traumatized patient thanks to the most current didactic materials”

The program’s teaching team 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.

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an 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 academic year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

Get up-to-date with TECH! You will delve into all the stages that make up the initial care process of severe trauma.

You will cover the latest procedures in analgesia and techniques that require sedation. And in only 6 weeks.



02 Objectives

This Postgraduate Certificate will provide the specialist with the knowledge necessary to become a leader in driving excellence in critical care. From anatomy to the most innovative therapies, the program will provide the physician with a comprehensive update that nurtures not only the understanding, but also the ability to apply what is learned in the critical ICU environment, in a pragmatic and effective manner. In fact, thanks to this academic program, the professional will analyze real medical cases, so that they can improve their practical skills. All under the guidance of a teaching team made up of experienced professionals.



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Thanks to this Postgraduate Certificate, you will lead the implementation of the latest technology to improve the quality of care provided"

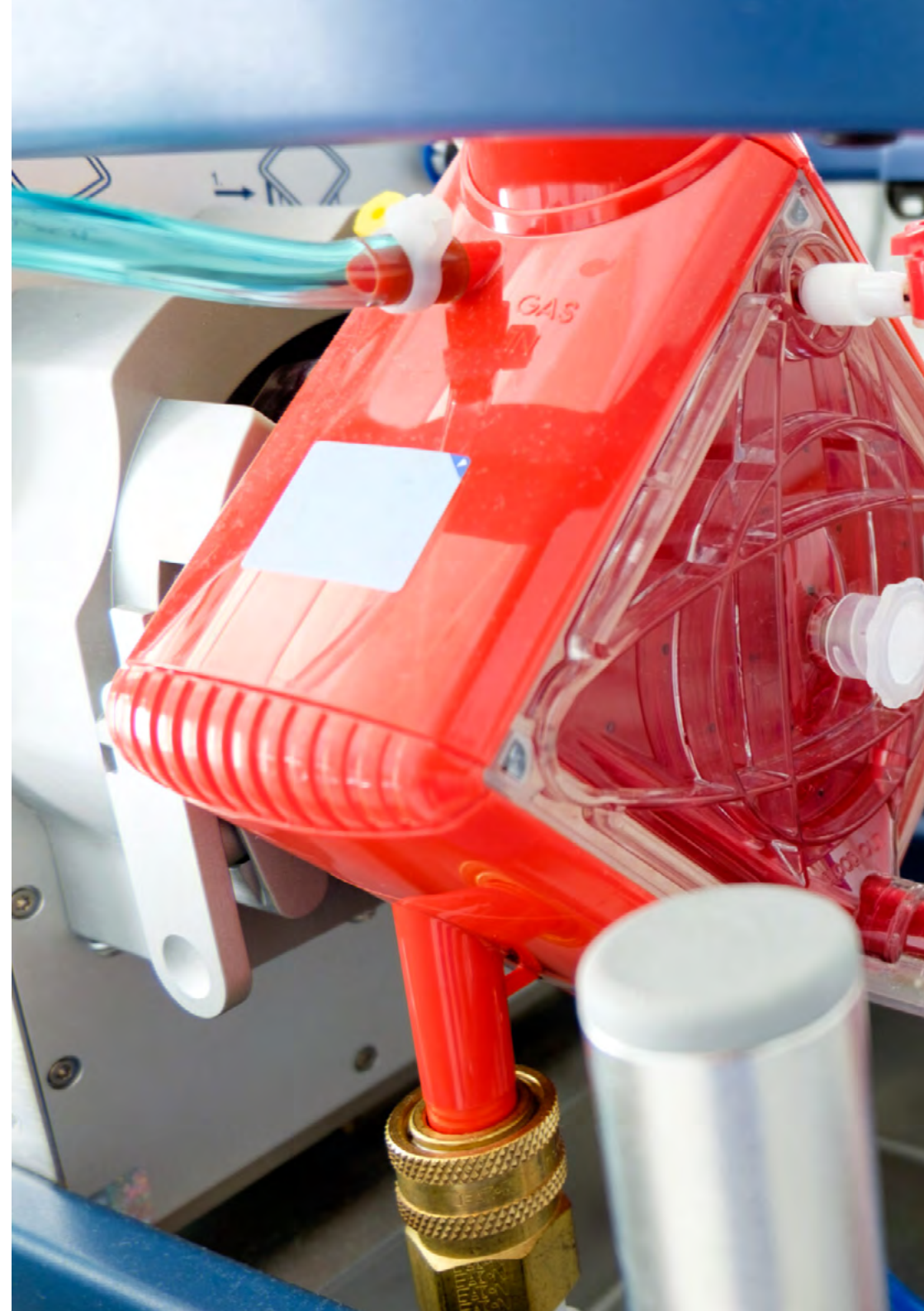


General Objectives

- ◆ Delve into a thorough understanding of the anatomophysiological, pathophysiological, and clinical basis of severe traumatic injuries, as well as associated complications and comorbidities
- ◆ Effectively communicate injury prevention information to different audiences and utilize health promotion strategies
- ◆ Integrate quality and safety practices in the management of trauma patients, minimizing risks and optimizing outcomes
- ◆ Implement triage protocols in mass trauma situations and prioritize care



You will achieve your objectives through the acquisition of knowledge and skills applied to Advanced Care in the ICU"





Specific Objectives

- ◆ Advance the clinical assessment of trauma patients in the ICU, identifying signs of shock, bleeding, and deterioration
- ◆ Manage and care for complex medical devices used in patients with severe traumatic injuries, such as catheters and probes
- ◆ Be up-to-date on the administration of specific medications for pain management, sedation, and shock control in trauma patients
- ◆ Update knowledge for interpretation and utilization of monitoring data, such as vital signs and hemodynamic parameters, to make care decisions
- ◆ Identify and prevent common complications in trauma patients in the ICU, such as infections and pressure ulcers

03

Course Management

The Advanced Care in the ICU program features a team of faculty who not only transmit knowledge, but embody a passion for excellence in critical care. These experts are professionals with a wealth of experience in Intensive Care Medicine, thanks to their time in the ICUs of pioneering hospitals in the field of Intensive Care. They are leaders committed to educational innovation, constantly seeking new ways of teaching, incorporating technology, dynamic methods and collaborative approaches. A unique opportunity to learn from the best.





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The excellent teaching team will guide you through this Postgraduate Certificate in Advanced Care in the ICU”.

International Guest Director

Doctor George S. Dyer is an eminent orthopedic surgeon, specializing in **Upper Limb Traumatology and Complex Post Traumatic Reconstructions of the Shoulder, Elbow, Wrist and Hand**. In fact, he has served as an **Upper Limb Surgeon** at **Brigham and Women's Hospital** in Boston, where he has also held the prestigious **Barry P. Simmons Chair in Orthopedic Surgery**.

Therefore, one of his most significant contributions has been his work in **Haiti**, where he has had a lasting impact. After the devastating **earthquake** of 2010, he was one of the first surgeons to arrive in the country, providing assistance at a critical time. In doing so, he has worked closely with **local surgeons** and other **health professionals** to strengthen **Haiti's** capacity to manage **medical emergencies**. As such, his efforts have been instrumental in training a new generation of **Haitian orthopedic surgeons**, who demonstrated their skill and preparedness during the 2021 earthquake, handling the situation with great efficiency and professionalism.

Likewise, during his time as **Director of the Harvard Combined Orthopedic Residency Program**, he has strived to improve the **working and educational conditions** of the **residents**, fostering a more balanced and healthy work environment. This focus on resident well-being reflects his commitment to preparing future physicians and his concern for the **mental and professional health** of his colleagues.

As such, Doctor George S. Dyer's impact on his field has been recognized through various honors, such as the **Humanitarian Award** given by the **Hippocrates Society** at **Brigham and Women's Hospital**, as well as being named a **Top Doctor** in **Massachusetts**. These awards have underscored his influence and significant contribution to **global Orthopedic Surgery**, reflecting his dedication and commitment to all aspects of his career.



Dr. Dyer, George S.

- ♦ Upper Limb Surgeon at Brigham and Women's Hospital, Boston, United States
- ♦ Barry P. Simmons Chair in Orthopedic Surgery at Brigham and Women's Hospital, Boston, United States
- ♦ Commandant Surgeon in the Medical Corps of the U.S. Navy
- ♦ Director of the Harvard Combined Orthopedic Residency Residency Program
- ♦ Fellowship in Upper Limb Fellowship at Brigham and Women's Hospital and Children's Hospital
- ♦ Doctor of Medicine from Harvard Medical School
- ♦ B.A. in Political Science and Government from Harvard University
- ♦ Humanitarian Award from the Hippocratic Society of Brigham and Women's Hospital
- ♦ Massachusetts Top Doctor



Thanks to TECH you will be able to learn with the best professionals in the world"

Management



Dr. Bustamante Munguira, Elena

- ♦ Head of the Intensive Care Medicine Department of the Hospital Clínico de Valladolid
- ♦ Medical Director of the Health Area of Ibiza and Formentera
- ♦ Specialist in Intensive Care Medicine
- ♦ Teacher of refresher courses and workshops
- ♦ Illustrious Official College of Physicians of Salamanca Award
- ♦ Ramón Llul Award of the Patient Safety Unit
- ♦ PhD in Medicine and Surgery
- ♦ Master's Degree in Management
- ♦ Medical and Healthcare Management
- ♦ Master in Patient Safety



Professors

Ms. De Pedro Sánchez, María Ángeles

- ◆ Nurse at the Regional Health Management of Valladolid
- ◆ Nurse at the Sagrado Corazón Hospital of Valladolid
- ◆ Nurse at Insalud in Valladolid
- ◆ Teacher of courses of the College of Nursing of Palencia and the Department of Social Welfare of the City of Palencia
- ◆ Collaborating teacher at the University School of Nursing in Valladolid
- ◆ Postgraduate Certificate in Nursing at the University of Valladolid
- ◆ Degree in Nursing from the University of León
- ◆ Master's Degree in Nursing Unit Management by the European University Miguel de Cervantes
- ◆ MBA in Skills Development and Effective Communication from the Asevegue European School of Health Education
- ◆ Nursing Leadership Certificate. Nightngale Challenge by ISFOS and UNIR
- ◆ Master's Degree in Humanization of Health Care by the European University Miguel de Cervantes

04

Structure and Content

The structure of this Postgraduate Certificate will prepare the specialist to meet challenges, lead innovations and deliver care that transcends expectations. From physiology to pharmacology, the program will build a solid foundation that will serve as a platform to understand the challenges and opportunities in ICU. In this way, the professional will be up-to-date on the latest innovations in monitoring, diagnosis and treatment in a convenient, fast and easy way. Through a pioneering learning methodology in TECH, *Relearning*, the graduate will ensure optimal acquisition of knowledge through repetition of key fundamentals.



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Benefit from TECH's commitment to educational excellence! This Postgraduate Certificate stands as the bridge that connects theory with practice, experience with innovation"

Module 1. Advanced ICU care

- 1.1. The role of care in the trauma care team
 - 1.1.1. Caregiving
 - 1.1.2. Out-of-hospital care, a field in its own right
 - 1.1.3. Care nucleus
 - 1.1.4. Research
 - 1.1.5. Teaching
 - 1.1.6. Administration and management
 - 1.1.7. Bioethical Aspects
 - 1.1.8. Legal aspects
 - 1.1.9. Techniques, skills, signs and symptoms in emergency care
- 1.2. Pre-hospital care in severe trauma care
 - 1.2.1. Pre-hospital care
 - 1.2.2. Nursing care in TBI
 - 1.2.2.1. Nursing care in the emergency phase
 - 1.2.2.1.1. Neurologic
 - 1.2.2.1.2. Hemodynamic
 - 1.2.2.1.3. Respiratory
 - 1.2.2.1.4. Renal
 - 1.2.2.2. Nursing care in acute spinal cord trauma
 - 1.2.2.2.1. Hemodynamic complications
 - 1.2.2.2.2. Respiratory Complications
 - 1.2.2.3. Nursing care in thoracic trauma
 - 1.2.2.4. Nursing care in abdominal and pelvic trauma
 - 1.2.2.5. Nursing care in orthopedic trauma
 - 1.2.3. Nursing care in thoracic trauma
 - 1.2.4. Nursing care in abdominal and pelvic trauma
 - 1.2.5. Nursing care in orthopedic trauma
- 1.3. Phases of prehospital care
 - 1.3.1. Pre-hospital care
 - 1.3.2. Scene assessment
 - 1.3.2.1. Approach to the scene of intervention
 - 1.3.2.2. Scene management and handling
 - 1.3.2.3. Triage
 - 1.3.2.4. Management of additional resources



- 1.4. The process of initial care in severe trauma
 - 1.4.1. Review and preparation of the reception area
 - 1.4.2. Activation of the team
 - 1.4.3. Reception of the patient
 - 1.4.4. Patient transfer
- 1.5. Development of actions in the initial assessment
 - 1.5.1. Nurse A: airway
 - 1.5.1.1. Airway and Ventilation
 - 1.5.2. Nurse B: circulation
 - 1.5.2.1. Control of exsanguinating hemorrhages
 - 1.5.3. Assessment of neurological status
- 1.6. Secondary examination
 - 1.6.1. Assessment
 - 1.6.2. Concomitant management in initial care
 - 1.6.2.1. Controlling Temperature
 - 1.6.2.2. Bladder catheterization and oropharyngeal gastric catheterization
 - 1.6.2.3. Analgesia and techniques requiring sedation
 - 1.6.2.4. Tetanus prophylaxis and antibiotherapy
 - 1.6.3. Coordination with the trauma team leader and team for intrahospital transfer after imaging tests or urgent therapeutic actions
 - 1.6.4. Assessment and sterile dressing of traumatic or postoperative wounds
 - 1.6.5. Initiation of pharmacological treatment as appropriate
- 1.7. Systematic review
 - 1.7.1. Reassessment of life-threatening emergency priorities
 - 1.7.2. Record sheet completed and signed
 - 1.7.3. Secondary examination
 - 1.7.4. Continued re-evaluation during the initial hours
 - 1.7.4.1. Vital signs
 - 1.7.4.2. Pupils, level of consciousness, GCS
 - 1.7.4.3. Control of catheters, perfusions, drains and catheters
 - 1.7.4.4. Monitoring: EKG, pulse oximetry, respirator, etc
- 1.8. Family Care
 - 1.8.1. Family
 - 1.8.2. Information division
 - 1.8.2.1. Current Situation
 - 1.8.2.2. Evolution and Prognosis
 - 1.8.3. Accompaniment: Explain operation and schedules
- 1.9. Management of psychic trauma
 - 1.9.1. Psychic trauma
 - 1.9.2. How to understand psychic trauma
 - 1.9.3. Families
 - 1.9.4. How To Act
 - 1.9.5. Attitude in the out-of-hospital and hospital environment
 - 1.9.6. How to communicate
 - 1.9.7. Prevention
- 1.10. Intrahospital Transport
 - 1.10.1. Intrahospital Transport
 - 1.10.2. ABC-SBAR for patient transfer
 - 1.10.3. Intrahospital transfer protocol
 - 1.10.3.1. Transfer checklist
 - 1.10.3.2. Transfer nurse report
 - 1.10.3.3. Documentation



You will acquire a solid foundation in Intensive Care through the pioneer learning methodology in TECH: Relearning"

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.



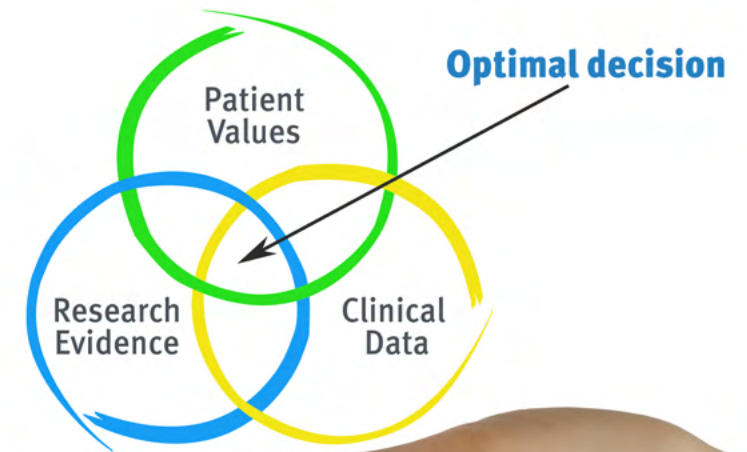
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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

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

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 the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

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 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.



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 Care in the ICU 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 certification without traveling or complex paperwork”

This program will allow you to obtain your **Postgraduate Certificate in Advanced Care in the ICU** 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 Care in the ICU**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 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.



Postgraduate Certificate Advanced Care in the ICU

- » Modality: online
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Postgraduate Certificate Advanced Care in the ICU

