



### Postgraduate Certificate

Advanced Life Support in the Severe Trauma Patient

» Modality: online

» Duration: 6 weeks

» Certificate: TECH Global University

» Credits: 6 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-certificate/advanced-life-support-severe-trauma-patient

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### tech 06 | Introduction

In this context, TECH has implemented an advanced course that will offer the most innovative procedures for monitoring analgesia. Developed by an experienced faculty, the syllabus will address the impact of neuromuscular blockade in critically ill patients. In addition, the pathophysiology of Severe Traumatic Illness will be discussed in depth. On the other hand, the didactic contents will delve into special traumas such as Polytrauma, Chest Injuries or Severe Burns. The basic principles of analgosedation and its application in severe trauma care will also be established.

In turn, the methodology implemented in this program reinforces its innovative character. TECH offers a 100% online educational environment, tailored to the needs of working professionals seeking to advance their careers. It also employs the *Relearning*teaching 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. Students will have access to a library full of multimedia resources in different audiovisual formats, such as interactive summaries, explanatory videos and infographics. In addition, the program includes real case studies and exercises to bring the development of the program closer to routine clinical practice.

This Postgraduate Certificate in Advanced Life Support in the Severe Trauma Patient contains the most complete and up-to-date scientific program on the market. The most important features include:

- Practice cases presented by experts in Advanced Life Support in the Severe Trauma Patient
- 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



Do you want to perform the most precise approach to severe trauma in special situations? Achieve it in 6 weeks thanks to this revolutionary program"

You will analyze in depth the impact of biomechanics in severe trauma care"

The program's teaching staff includes professionals from the sector who contribute their work experience to this 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 academic year For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

TECH's 100% online teaching system will allow you to update your knowledge without interrupting your professional work.

TECH offers you the best teaching methodology, with a multitude of practical cases so that you can develop your study as if you were facing real cases.







### tech 10 | Objectives



### **General Objectives**

- Develop the concept of Severe Traumatic Illness
- Analyze epidemiological factors and outcomes of, both pre-hospital and in-hospital care
- Determine the impact of biomechanics on the care of the severe trauma patient
- Analyze and develop the overall care of the severe trauma patient
- Establish the principles of special trauma care



Relearning will allow you to learn with less effort and greater performance, getting more involved in your professional specialization"





### Objectives | 11 tech



### **Specific Objectives**

- Develop epidemiological principles that are useful in Severe Traumatic Illness
- Assess the impact of biomechanical analysis on the overall management of the Severe Trauma patient
- Analyze and define the concept of Trauma Code
- Assess the ABCDE methodology
- Examine the different special traumas
- Analyze Severe Thermal Trauma
- Develop the principles for the care of the pregnant patient with severe trauma
- Establish the principles of analgosedation and its application within severe trauma care
- Determine diagnostic and monitoring systems





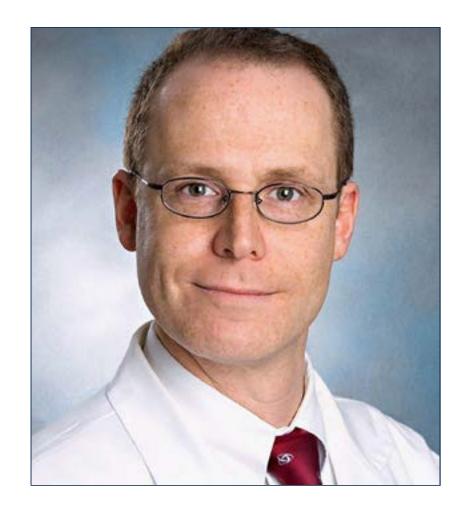
#### **International Guest Director**

Awarded for his multiple clinical contributions in the management of Headaches and Sleep Disorders, Dr. Joshua Marc Kosowsky has become a prestigious Physician characterized by his multidisciplinary approach. In this regard, he has developed his professional work in health institutions of international reference, where the Women's Hospital Emergency Room in the United States stands out.

Among his main contributions, he has contributed to the optimal recovery of multiple patients suffering from critical conditions such as Obstructive Sleep Apnea, Migraines or Circadian Rhythm Disorders. Likewise, he has been in charge of promoting the development of clinical treatment guidelines for the effective approach to Headache, Restless Legs Syndrome and Narcolepsy.

On the other hand, he balances this work with his facet as a Clinical Researcher. In fact, he has published several books for the medical community on areas such as Cardiovascular Emergencies. In this sense, he also has a wide production of specialized articles on subjects such as the analysis of Ischemic Cardiac Symptoms, cutting-edge therapies to alleviate Neuropathic Pain and therapeutic innovations for people with Insomnia. His work has helped to significantly advance the understanding and treatment of these complex pathologies, greatly benefiting both users and specialists.

Firmly committed to clinical excellence, he has participated as a speaker in renowned Conferences, Symposia and Workshops on a global scale. In this way, he has shared his solid knowledge of the most sophisticated treatments for the management of Cranial Discomfort. In tune with this, he has also served as a keynote speaker at various Medical Seminars, where he has offered a detailed insight into the latest advances in booming fields such as Neurology. As such, he has increased public awareness regarding Neurological Diseases and reduced stigmas that lead to misperceptions.



### Dr. Joshua, Marc Kosowsky

- Clinical Director at Brigham and Women's Hospital Emergency Room in Boston, United States
- Director of Patient Experience and Provider Engagement at Brigham and Women's
- Hospital Emergency Room
- Director of the Headache Center at Massachusetts General Hospital
- Director of Clinical Training at Harvard Medical School in Boston
- Clinical Consultant at Guidepoint Global in New York, United States
- Clinical Consultant at Gerson Lehrman Group in New York
- Medical Trainer at Huron Consulting Group in Illinois, United States
- Medical Trainer at Studer Group in Gulf Breeze, Florida, United States
- Residency in Emergency Medicine at the University of Cincinnati College of Medicine
- M.D. from Harvard Medical School Bachelor of Science in Medical Sciences from Harvard Medical School

Member of:
 American Headache Society

 American Society of Sleep Medicine



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

#### Management



#### Dr. Antonio Cardenas Cruz

- Head of the Intensive Care Medicine Department, Motril Hospital
- Director of the Clinical Unit of Critical Care and Emergency Management of the Poniente University Hospita
- Institute Director of Continuing Education of the Andalusian Society of Intensive Care Medicine and Coronary Universities
- Training Program Director for Life Support Trainers of the IAVANTE Line of the Progreso y Salud Foundation of the Consejería de Salud y Consumo de la Junta de Andalucía (Andalusian Regional Government)
- Training Program Director for Sedation the IAVANTE Line of the Progreso y Salud Foundation of the Consejería de Salud y Consumo de la Junta de Andalucía (Andalusian Regional Government)
- Head of Critical Care and Emergency Department, Hospital Universitario de Poniente
- Professor of Medicine
- Degree in Medicine and Surgery from the UGR
- PhD in Medicine and Surgery, UGR
- Specialist in Intensive Care Medicine



### Course Management | 17 tech

#### **Professors**

#### Dr. Martínez de Pinillos Sánchez, María Victoria

- Area Specialist Physician at the Virgen de las Nieves Hospital
- Resident Physician in the Specialty of Intensive Care Medicine
- Official Master's Degree in Research Methodology in Health Sciences from the University of Cordoba
- Postgraduate Diploma in Comprehensive Airway Management
- Postgraduate Diploma in Current Management of Digestive Pathology in the Critically III Patient

#### Dr. Brea Salvago, Juan Francisco

- Area Specialist in Intensive Care Medicine at the Ciudad de Jaén Hospital
- Intrahopital Transplant Medical Coordinator at the University Hospital of Jaen
- Professional Master's Degree in Infectious Diseases in Intensive Care at the University of Valencia
- Professional Master's Degree in Clinical Management, Medical and Care Management by CEU
- Cardenal Herrera University
- Professional Master's Degree in Echocardiography in Emergency Medicine, Anesthesia, Resuscitation and Critical Care by Universidad Francisco de Vitoria UFV Madrid
- Postgraduate Diploma in Health Care Communication for Health Care Professionals
- Postgraduate Diploma in Quality and Patient Safety in Health Institutions
- Postgraduate Diploma in Clinical and Cardiothoracic Ultrasound for Emergencies and Critical Care

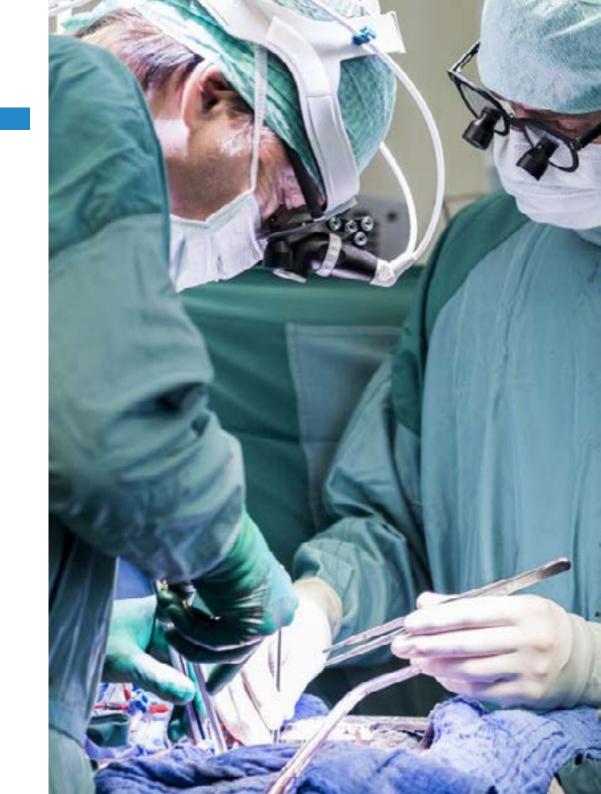


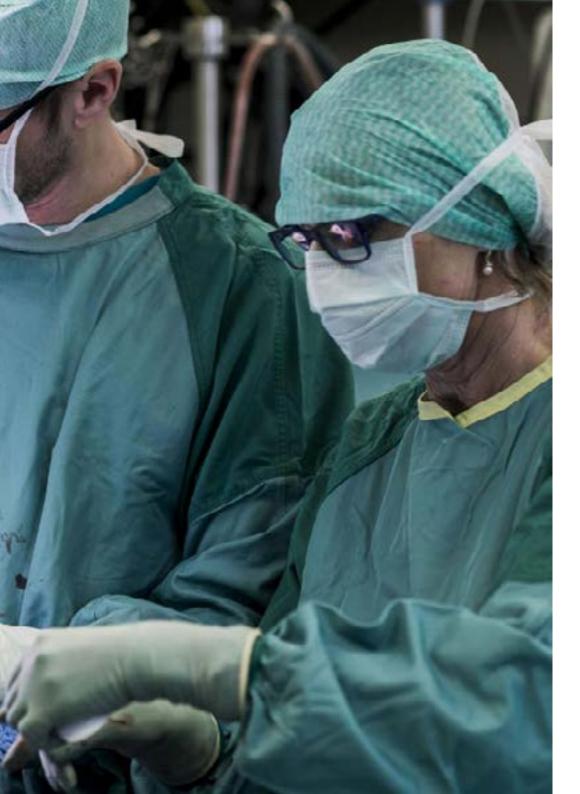


### tech 20 | Structure and Content

#### Module 1. Advanced Life Support in the Severe Trauma Patient

- 1.1. Severe Traumatic Illness in the 21st Century
  - 1.1.1. Severe Traumatic Illness
  - 1.1.2. Pathophysiology of Severe Traumatic Illness
  - 1.1.3. Epidemiology and Outcomes
- 1.2. Biomechanics
  - 1.2.1. Biomechanics
  - 1.2.2. Analysis of the Impact of Biomechanics in Severe Trauma Care
  - 1.2.3. Biomechanical Analysis of Special Traumas
- 1.3. Therapeutic Management of Severe Traumatic Brain Injury (TBI)
  - 1.3.1. Severe TBI
  - 1.3.2. Diagnostic and Monitoring Systems
  - 1.3.3. Therapeutic Control
- 1.4. Spinal Cord Trauma Monitoring
  - 1.4.1. Spinal Cord TBI
  - 1.4.2. Diagnostic and Monitoring Systems
  - 1.4.3. Therapeutic Control
- 1.5. Thoracic Trauma Monitoring
  - 1.5.1. Thoracic Trauma
  - 1.5.2. Diagnostic and Monitoring Systems
  - 1.5.3. Therapeutic Control
- 1.6. Abdominal Trauma Monitoring
  - 1.6.1. Abdominal Trauma
  - 1.6.2. Diagnostic and Monitoring Systems
  - 1.6.3. Therapeutic Control
- 1.7. Pelvic and Orthopedic Trauma Monitoring
  - 1.7.1. Pelvic and Orthopedic Trauma
  - 1.7.2. Diagnostic and Monitoring Systems
  - 1.7.3. Therapeutic Control





### Structure and Content | 21 tech

- 1.8. Monitoring and Care of Severe Trauma in Special Situations
  - 1.8.1. Severe Trauma Care in Special Situations
  - 1.8.2. Diagnostic and Monitoring Systems
  - 1.8.3. Therapeutic Control
- 1.9. Severe Thermal Trauma Monitoring
  - 1.9.1. Severe Thermal Trauma
  - 1.9.2. Diagnostic and Monitoring Systems
  - 1.9.3. Therapeutic Control
- 1.10. Analgosedation Monitoring
  - 1.10.1. Analgosedation
  - 1.10.2. Sedation and Analgesia. NMB (Neuromuscular Block)
  - 1.10.3. Monitoring



TECH offers you an interactive video system that will make it easier for you to study this program"





### tech 24 | Methodology

#### 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.



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:

- 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.





### Methodology | 27 tech

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.

### tech 28 | Methodology

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.









### tech 32 | Certificate

This program will allow you to obtain your **Postgraduate Certificate in Advanced Life Support in the Severe Trauma Patient** 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 in the Severe Trauma Patient

Modality: online

Duration: 6 weeks

Accreditation: 6 ECTS



Mr./Ms. \_\_\_\_\_, with identification document \_\_\_\_\_ has successfully passed and obtained the title of:

#### Postgraduate Certificate in Advanced Life Support in the Severe Trauma Patient

This is a program of 180 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024



<sup>\*</sup>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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