



### Postgraduate Diploma

### Pediatric Trauma

» Modality: online

» Duration: 6 months

» Certificate: TECH Global University

» Credits: 17 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-pediatric-trauma

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Certificate





### tech 06 | Introduction

Like other medical specialties and subspecialties, pediatric emergencies have reached a development of progressive specialization in recent years. Physicians working in pediatric emergency care services must be able to provide comprehensive initial care to pediatric patients, basing their actions on the latest scientific evidence.

For this reason knowledge must be constantly updated through programs aimed at reinforcing their functions, both in recognizing and initially resolving the emergency, and in focusing, orienting and correctly directing situations in the face of pathologies that can be delayed.

The preparation of the pediatric trauma emergency department physician should include updating on diagnostic and therapeutic techniques such as airway management and the approach to peripheral and central airways, to ensure rapid and safe care in all pediatric ages. In addition, it should include organizational aspects of pediatric emergency services and the provision of personnel and material, with emphasis on their differential characteristics.

This program offers physicians updated specialization on the most frequent cardiac pediatric emergencies, establishing the keys for pediatric patient care, with severe trauma and the approach to the different diagnostic and treatment techniques of emergency trauma care in the pediatric age.

This **Postgraduate Diploma in Pediatric Trauma** is 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. Graphic, schematic and eminently practical contents, with which they are conceived, gather scientific and assistance information on medical disciplines that are essential for professional practice.
- Latest diagnostic and therapeutic developments in the most frequent pediatric emergencies; it also incorporates new contents: minor surgery techniques, intoxications, sedoanalgesia in emergencies, etc.
- Practical workshops on procedures, diagnostic and therapeutic techniques.
- Algorithm-based interactive learning system for decision-making in the presented clinical situations.
- 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.



Scientific evidence increases the quality of medical care. Keeping up to date is key to providing better patient care in lifethreatening emergencies"



This Postgraduate Diploma may be the best investment you can make when choosing a refresher program for two reasons: in addition to updating your knowledge of Pediatric Trauma, you will obtain a qualification from TECH Global University"

Its teaching staff includes leading pediatricians, who bring to this train the experience of their work, as well as other specialists in the various fields of emergency medical 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 an immersive training program to train in real situations.

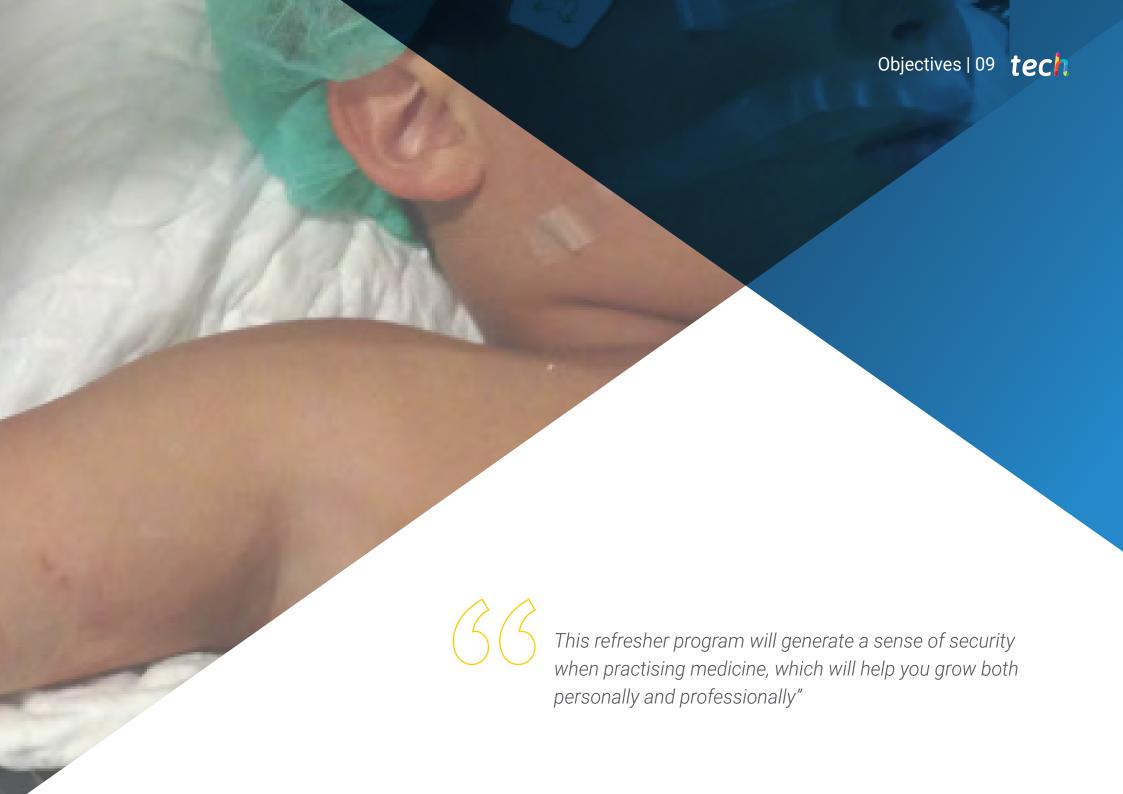
This program is designed around Problem Based Learning, whereby the physician must try to solve the different professional practice situations that arise during the course. For this reason, you will be assisted by an innovative, interactive video system created by renowned and experienced experts in pediatric emergencies with extensive teaching experience.

Increase your decision-making confidence by updating your knowledge in treating pediatric patients with severe trauma through this Postgraduate Diploma.

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 physicians in pediatric trauma care and diagnostic and therapeutic techniques for pediatric patients with urgent trauma pathology, in order to provide emergency care to improve the prognosis of the child and attention to the family.





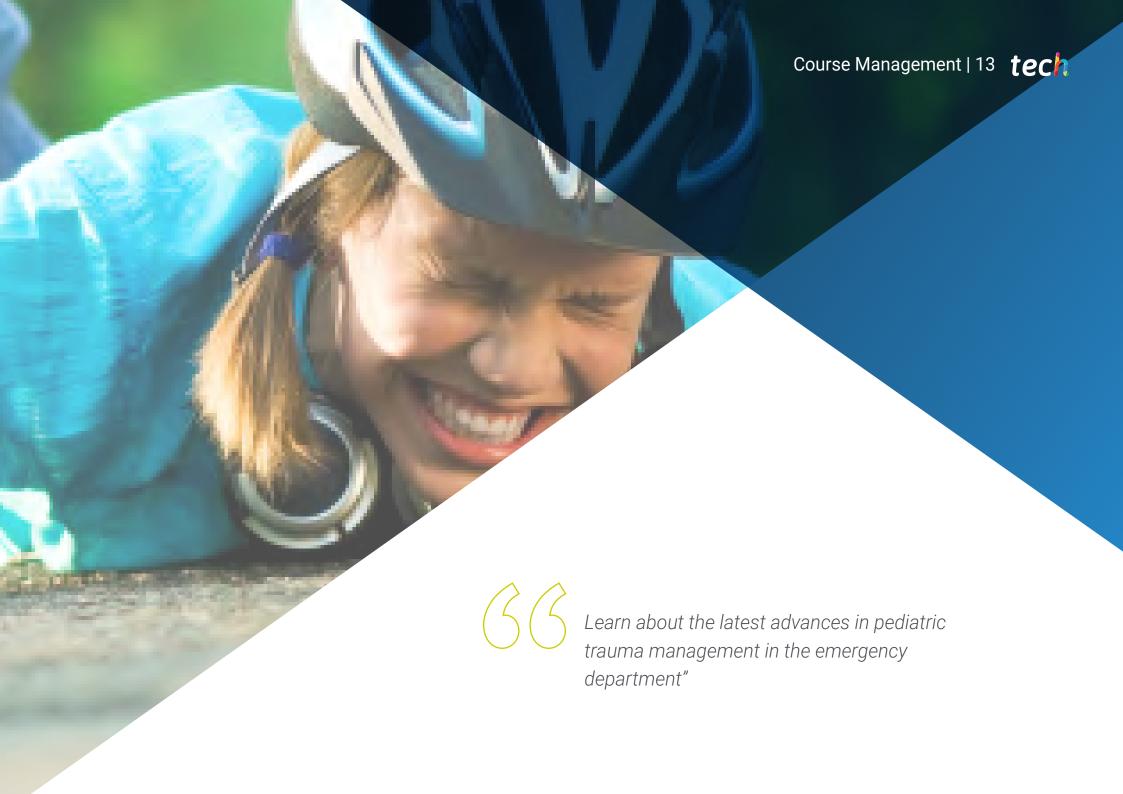
### Objectives | 11 tech



### **Specific Objectives**

- Identify key signs and triage patients according to the different triage systems.
- · Describe critical pediatric patient transport systems.
- Review the different routes of drug administration and their indication in each case.
- Establish capnography and pulse oximetry procedures, as well as review indications for oxygen therapy in pediatric patients according to the latest scientific evidence.
- Identify the main aspects of pediatric airway establishment, rapid intubation sequence, difficult airway and new facilitator devices.
- Establish the phases, characteristics and development of the sedoanalgesia procedure.
- Incorporate intraosseous puncture as a frequently used technique in pediatric emergency departments.
- Review the protocols for dealing with infant deaths.
- Review the diagnostic process, assessment and care of pediatric patients with traumatic brain injury.
- Incorporate into medical practice the evaluation and treatment priorities in traumatized children and the characteristics of pediatric patients in general.
- Develop and practice the sequences in the different workshops on mobilization and immobilization of trauma patients, functional bandaging, casting and reduction of painful pronation.
- Update diagnostic and therapeutic procedures to safely resolve potentially dangerous situations.





#### **International Guest Director**

Dr. Todd Florin is a recognized Pediatric Emergency Physician and clinical epidemiologist, expert in Lower Respiratory Tract Infections in children, especially in the field of Bronchiolitis and Pneumonia. In addition, at international level, he is a leader in the use of biomarkers and predictive analysis to improve the diagnosis and treatment of these conditions.

In this way, he has served as Director of Research in Emergency Medicine at the Ann & Robert H. Lurie Children's Hospital in Chicago. In addition, at the same hospital, he has directed the Grainger Research Program in Pediatric Emergency Medicine, where he has led key projects, such as the CARPE DIEM study (Catalyzing Ambulatory Research in Pneumonia Etiology and Diagnostic Innovations in Emergency Medicine), a pioneering investigation of community-acquired pneumonia, as well as other global studies, such as PERN, focused on understanding the severity of pneumonia and the impact of COVID-19 in children.

Dr. Todd Florin has also received numerous awards for his outstanding medical and research work, including the Young Investigator Award from the Academic Pediatric Association, and has been recognized for his research leadership and mentorship at renowned institutions such as Cincinnati Children's Hospital Medical Center. His vision of combining translational science with clinical care has driven significant advances in the management of Pediatric Respiratory Infections.

In fact, his work has been endorsed by prestigious institutions such as the National Heart, Lung and Blood Institute and the National Institute of Allergy and Infectious Diseases. In addition, his focus on Precision Medicine has transformed the way Respiratory Infections in children are



### Dr. Florin, Todd

- Director of Emergency Medicine Research, Ann & Robert H. Lurie Children's Hospital, Chicago, United States.
- Chief of the Grainger Research Program in Pediatric Emergency Medicine at Ann & Robert H. Lurie Children's Hospital
- Assistant Physician, Division of Emergency Medicine, Ann & Robert H. Lurie Children's Hospital
- Principal Investigator of the Catalyzing Ambulatory Research in Pneumonia Etiology and Diagnostic Innovations in Emergency Medicine Study (CARPE DIEM)
- Director of Strategy and Operations at the Society for Pediatric Research
- Specialist in Pediatric Emergency Medicine at the Children's Hospital of Philadelphia
- Doctor of Medicine from the University of Rochester

- Master's Degree in Clinical Epidemiology from the University of Pennsylvania
- B.A. in Music from the University of Rochester
- Young Investigator Award from the Academic Pediatric Association Member of: Academic Pediatric Association, American Academy of Pediatrics, Pediatric Infectious Diseases Society, Society for Academic Emergency Medicine, Society for Pediatric Research



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

### tech 16 | Course Management

### Management



#### Dr. Antón Castaño Rivero

- · Specialist in Pediatrics and its Specialized Areas.
- · Attending Physician, Pediatric Emergency Department, Cabueñes University Hospital. Gijón
- · Accredited in the subspecialty of Pediatric Emergency Medicine by the AEP.
- President of the Spanish Society of Paediatric Emergencies.
- Master's Degree in Emergencies and Acute Pathology in Pediatrics, Autonomous University from Madrid..
- CPR Instructor and Course Director accredited by the Spanish Group of Pediatric and Neonatal CPR.

### **Professors**

### Dr. Álvarez González, Diana

- Specialist in Pediatrics and its Specialized Areas.
- · Assistant Physician of the Pediatric Emergency Department of Cabueñes Hospital (Gijón).
- Master's Degree in Pediatric Emergencies and Emergencies, International University of Andalusia.

### Dr. Benito Pastor, Helvia

- Specialist in Pediatrics and its Specialized Areas.
- Assistant Physician, Pediatric Emergency Department, Río Hortega University Hospital (Valladolid, Castilla y León).
- American Academy of Pediatrics APLS Course Instructor.

### Dr. Campo Fernández, Nathalie

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- Assistant Physician, Pediatric Emergency Department, Río Hortega University Hospital (Valladolid, Castilla y León).
- American Academy of Pediatrics APLS Course Instructor. Pediatric Emergency Safety Trainer.

### Dr. Castaño Rivero, Antón

- Specialist in Pediatrics and its Specialized Areas.
- Attending Physician, Pediatric Emergency Department, Cabueñes University Hospital.
   Gijón
- CPR Instructor and Course Director accredited by the Spanish Group of Pediatric and Neonatal CPR.

### Dr. Díez Monge, Nuria

- Doctor of Medicine. Specialist in Pediatrics and its specific areas.
- Assistant Physician, Pediatrics Service, Rio Hortega Hospital, Valladolid, Castilla y León.

#### Dr. Fernández Álvarez, Ramón

- · Specialist in Pediatrics and its Specialized Areas.
- Attending Physician, Pediatric Emergency Department, Cabueñes University Hospital.
   Gijón
- Course Director of the APLS (Advanced Pediatric Life Support)

#### Dr. Fernández Arribas, José Luis

- Specialist in Pediatrics and its Specialized Areas.
- Assistant Physician, Pediatric Emergency Department, Río Hortega University Hospital (Valladolid, Castilla y León).
- Pediatric and Neonatal CPR Instructor. APLS instructor. Pediatric simulation instructor

### Dr. González Calvete, Laura

- Specialist in Pediatrics and its Specialized Areas.
- Attending Physician, Pediatric Emergency Department, Cabueñes University Hospital.
   Gijón
- Pediatric Basic and Advanced CPR Instructor.

### Dr. Suárez Castañón, Cristina

- Doctor of Medicine. Specialist in Pediatrics and its specific areas.
- Attending Physician, Pediatric Emergency Department, Cabueñes University Hospital.
   Gijón

#### Dr. González Martín, Leticia

- · Specialist in Pediatrics and its Specialized Areas.
- Assistant Physician, Pediatric Emergency Department, Río Hortega University Hospital (Valladolid, Castilla y León).
- Instructor in pediatric and neonatal CPR.
- Lecturer on several courses and conferences on cardiopulmonary resuscitation, emergencies and simulation.

#### Dr. Lombraña Álvarez, Emma

- · Specialist in Pediatrics and its Specialized Areas.
- Attending Physician, Pediatric Emergency Department, Cabueñes University Hospital.
   Gijón

#### Dr. Salamanca Zarzuela, Beatriz

- · Specialist in Pediatrics and its Specialized Areas.
- Assistant Physician, Pediatric Emergency Department, Río Hortega University Hospital (Valladolid, Castilla y León).

### Dr. Velasco Zúñiga, Roberto

- Doctor of Medicine. Specialist in Pediatrics and its specific areas.
- Assistant Physician, Pediatric Emergency Department, Río Hortega University Hospital (Valladolid, Castilla y León).
- · Master's Degree in Research Methodology.





### tech 20 | Structure and Content

### Module 1. Health Care Organization for Pediatric Emergencies

- 1.1. Equipment in the Pediatric Emergency Department (PED)
  - 1.1.1. Differential Characteristics of PEDs
  - 1.1.2. Infrastructure, Staffing
  - 1.1.3. Material
- 1.2. Triage in Pediatrics
  - 1.2.1. Definition
  - 1.2.2. Classification Systems
- 1.3. Transport of Critical Pediatric Patient
  - 1.3.1. Out-of-hospital Transfer
  - 1.3.2. Neonatal and Pediatric Transportation

### **Module 2.** Invasive Techniques in Critically III Pediatric Patients

- 2.1. Peripheral and Central Vein Access
  - 2.1.1. Peripheral Route
  - 2.1.2. Central Route
- 2.2. Intraosseous Puncture
- 2.3. Capnography Pulse Oximetry
- 2.4. Oxygen Therapy
- 2.5. Analgesia and Sedation
  - 2.5.1. Approaching Pain
  - 2.5.2. Procedure
  - 2.5.3. Reference Drugs in Analgesia and Sedation
- 2.6. Protocol for Child Death
- 2.7. Rapid Intubation Sequence



### Module 3. Pediatric Trauma and Osteoarticular Injuries

- 3.1. Initial Pediatric Trauma Care
  - 3.1.1. Types and Patterns of Injury in Pediatrics
  - 3.1.2. Primary and Secondary Assessment
  - 3.1.3. Spinal Cord Injuries
- 3.2. Head Trauma in Children
- 3.3. Lower Extremity Trauma
- 3.4. Upper Extremity Trauma
- 3.5. Thoracic Trauma Rib Fractures and Contusions
- 3.6. Limping
  - 3.6.1. Types of Lameness
  - 3.6.2. Treatment
  - 3.6.3. Referral Criteria
- 3.7. Classification of Pediatric Fractures
- 3.8. Mobilization and Immobilization Workshop
- 3.9. Active Mobilization Stimulation
- 3.10. Hyperpronation
- 3.11. Supination-Flexion
- 3.12. Radial Head Subluxation

### Module 4. Unintentional Injuries Child Accidents

- 4.1. Burns and Wounds
- 4.2. Drowning
- 4.3. Stings and Bites
- 4.4. Drug and Non-drug Intoxications
- 4.5. Anaphylaxis
  - 4.5.1. Classification of Severity
  - 4.5.2. Diagnostic Procedures
  - 4.5.3. Treatment and Discharge Recommendations
- 4.6. Foreign Body Extraction from the Ear
- 4.7. Foreign Bodies Extraction from the Nose
- 4.8. Freeing Trapped Penis or Scrotum
- 4.9. Incarcerated Inguinal Hernia Reduction
- 4.10. Reduction of Paraphimosis



A unique, key, and decisive training experience to boost your professional development"



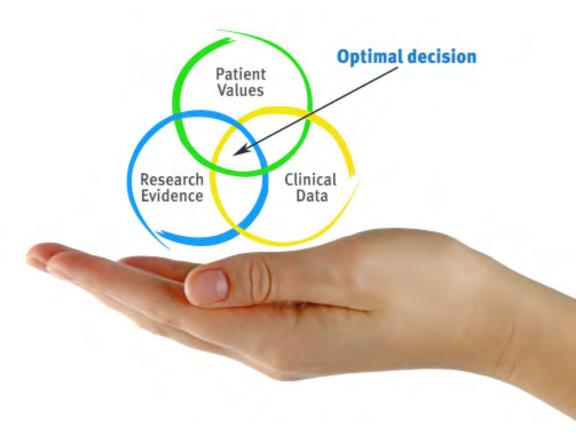


### tech 24 | Methodology

### At TECH we use the Case Method

In a given situation, what would you 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 an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you can 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 potential 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 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 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.
- 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.

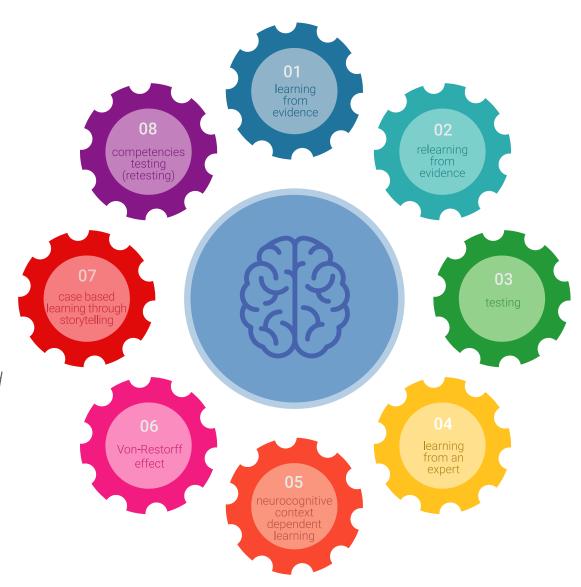


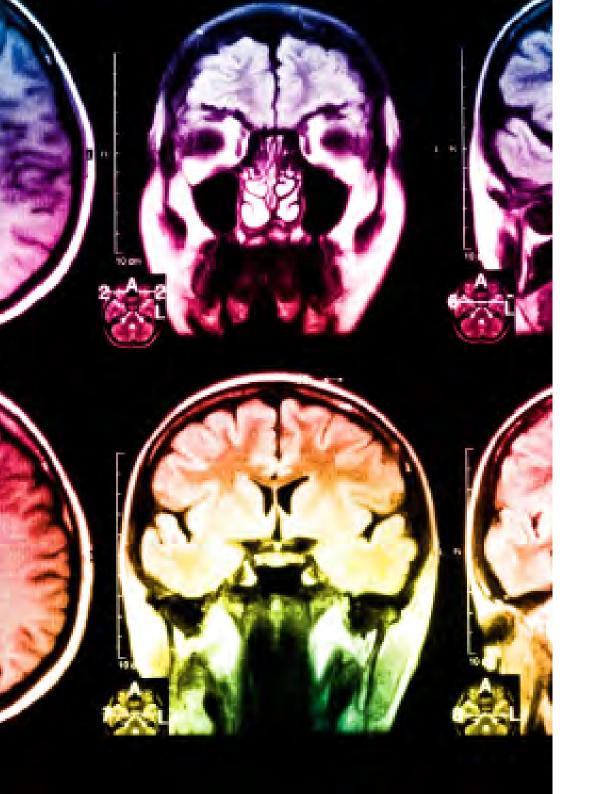
### **Re-learning Methodology**

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 physician 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 | 27 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 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. 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 training, 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.

### tech 28 | Methodology

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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



### **Latest 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 rigor, explained and detailed for your assimilation and 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.

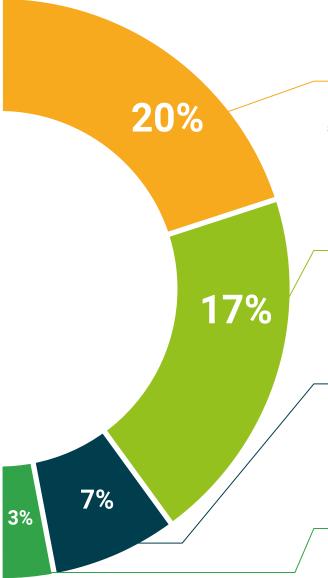
This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



### **Additional Reading**

Recent articles, consensus documents, international guides. in our virtual library you will have access to everything you need to complete your training.





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

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 & Retesting**

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your 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 32 | Certificate

This private qualification will allow you to obtain a **Postgraduate Diploma in Pediatric Trauma** 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 Diploma in Pediatric Trauma

Modality: online

Duration: 6 months

Accreditation: 17 ECTS



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

#### Postgraduate Diploma in Pediatric Trauma

This is a private qualification of 510 hours of duration equivalent to 17 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy6

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



tech global university

## Postgraduate Diploma

### Pediatric Trauma

- » Modality: online
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- » Schedule: at your own pace
- » Exams: online

