

Postgraduate Certificate

Advanced Pediatric and
Neonatal Life Support





Postgraduate Certificate Advanced Pediatric and Neonatal Life Support

- » 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-pediatric-neonatal-life-support

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01

Introduction

A total of 283 children have suffered cardiorespiratory arrest in recent years. For this reason, the Spanish Association of Pediatrics urges the population to watch for symptoms such as tachypnea, noisy breathing or mucocutaneous coloration. It should be noted that experts are the only ones who can carry out resuscitation maneuvers. This is because they are aware of the steps to be followed, preventing complications such as rib fractures. However, the advance of technology has led to the emergence of new tools for Advanced Life Support in children. In this context, TECH has developed a pioneering 100% online program for professionals to apply the latest techniques in this area.



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You will be highly qualified to develop strategies capable of preventing cardiac arrest in children”

Arrhythmias are one of the most common cardiovascular diseases among children. They have numerous consequences, ranging from fainting to chest pains and brain damage. In this sense, healthcare institutions are actively seeking to incorporate Advanced Life Support professionals into their teams to provide services to minors. Faced with this opportunity, specialists need to differentiate themselves from their competitors in order to gain access to the most prestigious institutions. One of the ways to achieve this is to master the most innovative arrhythmia monitoring tools on the market.

In order for them to master the most cutting-edge technologies in this area, TECH has developed a Postgraduate Certificate dedicated to emergency protocols. Developed by an experienced teaching staff, the syllabus will cover airway replacement techniques and ventilation in pediatrics.

Post-resuscitation care will also be covered in depth, based on the inspection of factors such as the internal environment and circulation. In addition, the didactic materials will delve into the procedures for stabilization and neonatal resuscitation. In this way, graduates will apply the most appropriate measures in the event of cardiorespiratory arrest in the youngest children.

With a 100% online methodology, graduates will be able to complete the program comfortably. In fact, for the analysis of its contents, you will only need an electronic device with Internet access, since the schedules and evaluation chronograms can be planned individually.

Likewise, the syllabus will be supported by the innovative Relearning teaching system, which relies on repetition to guarantee the mastery of the different concepts. At the same time, it mixes the learning process with real situations, so that knowledge is acquired in a natural and progressive way, without the extra effort of memorizing.

This **Postgraduate Certificate in Advanced Pediatric and Neonatal Life Support** 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 and Monitoring in the Critically Ill Patient
- ♦ The graphic, schematic, and practical content 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



You will adequately apply the specific protocols for stabilization and neonatal resuscitation"

“

Do you want to be up to date with the most effective pharmacology in Pediatric Cardiopulmonary Resuscitation? Achieve it in only 180 hours with this pioneer program"

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.

You will approach the cases of arrhythmias in children, applying the most advanced medical procedures.

The Relearning system, applied by TECH in its programs, reduces the long hours of study so frequent in other teaching methods.



02

Objectives

This Postgraduate Certificate will allow students to correctly identify the main morphological and functional differences in both pediatric and neonatal patients. In this way, the graduates will become aware of the triggering factors of Cardiorespiratory Arrest, taking into account the potentially reversible causes. They will also master the most advanced techniques in the field of Cardiopulmonary Resuscitation in infants.





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This university program will allow you to fulfill your professional aspirations in only 6 weeks. Enroll now!”



General Objectives

- ◆ Identify the main morphological and functional differences between pediatric and neonatal patients
- ◆ Establish the pathophysiological basis of pediatric and neonatal CRP
- ◆ Analyze the principles that govern pediatric BLS, pediatric ALS and neonatal CPR



You will acquire knowledge without geographical limitations or pre-established timing, with this 100% online qualification"





Specific Objectives

- Develop the concept of pediatric and neonatal CRP
- Establish the differences in the origin of CRA
- Analyze the main triggers of pediatric and neonatal CRA
- Examine the potentially reversible causes of CPR and neonatal CPR
- Determine the basis of Life Support measures

03

Course Management

One of TECH's top priorities is to offer the most complete education. For this reason, the Postgraduate Certificate has a prestigious teaching staff, with extensive professional experience in the best hospitals. Thanks to them, the students will acquire a deep knowledge and practical skills in Advanced Pediatric and Neonatal Life Support.





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*Update your knowledge with professionals
with years of teaching experience”*

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

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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 Hospital
- 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

Professors

Dr. Díaz Rueda, Laura

- ♦ Physician in Emergency and Pediatric Intensive Care at the Virgen de las Nieves Maternal and Child Hospital
- ♦ Doctor in Pediatric Intensive Care Unit, Reina Sofia University Hospital
- ♦ Professional Master's Degree in diagnosis and treatment in Pediatric Cardiology and Congenital Cardiopathies - CEU Cardenal Herrera University
- ♦ Degree in Medicine from the University of Granada

Dr. Abril Molina, Ana

- ♦ Medical Specialist in Pediatrics and its Specific Areas
- ♦ Assistant Physician in the Pediatric Intensive Care Unit at the Virgen de las Nieves University Hospital
- ♦ Collaborator in clinical trials and research projects with the Progreso y Salud Foundation
- ♦ Ph.D. in Medicine, University of Granada
- ♦ Degree in Medicine from the University of Córdoba

Dr. Gómez Luque, José María

- ♦ Specialist in Pediatric Intensive Care
- ♦ Assistant Physician of the Pediatric Intensive Care Unit of the Virgen de las Nieves Hospital
- ♦ Advanced CPR and Pediatric CPR Instructor
- ♦ Ph.D. in Medicine and Surgery from the University of Granada

Dr. Ocete Hita, Esther

- ♦ Head of the Pediatric Hospitalization Section of the Virgen de las Nieves University Hospital of Granada
- ♦ FEA Pediatrics in the Pediatric Intensive Care Unit of the Virgen de las Nieves University Hospital of Granada
- ♦ Associate Professor in the Faculty of Medicine at the University of Granada
- ♦ Specialist Pediatrician
- ♦ Ph.D. in Medicine
- ♦ Degree in Medicine



Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"

04

Structure and Content

This program will address in detail the concepts related to Cardiopulmonary Arrest in pediatric and neonatal patients. In order to guarantee an effective assimilation of the contents, an experienced teaching staff will supervise the learning process. In line with this, the syllabus will delve into the standardization of the severity of patients, taking into account the prediction scales. In addition, the physicians will delve into the procedures to replace both the airway and the ventilation. He will also analyze the Post Cardiorespiratory Arrest care, through the control of circulation and temperature.



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You are in front of the most complete and up-to-date scientific program in the market. Bet on TECH and experience immediate progress in your career!"

Module 1. Advanced Pediatric and Neonatal Life Support

- 1.1. Pediatric Cardiopulmonary Resuscitation (CPR)
 - 1.1.1. Pediatric Cardiopulmonary Resuscitation (CPR)
 - 1.1.2. Physiology
 - 1.1.3. Pathophysiology and Epidemiology
- 1.2. Prevention of CRP in the Pediatric and Neonatal Patient
 - 1.2.1. Analysis of Prevention Systems
 - 1.2.2. The Chain of Survival
 - 1.2.3. Standardization of Severity and Prediction Scales
- 1.3. Assessment and Care of the Child at Risk for CRA
 - 1.3.1. Airway and Ventilation
 - 1.3.2. Circulation and Neurological
 - 1.3.3. Severity Scales
- 1.4. CPR Monitoring in Pediatrics
 - 1.4.1. Identification of CPR
 - 1.4.2. Airway Replacement and Ventilation
 - 1.4.3. Circulation Replacement
- 1.5. Airway and Ventilation
 - 1.5.1. Advanced Airway
 - 1.5.2. Advanced Ventilation
 - 1.5.3. Technological Devices for Airway Control and Ventilation
- 1.6. Vascular Accesses, Drugs, and Fluids Used in Pediatric CPR
 - 1.6.1. Vascular Access and Alternatives in Pediatrics
 - 1.6.2. Applied Pharmacology
 - 1.6.3. Fluid Therapy



- 1.7. Monitoring and Treatment of Arrhythmias in Pediatrics
 - 1.7.1. Diagnosis of Arrhythmias
 - 1.7.2. Actions for the Main Arrhythmias
 - 1.7.3. Action Protocols
- 1.8. Management of Advanced CPR in Pediatrics
 - 1.8.1. Diagnosis
 - 1.8.2. Action Protocols
 - 1.8.3. Automated CPR and ECMO CPR
- 1.9. Post-Resuscitation Care
 - 1.9.1. Corrosion Control
 - 1.9.2. Circulation Control
 - 1.9.3. Temperature and Internal Environment Control
- 1.10. Neonatal Stabilization and Resuscitation
 - 1.10.1. Differences in Neonatal CPR
 - 1.10.2. Airway / Ventilation and Circulation
 - 1.10.3. Specific Action Protocols

“ *This online methodology will allow you, through real clinical cases, to practice in a simulated environment* ”



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 Pediatric and Neonatal 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 university qualification without having to travel or fill out laborious paperwork"

This program will allow you to obtain your **Postgraduate Certificate in Advanced Pediatric and Neonatal 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** 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 Pediatric and Neonatal Life Support**

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.



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