

# Postgraduate Certificate

## Renal Disorders in Neonatology





## Postgraduate Certificate Renal Disorders in Neonatology

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

Website: [www.techtute.com/us/medicine/postgraduate-certificate/renal-disorders-neonatology-internal-environment](http://www.techtute.com/us/medicine/postgraduate-certificate/renal-disorders-neonatology-internal-environment)

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# 01

# Introduction

Renal Disorders in Neonatology are an important problem that affects a significant number of newborns and patients of all ages. In fact, timely diagnosis and treatment are essential to prevent serious complications and improve the quality of life of patients. For this reason, it is essential that health professionals have specialized and up-to-date education in this area, in order to effectively address these disorders. In this context, TECH presents this academic program, which expands the knowledge and skills of graduates to manage these disorders. A qualification that will be taught 100% online and with a wide range of resources, such as case studies and downloadable materials.



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*Thanks to this 100% online Postgraduate Certificate, you will identify and effectively address conditions such as Nephro-Urological Malformations, Renal Infectious Disease and other anomalies”*

Renal Disorders in Neonatology can occur as a consequence of various disorders and can seriously compromise the health and well-being of newborns. For this reason, health professionals with a solid and up-to-date background in the management of these disorders are more and more in demand.

This is how this Postgraduate Certificate was developed, which will cover from renal embryology to the treatment of complications such as neonatal Arterial Hypertension and Hydroelectrolyte Disorders. Beginning with a detailed exploration of renal embryology, clinicians will acquire a thorough understanding of renal development in newborns, which will lay the foundation for a better understanding of the abnormalities and conditions that may arise in this crucial stage of life.

Likewise, an exhaustive analysis of Nephro-Urological Disorders and their impact on neonatology will be carried out. The various diseases and disorders that affect the renal system in newborns will also be examined, which will allow graduates to identify and address these conditions effectively in clinical practice.

Finally, the identification and management of Acute Renal Failure in newborns will be further explored, carefully evaluating available therapies to improve clinical outcomes. In addition, special attention will be paid to neonatal Arterial Hypertension and Hydroelectrolytic Disorders, ensuring that participants possess the necessary skills and knowledge to provide optimal care to newborns with Renal Disorders.

Therefore, this Postgraduate Certificate will be taught completely online, which means that students will be able to access the academic resources from anywhere and at any time, as long as they have an electronic device with an Internet connection. In fact, TECH's teaching methodology, Relearning, is based on interaction, learning without memorizing and constant feedback, which guarantees a meaningful and effective learning experience.

This **Postgraduate Certificate in Renal Disorders in Neonatology** contains the most complete and up-to-date scientific program on the market.

Its most notable features are:

- ♦ The development of case studies presented by experts in Renal Disorders in Neonatology.
- ♦ The graphic, schematic and eminently practical contents with which it is conceived gather scientific and practical information on those disciplines that are indispensable 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



*Update yourself with the best professionals in Renal Disorders, who will provide you with the best tools to delve into the anatomy and renal pathophysiology in newborns"*

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*You will obtain a prestigious university certificate and you will improve your job opportunities thanks to this Postgraduate Certificate in Renal Disorders in Neonatology”*

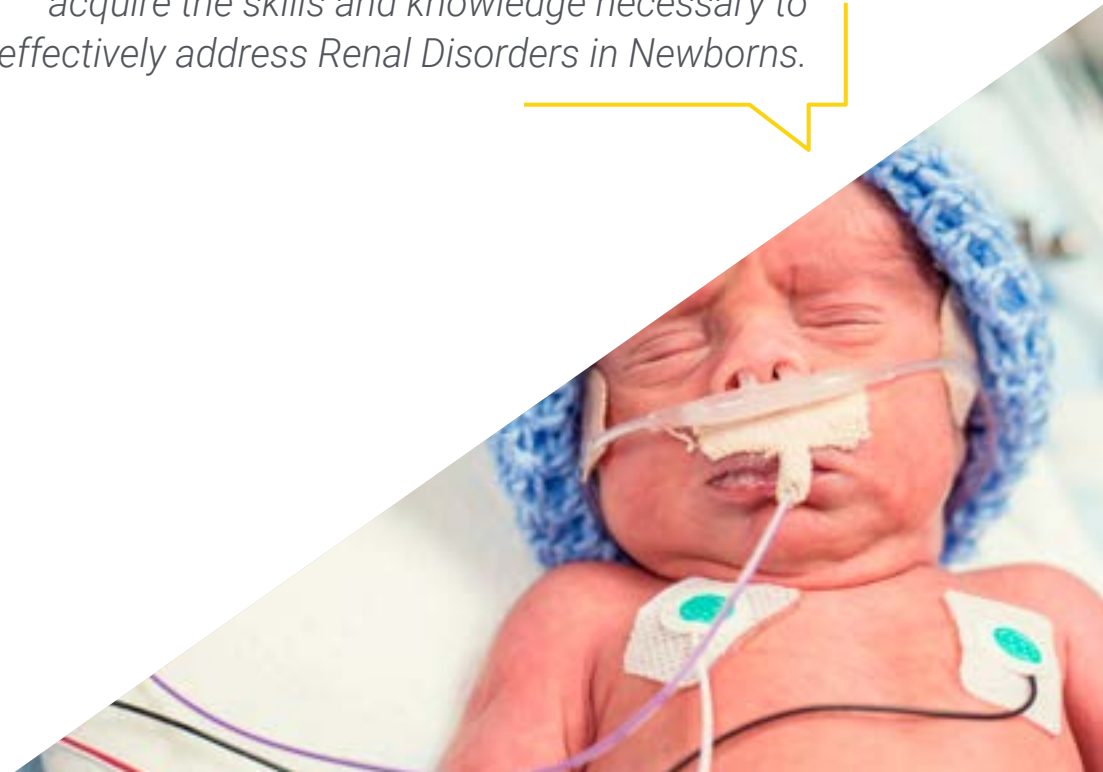
The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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 course. For this purpose, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

*You will address Nephro-Urourological Disorders, analyzing the various conditions that can affect the kidneys in newborns and their specific implications in the field of Neonatology.*

*Learn more about the anatomy and pathology of Nephrourological Malformations! This comprehensive approach will allow you to acquire the skills and knowledge necessary to effectively address Renal Disorders in Newborns.*





# 02 Objectives

In order to provide specialized education in the understanding and management of Renal Disorders in the newborn, TECH will update the knowledge of professionals in physiology and pathophysiology of the kidney. In addition, it will lead the graduates to delve further into the anatomy of Nephro-Urological pictures, investigating in Nephro-Urological Malformations. It will also qualify participants in the early identification of Acute Renal Failure, as well as in the assessment and application of therapies for its treatment, in order to improve clinical outcomes and quality of life of affected newborns.







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*Update your knowledge on renal infectious disease in the newborn and describe each normal and altered hydroelectrolytic situation, delving into renal embryology"*



## General Objectives

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- Understand the key aspects of early neonatal assessment
- Analyze the anatomic and physiologic conditions of the neonate
- Master appropriate neonatal admission and transport procedures
- Determine neonatal resuscitation and thermal management techniques
- Develop strategies to prevent and treat hypothermia and pain
- Investigate neonatal respiratory and cardiovascular disorders
- Address neurological and metabolic disorders in neonatology
- Define infections and hematologic disorders in neonatology
- Evaluate renal and neonatal immunity disorders
- Apply new technologies to improve neonatal care





### Specific Objectives

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- ♦ Delve into Renal Embryology to understand its development in newborns
- ♦ Analyze Nephro-urological diseases and their implications in Neonatology
- ♦ Identify acute renal failure in newborns
- ♦ Evaluate different therapies for the treatment of Renal Failure
- ♦ Address Neonatal Arterial Hypertension and its possible complications
- ♦ Define Hydroelectrolyte Disorders in Neonatology



*Broaden your knowledge in the mechanisms of Physiology and Pathophysiology of the Kidney! This qualification will give you the opportunity to update you on this and other topics related to Renal Disorders"*



03

# Course Management

The team of professionals leading this Postgraduate Certificate is made up of highly qualified experts in the field and with extensive experience in the field of children's health. In addition, the academic program offers the best tools and resources for students to develop their skills and competencies, promoting innovation and research in neonatal renal disorders. In this way, the qualification guarantees a complete and excellent education for students specialized in Pediatric Medicine.



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*In this Postgraduate Certificate in Renal Disorders in Neonatology, the management will focus on providing you with quality and up-to-date education in the area of Pediatric Nephro-Urology"*

## Management



### **Dr. Baca Cots, Manuel**

- ♦ Head of the Pediatrics and Neonatology Service at Hospital Quirón Málaga
- ♦ Head of Neonatology at Hospital Clínica Dr. Gálvez
- ♦ Head of Neonatology at Hospital Quirón of Murcia
- ♦ Head of Andalusian Health Service (SAS)
- ♦ Principal investigator of international multi-center projects
- ♦ Degree in Medicine from the University of Granada





## Professors

### Dr. Díez Delgado, Javier

- ♦ Clinical Manager of the Newborn Unit of the Maternal-Children's Hospital Princesa Leonor
- ♦ Head of the Critical Care and Pediatric Emergency Department of the Pediatrics Service of the Torrecárdenas Hospital in Almería
- ♦ Neonatology at Torrecárdenas Hospital
- ♦ Instructor in Pediatric and Neonatal CPR.
- ♦ Principal investigator or collaborator in the Vaccinology and Neonatology lines.
- ♦ Lecturer in the Master's Degree in Emergency Medicine at the UAL.
- ♦ Degree in Medicine and Surgery from the Faculty of Medicine of the University of Granada
- ♦ Member of: SPAO Board of Directors; SENEIO Newborn Transport Working Group; Spanish Vaccinology Association.

# 04

## Structure and Content

The teaching team of this qualification has proposed the requirements to be followed in the syllabus, establishing topics that will delve into the embryology of the renal system and establish the basis of the anatomy of the renal system. The assessment of renal function will also be addressed, dealing with topics such as Acute Renal Failure, Neonatal Nephrotic Syndrome and Renal Tubular Acidosis. In addition, Neonatal Arterial Hypertension and Fluid Balance in the newborn admitted to an Intensive Care Unit will be analyzed, studying the monitoring of the patient in this context.



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*This Postgraduate Certificate will offer you a complete vision of Renal Disorders in Neonatology, covering different aspects including anatomy, pathology, physiology and clinical monitoring”*

**Module 1.** Renal Disorders in Neonatology and in the Internal Environment

- 1.1. Renal Embryology
- 1.2. Nephro-Urological Disorders
- 1.3. Acute Kidney Failure
- 1.4. Treatment of Acute Kidney Failure
- 1.5. Renal Replacement Therapies (RRT); Peritoneal Dialysis in the Newborn
- 1.6. Neonatal Arterials Hypertension
- 1.7. Fluid and Electrolyte Disorders
- 1.8. Electrolytes Sodium (Na<sup>+</sup>); Potassium (K<sup>+</sup>); Calcium (Ca<sup>++</sup>)
- 1.9. Neonatal Hypoglycemia
- 1.10. Asymptomatic Hypoglycemia







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*Enroll in this 100% online Postgraduate Certificate and broaden your knowledge in Renal Disorders in Neonatology”*

# 05 Methodology

This 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 assess 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

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

*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 prepared with unprecedented success in all clinical specialties regardless of surgical load. Our educational 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.

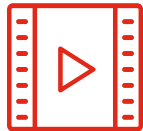
*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

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 adapted in 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

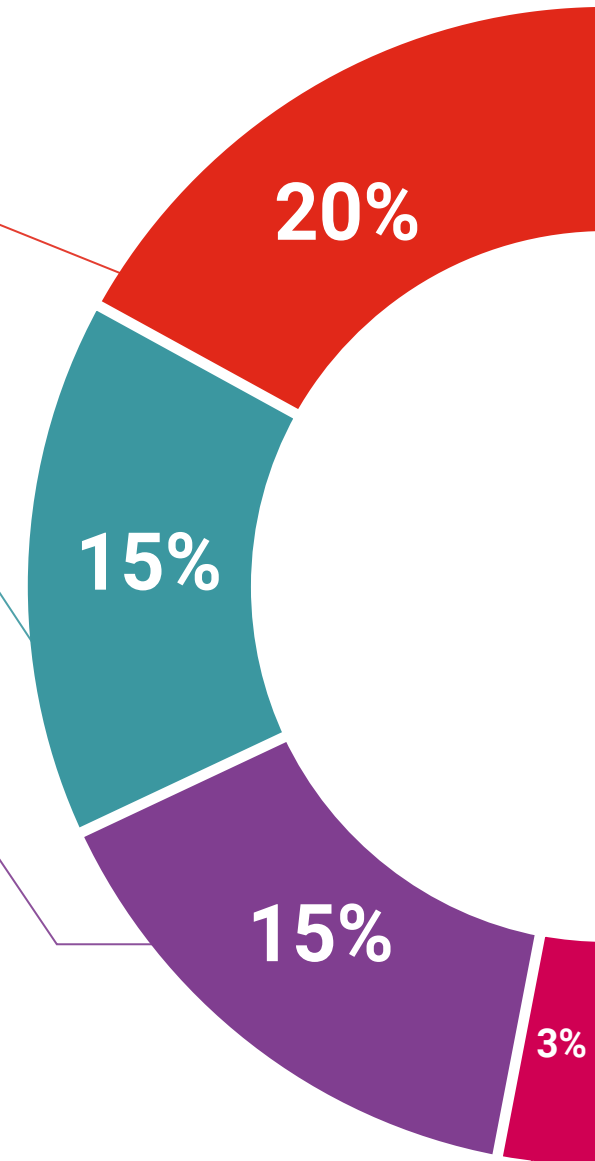
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

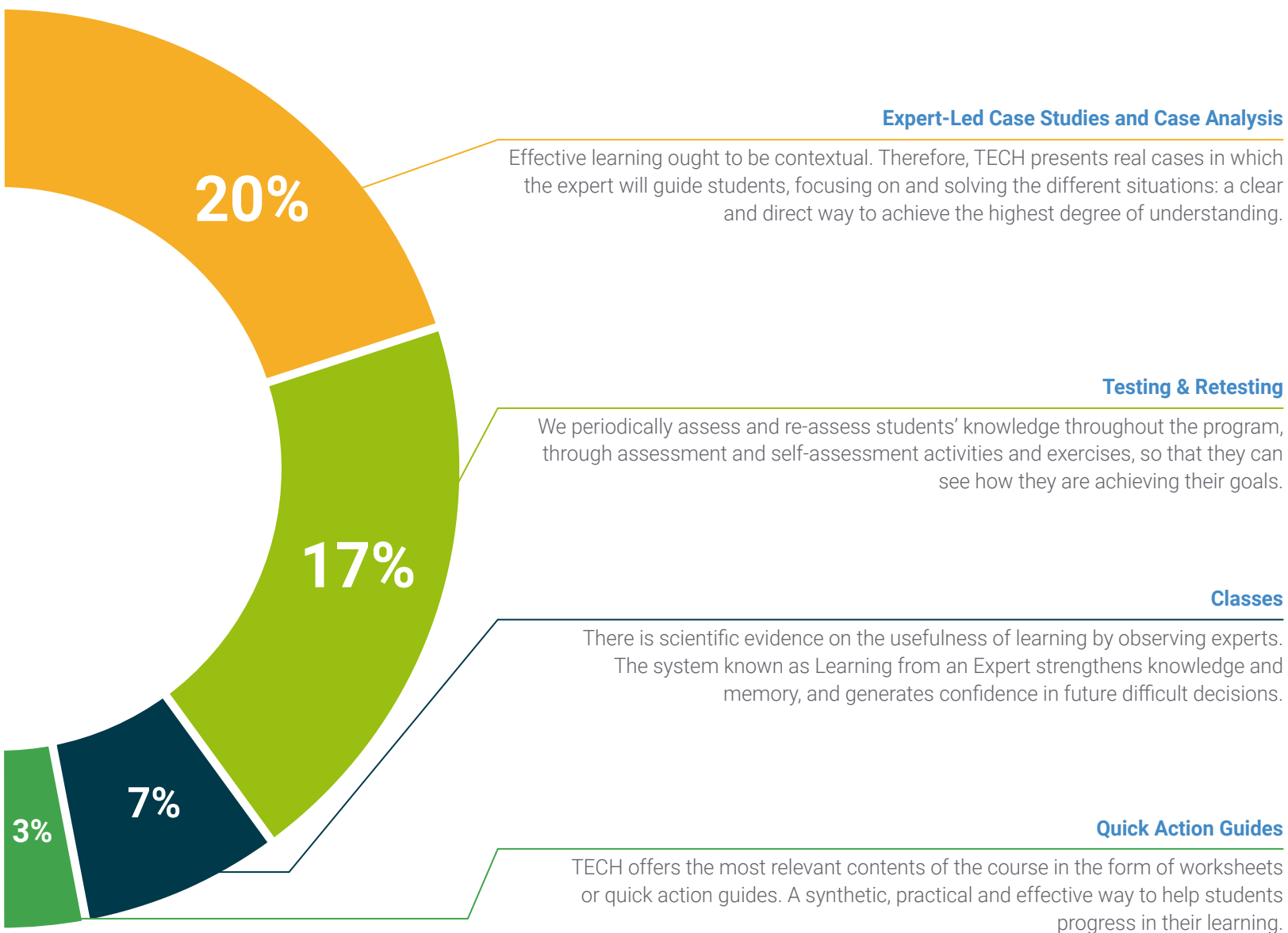


#### Additional Reading

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.







# 06 Certificate

The Postgraduate Certificate in Renal Disorders in Neonatology 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 private qualification will allow you to obtain a **Postgraduate Certificate in Renal Disorders in Neonatology** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University**, is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

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

Title: **Postgraduate Certificate in Renal Disorders in Neonatology**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





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- » Exams: online



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