

Postgraduate Certificate Cardiac Disorders in Neonatology





Postgraduate Certificate Cardiac Disorders in Neonatology

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/medicine/postgraduate-certificate/cardiac-dosorders-neonatology

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 16

05

Methodology

p. 20

06

Certificate

p. 28

01

Introduction

Cardiac Disorders in Neonatology are one of the main causes of infant mortality worldwide, and their diagnosis and treatment require a deep and updated knowledge on the part of health professionals. This is why TECH presents as an imperative need the development of a program that is taught 100% online. It focuses on key topics such as the embryology, anatomy and physiology of the cardiovascular system, the syndromic classification of congenital heart disease, and the different diagnostic, treatment and follow-up techniques. In addition, it uses the Relearning pedagogical methodology, which promotes long-term retention of acquired knowledge, and offers flexibility to organize academic resources according to the student's availability.





“

Do you want to specialize in neonatal cardiology? This is the program for you! Learn about cardiac embryology and development, delve into cardiac pathophysiology and learn to describe cardiovascular pathology. Don't miss this opportunity and enroll today!"

In recent years, cardiac disorders in neonatology have been a cause for concern in the medical field due to their high prevalence and the complexity of their diagnosis and treatment. Congenital heart disease is the most common anomaly in newborns, and its early detection and adequate treatment are essential for the patient's survival and quality of life.

In view of the need to train highly qualified professionals in the care of neonatal patients, TECH presents this Postgraduate Certificate. It is necessary to have specialists with a high level of knowledge and practical skills in the diagnosis, treatment and follow-up of these pathologies. In addition, the program provides students with a solid theoretical and practical foundation in the use of specialized procedures and techniques.

This program will cover essential topics such as embryology, anatomy and physiology of the cardiovascular system, syndromic classification of congenital heart disease, diagnosis and treatment of cyanotic and non-cyanotic heart disease, and neonatal pulmonary hypertension, among others. In addition, specialized procedures, patient follow-up and treatment of complications associated with these cardiac disorders will be discussed in depth.

The methodology will include sessions conducted by experts in the field and practice and application of specialized techniques on real patients through the study of real cases. Likewise, the Postgraduate Certificate in Cardiac Disorders in Neonatology provides a unique opportunity to train professionals in a highly specialized and challenging field, through an innovative and updated methodology.

This **Postgraduate Certificate in Cardiac Disorders in Neonatology** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ◆ The development of case studies presented by medical experts focused on Neonatology
- ◆ 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 self-assessment can be used 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



With this program you will learn to analyze cardiac pathophysiology and describe cardiovascular pathology. Don't wait any longer to get a leap in your career!"

“

Become an expert in neonatal cardiology with this Postgraduate Certificate and learn all about embryology and cardiac development to better understand cardiovascular pathophysiology and pathology"

Authentic experts in Neonatology with extensive clinical, research and teaching experience make up this excellent Postgraduate Certificate in Cardiac Disorders in Neonatology.

This program will teach you everything you need to know about embryology and cardiac development, pathophysiology and cardiovascular pathology. Sign up now and make your goals a reality!

The program's teaching staff includes professionals from sector 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 provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.



02 Objectives

Through a wide variety of subjects taught by highly trained and experienced specialists in the field of Neonatology, students of this program will be able to understand the fundamentals of cardiac pathologies in newborns and develop practical skills to face complex situations. In addition, the Postgraduate Certificate also aims to familiarize specialists with the latest research and advances in the diagnosis and treatment of neonatal cardiac disorders, so that they can be prepared to address emerging challenges in the field of Neonatology.





“

Discover the basics of Neonatal Cardiac Pathologies and develop practical skills to deal with complex situations”



General Objectives

- ◆ Delve into preterm neonates and their implications
- ◆ Update knowledge of the indications for prevention in sick neonates
- ◆ Be aware of the protocols that optimize the treatment of the sick neonate
- ◆ Describe the main characteristics of the healthy newborn and its basic care
- ◆ Systematize the main problems, disorders and diseases of the newborn, such as weight gain and metabolic development, prematurity, congenital malformations, respiratory or cardiac pathology, metabolic and blood disorders, or digestive or nutritional complications
- ◆ List and describe the main common procedures in neonatology
- ◆ Deepen in the therapeutic activities in the pathologies of the neonate
- ◆ Delve into the basic and specific aspects of complementary examinations in this subspecialty and how to perform them
- ◆ Investigate the knowledge of the different procedures of neonatal nutrition
- ◆ Analyze the follow-up of the newborn once it has been controlled in the acute period
- ◆ Illustrate and reflect on the different moments of care in the models of assistance to the newborn, both healthy and with pathology requiring hospital treatment
- ◆ Explain the various systems of care for the sick neonate, delimiting the continuity between the neonatal period of acute illness and its subsequent follow-up
- ◆ Describe all the accompaniment that the technology means for the adequate monitoring and follow-up of these children, being able to be coupled to the various guides and protocols to finally obtain a global health concept
- ◆ Deepen all the possibilities of on-site and even remote monitoring to achieve a very early and optimal performance on the impact of the disease on the neonate
- ◆ Delve into all aspects of the concepts of complementary knowledge that allow understanding perinatology as a complete subspecialty, from the fetal period to long-term follow-up in outpatient clinics
- ◆ Detail the parameters that will indicate the correct acquisition of all the developmental items of the various organs and apparatuses in order to obtain an optimal long-term result
- ◆ Specify all the elements of the pathological conditions of the sick neonate in order to be able to establish work routines with results at the level of medical excellence



Specific Objectives

- ◆ Deepen in cardiac embryology and development
- ◆ Delve into cardiac pathophysiology
- ◆ Describe Cardiovascular pathology

“

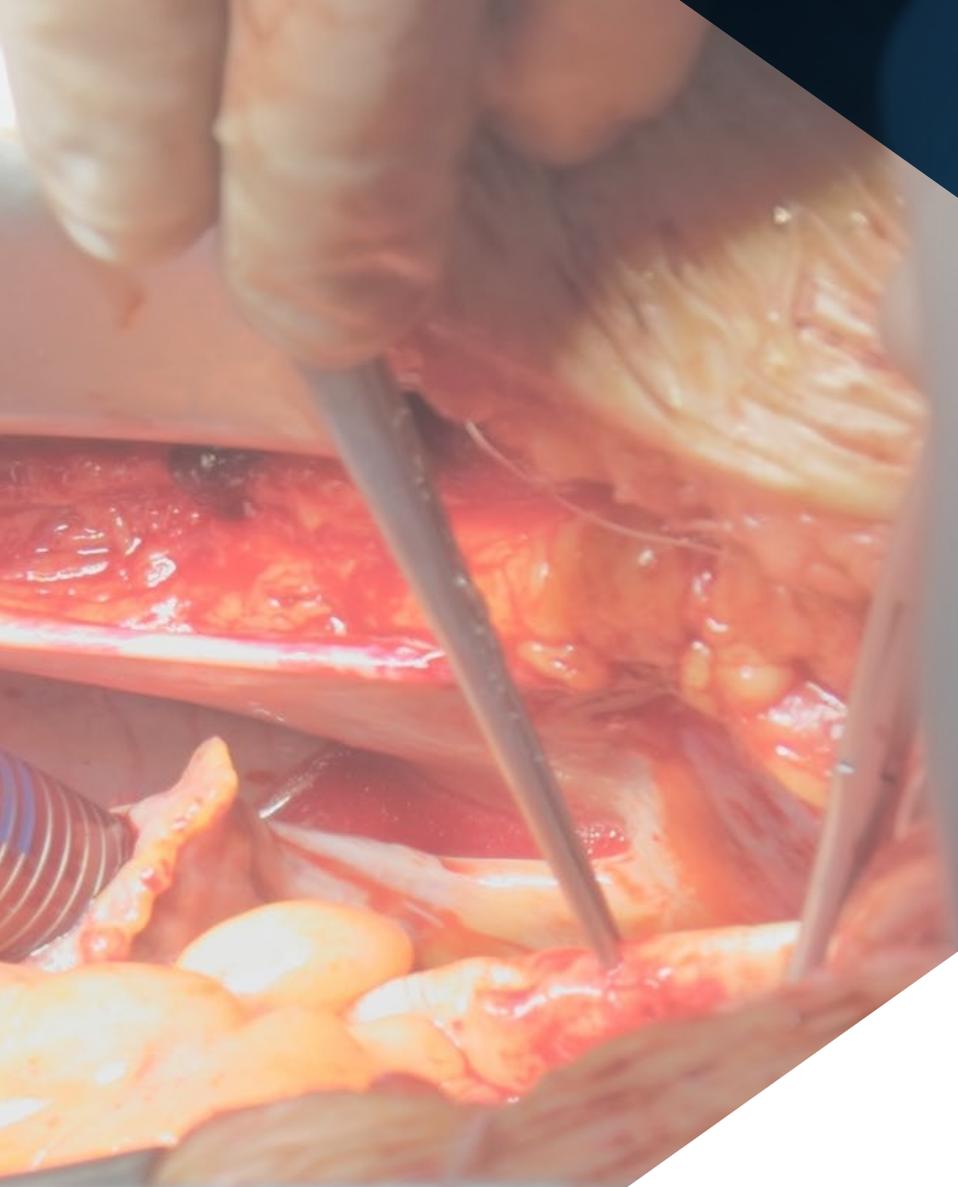
Expand your knowledge in Neonatal Cardiac Pathologies and open up new career opportunities in the field of neonatal medicine”

03

Course Management

During this progra, TECH has focused on bringing together highly trained specialists in the area, with extensive experience both in the care of neonatal patients in Critical Care Units and in the research and teaching of neonatal cardiac pathologies. This exceptional team, with expertise in the care of cardiac pathologies, ensures that the students of this Postgraduate Certificate receive comprehensive and up-to-date training in this field of medicine. With a rigorously designed and high quality curriculum, graduates of this program will be able to obtain a complete and advanced update in the diagnosis and treatment of cardiac disorders in neonatology.





“

With TECH you will have the opportunity to learn from the best specialists in the field of Cardiac Disorders in Neonatology”

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 Qurón 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. Saldaña, Natalia

- ◆ Neonatologist at the Regional Hospital of Malaga
- ◆ Neonatologist in the Andalusian Health Service
- ◆ Neonatology at Torrevieja Hospital
- ◆ Neonatologist at the Neonatal Unit of Hospital Quirón Salud de Málaga
- ◆ PhD in Medicine, University of Malaga
- ◆ Master's Degree in Neonatology from UCAM University
- ◆ Master's Degree in Pediatric Cardiology and Congenital Cardiology Treatment of TECH

Dr. Valverde, Eva

- ◆ Neonatology at the La Paz University Hospital
- ◆ Associate Professor of Pediatrics, UAM, Madrid
- ◆ Specialist in Pediatrics at La Paz University Hospital
- ◆ Doctorate in Medicine from the Autonomous University Madrid
- ◆ Degree in Medicine from the Complutense University of Madrid
- ◆ Member of the European Working Group on Neonatal Brain Ultrasonography (EUruS.Brain)



04

Structure and Content

The curriculum of this Postgraduate Certificate is designed to provide students with a broad understanding of the structure and function of the cardiovascular system in neonates. The program is divided into different sections covering everything from the embryology and anatomy of the cardiovascular system to congenital heart disease, neonatal pulmonary hypertension and heart rhythm disturbances. In addition, specific procedures, diagnoses, treatments and follow-ups are offered for each type of congenital heart disease. Students will acquire skills to recognize and diagnose each of these conditions, uses the TECH teaching method, Relearning and a variety of multimedia resources that will help students better understand the topics.

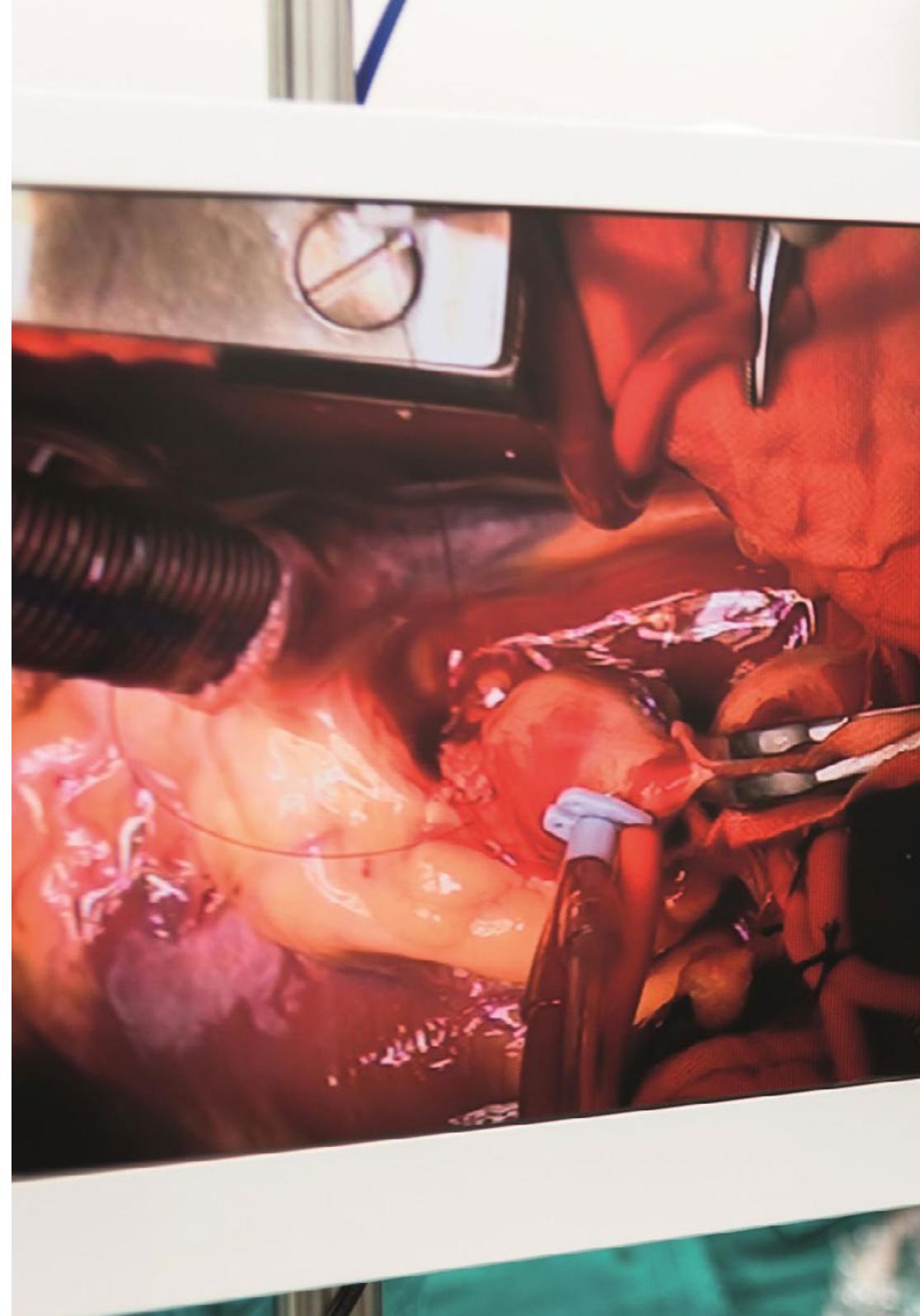


“

Thanks to this program you will learn the necessary skills to detect and treat cardiac disorders in newborns. We use the Relearning method to reinforce your knowledge"

Module 1. Cardiac Disorders and Congenital Heart Disease in Neonatology

- 1.1. General information on the cardiovascular system: embryology, anatomy and physiology
 - 1.1.1. Embryology and anatomy of the cardiovascular system
 - 1.1.2. Cardiovascular System Physiology
 - 1.1.3. Lung development
 - 1.1.4. Extrauterine adaptation
- 1.2. Syndromic Classification of Congenital Heart Disease
 - 1.2.1. Cyanotic Congenital Heart Disease
 - 1.2.2. Congenital Heart Disease Without Cyanosis
 - 1.2.3. Congenital Heart Disease Leading to Cardiogenic Shock
 - 1.2.4. Other Cardiopathies
- 1.3. Cyanotic Congenital Heart Disease
 - 1.3.1. Procedures
 - 1.3.2. Diagnosis
 - 1.3.3. Treatment
 - 1.3.4. Monitoring
- 1.4. Congenital heart diseases without cyanosis
 - 1.4.1. Procedures
 - 1.4.2. Diagnosis
 - 1.4.3. Treatment
 - 1.4.4. Monitoring
- 1.5. Congenital Heart Disease Leading to Cardiogenic Shock
 - 1.5.1. Procedures
 - 1.5.2. Diagnosis
 - 1.5.3. Treatment
 - 1.5.4. Monitoring
- 1.6. Other Cardiopathies
 - 1.6.1. Transposition of the Main Arteries
 - 1.6.2. Tetralogy of Fallot
 - 1.6.3. Hypoplastic Left Heart Syndrome
 - 1.6.4. Miscellaneous



- 1.7. El Arco Aórtico
 - 1.7.1. Interruption of the Aortic Arch
 - 1.7.2. Aortic Coarctation
 - 1.7.3. Aortic Stenosis
 - 1.7.4. Other stenosis
- 1.8. Congenital Heart Diseases with Left-Right Short Circuits
 - 1.8.1. Procedures
 - 1.8.2. Diagnosis
 - 1.8.3. Treatment
 - 1.8.4. Monitoring
- 1.9. Cardiac Rhythm Abnormalities
 - 1.9.1. Bacterial Endocarditis
 - 1.9.2. Diagnosis of arrhythmias
 - 1.9.3. Arrhythmia Treatment
 - 1.9.4. Arrhythmia follow-up
- 1.10. Neonatal Pulmonary Hypertension
 - 1.10.1. Procedures
 - 1.10.2. Diagnosis
 - 1.10.3. Treatment
 - 1.10.4. Monitoring

“

Do you want to be an expert in neonatal cardiac disorders? This Postgraduate Certificate has outstanding teachers in the medical field, who will teach you how to diagnose and treat the most common conditions"

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.



“

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.

“

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

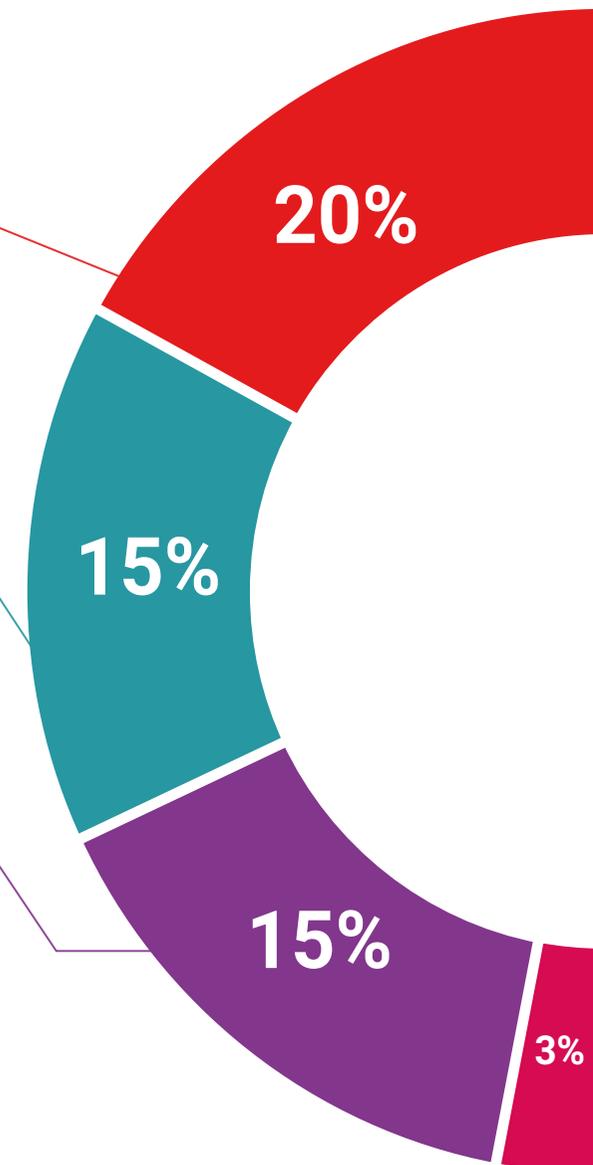
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

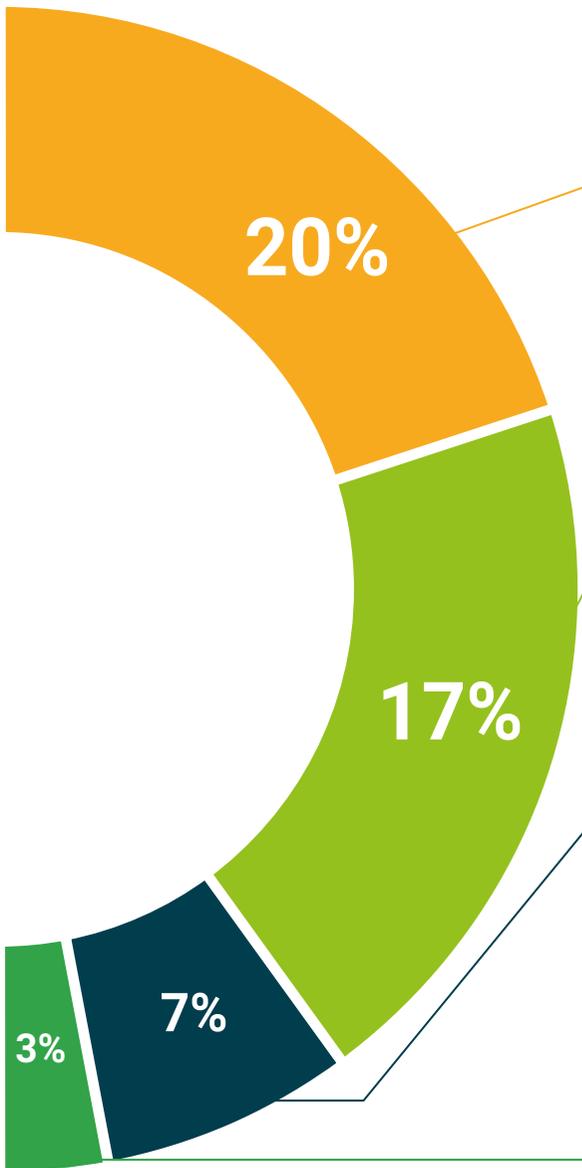
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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 Cardiac Disorders in Neonatology guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



“

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”

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

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

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

Official N° of Hours: **150 h.**



*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present
development language
virtual classroom



Postgraduate Certificate
Cardiac Disorders
in Neonatology

- » Modality: **online**
- » Duration: **6 weeks**
- » Certificate: **TECH Technological University**
- » Dedication: **16h/week**
- » Schedule: **at your own pace**
- » Exams: **online**

Postgraduate Certificate

Cardiac Disorders in Neonatology

