

Postgraduate Certificate

Hematologic Disorders in Neonatology



Postgraduate Certificate Hematologic 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/hematologic-disorders-neonatology

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01

Introduction

Hematology is a branch of medicine that focuses on the study of blood and its disorders, and is fundamental for the diagnosis and treatment of various diseases. In the case of neonates, Hematological Disorders can be especially critical, as their immune system is still developing and their ability to produce and regulate blood cells is limited. For this reason, it is essential that professionals working in neonatal care have a solid understanding of the subject. To this end, TECH seeks to provide this understanding in a complete and updated way with a 100% online program, which has a focus on neonatal critical care units.



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Learn how to measure and treat hyperbilirubinemia in neonates thanks to this program. Gain practical skills to identify different modalities of icteric neonates and apply effective treatments to improve their health"

Neonatal medical care is one of the most complex and delicate areas of medicine, and within it, Hematological Disorders represent a great challenge. Neonatal hematology deals with the study of blood disorders in newborns, including the development of the hematopoietic system, extrauterine adaptation and the alterations that may occur in the neonatal period.

The need for a Postgraduate Certificate in Hematological Disorders in Neonatology is justified by the complexity of medical care in this area, as well as the importance of having trained professionals for proper diagnosis and treatment. This TECH program will provide healthcare professionals with the opportunity to deepen the knowledge needed to care for newborns with hematological disorders, from the classification and diagnosis of anemia, to the treatment of jaundice and bleeding and clotting disorders.

The program covers a wide range of topics, from general hematology and the development of the hematopoietic system in the fetus, to blood transfusion and its derivatives and immunodeficiencies. The *Relearning* pedagogical methodology, together with the flexibility to organize academic resources, will allow students to acquire knowledge in an effective and efficient way, through a 100% online platform. In addition, students will have the support and guidance of highly trained professionals with experience in neonatal medical care.

This **Postgraduate Certificate in Hematologic 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



Are you looking to deepen your knowledge in Neonatal Hematology? Sign up for this program and learn how to intervene in different states of health and disease, applying the most recent advances in the field"

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Do you want to improve your skills in caring for neonatal patients? Enroll in this course and learn how to intervene in critical moments using blood components”

The program’s teaching staff includes professionals from the 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. This will be done with the help of an innovative system of interactive videos made by renowned experts.

Discover the systematization of the different moments of intervention and become an integral professional, capable of improving the lives of newborns.

Are you interested in transfusion of biological elements from blood to the neonate? Expand your knowledge on the subject thanks to the best resources to keep up to date on the latest trends in the field.



02 Objectives

With the purpose of deepening in hematology as a fundamental basis for the approach to different states of health and disease in neonates. This program aims to provide health professionals with an understanding of the elements that make up blood and its intervention in the care of neonatal patients, including the transfusion of biological elements and the measurement of hyperbilirubinemia. In addition, the program aims to describe the different modalities of icteric neonates and to broaden the knowledge on this relevant topic in neonatal care.





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TECH's goal is you, which is why it offers you 100% online training complete with up-to-date tools and knowledge to improve the care of neonatal patients with Hematologic Disorders"



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

- ◆ Delve in Hematology as a basis for the assumption of the different health conditions
- ◆ Deepen in Hematology as a basis for the Improvement of the different Disease conditions
- ◆ Indicate the systematization of the various moments of intervention through the component elements of blood
- ◆ Deepen in the expansion of data on everything that currently represents the transfusion of biological elements of blood to the newborn
- ◆ Update knowledge on hyperbilirubinemia and its measurement
- ◆ Describe the different modalities of icteric neonates

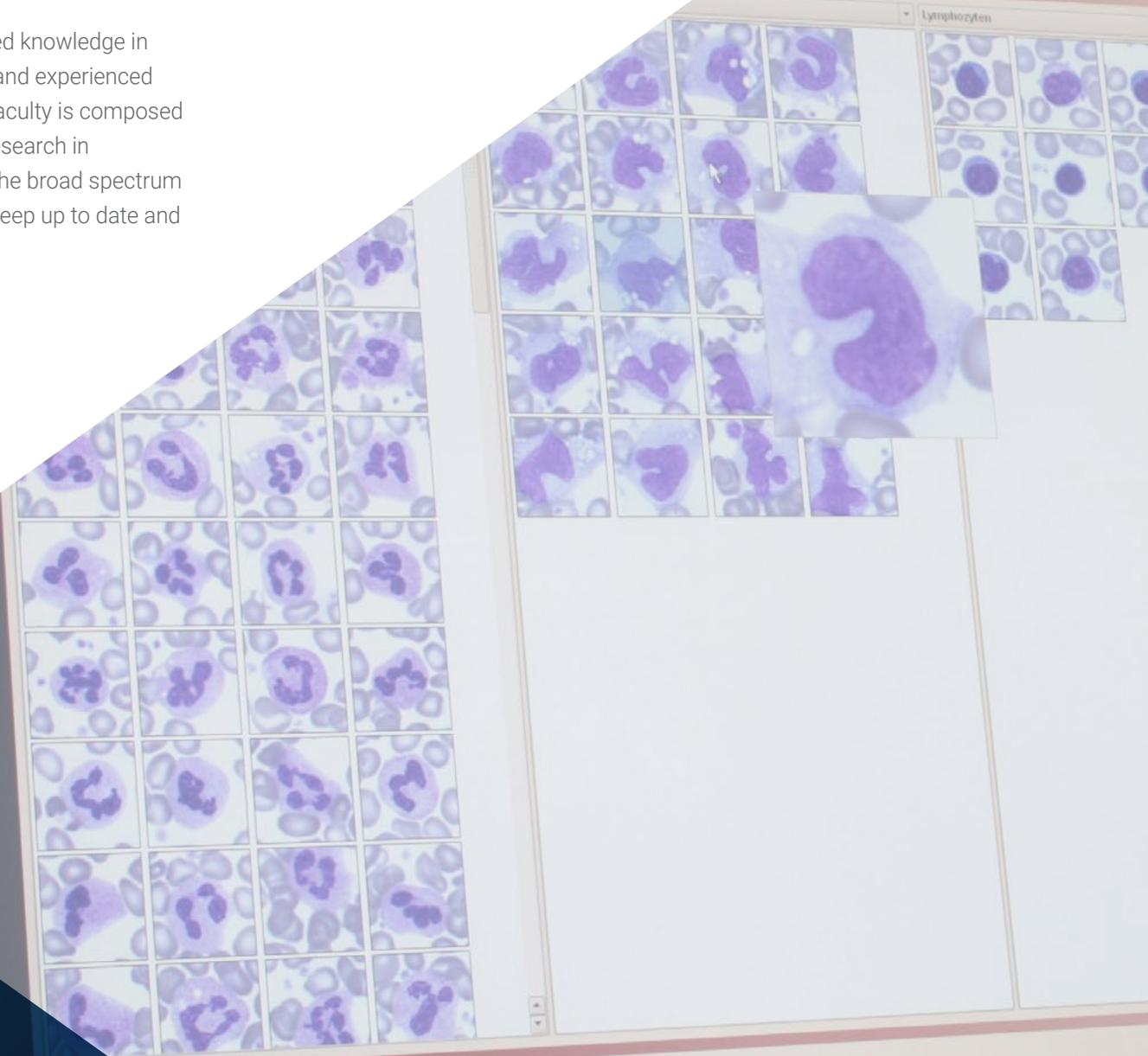


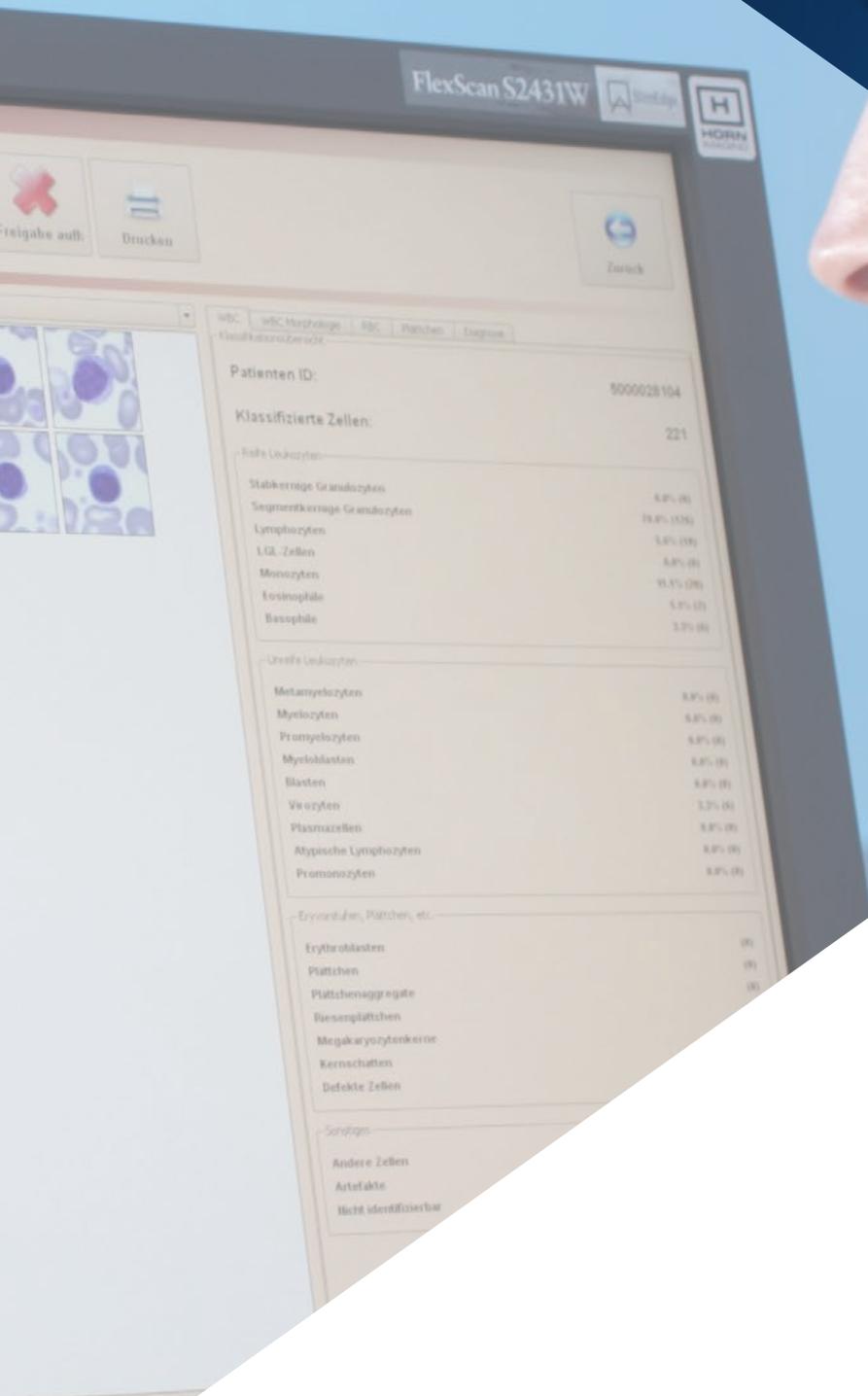
Expand your knowledge in this Postgraduate Certificate, where you will learn to identify and treat blood diseases in newborns, acquiring cutting-edge knowledge to improve the health of the little ones".

03

Course Management

This program offers students a unique opportunity to acquire specialized knowledge in the field of hematology in neonatology, from the hand of highly trained and experienced professionals in the fields of health care, research and education. The faculty is composed of true experts in the care of neonatal patients in intensive care units, research in neurological pathologies and vaccinology, among other related fields. The broad spectrum of topics covered in the curriculum of this program allows students to keep up to date and obtain first-hand knowledge of the most recent advances in the field.





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With the help of the best teachers in Hematological Disorders you will be able to develop advanced skills to make accurate diagnoses and effective treatments for patients with hematological conditions"

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. Porta Ribera, Roser

- ♦ Neonatology in the Neonatal Unit at the Germans Trias i Pujol University Hospital
- ♦ Neonatology at Dexeus Hospital
- ♦ Coordinator of the Neonatal Unit at the Germans Trias i Pujol University Hospital
- ♦ Pediatrician in Neonatology at Germans Trias I Pujol Hospital.
- ♦ Associate Professor's Degree in Pediatrics at the Autonomous University of Barcelona
- ♦ Degree in Medicine and Surgery from the University of Barcelona
- ♦ Certified and Instructor in Neonatal CPR by SENeO
- ♦ Certified in pediatric CPR by the European Resuscitation Council.



04

Structure and Content

Throughout this academic program, health professionals will have access to studies focused on Hematologic Disorders that can affect newborns. Likewise, they will have the most relevant information on different topics of great importance, starting with the generalities in hematology, including the development of the hematopoietic system, embryology and pathophysiological bases. Also, specific topics such as neonatal anemia, fetal hydrops, hyperbilirubinemia, jaundice treatments, polycythemia, platelet disorders and blood transfusion are discussed in depth. Each topic is presented in detail, and comprehensive training is provided so that students can understand and treat these conditions effectively in their professional practice.



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TECH's 100% online platform offers you the opportunity to learn with excellent facilities, you will not have to move to any educational center and you can access at any time you want"

Module 1. Hematologic Disorders in Neonatology

- 1.1. General Aspects of Hematology
 - 1.1.1. Development of the hematopoietic system
 - 1.1.2. Embryology
 - 1.1.3. Pathophysiological Bases
 - 1.1.4. Extrauterine adaptation
- 1.2. Neonatal Anemia
 - 1.2.1. Classification
 - 1.2.2. Diagnosis
 - 1.2.3. Treatment
 - 1.2.4. Monitoring
- 1.3. Fetal Hydrops
 - 1.3.1. Fundamentals
 - 1.3.2. Diagnosis
 - 1.3.3. Treatment
 - 1.3.4. Monitoring
- 1.4. Neonatal Hiperbilirrubinemia
 - 1.4.1. Fundamentals
 - 1.4.2. Diagnosis
 - 1.4.3. Classification
 - 1.4.4. Monitoring
- 1.5. Treating Excreta
 - 1.5.1. Fundamentals
 - 1.5.2. Types of Treatment
 - 1.5.3. Exchange Transfusion
 - 1.5.4. Monitoring
- 1.6. Polycythemia
 - 1.6.1. Fundamentals
 - 1.6.2. Diagnosis
 - 1.6.3. Treatment
 - 1.6.4. Monitoring



- 1.7. Platelet Alterations
 - 1.7.1. Fundamentals
 - 1.7.2. Diagnosis
 - 1.7.3. Treatment
 - 1.7.4. Monitoring
- 1.8. Blood Transfusion and Blood By-Products in the Neonatal Period
 - 1.8.1. Fundamentals
 - 1.8.2. Transfusion types
 - 1.8.3. Monitoring
 - 1.8.4. Monitoring
- 1.9. Hemorrhages and Coagulation Disorder
 - 1.9.1. Fundamentals
 - 1.9.2. Types
 - 1.9.3. Treatment
 - 1.9.4. Monitoring
- 1.10. Immunodeficiencies
 - 1.10.1. Classification
 - 1.10.2. Diagnosis
 - 1.10.3. Treatment
 - 1.10.4. Monitoring



Enroll with TECH and get a first level training through the theoretical contents and multimedia materials of this very complete program”

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 Hematologic 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.



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

This **Postgraduate Certificate in Hematologic 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 Hematologic 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.



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