

# Postgraduate Certificate

Pregnancy with Hematologic and Cardiac Pathology, New Protocols for Midwives



## Postgraduate Certificate

### Pregnancy with Hematologic and Cardiac Pathology, New Protocols for Midwives

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

Website: [www.techtute.com/us/nursing/postgraduate-certificate/pregnancy-hematologic-cardiac-pathology-new-protocols-widwives](http://www.techtute.com/us/nursing/postgraduate-certificate/pregnancy-hematologic-cardiac-pathology-new-protocols-widwives)

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# 01

# Introduction

Cardiac or hematologic diseases may lead to a previous structural alteration of the heart or to the appearance of anemia or thrombocytopenia. However, existing protocols allow the majority to have a successful gestation. In order to achieve this, midwives need to be aware of new developments in the main pathologies, diagnostic methods, treatments and multidisciplinary handling of high-risk pregnancies. In this line, TECH has developed, along with an excellent team of top professionals, this advanced program 100% online, which delves into the main causes, detection procedures or actions to be carried out by the midwife to this type of patient.





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*Do you want to be informed about the new protocols of action for pregnancy with hematological and cardiac pathology? You are in front of the ideal university program"*

Among the main pathologies that a health professional may encounter in a pregnant patient are gestational anemia, coagulation problems, thrombopenia or cardiac changes during this process.

A casuistry whose results have improved notably due to the numerous scientific evidence that has led to the improvement of the protocols for the detection of this type of patients. It is therefore necessary that midwives are aware of the latest additions to the methods of work and action that affect their daily professional performance. For this reason, this university program allows the graduate to delve into the pregnant patient with hematologic and cardiac pathology.

An intensive program of 180 teaching hours, which will generate a complete upgrade on the approach and handling of the patient with anemia, alloimmune neonatal thrombopenia, with Von Willebrand disease or valvulopathies. In addition, thanks to the video summaries, multimedia pills or specialized readings, it will be possible to delve into arrhythmias in pregnancy or congenital cardiac pathologies.

An academic itinerary designed to respond to the real needs of healthcare professionals who are looking for a flexible and convenient program to bring them fully up at date with the latest developments in their field. Graduates who take this program only need an electronic device with an internet connection to access the syllabus hosted on the virtual platform. This way, without the need for attendance or scheduled classes, they will be able to self-manage their study time and make their daily work and personal responsibilities compatible.

The professional is therefore faced with an excellent opportunity for upgrading that only TECH, the largest digital university in the world, can offer.

This **Postgraduate Certificate Pregnancy with Hematologic and Cardiac Pathology, New Protocols for Midwives** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical cases presented by experts in Obstetrics
- ♦ 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



*Improve your skills in the delivery of patients with Von Willebrand Disease"*

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*This Postgraduate Certificate allows you to delve into the most recent treatments used in patients with thromboembolic disease during pregnancy”*

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 immersion 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.

*In only 6 weeks you will be able to obtain the upgrade you are looking for in the handling of the patient with cardiac pathology in gestation.*

*Numerous additional material is available to expand the latest information on the diagnosis of alloimmune neonatal thrombopenia.*



# 02

## Objectives

During the course of this Postgraduate Certificate, the healthcare professional will be aware of the new protocols used in the diagnosis and therapy of pregnant patients with hematological and cardiac pathologies. To achieve this, this academic institution provides the graduate with first class teaching tools that can be accessed at any time of the day, from an electronic device (cell phone, computer or Tablet) with internet connection.





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*This university program is designed by and for midwifery professionals like you, who want a quality education that is compatible with their daily responsibilities”*



## General Objectives

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- ♦ Understand the different forms of gestational anemia, including its etiopathogenesis, fetal impact and the types of anemias (microcytic, normocytic and macrocytic), as well as the treatment and prophylaxis options for them
- ♦ Become familiar with thrombocytopenias during pregnancy, such as essential thrombopenia of pregnancy, idiopathic thrombocytopenic purpura and alloimmune neonatal thrombopenia, and learn about their diagnosis, obstetric management and therapeutic management for both the mother and the newborn
- ♦ Learn about coagulation diseases, such as Von Willebrand's disease and hemophilia A and B, and understand their definitions, epidemiology, inheritance patterns, and considerations during delivery
- ♦ Learn about varicose syndrome, including its concept, pathophysiology, clinic and diagnosis, as well as specific aspects such as hemorrhoids and vulvar varices
- ♦ Understand perinatal hemolytic disease, including Rh isoimmunization and ABO isoimmunization, and to understand its pathophysiology and implications in gestation





## Specific Objectives

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- ◆ Learn the treatment of the main hematologic pathologies that occur frequently during pregnancy, such as gestational anemia and thrombopenias
- ◆ Deepen in an exhaustive way in perinatal hemolytic disease, which was a cause of death until a few years ago due to its lack of knowledge
- ◆ Discuss the main controversies of cardiac pathologies in pregnancy, as some of them may contraindicate pregnancy



*You will get to know the most recent scientific evidence used for the management of pregnant patients with cardiac transplantation"*

# 03

# Course Management

The direction and teaching staff of this Postgraduate Certificate is made up of a team of midwives with many years of experience in reference hospitals. Thus, the graduate will have the guarantee of being able to achieve an effective upgrade of the hand of true professionals, who in their day to day care with the latest protocols to pregnant patients with various hematological and cardiac pathologies. A unique opportunity that only TECH offers.





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*Enhance your skills with the most current syllabus developed by midwives with extensive experience in patients with cardiac and hematological pathologies"*

## International Guest Director

Dr. Christelle Vauloup Fellous is an internationally recognized virologist who has served as Vice-President of the Research Group on Infections during Pregnancy (GRIG) in France. She has been a member of prestigious scientific societies, such as the European Society of Clinical Virology, the French Society of Microbiology (SFL) and the French Society of Infectious Pathology (SPILF).

She has also been Coordinator of the National Reference Center (CNR) for Maternal-Fetal Rubeolar Infections, where she has played a crucial role in the centralization and improvement of diagnostics related to this disease. She has also been Head of the World Health Organization (WHO) National Reference Laboratory for Rubella, consolidating her position as an authority in the investigation and management of viral infections affecting pregnant women and their children.

In addition to her responsibilities in the field of Rubella, she has become a key figure in serological and prenatal diagnosis in hospital centers in France. In fact, her work in this field has allowed her to significantly improve the detection and treatment of infections during pregnancy. She is also an active member of several working groups for the French Ministry of Health, where she has contributed to the implementation of protocols for the systematic detection of Cytomegalovirus (CMV) in gamete and embryo donors, as well as in pregnant women.

Throughout her career, Dr. Christelle Vauloup Fellous has been a prolific author and researcher, with outstanding publications exploring topics such as transplacental transfer of neutralizing anti-SARS-CoV-2 antibodies and the prevalence of maternal and congenital toxoplasmosis. In this regard, her work has had a direct impact on improving maternal-fetal health globally.



## Dra.Christell Vauloup Fellous

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- ♦ Vice-President of the Research Group on Infections during Pregnancy (GRIG), France
- ♦ Coordinator of the National Reference Center (CNR) for Maternal-Fetal Rubellar Infections
- ♦ Head of the WHO National Reference Laboratory for Rubella
- ♦ Head of Serological and Prenatal Diagnosis in Hospital Centers
- ♦ Member of the Working Group on Cytomegalovirus Detection in Gamete and Embryo Donors (French Ministry of Health)
- ♦ Member of the Working Group on Systematic Detection of CMV Infection during Pregnancy (French Ministry of Health)
- ♦ Member of the Working Group on Implementation of Compulsory Rubella Declaration (French Ministry of Health)
- ♦ Member of the Working Group on Prevention of Cytomegalovirus Infection in Pregnant Women (French Ministry of Health)
- ♦ Doctor in Virology, University Pierre and Marie Curie
- ♦ Master's Degree in Medical Virology, Denis Diderot University, France
- ♦ Degree in Pharmacy from the University Paris-Sud
- ♦ Degree in Biology from the University Paris-Sud
- ♦ Member of: French Society of Microbiology (SFL), Francophone Society of Infectious Pathology (SPILF), European Society of Clinical Virology

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

## Management



### Ms. Hernando Orejudo, Isabel

- ◆ Nurse specialized in Obstetrics and Gynecology
- ◆ Midwife. San Carlos Clinical Hospital
- ◆ Outpatient Nurse. La Paz University Hospital
- ◆ University Diploma in Nursing. Autonomous University of Madrid

## Professors

### Ms. Hernández Lachehab, Sonia

- ◆ Nurse of the Rural Attention Service in Madrid
- ◆ Midwife at the San Carlos Clinical University Hospital in Madrid
- ◆ Primary Care Nurse in SERMAS
- ◆ Diploma in Nursing from the University of Alcalá
- ◆ Nursing in Outpatient Emergencies
- ◆ Specialist in Obstetrics and Gynecology / Midwife by the Teaching Unit of Madrid
- ◆ University Expert in Processes of Nursing Interventions for Pediatric Patients in Risk Situations

### Ms. De la Torre Arandilla, Ana

- ◆ Midwives in the Obstetrics Service of the University Hospital Puerta de Hierro
- ◆ Midwife in Hospital in San Carlos Clinical Hospital
- ◆ Specialist Obstetric-Gynecological the Puerta De Hierro University Hospital
- ◆ Lecturer at the CTO Academy
- ◆ Member of the research team of the doctoral thesis "Clinical application of nursing science, present reality or pending task?" at the La Paz University Hospital
- ◆ University Diploma in Nursing from the Autonomous University of Madrid





**D. Márquez Espinar, Gumersindo**

- ◆ Midwife in Hospital in San Carlos Clinical Hospital, Madrid
- ◆ Professor at the Pontificia University of Salamanca.
- ◆ Degree in Nursing
- ◆ Degree in Podiatry
- ◆ Master's Degree in Care Research

**Ms. De Miguel González, María José**

- ◆ Nurse at the Obstetrics and gynaecology Ophthalmology Unit at the San Carlos Clinical Hospital.
- ◆ Assistant Nurse at the San Carlos Clinical Hospital.
- ◆ Graduate Nurse from the University of Salamanca.



*Make the most of this opportunity to learn about the latest advances in this field in order to apply it to your daily practice"*

# 04

## Structure and Content

The effectiveness of the *Relearningsystem*, based on the continuous reiteration of key concepts during the academic itinerary, has led TECH to use it in all its programs. This way, students taking this program will reduce the number of hours of study and obtain a much easier course of study. Thus, in only 180 teaching hours, students will be able to achieve a successful upgrade on the procedures for dealing with a pregnant patient with hematological and cardiac problems.



P T R  
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*A curriculum designed to provide the most relevant information on gestational anemia and the most effective treatments available"*

## Module 1. Pregnant with Hematological and Cardiac Problems

- 1.1. Gestational Anemia
  - 1.1.1. Concept
  - 1.1.2. Etiopathogenesis and the Effect on the Fetus
  - 1.1.3. Types of Anemias
    - 1.1.3.1. Microcytic Anemia
    - 1.1.3.2. Normocytic Anemia
    - 1.1.3.3. Macrocytic Anemia
  - 1.1.4. Treatment and Prophylaxis
  - 1.1.5. Other Forms of Anemia
    - 1.1.5.1. Faciform or Sickle Cell Anemia
    - 1.1.5.2. Thalassemia
- 1.2. Thrombocytopenia
  - 1.2.1. Essential Thrombopenia in Pregnancy
    - 1.2.1.1. Causes and Incidence
    - 1.2.1.2. Diagnosis
    - 1.2.1.3. Obstetric Behavior
  - 1.2.2. Idiopathic Thrombocytopenic Purpura
    - 1.2.2.1. Causes and Incidence
    - 1.2.2.2. Diagnosis
    - 1.2.2.3. Obstetric Behavior
  - 1.2.3. Alloimmune Neonatal Thrombopenia
    - 1.2.3.1. Causes and Incidence
    - 1.2.3.2. Diagnosis
    - 1.2.3.3. Obstetric Behavior
  - 1.2.4. Thrombopenia Associated with Hypertensive States of Pregnancy
  - 1.2.5. Therapeutic Management of Thrombopenias in Pregnancy
  - 1.2.6. Therapeutic Management of the Newborn of a Mother with Thrombopenia



- 1.3. Coagulation Problems
  - 1.3.1. Von Willebrand Disease
    - 1.3.1.1. Definition and Epidemiology
    - 1.3.1.2. Considerations in Childbirth
  - 1.3.2. Hemophilia
    - 1.3.2.1. Definition and Epidemiology
    - 1.3.2.2. Types
      - 1.3.2.2.1. Hemophilia A
      - 1.3.2.2.2. Hemophilia B
    - 1.3.2.3. Chromosomal Inheritance Patterns of Hemophilia
    - 1.3.2.4. Considerations in Childbirth
- 1.4. Varicose Syndrome
  - 1.4.1. Definition and Pathophysiology
  - 1.4.2. Clinical Symptoms
  - 1.4.3. Diagnosis
  - 1.4.4. Hemorrhoids
  - 1.4.5. Vulvar Varicose Veins
- 1.5. Perinatal Hemolytic Disease
  - 1.5.1. Concept
  - 1.5.2. Pathophysiology
  - 1.5.3. Rh Isoimmunization
  - 1.5.4. ABO Isoimmunization
- 1.6. Thromboembolic Disease in Pregnancy and Puerperium: Deep vein Thrombosis and Pulmonary Thromboembolism
  - 1.6.1. Aetiopathogenesis and Risk Factors
  - 1.6.2. Treatment
- 1.7. Gestational Heart Disease. Cardiac Exploration in Pregnancy
  - 1.7.1. Cardiac Modification in Pregnancy
  - 1.7.2. Epidemiology of Cardiac Pathology in Pregnancy
  - 1.7.3. Risk Classification of Gestational heart Disease
  - 1.7.4. Preconception Counseling for Pregnant Women with Heart Disease
  - 1.7.5. Situations that Hinder Gestation
  - 1.7.6. Management and Choice of Delivery Method

- 1.8. Pregnant Women with Valvular Heart Disease
  - 1.8.1. Mitral Senosis
  - 1.8.2. Aortic Stenosis
  - 1.8.3. Mitral Insufficiency
  - 1.8.4. Aortic Insufficiency
  - 1.8.5. Tricuspid insufficiency
  - 1.8.6. Valve Prosthesis
- 1.9. Arrhythmias in Pregnancy
  - 1.9.1. Paroxysmal Supraventricular Tachycardia
  - 1.9.2. Atrial Fibrillation
  - 1.9.3. Ventricular Arrhythmias
  - 1.9.4. Bradyarrhythmias
- 1.10. Pregnant patient with Congenital Cardiac Pathology
  - 1.10.1. Tetralogy of Fallot
  - 1.10.2. Coarctation of Aorta
  - 1.10.3. Marfan Syndrome
  - 1.10.4. Single Ventricle
  - 1.10.5. Fontan
  - 1.10.6. Pregnant patient with Cardiac Transplants



*In-depth study of congenital cardiac pathologies: Tetralogy of Fallot, Marfan Syndrome or Single Ventricle and its affection in the pregnant patient"*

# 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.



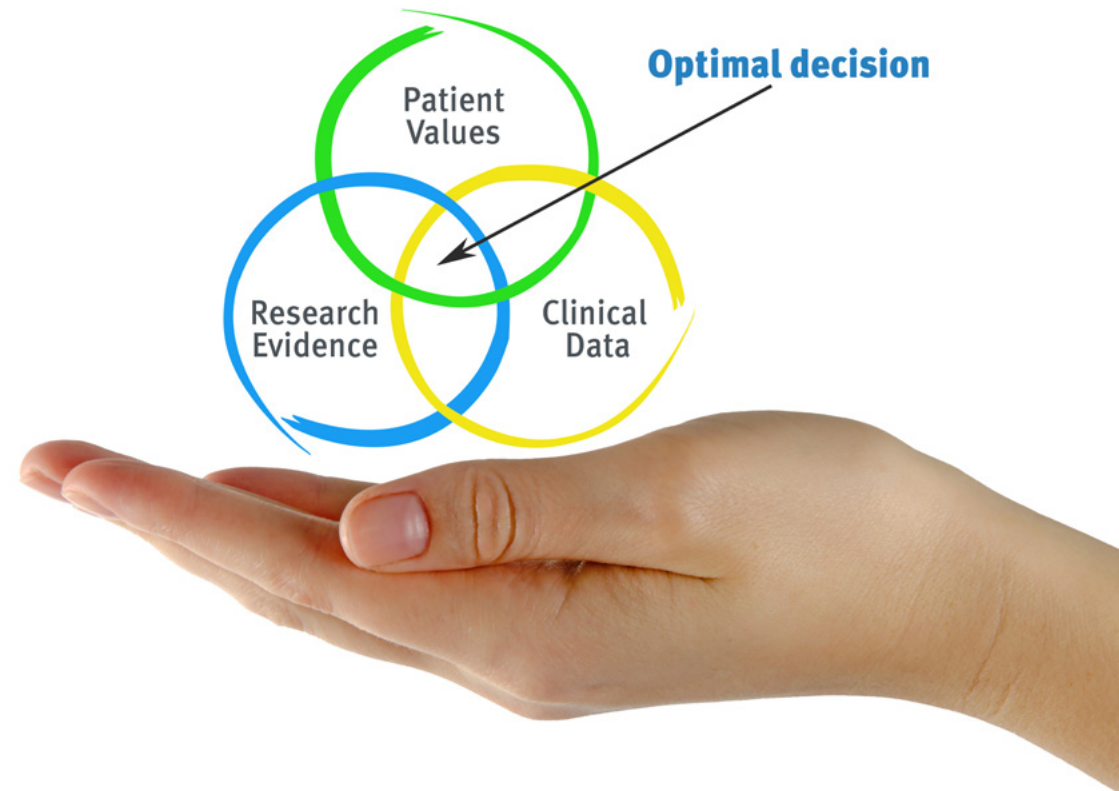
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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH Nursing School we use the Case Method

In a given situation, what should a professional do? 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. Nurses learn better, faster, and more sustainably over time.

*With TECH, nurses can experience a learning methodology that is shaking the foundations of traditional universities around the world.*



According to Dr. Gervas, 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, in an attempt to recreate the real conditions in professional nursing 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. Nurses 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 nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
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 case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.



*The nurse 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.*

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 we have trained more than 175,000 nurses with unprecedented success in all specialities regardless of practical workload. 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 really 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.



### Nursing 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 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 them as many times as you want.



### 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 suggesting that observing third-party experts can be useful.

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 Pregnancy with Hematologic and Cardiac Pathology, New Protocols for Midwives 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 Pregnancy with Hematologic and Cardiac Pathology, New Protocols for Midwives** 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 Pregnancy with Hematologic and Cardiac Pathology, New Protocols for Midwives**

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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