

# Postgraduate Certificate Fetal Echocardiography





## Postgraduate Certificate Fetal Echocardiography

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

Website: [www.techtute.com/us/medicine/postgraduate-certificate/fetal-echocardiography](http://www.techtute.com/us/medicine/postgraduate-certificate/fetal-echocardiography)

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# 01

# Introduction

Echocardiography is a crucial diagnostic technique in the detection of cardiac anomalies in the fetus. Technological advances in this field allow greater resolution and precision in the identification of these diseases, enabling a rigorous evaluation of the same and favoring their rapid treatment. Therefore, it is essential that specialists become familiar with these innovations to improve their daily practice with the patient. Consequently, TECH has designed this program, which will provide the physicians with state-of-the-art techniques for cardiac functional studies or for the evaluation of venous return anomalies, thus optimizing their update. In addition, it will do so through a 100% online methodology, which will allow you to study without giving up your professional and personal life.

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*The Postgraduate Certificate in Fetal Echocardiography will allow you to deepen the state-of-the-art techniques of cardiac functional study to improve your daily practice"*

Technological advances in the field of fetal echocardiography have significantly improved the resolution and precision of the images, offering great accuracy in the evaluation of the anatomy and cardiac function of the fetus. Thanks to this, it is possible to detect early the anomalies of this nature that the baby will present, making possible a greater optimization of the pregnancy to guarantee the well-being of both the newborn and the mother. The benefits offered by these advances oblige the physicians to be aware of them so as not to be lagging behind in the evolution of the sector.

This is why TECH has created this Postgraduate Certificate, which is a unique opportunity for those specialists interested in updating their knowledge in the area of Fetal Echocardiography. Through 180 hours of teaching, you will delve into recent advances regarding the evaluation of heart defects, abnormalities of cardiac position and situs or heart rhythm, among other issues.

In addition, this Postgraduate Certificate uses the Relearning pedagogical methodology, which is based on problem-based learning, collaboration and reflection. Students have access to a wide variety of academic resources, including video presentations, clinical cases, reading materials and evaluations. In addition, it is delivered entirely online, which provides the flexibility to organize the course load according to the needs of the students.

This **Postgraduate Certificate in Fetal Echocardiography** 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 Obstetric and Gynecologic Ultrasound
- ♦ 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 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 work
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*Learn the state-of-the-art procedures to establish the evaluation of cardiac position anomalies through this program"*



*The Relearning system of this Postgraduate Certificate allows you to study at your own pace to optimize your learning"*

*Get up to date in Fetal Echocardiography in only 180 hours and with the most effective educational methodology in the pedagogical panorama.*

*Take this program and position yourself at the forefront of medicine with the best teachers!*

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 professionals with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

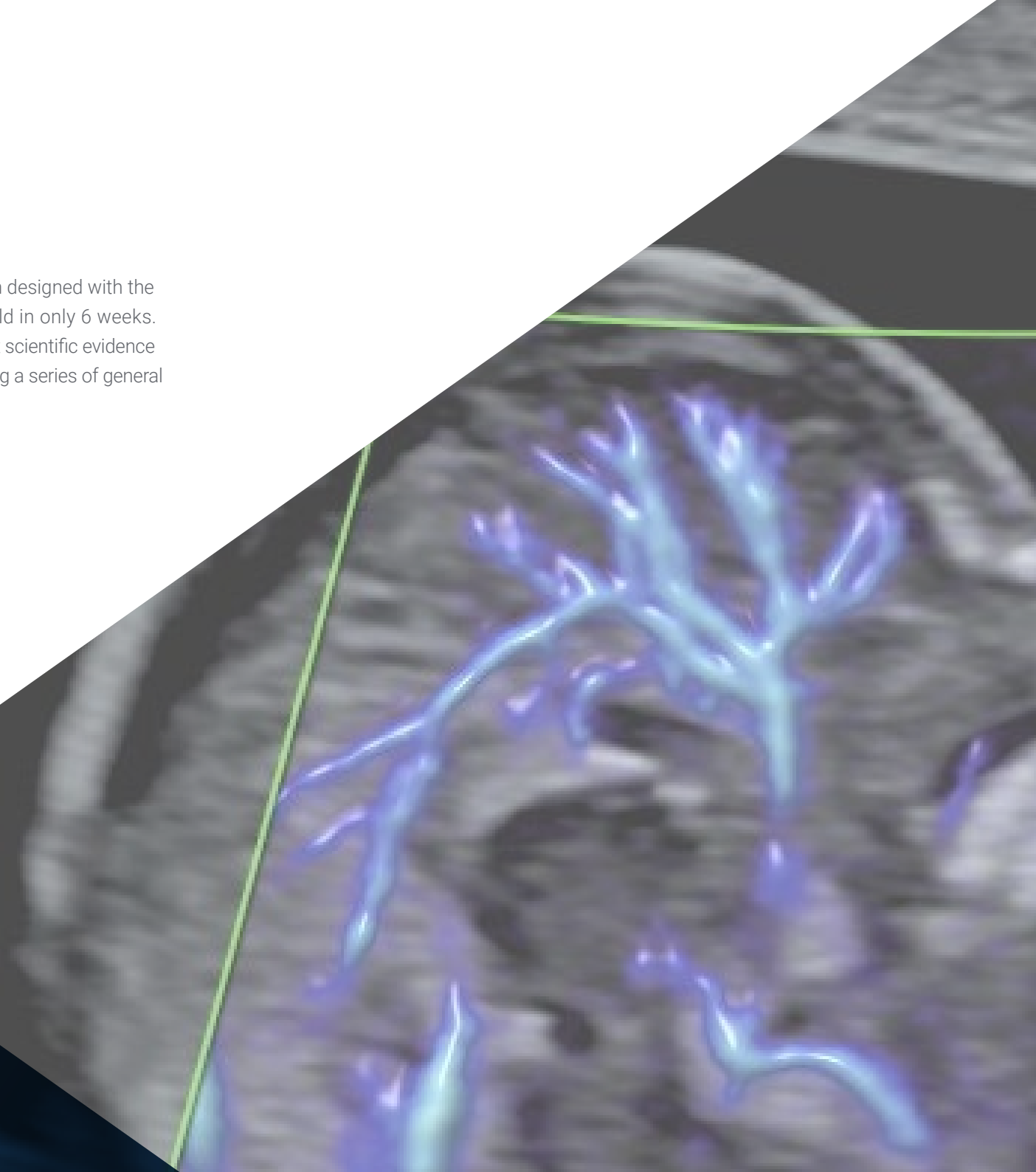
This program is designed around Problem-Based Learning, whereby students must try to solve the different professional practice situations that arise throughout the program. For this purpose, the students will be assisted by an innovative interactive video system created by renowned experts.



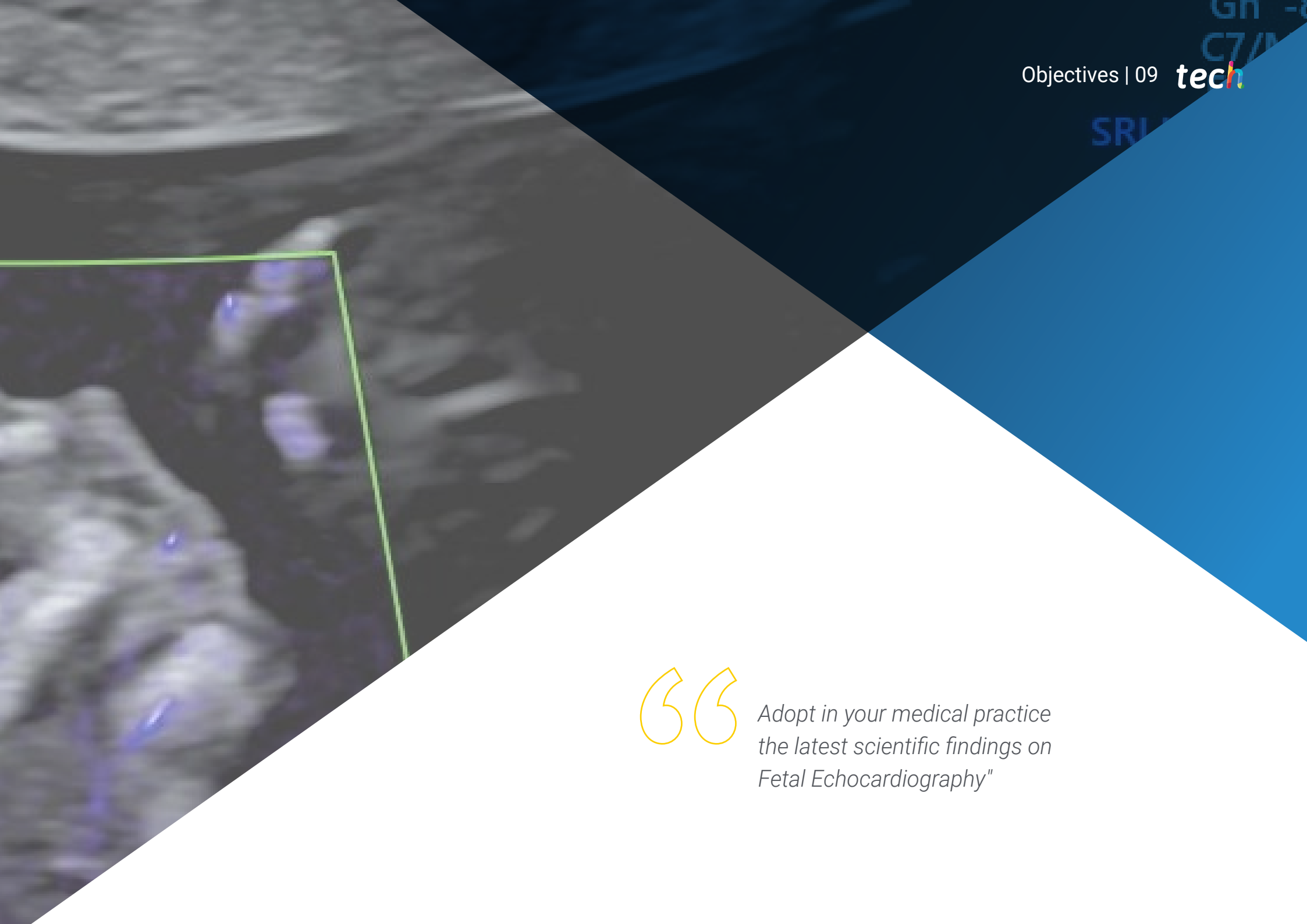
# 02

# Objectives

The Postgraduate Certificate in Fetal Echocardiography has been designed with the primary objective of ensuring the physicians' update in this field in only 6 weeks. Throughout this academic experience, you will delve into the latest scientific evidence regarding heart defects or conotruncal anomalies. All this, following a series of general and specific objectives that will ensure your adequate learning.







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*Adopt in your medical practice  
the latest scientific findings on  
Fetal Echocardiography”*



## General Objectives

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- Get to know in depth the normal gynecological and obstetric ultrasound study, as well as the most used techniques
- Have an in-depth knowledge of the malformations that can be diagnosed in the first trimester of gestation and the ultrasound markers, as well as the invasive techniques and screening for aneuploidy and preeclampsia and the usefulness of fetal DNA in maternal blood
- Study the diagnosable pathology in the third trimester as well as intrauterine growth restriction and fetal hemodynamics, correctly applying maternal-fetal Doppler
- Learn the most important concepts about fetal neurosonography and echocardiography as well as the most relevant pathologies
- Study multiple gestation (monochorionic and bicorionic) and its most frequent complications





## Specific Objectives

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- Study the normal morphological and functional echocardiographic study and its main echocardiographic sections
- Understand comprehensively the alterations of the right and left heart, their diagnosis and prognosis
- Learn the main conotruncal anomalies, their diagnosis and prognosis
- Understand in depth the main anomalies of venous return, their diagnosis and prognosis
- Study the main anomalies of cardiac position and situs, their diagnosis and implications



*Achieve the objectives that TECH has outlined for this program and become a reference physician in this field"*

# 03

## Course Management

TECH has carefully selected a teaching team of excellence to lead and teach this Postgraduate Certificate, which is composed of highly qualified specialists in the area of Obstetric and Gynecological Ultrasound. All these experts are responsible for developing the didactic content that will be available to students throughout the program, ensuring that the knowledge acquired will be very valuable in daily medical practice and guaranteeing the academic quality of the qualification.





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*Get updated by the best specialists in Fetal Echocardiography, who have an extensive health career behind them"*

## Management



### Dr. García-Manau, Pablo

- ◆ Obstetrician and Gynecologist at Quirónsalud Hospital in Barcelona
- ◆ Assistant Physician of the Gynecology and Obstetrics Service at the University Hospital of Santa Creu i Sant Pau
- ◆ Specialist in Maternal-Fetal Medicine
- ◆ Specialist in Obstetric Ultrasound and Fetal Echocardiography
- ◆ Member of: Catalan Society of Obstetrics and Gynecology (SCOG) and Spanish Society of Gynecology and Obstetrics (SEGO)

## Professors

### Dr. Giralt, Gemma

- ◆ Pediatric Cardiology Service Specialist at the Vall d'Hebron University Hospital
- ◆ Specialist in Pediatrics and Pediatric Cardiology
- ◆ Member of: Spanish Society of Cardiology (SEC), Member of the Imaging Section of the Spanish Society of Pediatric Cardiology and Congenital Heart Disease (SECPCC)

### Dr. Vilà Casas, Joan

- ◆ Specialist in the Obstetric Ultrasound Unit of the Obstetrics Service of the Vall d'Hebron University Hospital
- ◆ Specialist in the Obstetrics Service of the Vall d'Hebron University Hospital
- ◆ Specialist in Obstetric Ultrasound

### Dr. Ferrer, Queralt

- ◆ Specialist in the Pediatric Cardiology Service at the Vall d'Hebron Hospital
- ◆ Specialist in Pediatric and Fetal Cardiology at the Hospital Universitario Dexeus
- ◆ Specialist in Pediatrics and Pediatric Cardiology
- ◆ Member of: Fetal Cardiology Working Group of the European Society of Pediatric Cardiology and Fetal Cardiology Working Group of the Spanish Society of Pediatric Cardiology



# 04

## Structure and Content

The syllabus of this Postgraduate Certificate has been carefully designed to provide physicians with the latest trends and updates in the field of Fetal Echocardiography. Likewise, this program includes a wide variety of didactic resources in different formats, such as videos, reading materials and interactive summaries, allowing students to have flexibility and comfort while they update themselves in this area. In addition, the online modality gives them the possibility to adapt their study schedule according to their professional and personal needs and responsibilities.



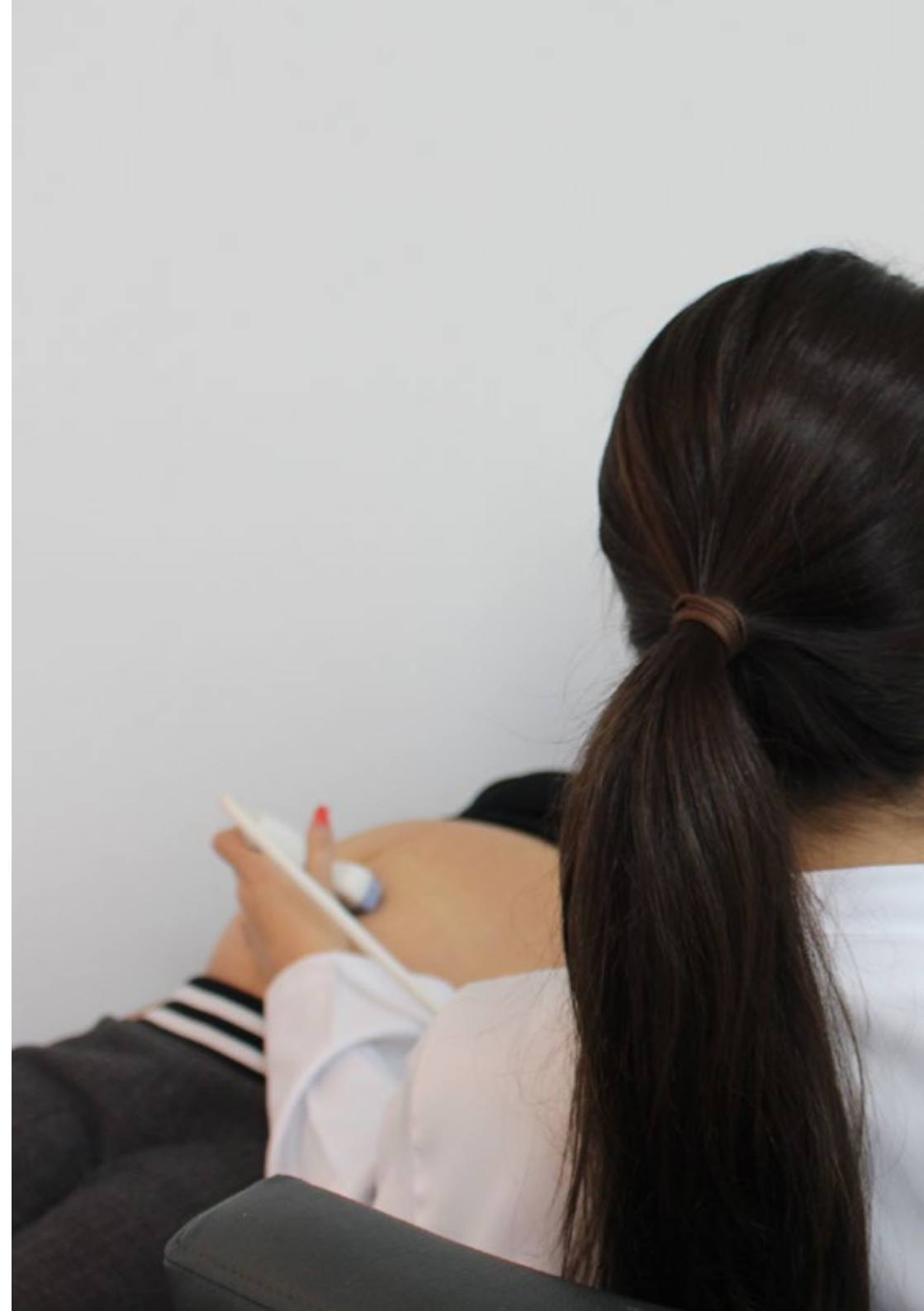


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*The 100% online methodology of this program enables you to learn from the comfort of your own home"*

## Module 1. Fetal Echocardiography

- 1.1. Normal Fetal Echocardiography
  - 1.1.1. Indications for Fetal Echocardiography
  - 1.1.2. Fetal Echocardiography Technique
  - 1.1.3. Measurement of Cardiac Structures. Z-score
- 1.2. Cardiac Functional Study Normality
  - 1.2.1. Pathophysiology of Cardiac Dysfunction.
  - 1.2.2. Functional Echocardiography Technique
  - 1.2.3. Advanced Techniques.
- 1.3. Septal Defects
  - 1.3.1. Atrial Septal Defects
  - 1.3.2. Defects of the Interventricular Septum
  - 1.3.3. Atrioventricular Septal Defects
  - 1.3.4. Double Inlet Single Ventricle
- 1.4. Right Heart Defects
  - 1.4.1. Tricuspid Pathology
  - 1.4.2. Pulmonary Stenosis
  - 1.4.3. Complete Septal Pulmonary Atresia
- 1.5. Left Heart Defects
  - 1.5.1. Mitral Pathology
  - 1.5.2. Aortic Stenosis
  - 1.5.3. Aortic Coarctation
  - 1.5.4. Interrupted Aortic Arch
- 1.6. Conotruncal Anomalies
  - 1.6.1. Tetralogy of Fallot
  - 1.6.2. Main Artery Transposition
  - 1.6.3. Double Outlet Right Ventricle
  - 1.6.4. Truncus Arteriosus





- 1.7. Venous Return Abnormalities
  - 1.7.1. Superior Vena Cava Abnormalities
  - 1.7.2. Inferior Vena Cava Filter Abnormalities
  - 1.7.3. Persistence of the Right Umbilical Vein
  - 1.7.4. Venous Ductus Venosus Agenesis
- 1.8. Abnormalities of Cardiac and Situs Position
  - 1.8.1. Situs Abnormalities
  - 1.8.2. Heterotaxy Syndromes
- 1.9. Cardiac Rhythm Abnormalities
  - 1.9.1. Irregular Rhythms
  - 1.9.2. Bradycardias
  - 1.9.3. Tachycardias



*Enjoy the most updated contents  
in Fetal Echocardiography through  
this Postgraduate Certificate"*

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 Fetal Echocardiography guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



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

This program will allow you to obtain your **Postgraduate Certificate in Fetal Echocardiography** endorsed by **TECH Global University**, the world's largest online university.

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

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

Title: **Postgraduate Certificate in Fetal Echocardiography**

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.

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



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