

# Postgraduate Certificate

## Fetal Morphological Ultrasound





## Postgraduate Certificate Fetal Morphological Ultrasound

- » 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-morphological-ultrasound](http://www.techtute.com/us/medicine/postgraduate-certificate/fetal-morphological-ultrasound)

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# 01

# Introduction

The increased prevalence of congenital anomalies, which affect approximately 3% of newborns, has led to an increased need for professionals trained in early diagnosis by fetal morphological ultrasound. TECH Global University has designed a program specialized in the latest advances in the identification of these anomalies and the performance of accurate and efficient ultrasound scans. This 100% online program uses the Relearning, pedagogical methodology, facilitating the constant updating of knowledge and skills in the area. Additionally, it provides the flexibility to organize academic resources according to the needs of each student, allowing for personalized learning adapted to their circumstances.



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*Immerse yourself in the study of fetal anomalies of the skeleton and extremities, such as skeletal dysplasias, phocomelia and amniotic band syndrome, through this Certificate"*

In the field of prenatal medicine, early identification of possible complications or risk conditions in pregnancy is essential to ensure the well-being of the mother and fetus. In this regard, the diagnosis of congenital anomalies has gained special relevance due to its impact on perinatal and long-term health. According to the World Health Organization, congenital anomalies are responsible for approximately 303,000 neonatal deaths per year worldwide. This reality highlights the importance of having professionals specialized in the detection and management of these conditions.

In response to this demand for professionals, TECH Global University has created the Certificate in Fetal Morphological Ultrasound that addresses this need, providing a solid update in the use of ultrasound techniques to assess fetal development and detect congenital anomalies. Throughout the program, students will learn about the most advanced techniques for performing high quality ultrasounds, ultrasound markers, interpretation of results, as well as the different anomalies presented in the fetus.

This program is 100% online, allowing students to access the content at any time and place, adapting to their needs and schedules. The Relearning pedagogical methodology is another key element of this certificate, as it promotes continuous and updated learning, helping professionals to keep up to date with advances in the field of fetal ultrasound. Flexibility in organizing academic resources offers students the possibility of adjusting their learning pace and focusing their efforts on specific areas according to their needs.

This **Postgraduate Certificate in Fetal Morphological Ultrasound** 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 experts in Fetal Medicine
- ♦ 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
- ♦ The practical exercises where the self-evaluation process can be carried out to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*Take advantage of the flexibility of a rigorous and quality academic program, which will allow you to adjust your professional and personal commitments while you update your skills in fetal morphological ultrasound"*



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*Ensure your professional success in the field of prenatal medicine with a 100% online program that adapts to your needs and schedule"*

The program includes in its teaching staff professionals of the field who pour into this training the experience of their work, in addition to recognized specialists from reference societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive training programmed to train in real situations.

The design of this program focuses on Problem-Based Learning, in which the professional will have to try to solve the different professional practice situations that will arise throughout the academic course. This will be done with the help of an innovative system of interactive videos made by renowned experts.

*A program designed in detail for you, with complete multimedia material and the possibility of accessing it from any device with an internet connection.*

*In 180 hours you will learn the most advanced techniques in fetal medicine for the anatomical evaluation of different systems and organs.*



# 02 Objectives

The objectives of the Certificate in Fetal Morphological Ultrasound are focused on providing students with the essential knowledge and skills to master the most advanced techniques for diagnosing congenital anomalies by ultrasound, including detailed evaluation of fetal development, identification of structural malformations and interpretation of ultrasound images. To achieve these objectives, an academic program rigorous has been designed to ensure a comprehensive, up-to-date and high quality educational base in this specialty.





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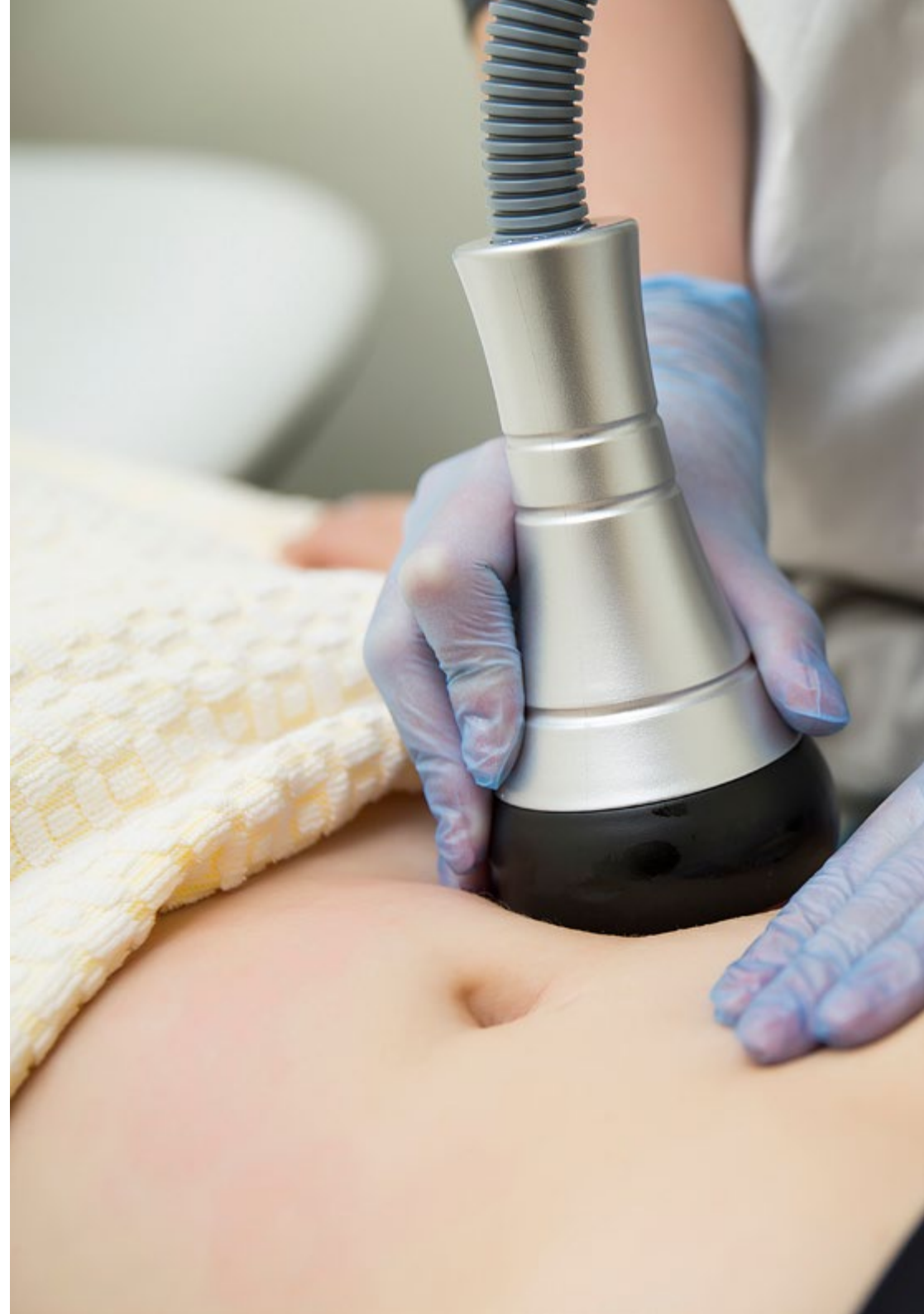
*You will become a reference in the detection and management of risk conditions in pregnancy, through this 100% online program"*



## General Objectives

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- ♦ Provide a specific update that allows physicians to update their skills to exercise and lead the functions as specialists in the area of Fetal Medicine and Prenatal Diagnosis
- ♦ Update theoretical knowledge in the different fields of Fetal Medicine: basic and advanced obstetric ultrasound, prenatal diagnosis, maternal-fetal pathologies and placental pathologies
- ♦ Link the improvement of their medical practice with scientific research so that they can contribute to change and progress in their clinical environment through the application of the most innovative and effective guidelines and strategies in the field





## Specific Objectives

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- ♦ Update on the systematics for fetal anatomical studies in the three trimesters of gestation
- ♦ Discern in depth which malformations are detectable prenatally
- ♦ Review fetal pathology by organs and systems with an in-depth study of its clinical novelties



*Ensure your professional success in the field of prenatal medicine with the most innovative methodology in the educational sector"*

# 03

## Course Management

The teaching staff of this program has been meticulously chosen with the purpose of providing students with a first class education. In this sense, you will find an outstanding group of professional experts in fetal medicine, who, from their professional experience, master the most innovative and cutting-edge techniques in the diagnosis and management of congenital anomalies. In this way, students will have access to a program that will allow them to stay abreast of the latest developments and in tune with the best practices in the field.





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*Access a program designed by renowned professionals in fetal ultrasound, who will share their knowledge and practical experience with you"*

## Management



### Dr. Gallardo Arozena, Margarita

- FEA in Obstetrics and Gynecology at HU Nuestra Señora of Candelaria
- Founder and Medical Director of Natum Center - Ultrasound and Fetal Medicine
- Doctor in Health Sciences, University of La Laguna
- Master's Degree in Refresher for Gynecologists and Obstetricians from the University of Barcelona
- Master's Degree in Healthcare Management in Gynecology and Obstetrics from the Francisco de Vitoria University
- Diploma in Fetal Medicine and Surgery from the Fetal Medicine Foundation (King's College Hospital, London). Invasive techniques and intrauterine fetal therapy at San Cecilio Granada University Hospital
- Postgraduate Certificate Training in obstetric-gynecological ultrasound by the Spanish Society of Gynecology and Obstetrics (SEGO)
- Researcher and Author of scientific articles published in high-impact journals
- Member of the Prenatal Diagnosis Unit at the Human Reproduction Assistance Center of the Canary Islands (FIVAP)



## Professors

### Dr. Chulilla Pérez, Carolina

- ♦ Doctor Specialist in Obstetrics and Gynecology at HU Nuestra Señora of Candelaria
- ♦ Professor at the Midwifery Teaching Unit of the Nuestra Señora de Candelaria University Hospital
- ♦ Researcher and author of publications related to maternal-fetal medicine
- ♦ Participation as author in papers presented at conferences and courses from the specialty
- ♦ Training in obstetric-gynecological ultrasound by the Spanish Society of Gynecology and Obstetrics (SEGO)

### Dr. Molina García, Francisca Sonia

- ♦ Doctor Specialist in Obstetrics and Gynecology at HU Nuestra Señora of Granada
- ♦ Head of the Ultrasound Unit of the Gutenberg Center of Granada
- ♦ Director of several research lines of funded projects on preeclampsia, preterm delivery, fetal and maternal complications during pregnancy and fetal surgery
- ♦ Regular reviewer of articles in five international and national journals on Gynecology and Obstetrics
- ♦ Contributing editor of Fetal Diagnosis and Therapy
- ♦ European PhD in Medicine and Surgery from the University of Granada
- ♦ Subspecialization in Fetal Medicine and Surgery at the King's College University Hospital in London

### Dr. De Paco Matallana, Catalina

- ♦ Specialist in Maternal-Fetal Medicine Unit, Hospital Clínico Universitario Virgen de Zaragoza
- ♦ Regular reviewer of articles in international and national journals on Gynecology and Obstetrics
- ♦ Associate Professor of Obstetrics and Gynaecology at Murcia University
- ♦ PhD in Medicine and Surgery
- ♦ Degree in Medicine and Surgery from the University of Murcia
- ♦ Specialist MIR in Gynecology and Obstetrics
- ♦ Subspecialization in Fetal Medicine and Surgery at the King's College University Hospital in London

### Dr. Company Calabuig, Ana María

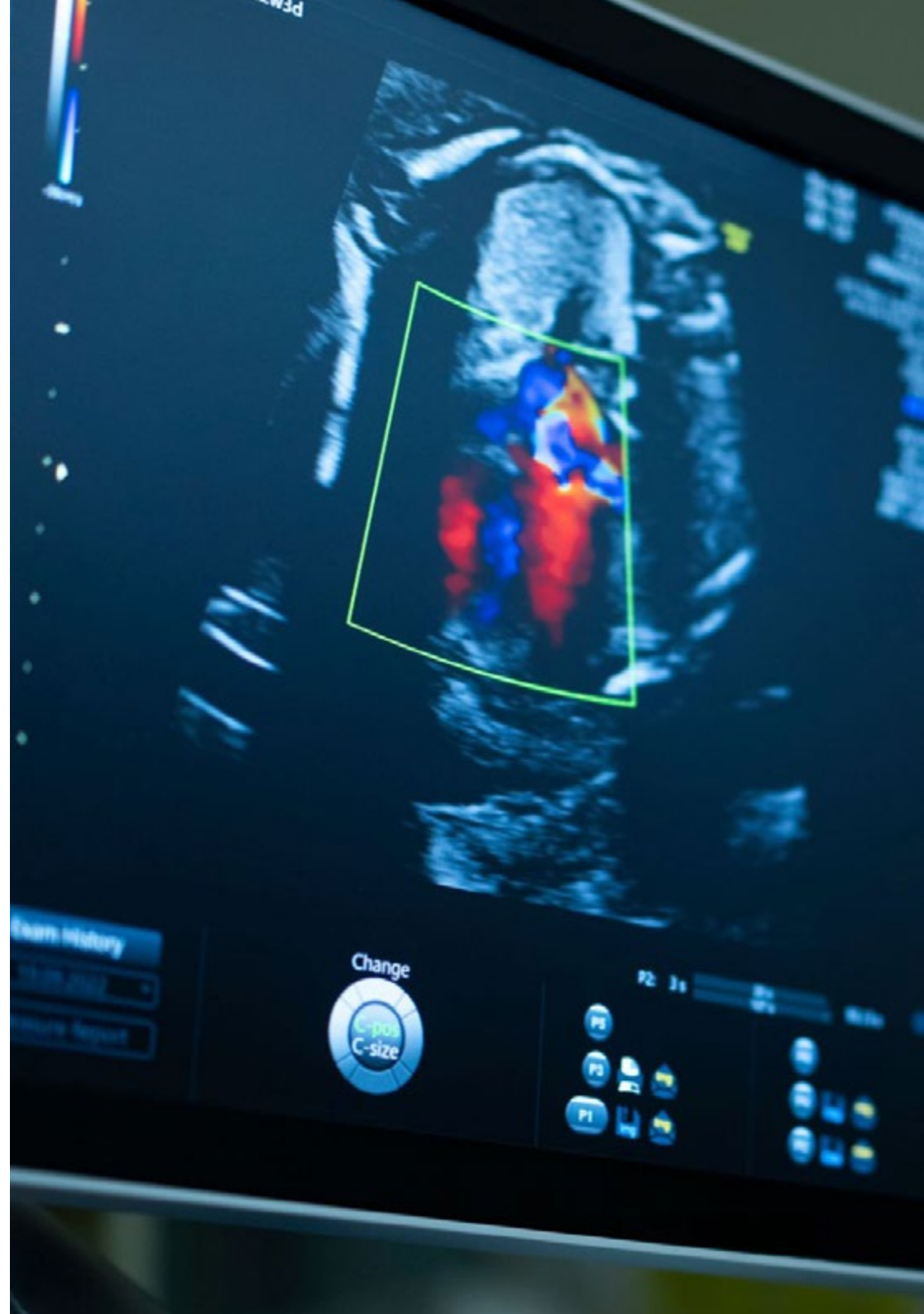
- ♦ FEA in Obstetrics and Gynecology at La Fe Polytechnic University Hospital
- ♦ Diploma in Fetal Medicine and Surgery from the Fetal Medicine Foundation (King's College Hospital, London)
- ♦ Master's Degree in Professional Updating for Obstetricians and Gynecologists from the University of Barcelona
- ♦ Master's Degree in Nutrition and Health from the International University of Valencia
- ♦ Author of scientific publications in high impact journals and participation in book chapters

**Dr. Gibbone, Elena**

- ♦ Specialist in the Obstetrics and Gynecology Unit of the HU Cruces de Vizcaya
- ♦ Specialist at Ecography and Fetal Medicine Unit of Zuatzu clinic
- ♦ Researcher in several lines related to Preeclampsia, twin pregnancy and its complications and maternal pathology in pregnancy
- ♦ International Doctorate in Biomedical Research, University of the Basque Country
- ♦ Graduate in Medicine and Surgery
- ♦ Specialist in Gynecology and Obstetrics
- ♦ Subspecialization in Fetal Medicine and Surgery at the King's College University Hospital in London
- ♦ Subspecialization in Fetal Medicine and Surgery at the San Cecilio Clinical Hospital in Granada
- ♦ Author of over 10 scientific publications in international high-impact journals

**Dr. Dévora Cabrera, María Ylenia**

- ♦ Doctor Specialist in Obstetrics and Gynecology at HU of Canary
- ♦ Participation in various research projects in the specialty as well as authorship of book chapters
- ♦ Master's Degree in Professional Updating for Gynecologists
- ♦ Author of several scientific articles published in national media



**Dr. Plasencia Acevedo, Walter**

- ◆ Doctor Specialist in Obstetrics and Gynecology at HU of Canary
- ◆ Specialised doctor of the Fetal Medicine Unit of Canary Hospiten Group
- ◆ Doctor in Medicine and Surgery from the University of La Laguna
- ◆ Subspecialization in Fetal Medicine and Surgery at the King's College University Hospital in London
- ◆ Supervisor of more than 3,000 ultrasound studies per year. Author of over 50 scientific publications in international high-impact journals
- ◆ Director of several national and international research projects on fetal anomalies, placental abnormalities, preeclampsia, preterm delivery and fetal and maternal complications during gestation
- ◆ Regular reviewer of articles in multiple international and national journals in his specialty



*A unique, key, and decisive educational experience to boost your professional development"*

# 04

## Structure and Content

With the aim of providing medical professionals with a specialized update in Fetal Morphological Ultrasound, expert teachers have developed a complete and rigorous syllabus. Throughout the course, students will learn about essential aspects of anatomical evaluation in the first and second trimester, the diagnosis of anomalies in different organs and systems, as well as ultrasound markers of aneuploidy and limitations in the fetal anatomical study in the third trimester of gestation. In addition, Relearning, will be implemented, an innovative pedagogical methodology that promotes a more effective and lasting assimilation of concepts and skills in this area.







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*Enroll now and acquire updated knowledge on ultrasound markers of aneuploidies and the limitations in the fetal anatomical study in the third trimester"*

## Module 1. Morphological Ultrasound

- 1.1. Anatomic Evaluation in the First Trimester
  - 1.1.1. Systematics
  - 1.1.2. Detectable Malformation Pathology
- 1.2. Systematic Morphological Ultrasound in the Second Trimester
- 1.3. Head and Neck Anomalies
  - 1.3.1. Acrania
  - 1.3.2. Microcephaly Macrocephaly
  - 1.3.3. Encephalocele
  - 1.3.4. Craniosynostosis
  - 1.3.5. Cervical Teratoma
  - 1.3.6. Cystic Hygroma
  - 1.3.7. Goiter
- 1.4. Face Anomalies
  - 1.4.1. Anophthalmia Microphthalmia
  - 1.4.2. Cataract
  - 1.4.3. Dacryocystocele
  - 1.4.4. Epignathus
  - 1.4.5. Facial Cleft
  - 1.4.6. Hypertelorism Hypotelorism
  - 1.4.7. Micrognathia
  - 1.4.8. Nasal abnormalities: Arhinia Proboscis Single Naris
- 1.5. Thoracic Anomalies
  - 1.5.1. Bronchial Atresia
  - 1.5.2. Bronchogenic Cysts
  - 1.5.3. Congenital High Airway Obstruction Syndrome
  - 1.5.4. Cystic Pulmonary Adenomatoid Malformation
  - 1.5.5. Pulmonary Sequestration
  - 1.5.6. Diaphragmatic Hernia
  - 1.5.7. Pulmonary Agenesis-Hypoplasia
  - 1.5.8. Pleural Effusion







- 1.6. Abdominal Abnormalities
  - 1.6.1. Bladder Exstrophy
  - 1.6.2. Body Stalk Anomaly
  - 1.6.3. Sewer
  - 1.6.4. Omphalocele Gastroschisis
- 1.7. Urinary Tract and Genital Abnormalities
  - 1.7.1. Hydronephrosis
  - 1.7.2. Horseshoe Kidney
  - 1.7.3. Pelvic Kidney
  - 1.7.4. Renal Agenesis Renal Hypoplasia
  - 1.7.5. Renal Tumors
  - 1.7.6. Dysplastic Multicystic Kidney
  - 1.7.7. Polycystic Kidney Disease
  - 1.7.8. Urinary Tract Obstructions
  - 1.7.9. Duplex Kidney Ureterocele
- 1.8. Spinal, Skeletal and Limb Abnormalities
  - 1.8.1. Hemivertebra
  - 1.8.2. Open Spina Bifida
  - 1.8.3. Sacrococcygeal Teratoma
  - 1.8.4. Skeletal Dysplasias
  - 1.8.5. Phocomelia
  - 1.8.6. Amniotic Band Syndrome
  - 1.8.7. Arthrogryposis
  - 1.8.8. Clubfoot. Clubhand
  - 1.8.9. Clinodactyly. Ectrodactyly. Polydactyly. Syndactyly
- 1.9. Ultrasound Markers of Aneuploidies in the Second Trimester
- 1.10. Limitations in the Fetal Anatomical Study in the Third Trimester of Gestation

# 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 Morphological Ultrasound 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 Morphological Ultrasound** 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 Morphological Ultrasound**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**







**Postgraduate  
Certificate**  
Fetal Morphological  
Ultrasound

- » Modality: **online**
- » Duration: **6 weeks**
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- » Credits: **6 ECTS**
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