

# Postgraduate Certificate

## Third Trimester Ultrasound





## Postgraduate Certificate Third Trimester 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/third-trimester-ultrasound](http://www.techtute.com/us/medicine/postgraduate-certificate/third-trimester-ultrasound)

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# 01

# Introduction

Third Trimester Ultrasound is a key tool in the monitoring of pregnancy, enabling early detection of fetal pathologies and ensuring the proper development of the fetus. As a result, technology and ultrasound protocols are constantly evolving to preserve the welfare of the future baby, so it is important to keep updated in this field. This is why TECH has created this program, through which the specialists will delve into the updated strategies for the evaluation of amniotic fluid alterations or malformations at this stage of pregnancy, placing them at the medical forefront in just 6 weeks. In addition, its 100% online methodology will allow students to adapt their study schedules to their particular needs.





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*Through this program, you will learn the state-of-the-art techniques to evaluate the alterations of the amniotic fluid during the third trimester of gestation”*



Third Trimester Ultrasound has undergone significant advances in recent years, thanks to the incorporation of new techniques and technologies that allow a more accurate and detailed evaluation of the fetus. These innovative methods favor an agile detection of detection of possible pathologies in a period in which major changes in the morphology and function of the organs take place, thus ensuring the proper development of the baby. Therefore, having a deep and updated knowledge in this field is crucial to optimize an excellent medical update.

Given this situation, TECH has designed this program, which provides specialists with the most cutting-edge aspects in the area of Third Trimester Ultrasound. During 6 weeks of intensive learning, the professional will delve into the leading strategies for estimating fetal growth or advances in the Doppler study in the ultrasound of this period. Along the same lines, they will delve into the updated techniques of intrapartum ultrasound.

The Postgraduate Certificate in Third Trimester Ultrasound is taught completely online, which offers great flexibility to students to organize their academic resources and adapt them to their schedules and personal needs. In addition, it uses an innovative pedagogical methodology based on *Relearning*, which promotes active learning and allows the professionals to study at their own pace.

This **Postgraduate Certificate in Third Trimester Ultrasound** 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 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



*Learn more about the sophisticated mechanisms to evaluate malformations during the third trimester of pregnancy thanks to this Postgraduate Certificate"*

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*The online learning system that this program offers allows you to learn without having to travel to a study center”*

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.

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

*Enjoy a complete medical update from the best specialists in Third Trimester Ultrasound.*

*Study through convenient multimedia formats to achieve a completely effective teaching.*

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# 02 Objectives

This Postgraduate Certificate has been designed with the premise of providing specialists with the most updated knowledge in the field of Third Trimester Ultrasound. Throughout this intensive 3-week program, the students will identify the state-of-the-art applications of intrapartum ultrasound or the leading protocols for the management of amniotic fluid abnormalities. This learning will be preserved by the following general and specific objectives.





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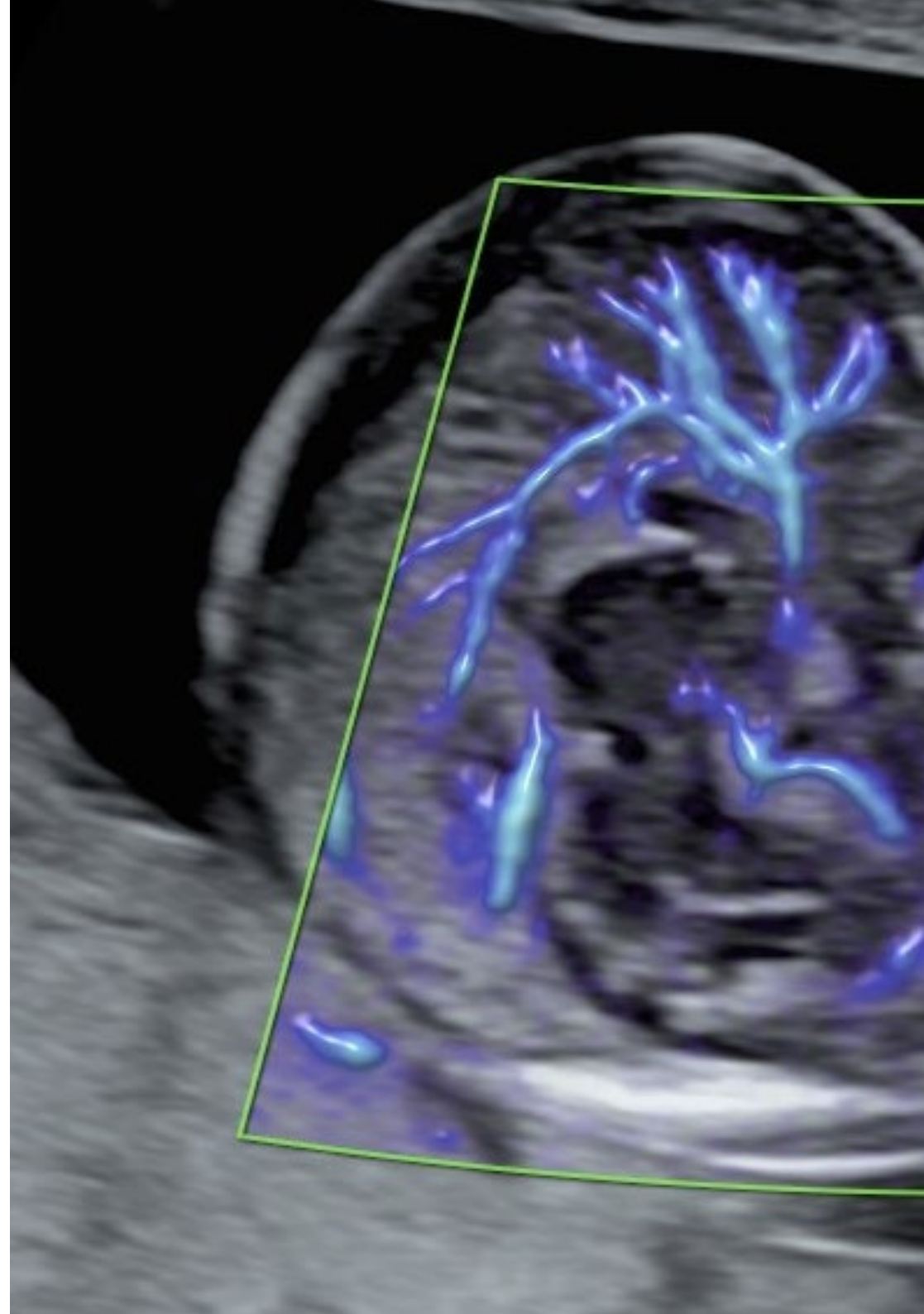
*Adopt in your daily practice the latest advances in Third Trimester Ultrasound with this Postgraduate Certificate”*



## 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
- ♦ Learn in depth the diagnosable malformations in the first trimester of gestation and ultrasound markers, as well as 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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- Learn the third trimester ultrasound study protocol, its basic sections and normality
- Study the most frequent malformations that can be diagnosed in the third trimester
- Learn how to correctly estimate fetal growth and how to use Doppler in the third trimester for a correct diagnosis of growth defects (SGA and RIC)
- Understand the fetal hypoxic cascade and fetal hemodynamics
- Study the usefulness and main applications of intrapartum ultrasound
- Understand the main alterations of the amniotic fluid and its management

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*In only 6 weeks and without giving up your professional duties, you will obtain your desired update in Third Trimester Ultrasound"*

03

# Course Management

To ensure the academic quality of this program, TECH has selected a teaching team of excellence to direct and teach this Postgraduate Certificate, formed by highly qualified specialists in the field of Obstetric and Gynecologic Ultrasound. All these experts are responsible for developing the teaching resources that students will have at their disposal throughout the program, ensuring that the knowledge acquired will be extremely useful in daily medical practice.







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*This program is taught by active professionals in the field of Third Trimester Ultrasound to provide you with the most cutting-edge knowledge in this field"*

## 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), Spanish Society of Gynecology and Obstetrics (SEGO)

## Professors

### Dr. López-Quesada, Eva

- ◆ Coordinator of the Obstetrics and Gynecology Service at the University Hospital Mútua Terrassa
- ◆ Specialist in Prenatal Diagnosis and Maternal-Fetal Medicine
- ◆ PhD from the Autonomous University of Barcelona
- ◆ Postgraduate in Fetal Medicine and in Clinical Genetics and Genomics
- ◆ Member of: Clinical Commission for Quality Control of First Trim Ultrasound of Catalá, Catalan Society of Obstetrics and Gynecology (SCOG), Spanish Society of Gynecology and Obstetrics (SEGO)

### Dr. Mendoza, Manel

- ◆ Head of the Placental Insufficiency Unit of the Obstetrics Department at Vall d'Hebron University Hospital
- ◆ Specialist of the Obstetrics Service of the Vall d'Hebron University Hospital.
- ◆ Doctor from the Autonomous University of Madrid
- ◆ Specialist in Maternal-Fetal Medicine
- ◆ Member of: Member of the Maternal-Fetal Medicine Section of the Catalan Society of Obstetrics and Gynecology (SCOG), the Spanish Society of Gynecology and Obstetrics (SEGO)

**Dr. Autonomous**

- ♦ Specialist of the Gynecology and Obstetrics Service at the University Hospital of Torrejón
- ♦ Specialist in Obstetrics and Gynecology at Vall d'Hebron University Hospital
- ♦ Tutor of clinical practices of the Medicine degree at the Francisco de Vitoria University
- ♦ PhD in Medicine, University of Seville
- ♦ Fellow in Fetal Medicine at the King's College Hospital. London
- ♦ Specialist in Fetal Medicine and Obstetric Ultrasound by the Fetal Medicine Foundation
- ♦ Member of: Spanish Society of Gynecology and Obstetrics (SEGO) and Ultrasound Section of the Spanish Society of Gynecology and Obstetrics (SESEGO)

**Dr. Fidalgo Conde, Ana María**

- ♦ Gynecology and Obstetrics Service Specialist at the University Hospital of Torrejón
- ♦ Tutor of clinical practices of the Medicine degree at the Francisco de Vitoria University
- ♦ Specialist in Maternal-Fetal Medicine and Obstetric Ultrasonography
- ♦ Fellow in Fetal Medicine at the King's College Hospital. London
- ♦ Member of: Spanish Society of Gynecology and Obstetrics (SEGO) and Ultrasound Section of the Spanish Society of Gynecology and Obstetrics (SESEGO)

**Dr. Maiz, Nerea**

- ♦ Research Coordinator of the Obstetrics Service at Vall d'Hebron University Hospital
- ♦ Specialist in the Fetal Medicine Unit at Vall d'Hebron University Hospital
- ♦ Specialist in Prenatal Diagnosis and Maternal-Fetal Medicine
- ♦ Associate Professor at the University of Vic
- ♦ Doctor of Medicine from the University of Barcelona
- ♦ Professional Master's Degree in Research Methodology in Health Sciences, Autonomous University of Barcelona
- ♦ Member of: Spanish Society of Gynaecology and Obstetrics (SEGO)

**Dr. Bonacina, Erika**

- ♦ Head of the Placental Insufficiency Unit of the Obstetrics Department at Vall d'Hebron University Hospital
- ♦ Obstetrician and Gynecologist at El Pilar Hospital
- ♦ Specialist in Maternal-Fetal Medicine



# 04

## Structure and Content

The syllabus has been meticulously designed to provide healthcare professionals with the latest trends in the area of Third Trimester Ultrasound. The program offers a wide variety of teaching resources in different formats, including videos, reading materials and interactive summaries, which allows students to have flexibility and convenience while updating their knowledge. In addition, the online modality allows students to adapt their study schedule according to their professional and personal needs and responsibilities.

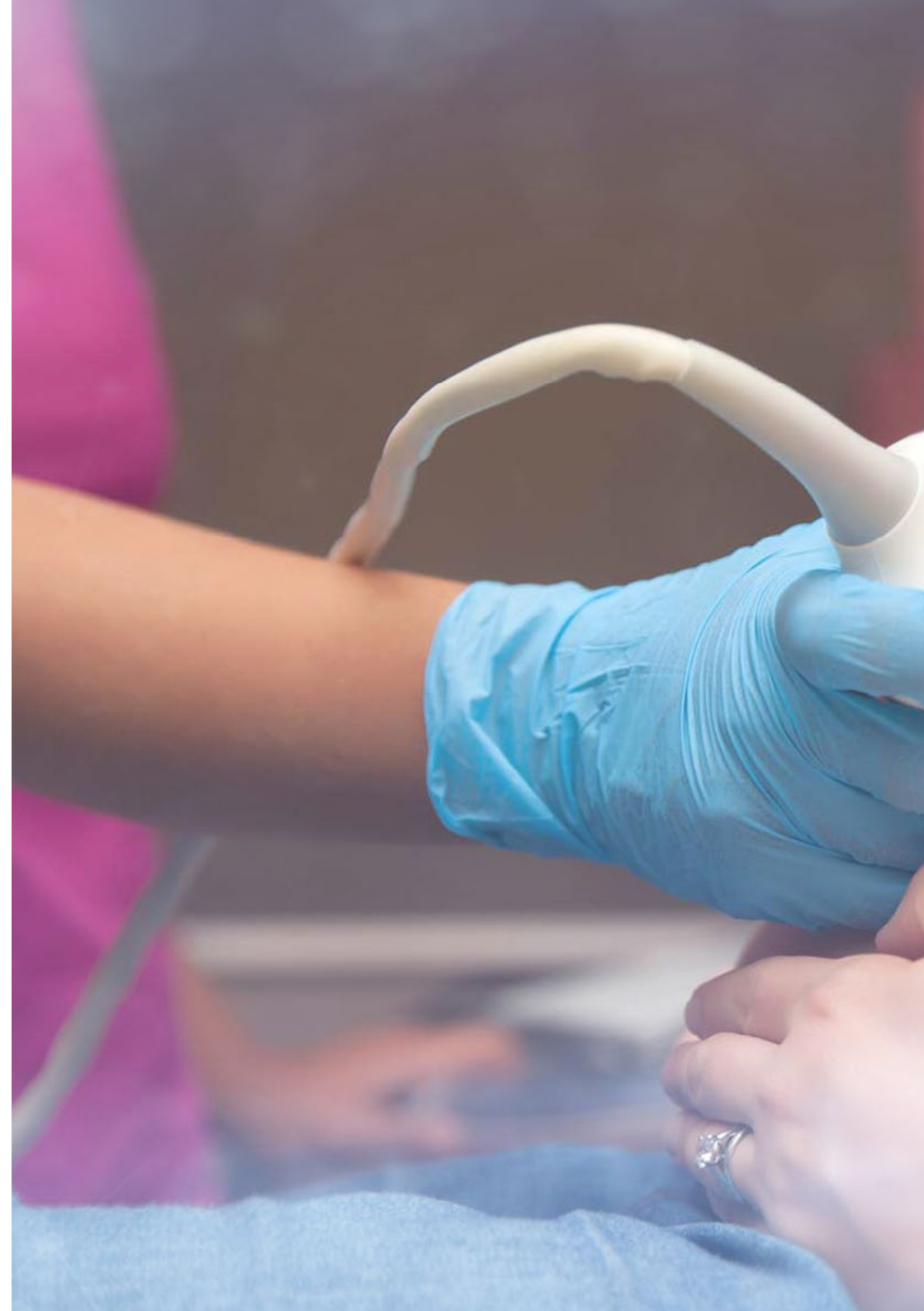


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*The Relearning system of this Postgraduate Certificate will allow you to learn at your own pace from your own home"*

## Module 1. Third Trimester Ultrasound

- 1.1. Protocol for the study of third trimester ultrasound, normality
  - 1.1.1. Gestational age and third trimester dating
  - 1.1.2. Objectives of third trimester ultrasound
  - 1.1.3. Ultrasound systematics
- 1.2. Diagnostic malformation pathology in the third trimester
  - 1.2.1. Introduction
  - 1.2.2. Most frequent malformations
- 1.3. Estimation of fetal growth
  - 1.3.1. Definitions
  - 1.3.2. Estimation of fetal weight. Bio-Meters
  - 1.3.3. Normality curves and percentiles
- 1.4. Doppler study in third trimester ultrasound
  - 1.4.1. Umbilical Artery
  - 1.4.2. Middle Brain Artery
  - 1.4.3. Venous ductus
  - 1.4.4. Uterine arteries
  - 1.4.5. Others
- 1.5. Growth disturbances (PEG and CIR)
  - 1.5.1. Introduction
  - 1.5.2. Small for gestational age fetus
  - 1.5.3. Intrauterine growth retardation
- 1.6. Hemodynamics and fetal impairment in intrauterine growth retardation
  - 1.6.1. Fetal hemodynamics
  - 1.6.2. Biophysical Profile
  - 1.6.3. Fetal Monitoring



- 1.7. Fetal Macrosomia
  - 1.7.1. Introduction
  - 1.7.2. Risk Factors
  - 1.7.3. Diagnosis
  - 1.7.4. Complications
  - 1.7.5. Management
- 1.8. Intrapartum ultrasound
  - 1.8.1. Technique
  - 1.8.2. Station evaluation
  - 1.8.3. Head attitude evaluation
  - 1.8.4. Indications
- 1.9. Abnormalities of amniotic fluid
  - 1.9.1. Introduction
  - 1.9.2. Oligohydramnios
  - 1.9.3. Polyhydramnios
  - 1.9.4. Management

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*Enjoy learning completely adapted to your academic preferences, being able to choose the didactic formats that best suit your way of studying”*

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.*





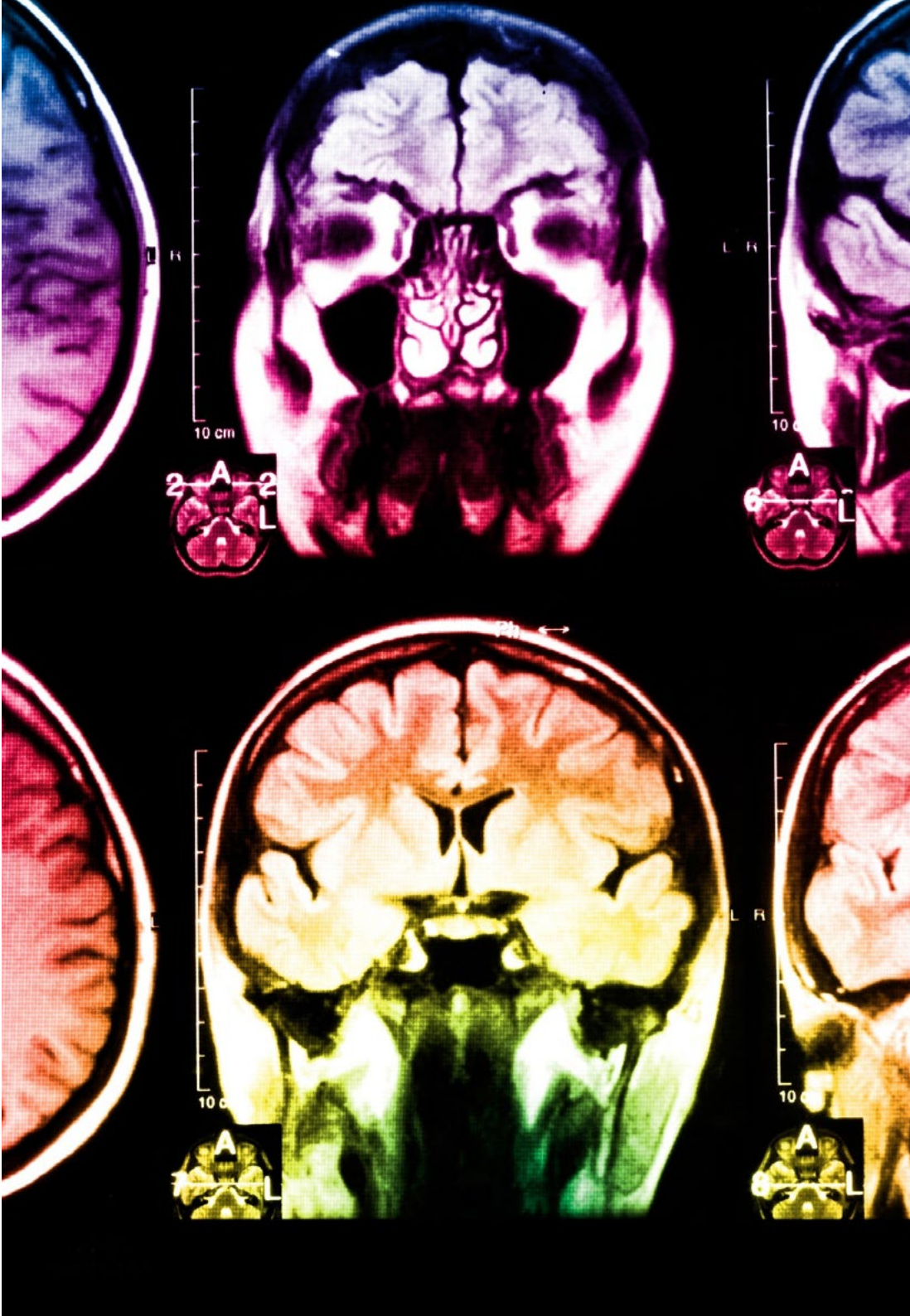
At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

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.

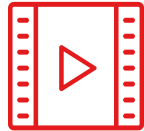
*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

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

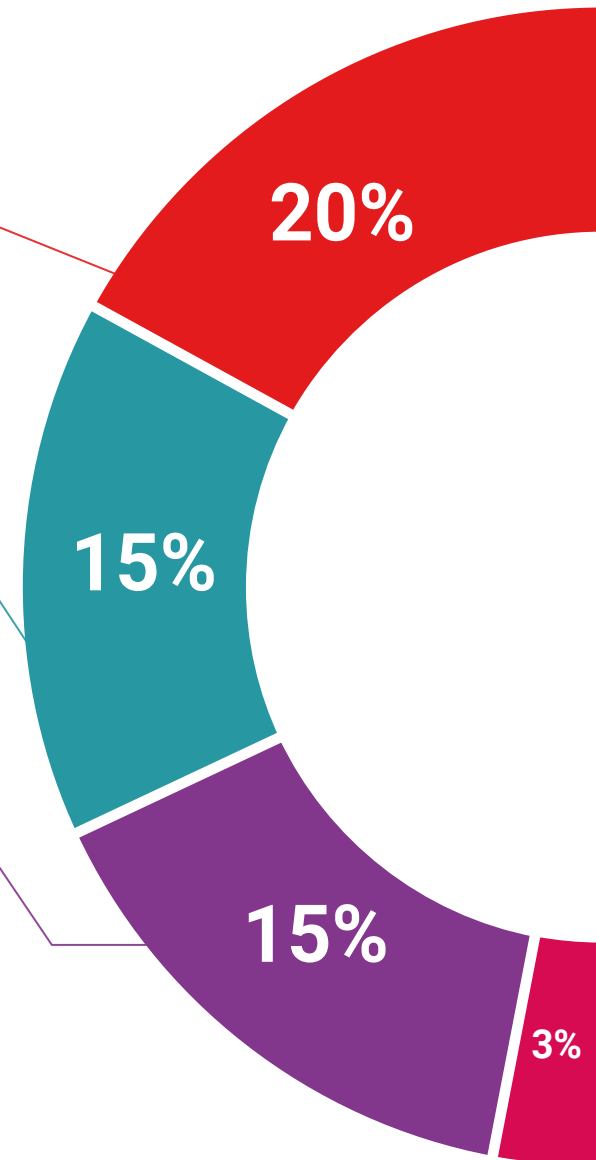
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

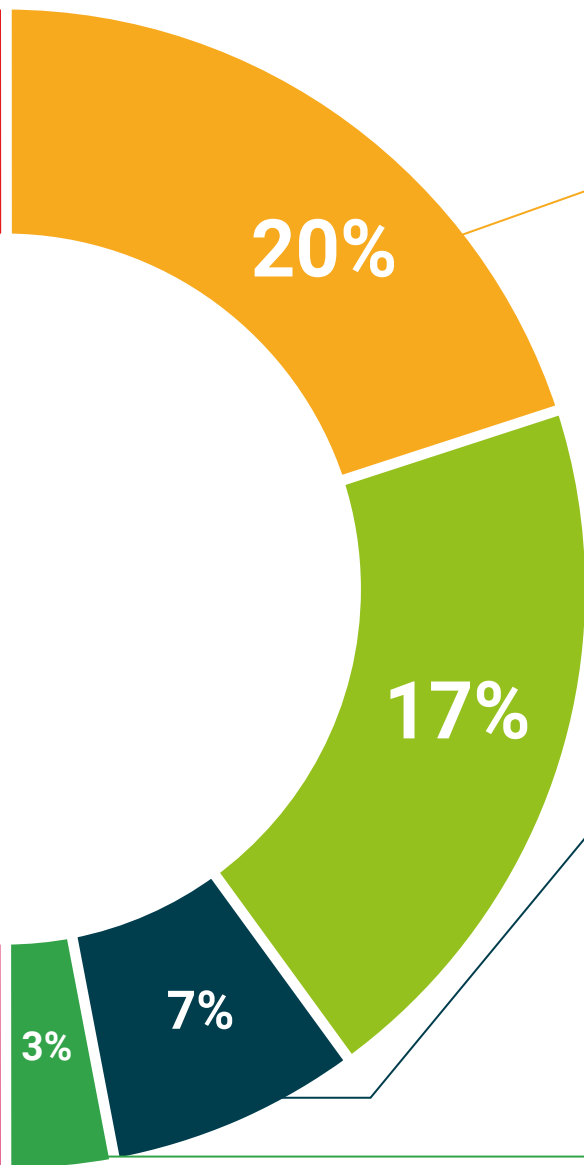
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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 Third Trimester 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 a **Postgraduate Certificate in Third Trimester 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 Third Trimester Ultrasound**

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 EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

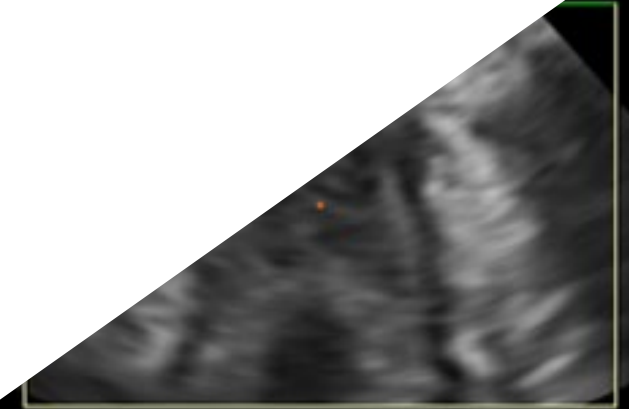


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# Postgraduate Certificate

## Third Trimester Ultrasound



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